

MULTI V... Indoor unit

R410A/R32(50Hz/60Hz) 0CVP0-09A(Replaces 0CVP0-08A)

TOTALHVAC SOLUTION PROVIDER

ENGINEERING PRODUCT DATA BOOK



P/No.: MFL55028429



General Information

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1. Model Lineup

■ R410A / R32 Common

										Capaci	ity(Btu	/h(kW)))						
Categ	gory	Chassis Name	5k	7k	9k	12k	15k	18k	21k	24k	28k	30k	36k	42k	48k	54k	60k	76k	96k
			1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	9.0	10.6	12.3	14.1	15.8	17.5	22.4	28.0
Wall Mounted		SJ	0	•	•	•	•												
Unit	Standard	SK						•		•									
		SV										•	•						
	Mirror	SJ	0	•	•	•	•												
ARTCOOL	WIIITOI	SK						•		•									
	Gallery	SF		•	•	•													
	1-Way	TU		•	•	•													
	1-vvay	TT						•		•									
	2-Way	TS			•	•		•		•									
	4-Way	TR	0	•	•	•													
	(Mini)	TQ					•	•	•										
Ceiling Mounted	Dual Vane	TP-B								•	•	•							
Cassette	4-Way	TM-A											•	•	•				
	Dual Vane 4-Way High sensible	TM-A	•	•	•	•	•	•		•	•		•	•	•				
	4 Way (compact)	TR			•		•												
	Round	TY								•			•		•				
		M2		•	•	•	•												
	High Sensible	М3						•		•	•								
		B8											•	•	•				
	High Static	B8																•	•
		M1		•	•	•	•	•		•									
	Middle Static	M2									•		•	•					
Ceiling Concealed Duct		М3													•	•			
Conceased Buct		L1	0	•	•														
	Low Static	L2				•	•	•											
		L3							•	•									
		L4	0	•	•														
	Low Static (Slim)	L5				•	•	•											
	(31111)	L6							•	•									
	With Case	CE		•	•	•	•												
Floor Standing	vviiii Case	CF						•		•									
Unit	Without Case	CE		•	•	•	•												
	williout Case	CF						•		•									
Ceiling & Floor Cor	nvertible Unit	VE			•	•													
Console		QA		•	•	•	•												
Fresh Air Intake Ur	nit	B8																0	0

■ R410A only

								(Capaci	ty(Btu	h(kW))						
Category	Chassis Name	5k	7k	9k	12k	15k	18k	21k	24k	28k	30k	36k	42k	48k	54k	60k	76k	96k
	Italiio	1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	9.0	10.6	12.3	14.1	15.8	17.5	22.4	28.0
Ceiling Suspended Unit	VM1						•		•									
Celling Suspended Offit	VM2											•		•				

- \bigcirc : It can be combined with EHP(Multi V series) only.
- • : It can be combined with EHP(Multi V series) or GHP.
- In matters of combination with Outdoor unit system, refer the PDB of that outdoor units.
- Indoor Units greater than 54k can not be combined with Multi V S system.
 This product contains Fluorinated Greenhouse Gases.(R410A)

2. External Appearance

■ Standard Model

Ceiling Mounted Cassette (1-Way)

ARNU07GTUB4 ARNU09GTUB4 ARNU12GTUB4

ARNU18GTTB4 ARNU24GTTB4



Ceiling Mounted Cassette (2-Way)

ARNU09GTS*4 ARNU12GTS*4 ARNU18GTS*4 ARNU24GTS*4

* A:Basic, C:Ionizer(Acc.)



Ceiling Mounted Cassette (4-Way Mini)

ARNU05GTRB4 ARNU07GTRB4 ARNU09GTRB4 ARNU12GTRB4 ARNU15GTQB4 ARNU18GTQB4 ARNU21GTQB4



Ceiling Mounted Cassette (Dual Vane 4-Way)

ARNU24GTBB4 ARNU28GTBB4 ARNU30GTBB4 ARNU36GTAB4 ARNU42GTAB4 ARNU48GTAB4



Ceiling Mounted Cassette (Dual Vane 4-Way High sensible)

ARNU05GTAA4
ARNU07GTAA4
ARNU09GTAA4
ARNU12GTAA4
ARNU18GTAA4
ARNU24GTAA4
ARNU24GTAA4
ARNU28GTAA4
ARNU36GTAA4
ARNU42GTAA4
ARNU42GTAA4
ARNU48GTAA4



Ceiling Mounted Cassette (Round)

ARNU24GTYA4 ARNU36GTYA4 ARNU48GTYA4



Ceiling Concealed Duct (Low Static)

ARNU05GL1G4 ARNU15GL2G4 ARNU07GL1G4 ARNU18GL2G4 ARNU09GL1G4 ARNU21GL3G4 ARNU12GL2G4 ARNU24GL3G4



Ceiling Concealed Duct (High Static)

ARNU76GB8A4 ARNU96GB8A4



Ceiling Concealed Duct (Low Static(Slim))

ARNU05GL4G4 ARNU07GL4G4 ARNU09GL4G4 ARNU12GL5G4 ARNU12GL5G4 ARNU12GL5G4



Ceiling Concealed Duct (Middle Static)

ARNU07GM1A4 ARNU09GM1A4 ARNU12GM1A4 ARNU15GM1A4 ARNU18GM1A4 ARNU24GM1A4 ARNU28GM2A4 ARNU36GM2A4 ARNU42GM2A4 ARNU42GM3A4 ARNU48GM3A4



Ceiling Concealed Duct (High Sensible)

ARNU07GM2A4 ARNU09GM2A4 ARNU12GM2A4 ARNU15GM2A4 ARNU15GM2A4 ARNU18GM3A4 ARNU48GB8A4 ARNU48GB8A4





ARTCOOL (Gallery)

ARNU07GSF14 ARNU09GSF14 ARNU12GSF14



ARTCOOL (Mirror)

ARNU05GSJR4 ARNU07GSJR4 ARNU09GSJR4 ARNU12GSJR4 ARNU15GSJR4 ARNU18GSKR4 ARNU24GSKR4



- In matters of combination with Outdoor unit system, refer the PDB of that outdoor units.
- Indoor Units greater than 54k can not be combined with Multi V S system.

2. External Appearance

Floor Standing Unit Wall Mounted Unit (Standard) ARNU05GSJ*4 ARNU15GSJ*4 With case ARNU15GCEA4 ARNU18GCFA4 ARNU07GCEA4 ARNU09GCEA4 ARNU07GSJ*4 ARNU18GSK*4 ARNU09GSJ*4 ARNU24GSK*4 ARNU24GCFA4 ARNU12GCEA4 ARNU12GSJ*4 * N, C:Ionizer Without case ARNU15GCEU4 ARNU30GSVA4 ARNU07GCEU4 ARNU36GSVA4 ARNU18GCFU4 ARNU09GCEU4 ARNU24GCFU4 ARNU12GCEU4 Console Ceiling & Floor Convertible Unit ARNU09GVEA4 ARNU12GVEA4 ARNU07GQAA4 ARNU09GQAA4 ARNU12GQAA4 ARNU15GQAA4 Fresh Air In take Unit **Ceiling Suspended Unit** ARNU76GB8Z4 ARNU18GV1A4 ARNU96GB8Z4 ARNU24GV1A4 ARNU36GV2A4 ARNU48GV2A4

Note

- In matters of combination with Outdoor unit system, refer the PDB of that outdoor units.
- · Indoor Units greater than 54k can not be combined with Multi V S system.

■ Compact Model

Ceiling Mounted Cassette (4-Way)

ARNU09GTR*4 *E:Basic, F:Plasma

ARNU15GTR*4 *A:Basic, C:Plasma



- In matters of combination with Outdoor unit system, refer the PDB of that outdoor units.
- Indoor Units greater than 54k can not be combined with Multi V S system.

3. Nomenclature

Model Name	ARN	U	07	G	TU	Α	4
No.	1	2	3	4	5	6	7

No.	Signification
	Multi V System with Indoor Unit using R410A/ R32
1	ARN : Global line-up CRN : Brazil line-up only
	Combination of Inverter Type and Cooling Only or Heat Pump
2	U : DC Inverter and H/P and C/O
	Total Cooling Capacity in Btu/h
3	EX) 5,000 Btu/h Class → 05' 18,000 Btu/h Class → '18'
	Electrical Ratings
4	2 : 1Ø, 220V, 60Hz 6 : 1Ø, 220 - 240V, 50Hz G : 1Ø, 220 - 240V, 50Hz / 1Ø, 220V, 60Hz
5	Code for chassis
	Combinations of functions
6	A, B: Basic function N, C: Ionizer (Wall Mounted Unit) C: Ionizer (Acc.) (Ceiling Mounted Cassette 2Way) / Plasma (4Way) E: Compact model (Ceiling Mounted Cassette) F: Compact model+Plasma (Ceiling Mounted Cassette) G: Low Static, Low Static (Slim) U: Floor Standing Unit without Case Z: Fresh Air Intake Unit
	ART COOL Type : Panel Color
	Mirror type - R : Mirror Gallery type - 1: Kiss
7	Serial Number

4. Indoor Unit Capacity Index

■ Indoor unit capacity index

Unit Capacity (Btu/h)	5k	7k	9k	12k	15k	18k	21k	24k	28k
Capacity Index	1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2
Unit Capacity (Btu/h)	30k	36k	42k	48k	54k	60k	76k	96k	-
Capacity Index	9.0	10.6	12.3	14.1	15.8	17.5	22.4	28.0	-

- · Capacity Index is same as the capacity with 'kW' unit.
- In matters of combination with Outdoor unit system, refer the PDB of that outdoor units.
- Indoor Units greater than 54k can not be combined with Multi V S system.

5. Additional Refrigerant according to Indoor Unit Type

5.1 Using R410A

■ Calculation of the amount of additional refrigerant

The calculation of the additional charge should take into account the length of liquid pipe and CF(correctionFactor) value of indoor unit.

Additional charge(kg)	=	L1(m): Total length of liquid pipe with Ø25.4mm	×	0.480(kg/m)
	+	L2(m): Total length of liquid pipe with Ø22.2mm	×	0.354(kg/m)
	+	L3(m): Total length of liquid pipe with Ø19.05mm	×	0.266(kg/m)
	+	L4(m): Total length of liquid pipe with Ø15.88mm	×	0.173(kg/m)
	+	L5(m): Total length of liquid pipe with Ø12.7mm	×	0.118(kg/m)
	+	L6(m): Total length of liquid pipe with Ø9.52mm	×	0.061(kg/m)
	+	L7(m): Total length of liquid pipe with Ø6.35mm	×	0.022(kg/m)
	+	Number of installed HR units*	×	0.500(kg/EA)
	+	CF value of indoor unit		

^{*:} Only for Heat Recovery models.

◆ Additional refrigerant table (CF value of indoor unit)

		Model							Ca	pacity [Btu/h(k\	N)]						
Cate	gory	Name	5k	7k	9k	12k	15k	18k	21k	24k	28k	30K	36k	42k	48k	54k	76k	96k
		(ARNU**G)	1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	8.8	10.6	12.3	14.1	15.8	22.4	28.0
Wall		SJ*4	0.24	0.24	0.24	0.24	0.24											
Mounted	Standard	SK*4						0.28		0.28								
Unit		SV*4										0.46	0.46					
		SJ*4	0.24	0.24	0.24	0.24	0.24											
ARTCOOL	Mirror	SK*4						0.28		0.28								
	Gallery	SF*4		0.10	0.10	0.10												
	4.14	TU*4		0.20	0.20	0.20												
	1-Way	TT*4						0.29		0.29								
	2-Way	TSC4			0.34	0.34		0.34		0.34								
	4-Way	TR*4	0.18	0.18	0.25	0.25												
	Mini	TQ*4					0.32	0.32	0.32									
	Dual	TBB4								0.32	0.32	0.32						
Ceiling Mounted	Vane 4-Way	TAB4											0.49	0.49	0.49			
Cassette	Dual Vane 4-Way High sensible	TAA4	0.68	0.68	0.68	0.68	0.68	0.68		0.68	0.68		0.68	0.68	0.68			
	4 way - Compact	TR*4			0.18		0.25											
	Round	TYA4								0.49			0.49		0.49			
		M2A4		0.35	0.35	0.35	0.35											
	High sensible	M3A4						0.61		0.61	0.61							
		B8*4											1.00	1.00	1.00			
	High static	B8*4															1.00	1.00
		M1A4		0.24	0.24	0.24	0.24	0.24		0.36								
Ceiling	Middle static	M2A4									0.35		0.35	0.52				
Concealed Duct	otatio	M3A4													0.61	0.61		
Duot		L1G4	0.14	0.14	0.14													
	Low	L2G4				0.19	0.19	0.19										
	o tatio	L3G4							0.25	0.25								
	Low	L4G4	0.14	0.14	0.14													
	static	L5G4				0.20	0.20	0.20										
	(Slim)	L6G4							0.26	0.26								
Ceiling & Fl Convertible	oor unit	VE*4			0.10	0.10												
Calling Co		V1A4						0.53		0.53								
Celling Sus	pended unit	V2A4											0.79		0.79			
El t !		CE*4		0.17	0.17	0.17	0.17											
Floor stand	ing unit	CF*4						0.37		0.37								
Console		QA*4		0.17	0.17	0.17	0.17											
Fresh Air In	take unit	B8Z4															1.00	1.00

Multi V Indoor Unit General Information

5. Additional Refrigerant according to Indoor Unit Type

	Model							Ca _l	oacity [Btu/h(k\	V)]						
Category	Name	5k	7k	9k	12k	15k	18k	21k	24k	28k	30K	36k	42k	48k	54k	76k	96k
	(ARNU**G)	1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	8.8	10.6	12.3	14.1	15.8	22.4	28.0
Hydrokit	K2A4												0.80				1.60
(ÁRNH**G)	K3A4												0.80			1.00	

5. Additional Refrigerant according to Indoor Unit Type

5.2 Using R32

■ Calculation of the amount of additional refrigerant

The calculation of the additional charge should take into account the length of liquid pipe and CF(correctionFactor) value of indoor unit.

Additional charge(kg)	=	L1(m): Total length of liquid pipe with Ø25.4mm	×	0.422(kg/m)
	+	L2(m): Total length of liquid pipe with Ø22.2mm	×	0.313(kg/m)
	+	L3(m): Total length of liquid pipe with Ø19.05mm	×	0.235(kg/m)
	+	L4(m): Total length of liquid pipe with Ø15.88mm	×	0.153(kg/m)
	+	L5(m): Total length of liquid pipe with Ø12.7mm	×	0.103(kg/m)
	+	L6(m): Total length of liquid pipe with Ø9.52mm	×	0.053(kg/m)
	+	L7(m): Total length of liquid pipe with Ø6.35mm	×	0.019(kg/m)
	+	CF value of indoor unit		

◆ Additional refrigerant table (CF value of indoor unit)

		Model							Ca	pacity [Btu/h(k\	N)]						
Cate	gory	Name	5k	7k	9k	12k	15k	18k	21k	24k	28k	30K	36k	42k	48k	54k	76k	96k
		(ARNU**G)	1.6	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	8.8	10.6	12.3	14.1	15.8	22.4	28.0
Wall		SJ*4	0.20	0.20	0.20	0.20	0.20											
Mounted	Standard	SK*4						0.23		0.23								
Unit		SV*4										0.38	0.38					
	Mirror	SJ*4	0.20	0.20	0.20	0.20	0.20											
ARTCOOL	IVIIITOI	SK*4						0.23		0.23								
	Gallery	SF*4		0.08	0.08	0.08												
	1-Way	TU*4		0.17	0.17	0.17												
	,	TT*4						0.24		0.24								
	2-Way	TSC4			0.28	0.28		0.28		0.28								
	4-Way	TR*4	0.15	0.15	0.21	0.21												
	Mini '	TQ*4					0.26	0.26	0.26									
Cailing	Dual	TBB4								0.26	0.26	0.26						
Ceiling Mounted	Vane 4-Way	TAB4											0.41	0.41	0.41			
Cassette	Dual Vane 4-Way High sensible	TAA4	0.56	0.56	0.56	0.56	0.56	0.56		0.56	0.56		0.56	0.56	0.56			
	4 Way - Compact	TR*4			0.15		0.21											
	Round	TYA4								0.41			0.41		0.41			
		M2A4		0.29	0.29	0.29	0.29											
	High sensible	M3A4						0.50		0.50	0.50							
	001101101	B8*4											0.83	0.83	0.83			
	High static	B8*4															0.83	0.83
		M1A4		0.20	0.20	0.20	0.20	0.20		0.30								
Ceiling	Middle static	M2A4									0.29		0.29	0.43				
Concealed Duct		M3A4													0.50	0.50		
		L1G4	0.12	0.12	0.12													
	Low static	L2G4				0.16	0.16	0.16										
		L3G4							0.21	0.21								
	Low	L4G4	0.12	0.12	0.12													
	static	L5G4				0.17	0.17	0.17										
	(Slim)	L6G4							0.22	0.22								
Ceiling & Fl Convertible	oor unit	VE*4			0.08	0.08												
Elear stand	ing unit	CE*4		0.14	0.14	0.14	0.14											
Floor standi	ing unit	CF*4						0.31		0.31								
Console		QA*4		0.14	0.14	0.14	0.14											
Fresh Air In	take unit	B8Z4															0.83	0.83

Multi V Indoor Unit General Information

6. Alternative Refrigerant R32

The refrigerant R32 has higher efficiency and is more environmental friendly comparing to R410A. It has a lower GWP (Global Warming Potential) value, and higher efficiency than R410A. The Ozone Depletion Potential (ODP) of R32 is 0, and Global Warming Potential (GWP) is 675.

Refrigerant piping consists of copper/steel pipes, joints, and other fittings. All components must be selected and installed in conformity with the standards pertaining to the Refrigeration Safety Regulation. Same piping as for R410A can be used.

Λ

WARNING

- This product contains fluorinated greenhouse gases (Refrigerant type: R32). Do NOT leak refrigerant gases into the atmosphere.
- The refrigerant R32 is a Slightly Flammable gas. It does not leak normally. If the refrigerant leaks in the installed place and is in contact with a flaming source, it may cause fire, or a harmful gas.
- If there is some leak, turn off any combustion devices, ventilate the installation location, and contact the dealer from which you purchased the unit. Do not use the unit until the refrigerant leaked is repaired.
- Only use R32 as refrigerant. Other substances may cause explosions and accidents.

Λ

CAUTION

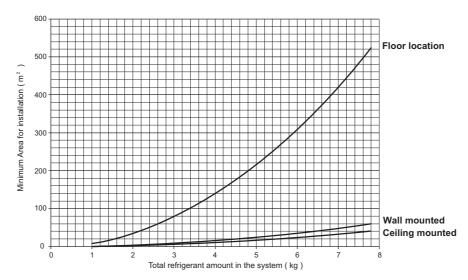
- The wall thickness of the piping should comply with the relevant local and national regulations for the designed pressure.
- For high-pressure refrigerant, any unapproved pipe must not be used.
- Do not heat pipes more than necessary to prevent them from softening.

6. Alternative Refrigerant R32

■ Minimum Floor Area for Installation

• The unit should be installed, operated and stored in a room with a floor area larger than the minimum area. Use the graph of table to determine the minimum area.

• Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than minimum area for installation.



Total refrigerant amount in the system = factory refrigerant charge + additional refrigerant amount

Refrigerant Amount		Minimum Area (m²)	
(kg)	Floor location	Wall mounted	Ceiling Mounted
1.0	8.58	0.95	0.64
1.224	12.90	1.43	0.956
1.4	16.82	1.87	1.25
1.6	21.97	2.44	1.63
1.8	27.80	3.09	2.07
2.0	34.32	3.81	2.55
2.2	41.53	4.61	3.09
2.4	49.42	5.49	3.68
2.6	58.00	6.44	4.31
2.8	67.27	7.47	5.00
3.0	77.22	8.58	5.74
3.2	87.86	9.76	6.54
3.4	99.19	11.02	7.38
3.6	111.20	12.36	8.27
3.8	123.90	13.77	9.22
4.0	137.29	15.25	10.21
4.2	151.36	16.82	11.26
4.4	166.12	18.46	12.36
4.6	181.56	20.17	13.50
4.8	197.70	21.97	14.70
5.0	214.51	23.83	15.96
5.2	232.02	25.78	17.26
5.4	250.21	27.80	18.61
5.6	269.09	29.90	20.01
5.8	288.65	32.07	21.47
6.0	308.90	34.32	22.98
6.2	329.84	36.65	24.53
6.4	351.46	39.05	26.14
6.6	373.77	41.53	27.80
6.8	396.76	44.08	29.51
7.0	420.45	46.72	31.27
7.2	444.81	49.42	33.09
7.4	469.87	52.21	34.95
7.6	495.61	55.07	36.86
7.8	522.04	58.00	38.83



Indoor Units

Standard Model Compact Model



Standard Model

Ceiling Mounted Cassette (1-Way)

Ceiling Mounted Cassette (2-Way)

Ceiling Mounted Cassette (4-Way Mini)

Ceiling Mounted Cassette (4-Way Dual Vane)

Ceiling Mounted Cassette (4-Way Dual Vane High sensible)

Round Cassette

Ceiling Concealed Duct (High Sensible)

Ceiling Concealed Duct (High Static)

Ceiling Concealed Duct (Middle Static)

Ceiling Concealed Duct (Low Static)

Ceiling Concealed Duct (Low Static(Slim))

Ceiling & Floor Convertible Unit

Ceiling Suspended Unit

Floor Standing Unit

Fresh Air Intake Unit

Wall Mounted Unit (Standard)

ARTCOOL (Mirror)

ARTCOOL (Gallery)

Console



Ceiling Mounted Cassette (1-Way)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GTUB4, ARNU09GTUB4, ARNU12GTUB4, ARNU18GTTB4, ARNU24GTTB4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	-
Air flow	Auto swing(up & down)	0
AITTIOW	Airflow steps(fan/cool/heat)	4/5/4
	Chaos swing	X
	Chaos wind(auto wind)	0
	Jet cool(Power wind)	0
	Swirl wind	-
A in an emiferican	Deodorizing filter	Х
Air purifying	Prefilter(washable)	0
	Drain pump	0
I 4 . II . 4'	E.S.P. control*	X
Installation	Electric heater(operation)	X
	High ceiling operation*	0
	Hot start	0
Reliability	Self diagnosis	0
	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
Convenience	Forced operation	0
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0

Note

Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{1.} O : Applied, X : Not Applied

Some functions can be limited by remote controller.
 In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

1. List of functions

Category		Product	Remark	ARNU07GTUB4, ARNU09GTUB4, ARNU12GTUB4, ARNU18GTTB4, ARNU24GTTB4
Wireless Remote Controller		PQWRHQ0FDB / PQWRCQ0FDB	Heat Pump / Cooling only	0
Wireless Remoti	e Controller	PWLSSB21H / PWLSSB21C	Heat Pump / Cooling only	0
	Simple	PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
		PREMTB001	Standard II (White)	0
Wired Remote Controller	Standard	PREMTBB01	Standard II (Black)	0
Controllor	Standard	PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)*	Premium	0
	Simple Contact	PDRYCB000	Simple Dry Contact	0
Dry contact		PDRYCB400	2 Points Dry Contact (For Setback)	0
Dry contact	Communication type	PDRYCB300	Dry Contact For 3rd Party Thermostat	0
		PDRYCB500	Dry Contact For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	-
Galeway	IDU P1465	PSNFP14A0	With case	-
	Remote temperature sensor	PQRSTA0	-	0
	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	-
	Extension Wire	PZCWRC1	10m	-
ETC	Wi-Fi Controller*	PWFMDD200	-	0
	Independent Power Module	PRIP0	-	0
	Refrigerant Leakage Detector	PRLDNVS0	-	0
	Human Detecting Controller	PHD-TM0	-	-
	Air Cleaning Kit (1way)	PTAHTP0	-	0

- 1. O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
- 2. * : Some advanced functions controlled by individual controller cannot be operated. 3. **: It could not be operated some functions.
- 4. If you need more detail, please refer to the **BECON** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

2. Specifications

	Model	Unit	ARNU07GTUB4	ARNU09GTUB4			
		kW	2.2	2.8			
Cooling Capacity		kcal/h	1,900	2,400			
		Btu/h	7,500	9,600			
		kW	2.5	3.2			
Heating Capacity		kcal/h	2,200	2,800			
		Btu/h	8,500	10,900			
Power Input (H / M /	L)	W	20 / 18 / 16	22 / 20 / 18			
Casing			Galvanized Steel Plate	Galvanized Steel Plate			
	Dadu	mm	860 x 132 x 450	860 x 132 x 450			
	Body	inch	33-27/32 x 5-3/16 x 17-23/32	33-27/32 x 5-3/16 x 17-23/32			
Dimensions	D :: D !!!4	mm	1,100 x 34 x 500	1,100 x 34 x 500			
(WxHxD)	Decoration Panel #1	inch	43-5/16 x 1-11/32 x 19-11/16	43-5/16 x 1-11/32 x 19-11/16			
	December Devel #0	mm	1,160 × 34 × 500	1,160 × 34 × 500			
	Decoration Panel #2	inch	45-21/32 × 1-11/32 × 19-11/16	45-21/32 × 1-11/32 × 19-11/16			
0.0	Rows x Columns x FPI		2 x 12 x 18	2 x 12 x 18			
Coil	Face Area	m²	0.16	0.16			
	Туре		Cross Flow Fan	Cross Flow Fan			
	Motor Output x Number	W	30	30			
-	Air Flow Rate	m³/min	8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2			
Fan	(H / M / L)	ft³/min	289.5 / 257.7 / 225.9	324.7 / 303.6 / 289.5			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control	•		Microprocessor, Thermostat for cooling and heating				
Sound Absorbing The	ermal Insulation Material		Foamed polystrene Foamed polystrene				
Safety Device			Fuse	Fuse			
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)			
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)			
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)			
Net Weight	Body	kg(lbs)	13.6(30.0)	13.6(30.0)			
Sound Pressure Lev	els (H / M / L)	dB(A)	32 / 29 / 25	35 / 34 / 32			
Sound Power Levels	s (H / M / L)	dB(A)	47 / 44 / 41	50 / 48 / 47			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	А	0.15 - 0.14 - 0.14	0.17- 0.16 - 0.15			
Maximum Running C	Current	Α	0.18	0.18			
	Туре	-	R410A / R32	R410A / R32			
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.20 / 0.17	0.20 / 0.17			
	Control	-	EEV	EEV			
Transmission cable	'		1.0~1.5 x 2C	1.0~1.5 x 2C			
Panel Color			Noble White	Noble White			
Panel Name(Access	ory)		Standard : PT-UUC, PT-UAHW0(Grill), PT-UUD(Panel) Air Clean : PT-UPHG0				

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical
 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
- Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.
 Adapt after checking the specifications of outdoor unit.

2. Specifications

	Model	Unit	ARNU12GTUB4		
		kW	3.6		
Cooling Capacity		kcal/h	3,100		
3 1 7		Btu/h	12,300		
		kW	4.0		
Heating Capacity		kcal/h	3,400		
3 - 1 7		Btu/h	13,600		
Power Input (H / M /	L)	W	24 / 22 / 20		
Casing	,		Galvanized Steel Plate		
		mm	860 x 132 x 450		
	Body	inch	33-27/32 x 5-3/16 x 17-23/32		
Dimensions		mm	1,100 x 34 x 500		
(WxHxD)	Decoration Panel #1	inch	43-5/16 x 1-11/32 x 19-11/16		
		mm	1,160 × 34 × 500		
	Decoration Panel #2	inch	45-21/32 × 1-11/32 × 19-11/16		
	Rows x Columns x FPI		2 x 12 x 18		
Coil	Face Area		0.16		
	Туре		Cross Flow Fan		
	Motor Output x Number	W	30		
_	Air Flow Rate	m³/min	10 / 9.2 / 8.2		
Fan	(H / M / L)	ft³/min	353 / 324.8 / 289.5		
	Drive		Direct		
	Motor type		BLDC		
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	ermal Insulation Material		Foamed polystrene		
Safety Device			Fuse		
•	Liquid Side	mm(inch)	Ø6.35(1/4)		
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)		
•	Drain Pipe(Internal Dia.)	mm(inch)	25(1)		
Net Weight	Body	kg(lbs)	13.6(30.0)		
Sound Pressure Leve	els (H / M / L)	dB(A)	38 / 35 / 32		
Sound Power Levels	(H / M / L)	dB(A)	52 / 50 / 47		
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60		
Running Current by voltage	Rated	А	0.18 - 0.17 - 0.17		
Maximum Running C	Current	Α	0.18		
	Туре	-	R410A / R32		
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.20 / 0.17		
	Control	-	EEV		
Transmission cable	,		1.0~1.5 x 2C		
Panel Color			Noble White		
Panel Name(Access	ory)		Standard : PT-UUC, PT-UAHW0(Grill), PT-UUD(Panel) Air Clean : PT-UPHG0		

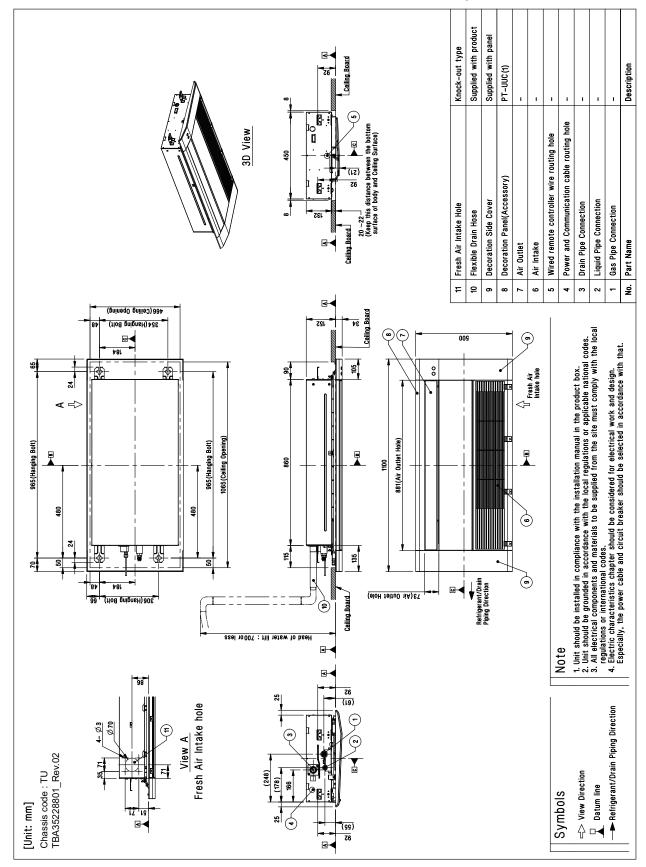
- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

2. Specifications

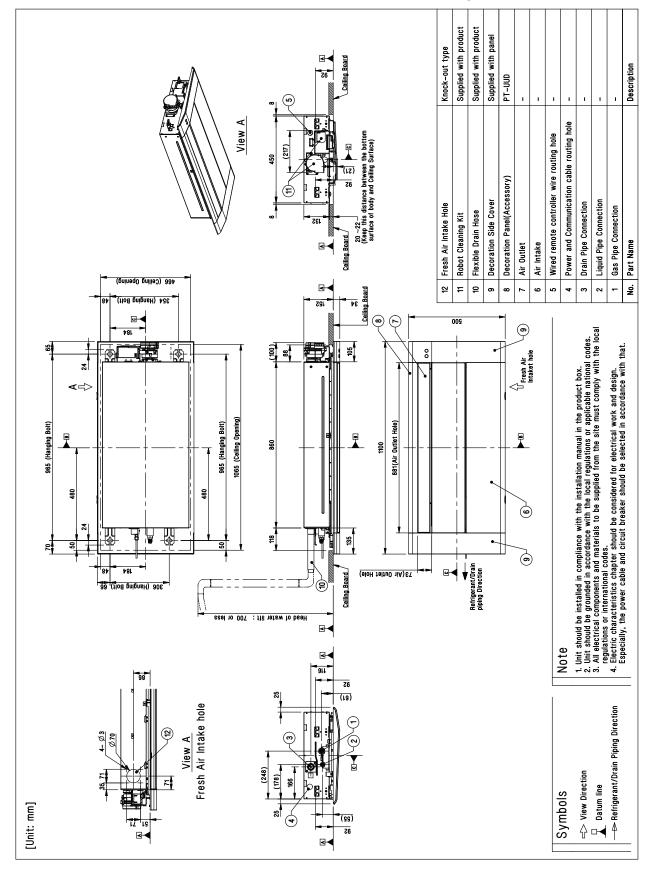
	Model	Unit	ARNU18GTTB4	ARNU24GTTB4
		kW	5.6	7.1
Cooling Capacity		kcal/h	4,800	6,100
		Btu/h	19,100	24,200
		kW	6.3	7.1
Heating Capacity		kcal/h	5,400	6,100
		Btu/h	21,500	24,200
Power Input (H / M / L)	W	38 / 28 / 24	51 / 33 / 26
Casing			Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	1,180 x 132 x 450	1,180 x 132 x 450
	Body	inch	46-15/32 x 5-3/16 x 17-23/32	46-15/32 x 5-3/16 x 17-23/32
Dimensions	Decoration Panel #1	mm	1,420 x 34 x 500	1,420 x 34 x 500
(WxHxD)	Decoration Pariet #1	inch	55-29/32 x 1-11/32 x 19-11/16	55-29/32 x 1-11/32 x 19-11/16
	Decoration Panel #2	mm	1,480 × 34 × 500	1,480 × 34 × 500
	Decoration Pariet #2	inch	58-9/32 × 1-11/32 × 19-11/16	58-9/32 × 1-11/32 × 19-11/16
Coil	Rows x Columns x FPI		2 x 12 x 18	2 x 12 x 18
Coll	Face Area	m²	0.24	0.24
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output x Number	W	30	30
Fan	Air Flow Rate	m³/min	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
ran	(H / M / L)	ft³/min	515.4 / 427.1 / 384.8	575.4 / 469.5 / 406
	Drive		Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control	·		Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
Net Weight	Body	kg(lbs)	15.6(34.4)	15.6(34.4)
Sound Pressure Leve	ls (H / M / L)	dB(A)	40 / 37 / 35	43 / 40 / 36
Sound Power Levels ((H / M / L)	dB(A)	56 / 51 / 48	59 / 53 / 50
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	Α	0.22 - 0.21 - 0.20	0.29 - 0.28 - 0.27
Maximum Running Cu	ırrent	Α	0.30	0.30
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.29 / 0.24	0.29 / 0.24
	Control	-	EEV	EEV
Transmission cable			1.0~1.5 x 2C	1.0~1.5 x 2C
Panel Color			Noble White	Noble White
Panel Name(Accesso	ry)		Standard : PT-UTC, PT-TAHW Air Clean : PT-TPHG0	0(Grill), PT-UTD(Panel)

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

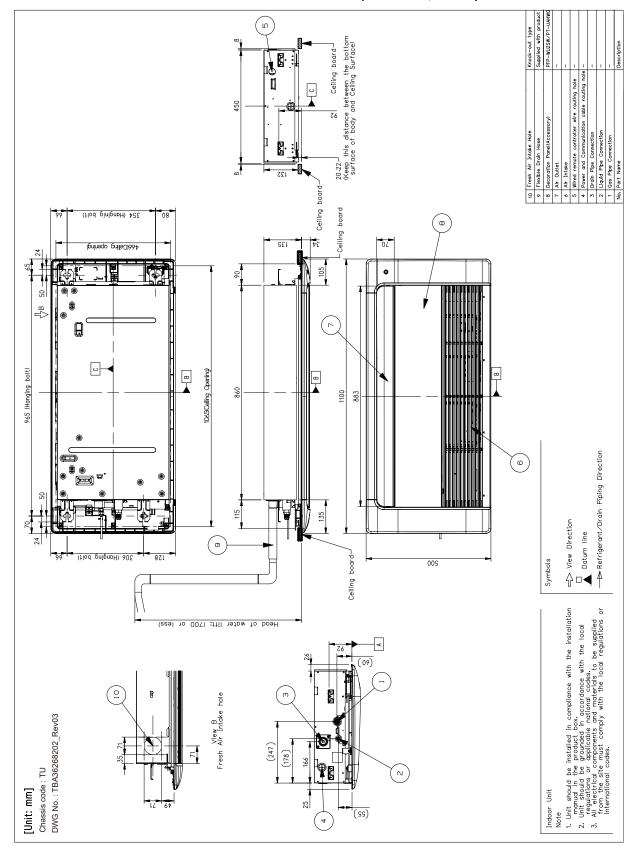
◆ ARNU07GTUB4 / ARNU09GTUB4 / ARNU12GTUB4 (Standard, Bright)



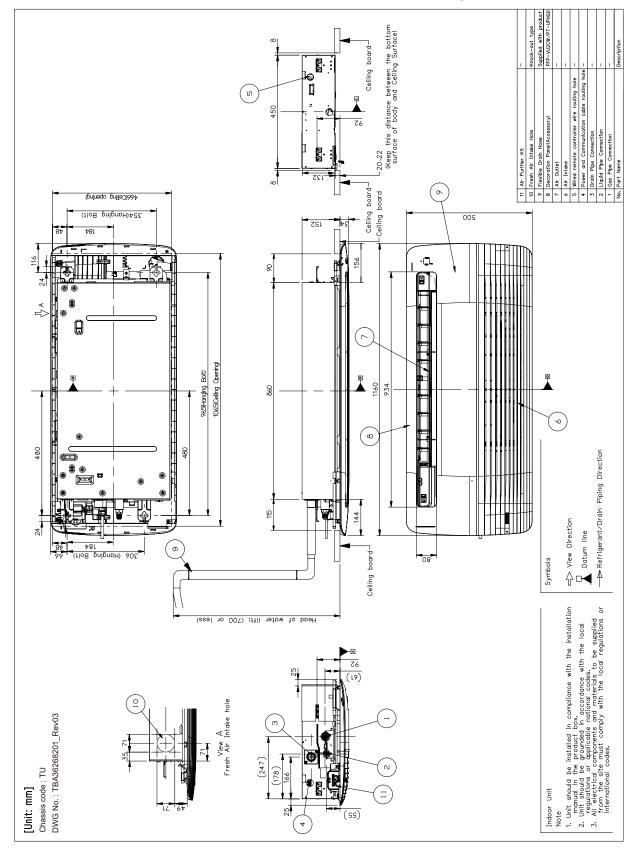
◆ ARNU07GTUB4 / ARNU09GTUB4 / ARNU12GTUB4 (Standard, Bright)



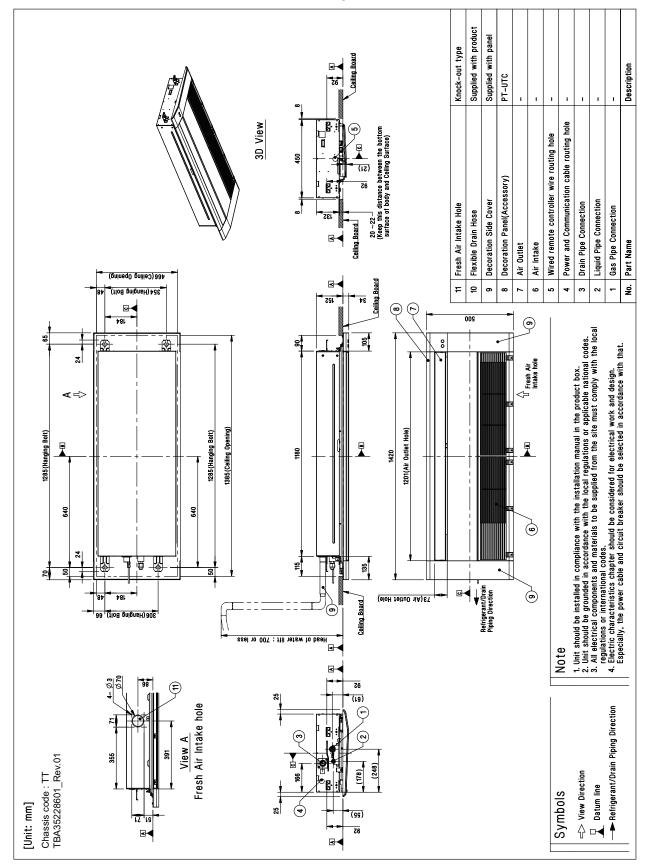
◆ ARNU07GTUB4 / ARNU09GTUB4 / ARNU12GTUB4 (Standard, Matte)



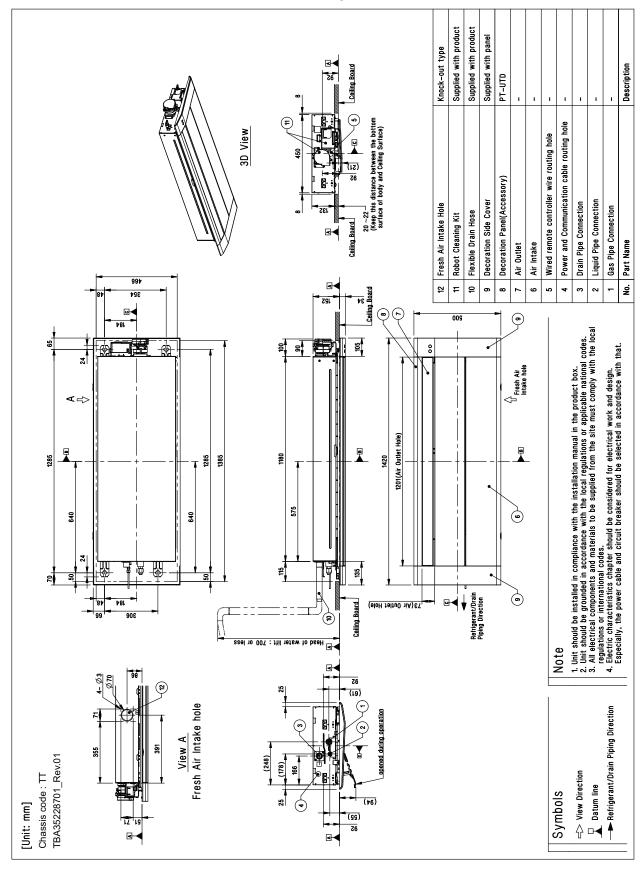
◆ ARNU07GTUB4 / ARNU09GTUB4 / ARNU12GTUB4 (Air Clean, Bright)



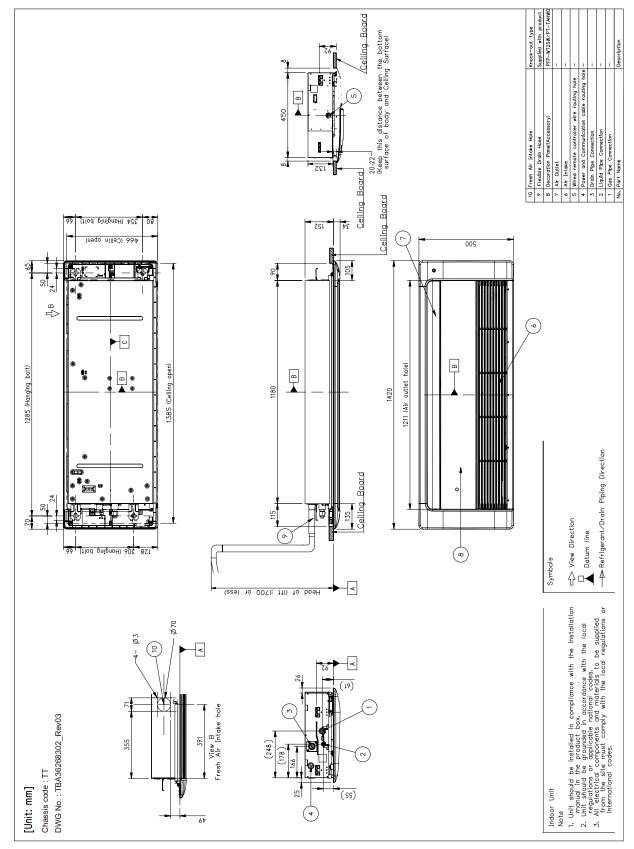
◆ ARNU18GTTB4 / ARNU24GTTB4 (Standard, Bright)



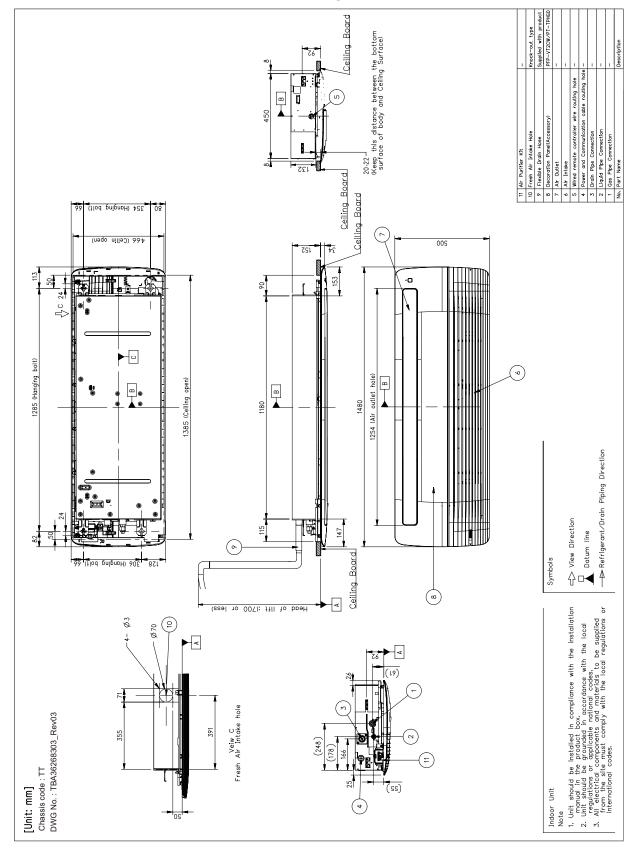
◆ ARNU18GTTB4 / ARNU24GTTB4 (Standard, Bright)



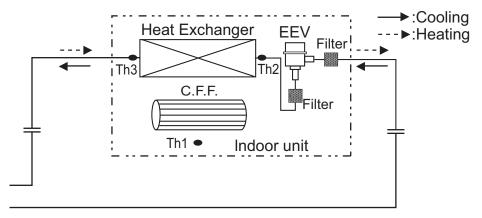
◆ ARNU18GTTB4 / ARNU24GTTB4 (Standard, Matte)



◆ ARNU18GTTB4 / ARNU24GTTB4 (Air Clean, Bright)



4. Piping Diagrams



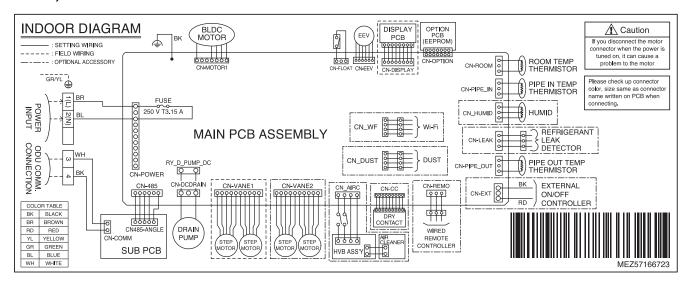
♦ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]		
ARNU07GTUB4				
ARNU09GTUB4	(X12.7(1/2)	Ø6 25(1/4)		
ARNU12GTUB4	Ø12.7(1/2)	Ø6.35(1/4)		
ARNU18GTTB4				
ARNU24GTTB4	Ø15.88(5/8)	Ø9.52(3/8)		

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ TU, TT Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN_DPUMP	Drain pump output	AC output for drain pump
CN-GRILL	Elevation grill	Elevation grill line
CN-PTC	Aux heater	Aux heater line
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-AIRC	Air cleaner	Air cleaner line
CN-DISPLAY	Display	Display of indoor status
CN-OPTION	Option pwb.	Communication between main and option
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-FLOAT	Float switch input	Float switch sensing
CN-ROOM	Room sensor	Room air thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-COMM	Communication	Communication between indoor and outdoor
CN-VANE1	Step motor	Step motor output
CN-VANE2	Step motor	Step motor output
CN-485	Communication	Connection between indoor and outdoor
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_DUST	Dust sensor	Dust detector line
CN_HUMID	Humid sensor	Humid sensing

Dip S	witch Setting	Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.
SW5	EXTRA 1	Off	On	1. Duct model 2. OFF: Default(not operate continuosly) 3. ON: Fan operate continuosly 2. Cassette Model: No Function 3. Ceiling Suspended Model 4. OFF: Ceiling(default) 5. ON: Floor



For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF

That dip switch is used for the other model.

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity		Indoor air temp. (DB/WB, °C)												
Nominal Capacity (kBtu/h)	2	0	2	:3	2	6	2	27	2	:8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	20	2	2	2	24
[Capacity mack (KV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7 [2.2]	1.5	1.3	1.8	1.4	2.0	1.6	2.2	1.6	2.4	1.7	2.4	1.6	2.4	1.4
9 [2.8]	1.9	1.6	2.2	1.8	2.6	2.0	2.8	2.0	3.0	2.1	3.0	2.0	3.1	1.8
12 [3.6]	2.4	2.1	2.9	2.3	3.3	2.5	3.6	2.6	3.9	2.7	3.9	2.5	4.0	2.3
18 [5.6]	3.8	3.2	4.5	3.5	5.2	3.8	5.6	3.9	6.0	4.1	6.1	3.8	6.2	3.5
24 [7.1]	4.8	4.1	5.7	4.5	6.6	4.9	7.1	5.0	7.6	5.2	7.7	4.9	7.8	4.5

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)										
(kBtu/h)	16	18	20	21	22	24					
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC					
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2					
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8					
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5					
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5					
24 [7.1]	8.0	7.6	7.1	6.9	6.6	6.2					

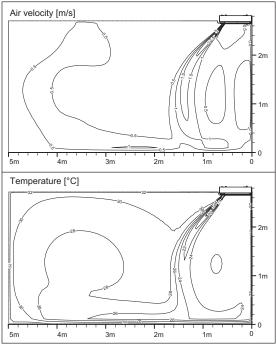
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution

◆ ARNU07GTUB4

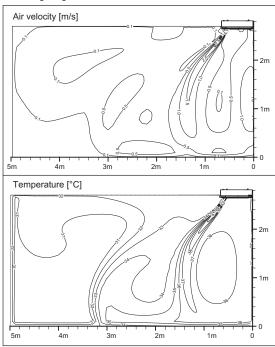
Cooling

Discharge angle: 50°



Heating

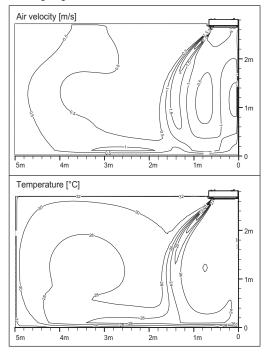
Discharge angle: 60°



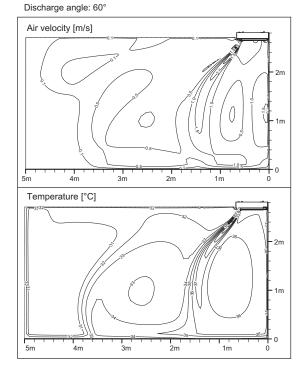
ARNU09GTUB4

Cooling

Discharge angle: 50°



Heating



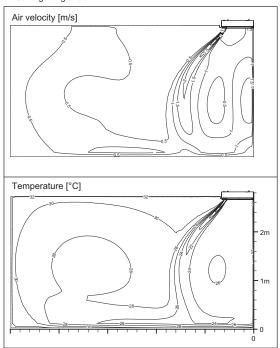
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution

♦ ARNU12GTUB4

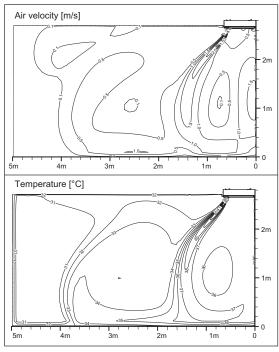
Cooling

Discharge angle: 50°



Heating

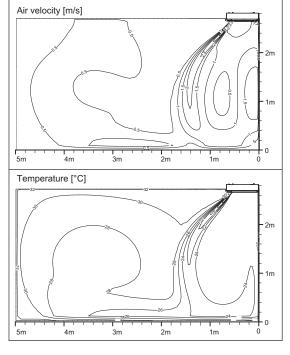
Discharge angle: 60°



◆ ARNU18GTTB4

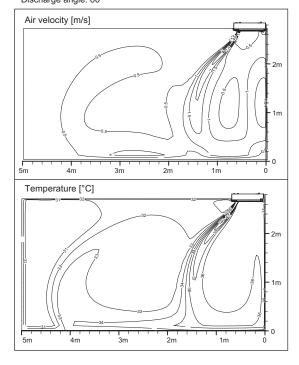
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



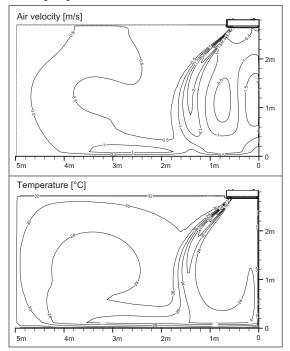
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution

♦ ARNU24GTTB4

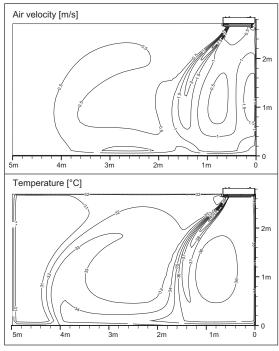
Cooling

Discharge angle: 50°



Heating





- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units						IFM		PI	
Model	Туре	Hz	Volts	Voltage Range	МСА	kW	FLA	Cooling	Heating
ARNU07GTUB4	TU				0.23	0.03	0.18	40	40
ARNU09GTUB4	TU			Max:264 Min:198	0.23	0.03	0.18	40	40
ARNU12GTUB4	TU	50	220-240		0.23	0.03	0.18	40	40
ARNU18GTTB4	TT				0.38	0.03	0.30	70	70
ARNU24GTTB4	TT				0.38	0.03	0.30	70	70
ARNU07GTUB4	TU				0.23	0.03	0.18	40	40
ARNU09GTUB4	TU				0.23	0.03	0.18	40	40
ARNU12GTUB4	TU	60	220	Max:242 Min:198	0.23	0.03	0.18	40	40
ARNU18GTTB4	TT			141111111111111111111111111111111111111	0.23	0.03	0.30	70	70
ARNU24GTTB4	TT				0.38	0.03	0.30	70	70

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

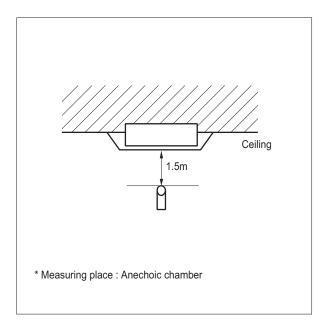
(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

Overall



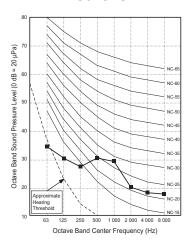
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

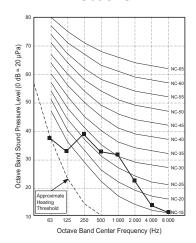
 Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]						
Wiodei	Н	M	L				
ARNU07GTUB4	32	29	25				
ARNU09GTUB4	35	34	32				
ARNU12GTUB4	38	35	32				
ARNU18GTTB4	40	37	35				
ARNU24GTTB4	43	40	36				

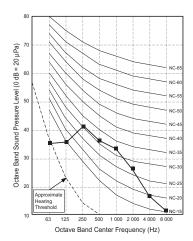
ARNU07GTUB4



ARNU09GTUB4



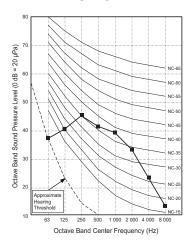
ARNU12GTUB4



ARNU18GTTB4

Report NC-45 NC-45

ARNU24GTTB4



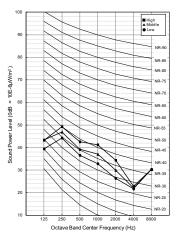
9.2 Sound Power Levels

Note

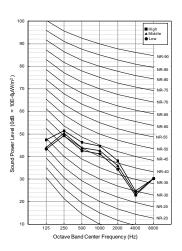
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	S	Sound Power Levels [dB(A)]							
Wiodei	Н	M	L						
ARNU07GTUB4	47	44	41						
ARNU09GTUB4	50	48	47						
ARNU12GTUB4	52	50	47						
ARNU18GTTB4	56	51	48						
ARNU24GTTB4	59	53	50						

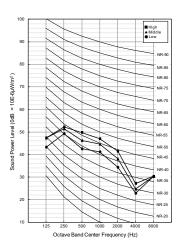
ARNU07GTUB4



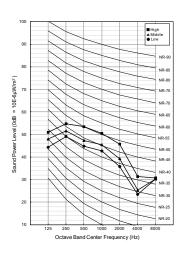
ARNU09GTUB4



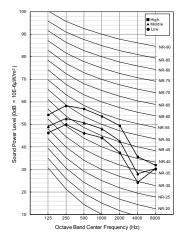
ARNU12GTUB4



ARNU18GTTB4



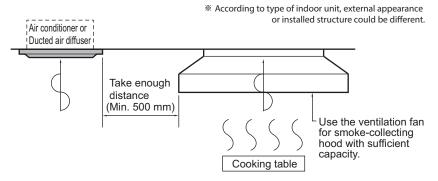
ARNU24GTTB4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

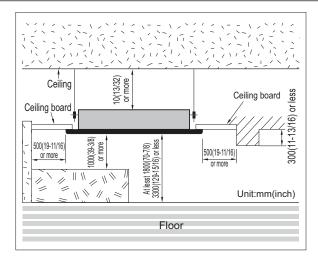
- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

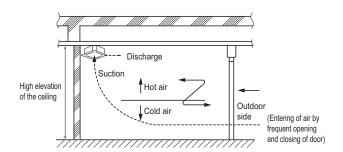
- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

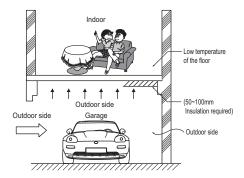


10.2 Precautions regarding cassette indoor unit installation

♦ Main points about the indoor installation

- In general commercial places and offices though the height of the ceiling is 2.7 m, the ceiling height could be over 3 m.
- In such cases because of the temperature difference with the floor the heating effect can fall down.
- · Countermeasure method
 - 1. Air conditioner should be able to operate in high ceiling operation mode.
 - 2. Plan to install the circulator.
 - 3. The air discharge port should be made to give more airflow to the down floor directions.
 - 4. The gate or exit of the building is protected by dual door system to minimize inflow of outdoor air.





♦ In case the floor or surfaces is contact with the outdoor air directly

- If the floor of air conditioned room contact with the outside air, like the store room or garage, the floor temperature will be decreased and users can have a cold feeling in the feet.
- In such places where the feet comes in direct contact with floors will give a cold feeling to the foot.

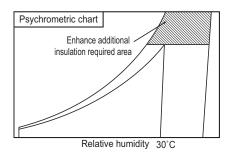


CAUTION

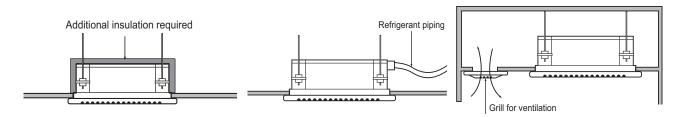
- In case there is a cold air intake,
 - » The duct surface may have some dew drops. So a insulation on the duct is a must.(Insulation material: a glass wool of thickness 25 mm will be appropriate.)
- · Countermeasure method
 - Use the carpet on the floor.
 (compared to the tiles the carpet over it will have a 3 degree rise in temperature)
 - 2. Insulating the floor.
 - Floor heating.

◆ In case of high temperature or humidity between the false ceiling and ceiling slab

- In case of places having the temperature and humidity of the surrounding water sources(sea, river etc.)
- In case the steam is generated between the false ceiling and the ceiling slab due to some nearby by steam source.
- In case of temperature of 30 degree and humidity above 80%, the units body as well as the piping insulation should be strengthened. Refer to the psychrometric chart.

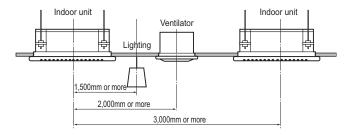


- · Countermeasure method
 - Indoor unit: Insulate the unit body with some insulation like glass wool at least 10 mm in thickness.
 - Refrigerant piping: Increase the piping insulation thickness with thickness above 20 mm.
 - Others: Inside the ceiling near th air tight seal places. (To escape of the humidity inside false ceiling)



^{*} According to type of indoor unit, external appearance could be different.

◆ In case of multiple indoor cassette units (recommended)



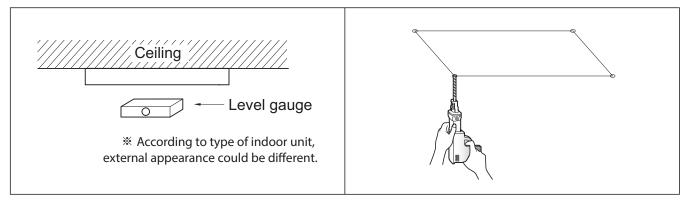
 $\ensuremath{\,\mathbb{X}\,}$ According to type of indoor unit, external appearance could be different.



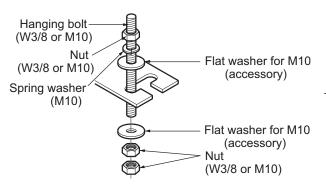
10.3 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



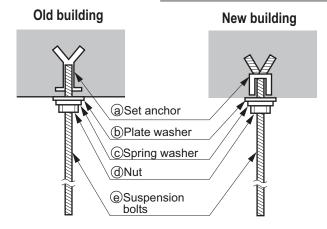
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



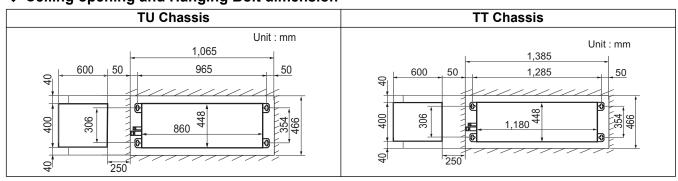
- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

CAUTION

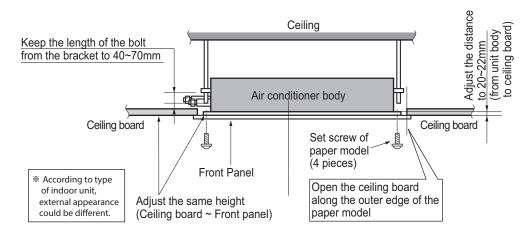
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



◆ Ceiling opening and Hanging Bolt dimension



♦ Installation Structure guide





10.4 Wiring Connection

10.4.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.4.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.4.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

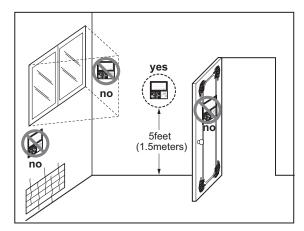
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.4.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

10.5 Installation of Decoration Panel

- The decoration panel has its installation direction.
- · Before installing the decoration panel, always remove the paper template.
- 1. Open the air outlet vane, and extract side covers.
- 2. Remove the air inlet panel from the decoration panel.
- 3. Hook decoration panel to indoor unit, using hooks attached at the backside of both side of decoration panel.
- 4. Arrange wires not to get caught between decoration panel and indoor unit.
- 5. Screw the fixing screws. (TU Chassis: 6 screws / TT Chassis: 7 screws)
- 6. Connect the vane motor connector, display connector.
- 7. Install the air inlet panel (including the air filter) and side covers.

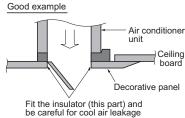
Notice

For more details, refer to the product or panel installation manual.

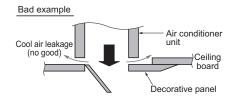
A CAUTION

Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.

Good case



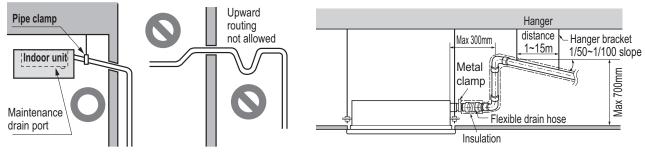
Bad case



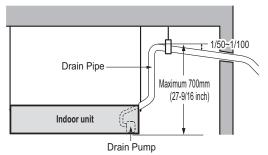
10.6 Indoor Unit Drain Piping

10.6.1 Drain piping of indoor unit with drain pump

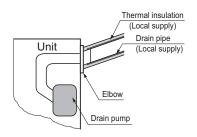
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- According to type of indoor unit, external appearance could be different.
- $\frak{\#}$ According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).





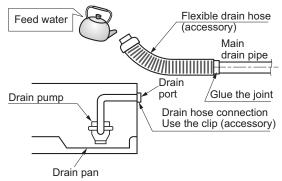


10.6.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

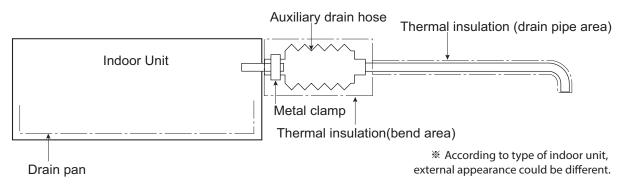
- 1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



 $\fint \fint \fin$

10.6.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
excessive strain.

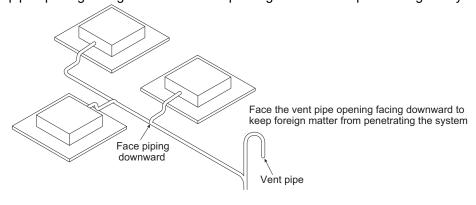




- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.6.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Mounted Cassette (2-Way)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

■ List of functions

Category	Function	ARNU09GTS*4, ARNU12GTS*4 ARNU18GTS*4, ARNU24GTS*4		
	Air supply outlet	2		
	Airflow direction control(left & right)	X		
	Airflow direction control(up & down)	Auto		
	Auto swing(left & right)	X		
Air flow	Auto swing(up & down)	0		
	Airflow steps(fan/cool/heat)	4/5/4		
	Chaos wind(auto wind)	0		
	Jet cool(Power wind)	0		
Swirl wind* Triple filter	Swirl wind*	-		
	Triple filter	X		
Air purifying	Ionizer	X(A4 model), O(C4 model, Accessory)		
	Prefilter(washable)	0		
	Drain pump	0		
Installation	E.S.P. control*	X		
	Electric heater(operation)	X		
	High ceiling operation*	0		
	Hot start	0		
Reliability	Self diagnosis	0		
	Soft dry operation	0		
	Auto changeover	O(Heat recovery / Heat pump)		
	Auto cleaning	0		
	Auto operation(artificial intelligence)	O(Cooling only)		
	Auto restart operation	0		
	Child lock*	0		
0	Forced operation	0		
Convenience	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
	External On/Off	0		

1. O : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

4. *: These functions need to connect the wired remote controller.

1. List of functions

■ Accessory Compatibility List

	Category	Product	Remark	ARNU09GTS*4, ARNU12GTS*4 ARNU18GTS*4, ARNU24GTS*4
Wireless Remote Controller		PQWRHQ0FDB / PQWRCQ0FDB	Heat Pump / Cooling only	0
		PWLSSB21H / PWLSSB21C	Heat Pump / Cooling only	0
	Simple	PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
Wired		PREMTB001	Standard II (White)	0
Remote	Standard	PREMTBB01	Standard II (Black)	0
Controller	Standard	PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)*	Premium	0
	Simple Contact	PDRYCB000	Simple Dry Contact	0
5		PDRYCB400	Points Dry Contact (For Setback)	0
Dry contact	Communication type	PDRYCB300	Dry Contact For 3rd Party Thermostat	0
		PDRYCB500	Dry Contact For Modbus	0
0-4	IDI I DIAOF	PHNFP14A0	Connected with the Indoor Units	-
Gateway	IDU PI485	PSNFP14A0	Connected with the Indoor Units	-
	Remote temperature sensor	PQRSTA0	-	0
	Zone controller	ABZCA	-	X
	Group control wire	PZCWRCG3	0.25m	0
ETC	2-Remo Control Wire	PZCWRC2	0.25m	0
EIU	Extension Wire	PZCWRC1	10m	0
	Wi-Fi Controller*	PWFMDD200	-	0
	Independent Power Module	PRIP0	-	0
	Refrigerant Leakage Detector	PRLDNVS0	-	0

- 1. O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
- 2. * : Some advanced functions controlled by individual controller cannot be operated.
- 3. **: It could not be operated some functions.
- 4. If you need more detail, please refer to the **BECON** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

2. Specifications

- * Model Name (A:Basic, C:Ionizer(Acc.))
- ** The Line up may vary by region.

	Model		Unit	ARNU09GTS*4	ARNU12GTS*4	
				2.8	3.6	
Cooling Capacity			kcal/h	2,400	3,100	
			Btu/h	9,600	12,300	
			kW	3.2	4.0	
Heating Capacity			kcal/h	2,800	3,400	
			Btu/h	10,900	13,600	
Power Input		H/M/L	W	16 / 14 / 11	18 / 14 / 11	
Casing		•	•	Galvanized Steel Plate	Galvanized Steel Plate	
	Niet		mm	830 × 225 × 600	830 × 225 × 600	
Dimensions	Net		inch	32-11/16 × 8-27/32 × 23-5/8	32-11/16 × 8-27/32 × 23-5/8	
(W×H×D)	Objective in		mm	1,055 × 290 × 682	1,055 × 290 × 682	
	Shipping		inch	41-17/32 × 11-13/32 × 26-27/32	41-17/32 × 11-13/32 × 26-27/32	
	Net		kg (lbs)	18.1 (39.9)	18.1 (39.9)	
Weight	Shipping		kg (lbs)	22.5 (49.6)	22.5 (49.6)	
	Rows x Columns	x FPI	, ,	2 × 9 × 17	2 × 9 × 17	
Heat Exchanger	Face Area		m²	0.32	0.32	
Fan Type				Turbo Fan	Turbo Fan	
			m³/min	10.8 / 9.8 / 9.1	11.1 / 10.3 / 9.1	
Air Flow Rate		H/M/L	ft³/min	381 / 346 / 321	392 / 364/ 321	
	Туре			BLDC	BLDC	
	Drive			Direct	Direct	
Fan Motor	Output		W × No.	37 × 1	37 × 1	
	Full Load Amper	e	Α	0.67	0.67	
Temperature Control			1		tat for cooling and heating	
Sound Absorbing Therr	mal Insulation Materi	al		Foamed polystrene	Foamed polystrene	
Safety Device				Fuse	Fuse	
· · · · · · · · · · · · · · · · · · ·	Liquid Side		mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	
Pipe Connections	Gas Side		mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	
•	Drain Pipe			25 (1)	25 (1)	
Sound Pressure Levels		H/M/L	mm (inch)	33 / 31 / 29	34 / 32 / 29	
Sound Power Levels		H/M/L	dB(A)	42 / 40 / 38	43 / 41 / 39	
Power Supply			Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated		Α	0.13 - 0.13 - 0.12	0.15 - 0.14 - 0.14	
Maximum Running Cur	rent		Α	0.19	0.20	
	Туре		-	R410A / R32	R410A / R32	
Refrigerant	Additional Charg		kg(each)	0.34 / 0.28	0.34 / 0.28	
	Control	,	-	EEV	EEV	
Communication cable		mm²	1.0~1.5 × 2C	1.0~1.5 × 2C		
	Model Name			PT-USC	PT-USC	
			+	Morning fog	Morning fog	
	Exterior Color					
Decoration Panel	Exterior Color	Net	mm	1,100 × 28 × 690		
Decoration Panel (Accessory)				1,100 × 28 × 690	1,100 × 28 × 690	
	Exterior Color Dimensions	Net Shipping	mm mm kg(lbs)			

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

2. Specifications

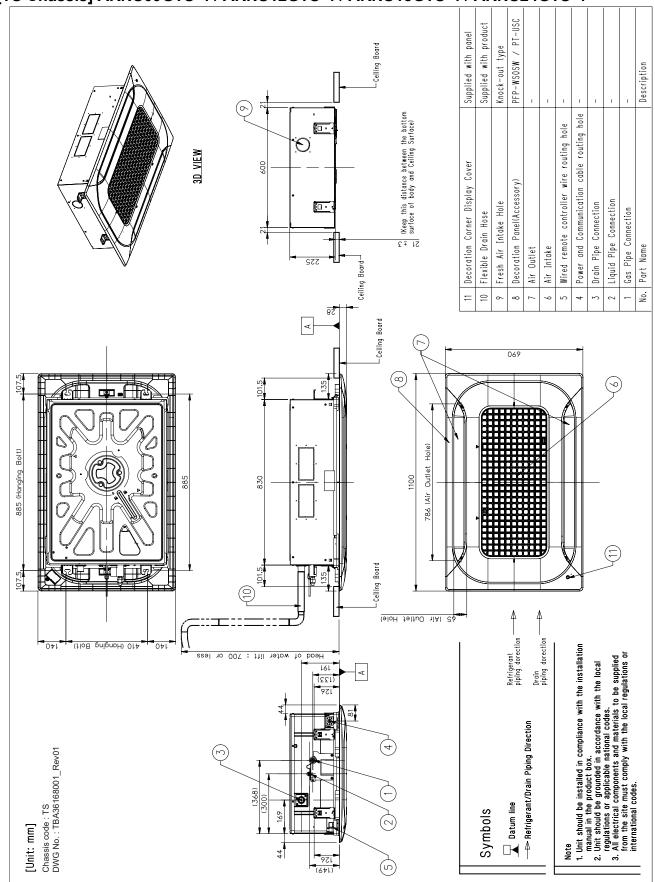
- * Model Name (A:Basic, C:Ionizer(Acc.))
- ** The Line up may vary by region.

		Unit	ARNU18GTS*4	ARNU24GTS*4
		kW	5.6	7.1
		kcal/h	4,800	6,100
		Btu/h	19,100	24,200
		kW	6.3	8.0
		kcal/h	5,400	6,900
		Btu/h	21,500	27,300
	H/M/L	W	19 / 16 / 14	31 / 22 / 14
		1	Galvanized Steel Plate	Galvanized Steel Plate
1		mm	830 × 225 × 600	830 × 225 × 600
Net		inch	32-11/16 × 8-27/32 × 23-5/8	32-11/16 × 8-27/32 × 23-5/8
		mm	1,055 × 290 × 682	1,055 × 290 × 682
Shipping		inch	41-17/32 × 11-13/32 × 26-27/32	41-17/32 × 11-13/32 × 26-27/32
Net				18.1 (39.9)
			, ,	22.5 (49.6)
1	x FPI	1 3 ()	` '	2 × 9 × 17
Face Area		m²	0.32	0.32
1. 4007 04				Turbo Fan
		m³/min		14.5 / 12.4 / 10.3
te H/M/I				512 / 438 / 364
Type		14711111		BLDC
				Direct
		W × No		37 × 1
<u> </u>			-	0.67
T dii Lodd 7 li i port			* *	
I Insulation Materia	al		•	Foamed polystrene
T ITIOGICATION WIGHT	41		' '	Fuse
Liquid Side		mm (inch)		Ø9.52 (3/8)
		, ,	` '	Ø15.88 (5/8)
	Internal Dia	. ,	· · ·	25 (1)
Diam'r ipo		· ,	* *	40 / 37 / 33
		. ,		48 / 45 / 40
	117 1117 2	` '		1, 220 - 230 - 240, 50/60
T				
Rated		A	0.16 - 0.15 - 0.14	0.26 - 0.25 - 0.23
nt		Α	0.24	0.30
Туре		-	R410A / R32	R410A / R32
Additional Chargi (CF Value of IDU	ng Amount)	kg(each)	0.34 / 0.28	0.34 / 0.28
Control		-	EEV	EEV
-		mm²	1.0~1.5 × 2C	1.0~1.5 × 2C
Model Name			PT-USC	PT-USC
Exterior Color			Morning fog	Morning fog
Dimensions	Net	mm	1,100 × 28 × 690	1,100 × 28 × 690
(W×H×D)	Shipping	mm	1,140× 100 × 754	1,140×100×754
(W×H×D) Net Weight	Shipping	kg(lbs)	1,140× 100 × 754 4.65 (10.3)	1,140× 100 × 754 4.65 (10.3)
	Shipping Rows x Columns Face Area Type Drive Output Full Load Ampered I Insulation Material Liquid Side Gas Side Drain Pipe Rated Int Type Additional Chargi (CF Value of IDU Control Model Name	Net Shipping Net Shipping Rows x Columns x FPI Face Area H / M / L Type Drive Output Full Load Ampere I Insulation Material Liquid Side Gas Side Drain Pipe Internal Dia. H / M / L H / M / L Rated nt Type Additional Charging Amount (CF Value of IDU) Control Model Name	Btu/h kW kcal/h Btu/h Btu/h W kcal/h Btu/h W W W W W W W W W W W W W W W W W W W W	Btu/h

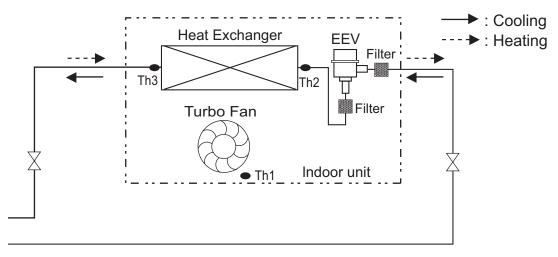
- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

3. Dimensions

[TS Chassis] ARNU09GTS*4 / ARNU12GTS*4 / ARNU18GTS*4 / ARNU24GTS*4



4. Piping Diagrams



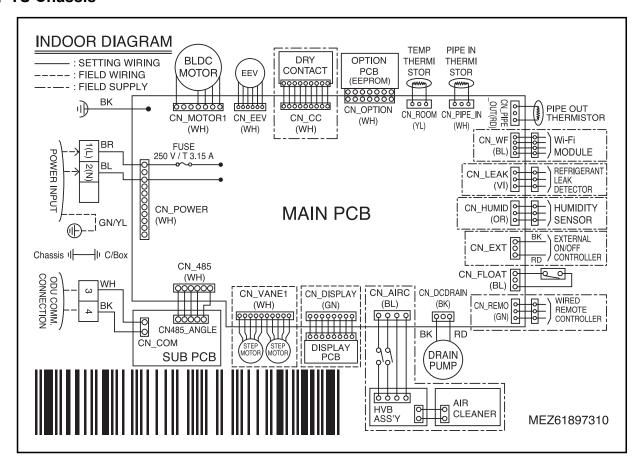
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU09GTS*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GTS*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GTS*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU24GTS*4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ TS Chassis



CONNECTOR NUMBER	SPEC	DESCRIPTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-DCDRAIN	Drain pump output	AC output for drain pump
CN-485	Communication	Connection between indoor and outdoor
CN-DISPLAY	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-VANE1	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-EXT	External On/Off	External On/Off signal input
CN-CC	Dry contact	Dry contact line
CN-OPTION	Option pwb.	Communication between main and option
CN-AIRC	Air cleaner (Ionizer)	Air cleaner (Ionizer) line
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-WF	Wi-Fi controller	Wi-Fi module line
CN-HUMID	Humidity Sensor	Humidity sensor line



5. Wiring Diagrams

Dij	Dip Switch Setting Off		On	Remarks			
SW3	GROUP Control	Master	Slave	Group Control setting using Wired Remote Controller			
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.			
SW5	EXTRA 1	Off	On	1. Duct model 2. OFF: Default(not operate continuosly) 3. ON: Fan operate continuosly 4. Cassette Model: No Function 5. Ceiling Suspended Model 6. OFF: Ceiling(default) 7. ON: Floor			



A CAUTION

For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF

That dip switch is used for the other model.

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity		Indoor air temp. (DB/WB, °C)												
Nominal Capacity (kBtu/h)	2	20	2	3	2	:6	2	27	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	2	2	24
[Capacity mack (KVV)]	TC SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
9 [2.8]	1.9	1.6	2.3	1.7	2.6	1.9	2.8	1.9	3.0	2.0	3.4	2.1	3.1	1.7
12 [3.6]	2.4	2.1	2.9	2.2	3.3	2.5	3.6	2.5	3.9	2.6	4.4	2.7	4.0	2.2
18 [5.6]	3.8	3.4	4.6	3.6	5.2	4.0	5.6	4.0	6.0	4.2	6.8	4.4	6.2	3.6
24 [7.1]	4.8	4.3	5.8	4.5	6.6	5.0	7.1	5.0	7.6	5.3	8.6	5.6	7.9	4.5

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)									
(kBtu/h)	16	18	20	21	22	24				
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC				
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8				
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5				
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5				
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0				

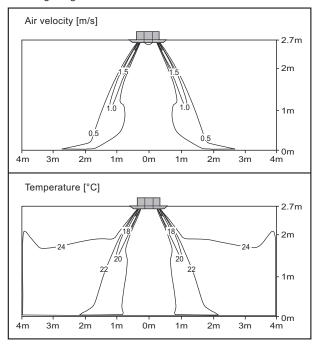
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution

◆ ARNU09GTS*4

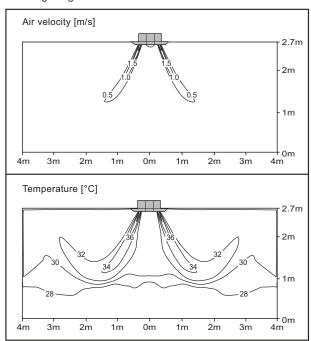
Cooling

Discharge angle: 50°



Heating

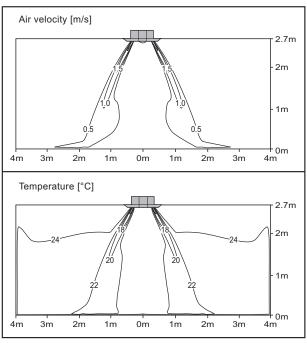
Discharge angle: 60°



◆ ARNU12GTS*4

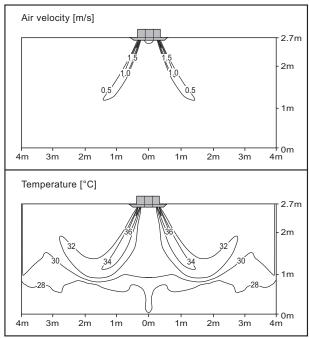
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



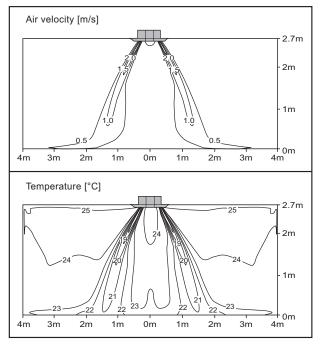
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution

♦ ARNU18GTS*4

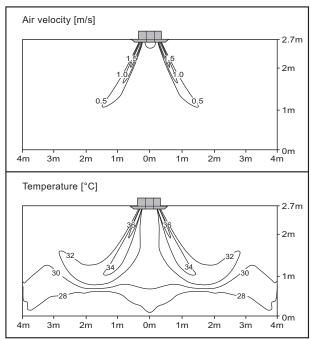
Cooling

Discharge angle: 50°



Heating

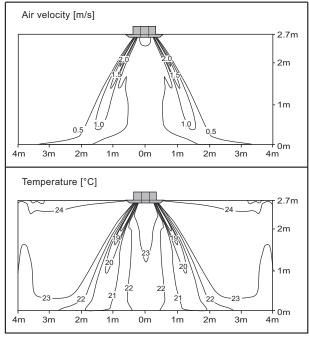
Discharge angle: 60°



◆ ARNU24GTS*4

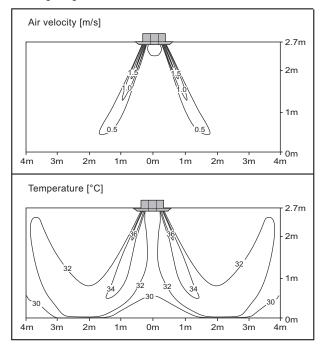
Cooling

Discharge angle: 50°



Heating

Discharge angle: 60°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units					Power Supply	IF	М	PI		
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating	
ARNU09GTS*4	TS				0.24	0.037	0.19	57	57	
ARNU12GTS*4	TS	50	220 240	20-240 Max:264 Min:198	0.25	0.037	0.20	57	57	
ARNU18GTS*4	TS	50	220-240		0.30	0.037	0.24	57	57	
ARNU24GTS*4	TS				0.38	0.037	0.30	57	57	
ARNU09GTS*4	TS				0.24	0.037	0.19	57	57	
ARNU12GTS*4	TS	60	220	Max:242	0.25	0.037	0.20	57	57	
ARNU18GTS*4	TS	00	220	²⁰ Min:198	0.30	0.037	0.24	57	57	
ARNU24GTS*4	TS				0.38	0.037	0.30	57	57	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

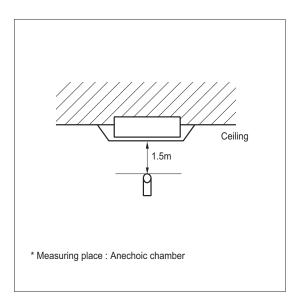
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall

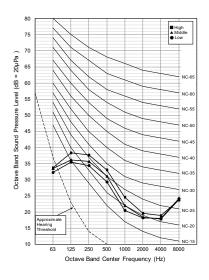


Note

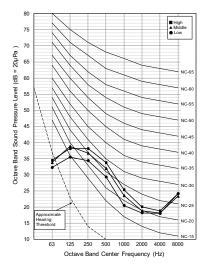
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure $0dB = 20\mu Pa$.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6.Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]		
	Н	M	L
ARNU09GTS*4	33	31	29
ARNU12GTS*4	34	32	29
ARNU18GTS*4	35	33	31
ARNU24GTS*4	40	37	33

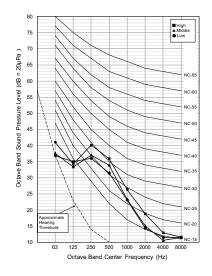
ARNU09GTS*4



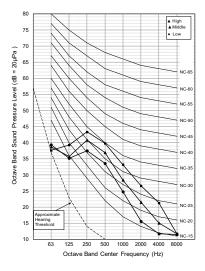
ARNU12GTS*4



ARNU18GTS*4



ARNU24GTS*4



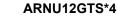
9.2 Sound Power Levels

Note

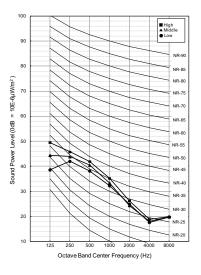
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

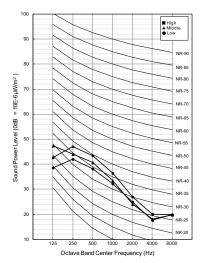
Model	Sound Power Levels [dB(A)]		
	Н	M	L
ARNU09GTS*4	42	40	38
ARNU12GTS*4	43	41	39
ARNU18GTS*4	44	42	40
ARNU24GTS*4	48	45	40

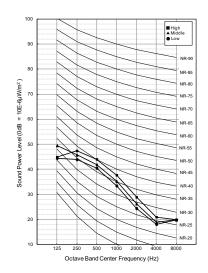
ARNU09GTS*4



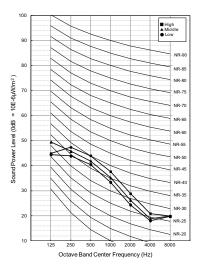
ARNU18GTS*4







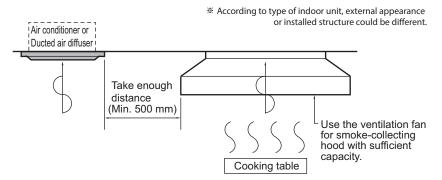
ARNU24GTS*4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

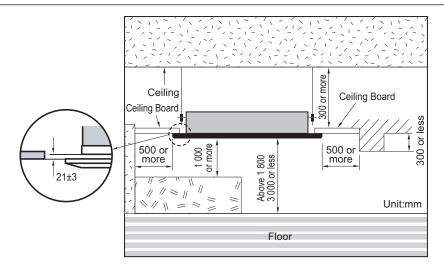
- · The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

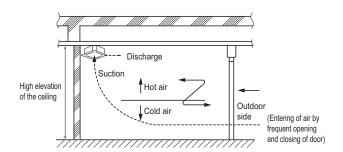
- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

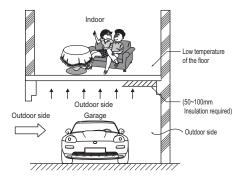


10.2 Precautions regarding cassette indoor unit installation

◆ Main points about the indoor installation

- In general commercial places and offices though the height of the ceiling is 2.7 m, the ceiling height could be over 3 m.
- In such cases because of the temperature difference with the floor the heating effect can fall down.
- · Countermeasure method
 - 1. Air conditioner should be able to operate in high ceiling operation mode.
 - 2. Plan to install the circulator.
 - 3. The air discharge port should be made to give more airflow to the down floor directions.
 - 4. The gate or exit of the building is protected by dual door system to minimize inflow of outdoor air.





♦ In case the floor or surfaces is contact with the outdoor air directly

- If the floor of air conditioned room contact with the outside air, like the store room or garage, the floor temperature will be decreased and users can have a cold feeling in the feet.
- In such places where the feet comes in direct contact with floors will give a cold feeling to the foot.

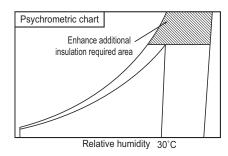


CAUTION

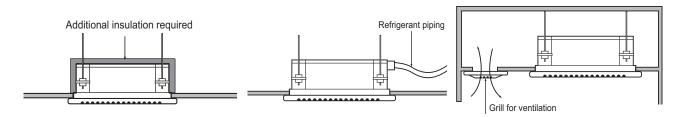
- In case there is a cold air intake,
 - » The duct surface may have some dew drops. So a insulation on the duct is a must.(Insulation material: a glass wool of thickness 25 mm will be appropriate.)
- · Countermeasure method
 - Use the carpet on the floor.
 (compared to the tiles the carpet over it will have a 3 degree rise in temperature)
 - 2. Insulating the floor.
 - 3. Floor heating.

◆ In case of high temperature or humidity between the false ceiling and ceiling slab

- In case of places having the temperature and humidity of the surrounding water sources(sea, river etc.)
- In case the steam is generated between the false ceiling and the ceiling slab due to some nearby by steam source.
- In case of temperature of 30 degree and humidity above 80%, the units body as well as the piping insulation should be strengthened. Refer to the psychrometric chart.

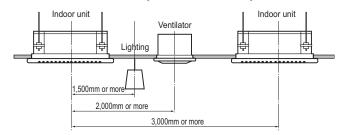


- · Countermeasure method
 - Indoor unit: Insulate the unit body with some insulation like glass wool at least 10 mm in thickness.
 - Refrigerant piping: Increase the piping insulation thickness with thickness above 20 mm.
 - Others: Inside the ceiling near th air tight seal places. (To escape of the humidity inside false ceiling)



^{*} According to type of indoor unit, external appearance could be different.

◆ In case of multiple indoor cassette units (recommended)



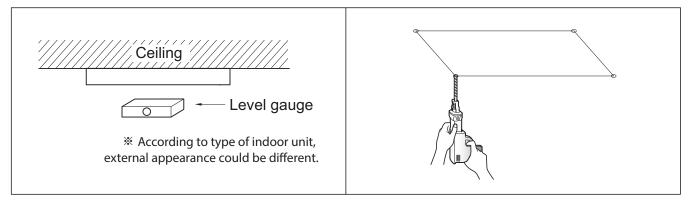
* According to type of indoor unit, external appearance could be different.



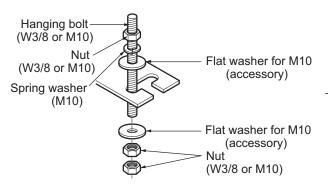
10.3 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



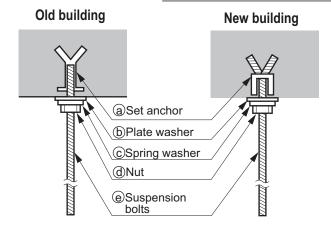
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



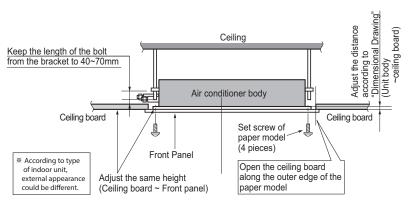
- The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
- 2.Nut W 3/8 or M10
- 3. Spring washer M10
- 4.Plate washer M10

A CAUTION

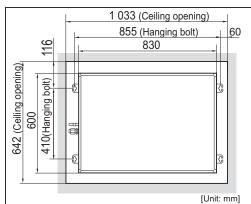
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



Hanging Bolt for installting the unit



Ceiling opening dimension



10.4 Wiring Connection

10.4.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.4.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.4.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

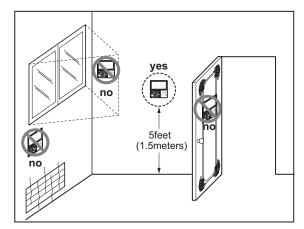
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to
 which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly
 fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.4.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



• Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

10.5 Installation of Decoration Panel

- The decoration panel has its installation direction.
- · Before installing the decoration panel, always remove the paper template.
- 1. Temporarily fix two decoration panel fixing screws (hexagon M5 screw) on the unit body. (Tighten by amount 10mm in length.)
 - The fixing screws (hexagon M5 screw) are included in the indoor unit box.
- 2. Remove the air inlet grille from the decoration panel. (Remove the hook for the air inlet grille cord.)
- 3. Hook the decoration panel key hole () on the screws fixed in step above, and slide the panel so that the screws reach the key hole edge.
- 4. Retighten completely two temporarily fixed screws and other two screws. (Total 4 screws)
- 5. Connect the louver motor connector and display connector.
- 6. After tightening these screws, install the air inlet grille (including the air filter).

Notice

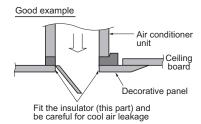
For more details, refer to the product or panel installation manual.



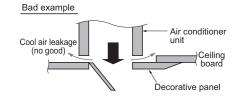
A CAUTION

Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.

Good case



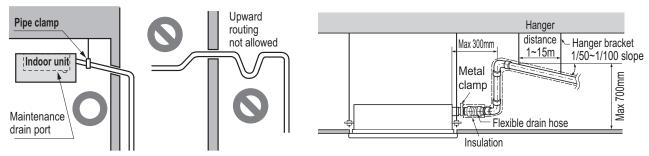
Bad case



10.6 Indoor Unit Drain Piping

10.6.1 Drain piping of indoor unit with drain pump

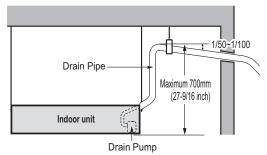
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



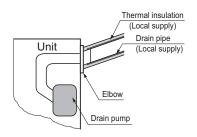
* According to type of indoor unit, external appearance could be different.

* According to type of indoor unit, external appearance could be different.

- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



* According to type of indoor unit, external appearance could be different.

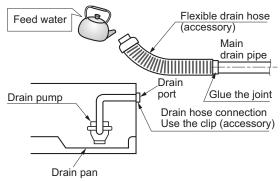


10.6.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

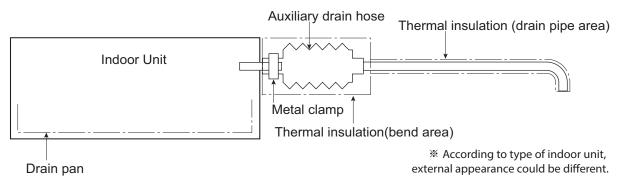
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



According to type of indoor unit, external appearance could be different.

10.6.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
 auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
 excessive strain.

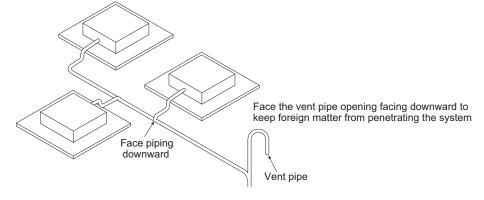


A CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.6.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Mounted Cassette (4-Way Mini)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- 4. Piping Diagrams
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4, ARNU12GTRB4, ARNU15GTQB4, ARNU18GTQB4, ARNU21GTQB4		
	Air supply outlet	4		
	Airflow direction control(left & right)	-		
	Airflow direction control(up & down)	Auto		
	Auto swing(left & right)	-		
Air flow	Auto swing(up & down)	0		
All llow	Airflow steps(fan/cool/heat)	4/5/4		
	Chaos swing	X		
	Chaos wind(auto wind)	0		
	Jet cool(Power wind)	0		
	Swirl wind	0		
A in a unifician a	Deodorizing filter	X		
Air purifying	Prefilter(washable)	0		
	Drain pump	0		
Installation	E.S.P. control*	X		
Installation	Electric heater(operation)	X		
	High ceiling operation*	0		
	Hot start	0		
Reliability	Self diagnosis	0		
	Soft dry operation	0		
	Auto changeover	O(Heat recovery / Heat pump)		
	Auto cleaning	X		
	Auto operation(artificial intelligence)	O(Cooling only)		
	Auto restart operation	0		
	Child lock*	0		
	Forced operation	0		
Convenience	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
	Elevation Grille	X		
Mark	External On/Off	0		

Note

Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{1.} O : Applied, X : Not Applied

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

1. List of functions

	Category	Product	Remark	ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4, ARNU12GTRB4, ARNU15GTQB4, ARNU18GTQB4, ARNU21GTQB4
Wireless Remote Controller		PQWRHQ0FDB / PQWRCQ0FDB	Heat Pump / Cooling only	0
		PWLSSB21H / PWLSSB21C	Heat Pump / Cooling only	0
Simple		PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
Min J D		PREMTB001	Standard II (White)	0
Wired Remote Controller	Standard	PREMTBB01	Standard II (Black)	0
Controller	Standard	PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)	Premium	0
	Simple Contact	PDRYCB000	Simple Dry Contact	0
Dry contact	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	0
Dry contact		PDRYCB300	Dry Contact For 3rd Party Thermostat	0
		PDRYCB500	Dry Contact For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	-
Galeway	IDO P1483	PSNFP14A0	With case	-
	Remote temperature sensor	PQRSTA0	-	0
	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	-
	Extension Wire	PZCWRC1	10m	-
ETC	Wi-Fi Controller*	PWFMDD200	-	0
	Independent Power Module	PRIP0	-	0
	Refrigerant Leakage Detector	PRLDNVS0	-	0
	Human Detecting Controller	PHD-TM0	-	-
	Air Cleaning Kit (4way)	PTAHMP0	-	0

- O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
 *: Some advanced functions controlled by individual controller cannot be operated.
 **: It could not be operated some functions.
- 4. If you need more detail, please refer to the **BECON** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

	Model	Unit	ARNU05GTRB4	ARNU07GTRB4
		kW	1.6	2.2
Cooling Capacity		kcal/h	1,400	1,900
		Btu/h	5,500	7,500
		kW	1.8	2.5
Heating Capacity		kcal/h	1,500	2,200
		Btu/h	6,100	8,500
Power Input (H / M / I	L)	W	13 / 12 / 11	13 / 12 / 11
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate
	Dody	mm	570 x 214 x 570	570 x 214 x 570
	Body	inch	22-7/16 x 8-7/16 x 22-7/16	22-7/16 x 8-7/16 x 22-7/16
Dimensions	Decembra Devel #4	mm	700 x 22 x 700	700 x 22 x 700
(W x H x D)	Decoration Panel #1	inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16
	Decembra Devel #2	mm	620 x 34 x 620	620 x 34 x 620
	Decoration Panel #2	inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32
Call	Rows x Columns x FPI	•	1 x 8 x 18	1 x 8 x 18
Coil	Face Area		0.21	0.21
	Type	•	Turbo Fan	Turbo Fan
	Motor Output x Number	W	43 x 1	43 x 1
F	Air Flow Rate	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6
Fan	(H / M / L)	ft³/min	265 / 247 / 212	265 / 247 / 212
	Drive	•	Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
Not Weight	Body	kg(lbs)	12.6(27.8)	12.6(27.8)
Net Weight	Packaged	kg(lbs)	15.3(33.7)	15.3(33.7)
Sound Pressure Leve	els (H / M / L)	dB(A)	29 / 27 / 26	29 / 27 / 26
Sound Power Levels	(H / M / L)	dB(A)	45 / 43 / 42	45 / 43 / 42
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.09 - 0.09 - 0.08	0.09 - 0.09 - 0.08
Maximum Running C	urrent	Α	0.20	0.20
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.18 / 0.15	0.18 / 0.15
	Control	-	EEV	EEV
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C
Panel Color			Morning fog	Morning fog
Panel Name(Accesso	ory)		PT-UQC, F	PT-QCHW0
Noto			1	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical
 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Model	Unit	ARNU09GTRB4	ARNU12GTRB4	
		kW	2.8	3.6	
Cooling Capacity		kcal/h	2,400	3,100	
		Btu/h	9,600	12,300	
		kW	3.2	4.0	
Heating Capacity		kcal/h	2,800	3,400	
		Btu/h	10,900	13,600	
Power Input (H / M / I	L)	W	14 / 13 / 12	17 / 15 / 13	
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate	
	D. d.	mm	570 x 214 x 570	570 x 214 x 570	
	Body	inch	22-7/16 x 8-7/16 x 22-7/16	22-7/16 x 8-7/16 x 22-7/16	
Dimensions	5 " 5 1"4	mm	700 x 22 x 700	700 x 22 x 700	
(W x H x D)	Decoration Panel #1	inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16	
	5 5	mm	620 x 34 x 620	620 x 34 x 620	
	Decoration Panel #2	inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32	
0 :	Rows x Columns x FPI	ı	2 x 8 x 18	2 x 8 x 18	
Coil	Face Area		0.21	0.21	
	Type		Turbo Fan	Turbo Fan	
	Motor Output x Number	W	43 x 1	43 x 1	
_	Air Flow Rate	m³/min	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0	
Fan	(H / M / L)	ft³/min	283 / 265 / 251	307 / 283 / 247	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
A1 ()A(: 1 (Body	kg(lbs)	13.7(30.2)	13.7(30.2)	
Net Weight	Packaged	kg(lbs)	16.4(36.2)	16.4(36.2)	
Sound Pressure Leve	els (H / M / L)	dB(A)	30 / 29 / 27	32 / 30 / 27	
Sound Power Levels	(H / M / L)	dB(A)	46 / 43 / 42	48 / 46 / 43	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.10 - 0.09 - 0.09	0.12 - 0.11 - 0.11	
Maximum Running C	urrent	Α	0.20	0.20	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.25 / 0.21	0.25 / 0.21	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	
Panel Color		1	Morning fog	Morning fog	
Panel Name(Accesso	ory)			PT-QCHW0	
Note	*/		1		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical
 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Model	Unit	ARNU15GTQB4	ARNU18GTQB4
		kW	4.5	5.6
Cooling Capacity		kcal/h	3,900	4,800
		Btu/h	15,400	19,100
		kW	5.0	6.3
Heating Capacity		kcal/h	4,300	5,400
		Btu/h	17,100	21,500
Power Input (H / M / I	L)	W	24 / 21 / 18	25 / 22 / 19
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate
	D. t.	mm	570 x 256 x 570	570 x 256 x 570
	Body	inch	22-7/16 x 10-3/32 x 22-7/16	22-7/16 x 10-3/32 x 22-7/16
Dimensions	5 " 5 1"4	mm	700 x 22 x 700	700 x 22 x 700
(W x H x D)	Decoration Panel #1	inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16
	5 52	mm	620 x 34 x 620	620 x 34 x 620
	Decoration Panel #2	inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32
0 :	Rows x Columns x FPI	ı	2 x 10 x 18	2 x 10 x 18
Coil	Face Area		0.27	0.27
	Type		Turbo Fan	Turbo Fan
	Motor Output x Number	W	43 x 1	43 x 1
_	Air Flow Rate	m³/min	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0
Fan	(H / M / L)	ft³/min	388 / 353 / 328	396 / 388 / 353
	Drive		Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
N. (N.) . (Body	kg(lbs)	15.0(33.1)	15.0(33.1)
Net Weight	Packaged	kg(lbs)	17.9(39.5)	17.9(39.5)
Sound Pressure Leve	els (H / M / L)	dB(A)	36 / 34 / 32	37 / 35 / 34
Sound Power Levels	(H / M / L)	dB(A)	50 / 48 / 46	51 / 50 / 46
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.17 - 0.16 - 0.15	0.17 - 0.17 - 0.16
Maximum Running C	urrent	Α	0.20	0.20
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.32 / 0.26	0.32 / 0.26
	Control	-	EEV	EEV
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C
Panel Color			Morning fog	Morning fog
Panel Name(Accesso	ory)			PT-QCHW0
Note			1	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical
 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

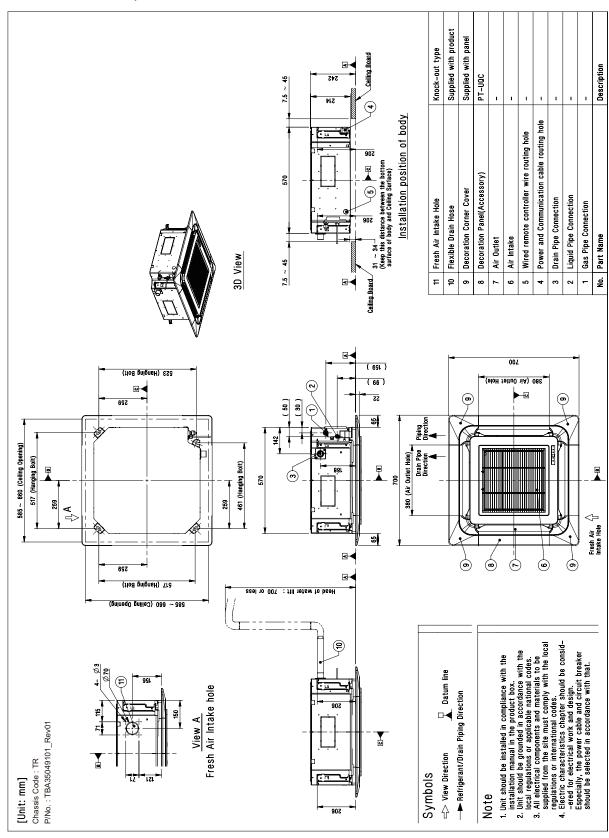
	Model	Unit	ARNU21GTQB4
		kW	6.0
Cooling Capacity		kcal/h	5,100
		Btu/h	20,500
		kW	6.8
Heating Capacity		kcal/h	5,800
		Btu/h	23,200
Power Input (H / M /	L)	W	28 / 23 / 20
Casing	Casing		Galvanized Steel Plate
	Pody	mm	570 x 256 x 570
	Body	inch	22-7/16 x 10-3/32 x 22-7/16
Dimensions	Decembra Devel #4	mm	700 x 22 x 700
(W x H x D)	Decoration Panel #1	inch	27-9/16 x 7/8 x 27-9/16
	Decembra Devel #0	mm	620 x 34 x 620
	Decoration Panel #2		24-13/32 x 1-11/32 x 24-13/32
Cail	Rows x Columns x FPI		2 x 10 x 18
Coil	Face Area		0.27
	Type		Turbo Fan
	Motor Output x Number	W	43 x 1
Fan	Air Flow Rate	m³/min	12.0 / 11.1 / 9.4
	(H / M / L)	ft³/min	424 / 392 / 332
	Drive		Direct
	Motor type		BLDC
Temperature Control			Microprocessor, Thermostat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene
Safety Device			Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)
Net Weight	Body	kg(lbs)	15.0(33.0)
Sound Pressure Leve	els (H / M / L)	dB(A)	40 / 38 / 34
Sound Power Levels	(H / M / L)	dB(A)	53 / 51 / 46
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.20 - 0.19 - 0.18
Maximum Running C	urrent	А	0.20
_	Туре	-	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.32 / 0.26
	Control	-	EEV
Transmission cable		mm²	1.0~1.5 x 2C
Panel Color			Morning fog
Panel Name(Accesso	ory)		PT-UQC, PT-QCHW0
M - 4 -			

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.

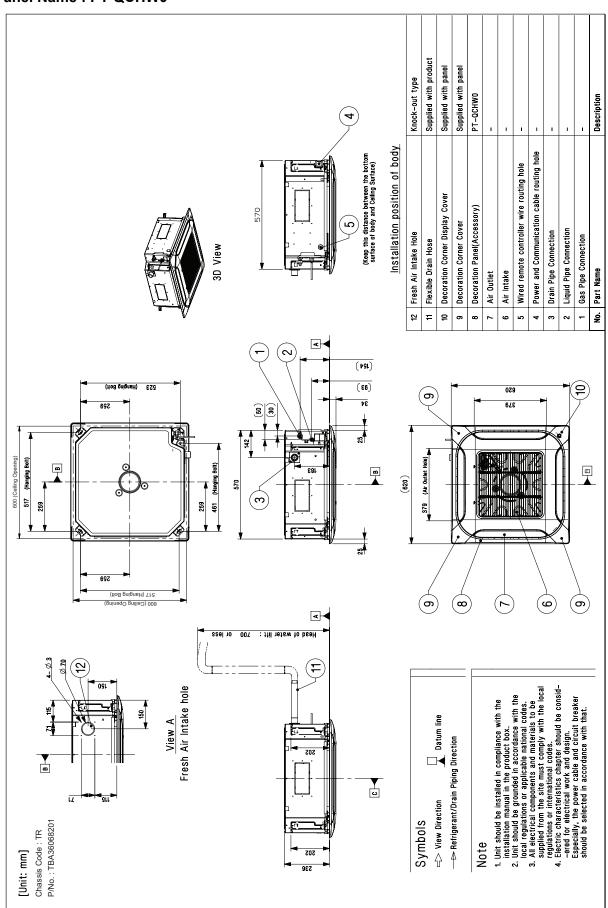
 Adapt after checking the specifications of outdoor unit.

■ ARNU05GTRB4 / ARNU07GTRB4 / ARNU09GTRB4 / ARNU12GTRB4

Panel Name : PT-UQC

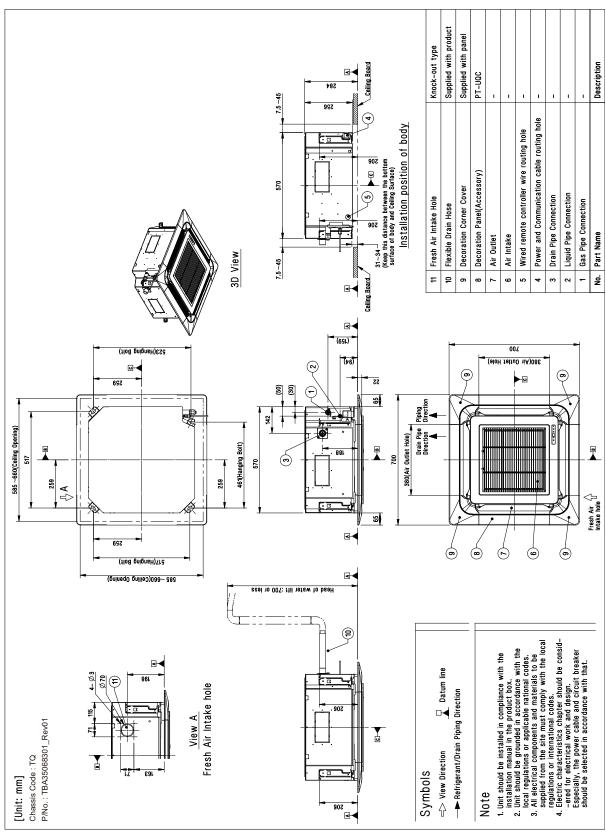


◆ Panel Name : PT-QCHW0

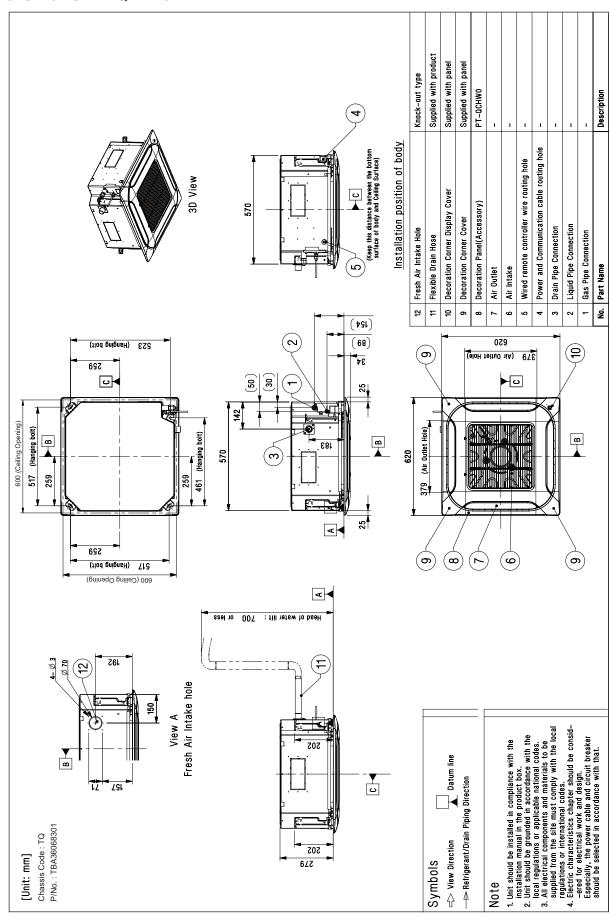


■ ARNU15GTQB4 / ARNU18GTQB4 / ARNU21GTQB4

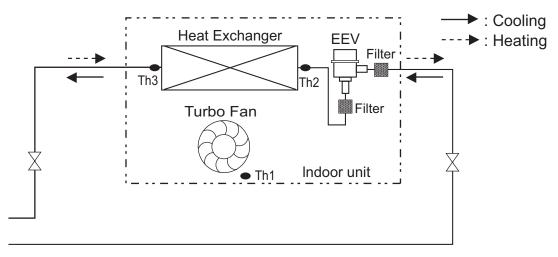
Panel Name : PT-UQC



◆ Panel Name : PT-QCHW0



4. Piping Diagrams



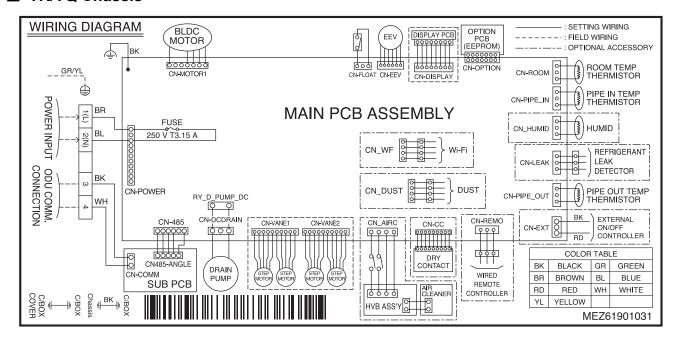
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU05GTRB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GTRB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GTRB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GTRB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GTQB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GTQB4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU21GTQB4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ TR/TQ Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN_DPUMP	Drain pump output	AC output for drain pump
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-AIRC	Air cleaner	Air cleaner line
CN-DISPLAY	Display	Display of indoor status
CN-OPTION	Option pwb.	Communication between main and option
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-FLOAT	Float switch input	Float switch sensing
CN-ROOM	Room sensor	Room air thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-COMM	Communication	Communication between indoor and outdoor
CN-VANE1	Step motor	Step motor output
CN-VANE2	Step motor	Step motor output
CN-485	Communication	Connection between indoor and outdoor
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_DUST	Dust sensor	Dust detector line
CN_HUMID	Humid sensor	Humid sensing

Dip Switch Setting		Off On		Remarks		
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller		
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.		
SW5	EXTRA 1	Off	On	1. Duct model 2. OFF: Default(not operate continuosly) 3. ON: Fan operate continuosly 2. Cassette Model: No Function 3. Ceiling Suspended Model 4. OFF: Ceiling(default) 5. ON: Floor		



For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF Those are used for the other model.

6. Capacity Tables

■ Cooling Capacity

Naminal Canasity	Indoor air temp. (DB/WB, °C)													
Nominal Capacity (kBtu/h)	2	20	2	23	2	:6	2	27	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	22	2	4
[Capacity mack (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
5 [1.6]	1.1	1.0	1.3	1.1	1.5	1.2	1.6	1.2	1.7	1.2	1.7	1.2	1.8	1.1
7 [2.2]	1.5	1.4	1.8	1.5	2.0	1.7	2.2	1.7	2.4	1.8	2.4	1.7	2.4	1.5
9 [2.8]	1.9	1.6	2.2	1.8	2.6	2.0	2.8	2.0	3.0	2.1	3.0	2.0	3.1	1.8
12 [3.6]	2.4	2.1	2.9	2.3	3.3	2.5	3.6	2.5	3.9	2.6	3.9	2.5	4.0	2.3
15 [4.5]	3.0	2.7	3.6	3.0	4.2	3.2	4.5	3.3	4.8	3.4	4.9	3.2	4.9	3.0
18 [5.6]	3.8	3.2	4.5	3.5	5.2	3.8	5.6	3.9	6.0	4.1	6.1	3.8	6.2	3.5
21 [6.2]	4.1	3.4	4.8	3.8	5.6	4.1	6.0	4.2	6.4	4.3	6.5	4.1	6.6	3.8

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)									
(kBtu/h)	16	18	20	21	22	24				
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC				
5 [1.6]	2.0	1.9	1.8	1.7	1.7	1.6				
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2				
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8				
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5				
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4				
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5				
21 [6.2]	7.7	7.2	6.8	6.6	6.4	5.9				

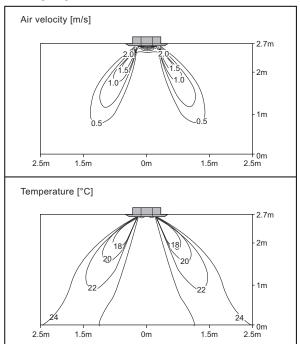
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution(Reference Data)

ARNU05GTRB4, ARNU07GTRB4, ARNU09GTRB4

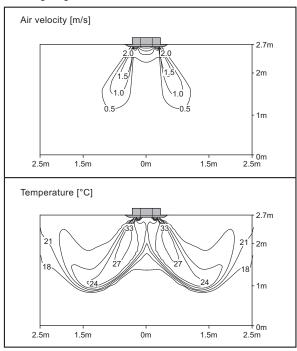
Cooling

Discharge angle: 40°



Heating

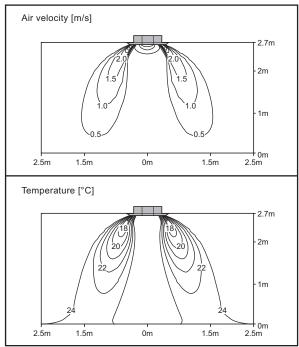
Discharge angle: 50°



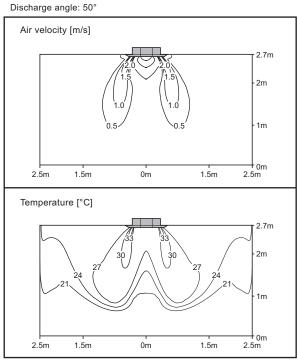
ARNU12GTRB4

Cooling

Discharge angle: 40°



Heating



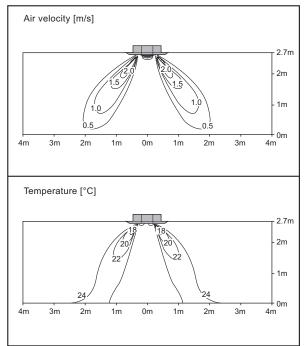
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution(Reference Data)

♦ ARNU15GTQB4

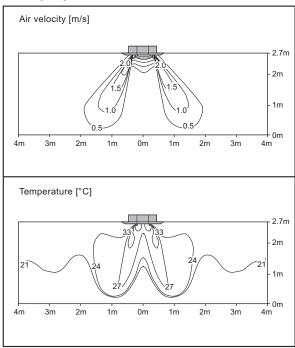
Cooling

Discharge angle: 40°



Heating

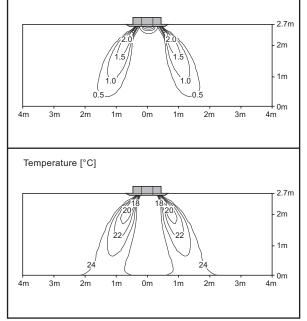
Discharge angle: 50°



◆ ARNU18GTQB4

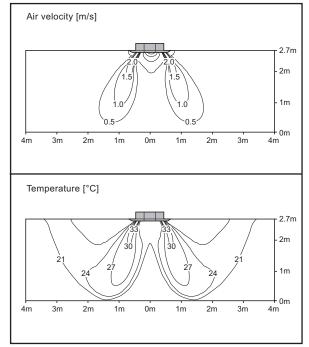
Cooling

Discharge angle: 40° Air velocity [m/s]



Heating

Discharge angle: 50°



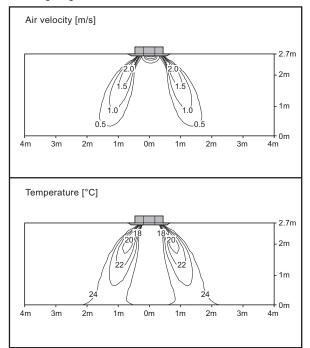
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution(Reference Data)

♦ ARNU21GTQB4

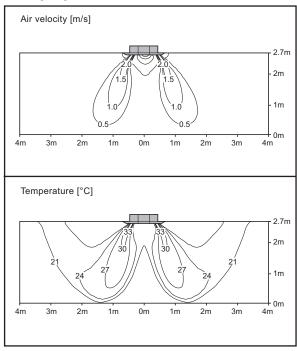


Discharge angle: 40°



Heating





- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units					Power Supply	IFM		PI	
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU05GTRB4	TR			Max:264 Min:198	0.25	0.043	0.20	30	30
ARNU07GTRB4	TR				0.25	0.043	0.20	30	30
ARNU09GTRB4	TR		50 220-240		0.25	0.043	0.20	30	30
ARNU12GTRB4	TR	50			0.25	0.043	0.20	30	30
ARNU15GTQB4	TQ		1,1111111111111111111111111111111111111	0.25	0.043	0.20	30	30	
ARNU18GTQB4	TQ				0.25	0.043	0.20	30	30
ARNU21GTQB4	TQ				0.25	0.043	0.20	30	30
ARNU05GTRB4	TR	60 220	220	Max:242 Min:198	0.25	0.043	0.20	30	30
ARNU07GTRB4	TR				0.25	0.043	0.20	30	30
ARNU09GTRB4	TR				0.25	0.043	0.20	30	30
ARNU12GTRB4	TR				0.25	0.043	0.20	30	30
ARNU15GTQB4	TQ		1,1111111111111111111111111111111111111	0.25	0.043	0.20	30	30	
ARNU18GTQB4	TQ				0.25	0.043	0.20	30	30
ARNU21GTQB4	TQ				0.25	0.043	0.20	30	30

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

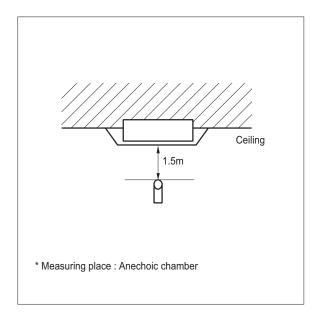
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



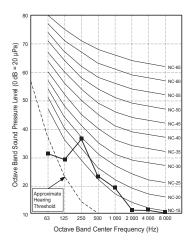
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6.Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

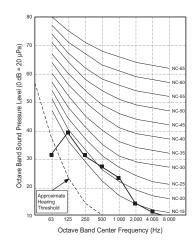
 Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]				
Wiodei	Н	М	L		
ARNU05GTRB4	29	27	26		
ARNU07GTRB4	29	27	26		
ARNU09GTRB4	30	29	27		
ARNU12GTRB4	32	30	27		
ARNU15GTQB4	36	34	32		
ARNU18GTQB4	37	35	34		
ARNU21GTQB4	40	38	34		

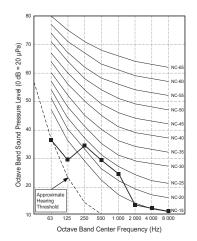




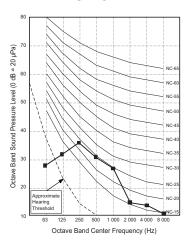
ARNU07GTRB4



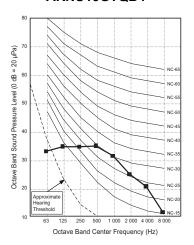
ARNU09GTRB4



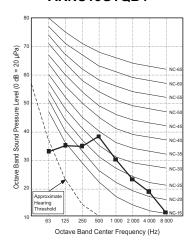
ARNU12GTRB4



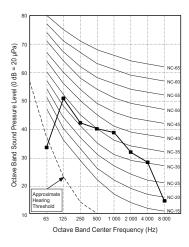
ARNU15GTQB4



ARNU18GTQB4



ARNU21GTQB4



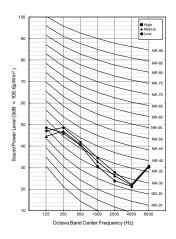
9.2 Sound Power Levels

Note

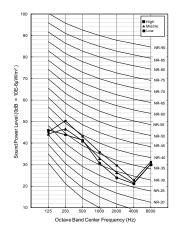
- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]				
Wiodei	Н	M	L		
ARNU05GTRB4	45	43	42		
ARNU07GTRB4	45	43	42		
ARNU09GTRB4	46	43	42		
ARNU12GTRB4	48	46	43		
ARNU15GTQB4	50	48	46		
ARNU18GTQB4	51	50	46		
ARNU21GTQB4	53	51	46		

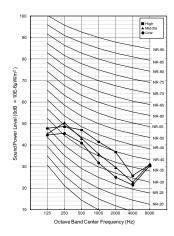
ARNU05GTRB4 ARNU07GTRB4



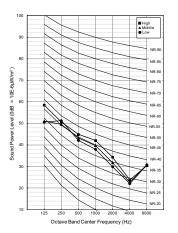
ARNU09GTRB4



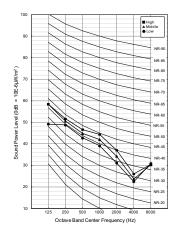
ARNU12GTRB4



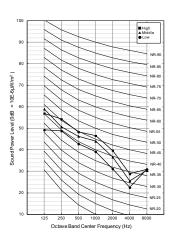
ARNU15GTQB4



ARNU18GTQB4



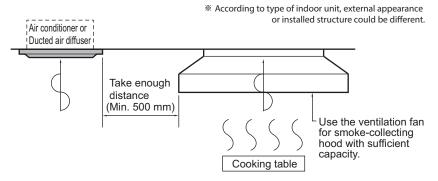
ARNU21GTQB4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - · Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

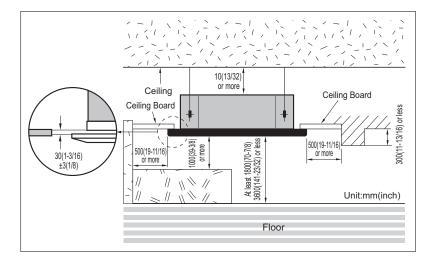


A CAUTION

- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

TQ/TR Chassis

* According to product type, model line up, sales region...etc, applicability of each chassis could be different.

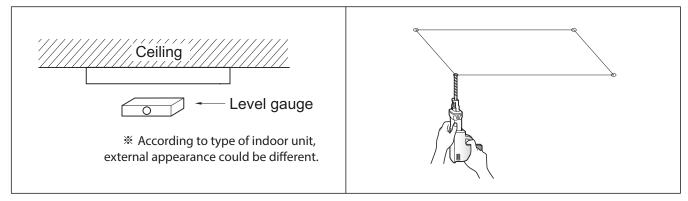




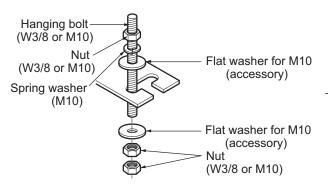
10.2 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



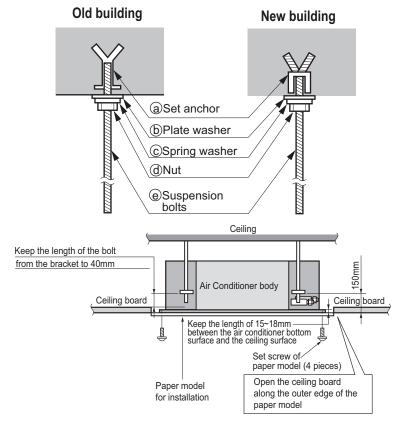
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.

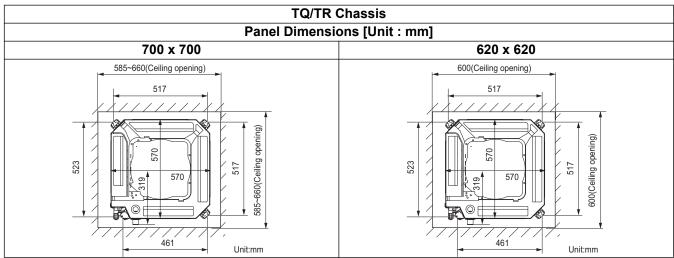


- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)







10.3 Connecting Cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

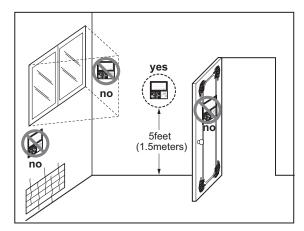
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



10.4 Installation of Decoration Panel

- The decoration panel has its installation direction.
- Before installing the decoration panel, always remove the paper template.

A CAUTION

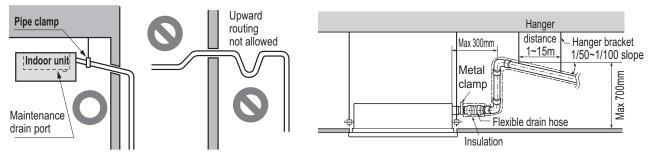
Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.



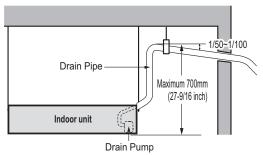
10.5 Indoor Unit Drain Piping

10.5.1 Drain piping of indoor unit with drain pump

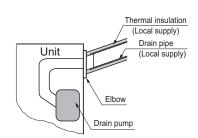
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).





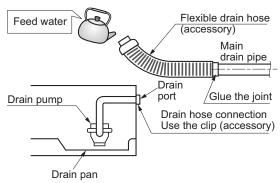


10.5.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

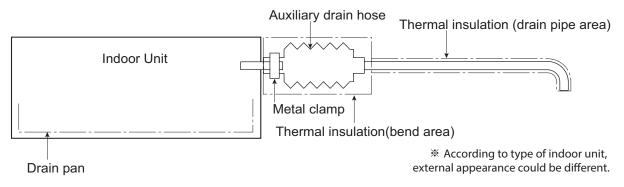
- 1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



※ According to type of indoor unit, external appearance could be different.

10.5.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
 auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
 excessive strain.

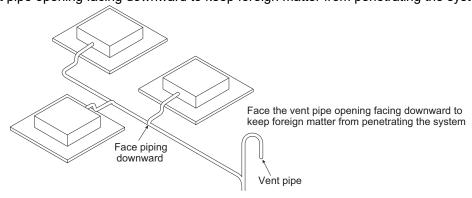


A CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.5.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Mounted Cassette (Dual Vane 4-Way)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6.Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

♦ List of function

Category	Functions	ARNU24GTBB4, ARNU28GTBB4, ARNU30GTBB4, ARNU36GTAB4, ARNU42GTAB4, ARNU48GTAB4
	Air supply outlet	4
	Airflow direction control (left & right)	X
	Airflow direction control (up & down)	Auto
	Auto swing (left & right)	X
	Auto swing (up & down)	0
	Airflow steps (fan/cool/heat)	4/5/4
Air flow	Chaos wind(auto wind)	X
	Jet cool/heat	0/0
	Swirl wind	0
	Refresh Mode***	0
	Smart Mode***	0
	Indirect Wind	0
	Direct wind	0
A: : ::	Deodorizing filter	X
Air purifying	Prefilter(washable / anti-fungus)	0
	Drain pump	0
	E.S.P. control*	X
Installation	Electric heater	X
	High ceiling operation*	0
Doliobility	Hot start	0
Reliability	Self diagnosis	0
	Auto changeover	O(Heat recovery / Heat pump
	Auto cleaning	0
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto Restart	0
	Child lock*	0
Convenience	Forced operation	0
	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
Special Eurotions	Wi-Fi	O (Accessory)
Special Functions	Comfort Coolng (Humidity Control)	0
Wireless Remote C	controller	O (Accessory)
Wired Remote Con	troller	O (Accessory)
Network Solution(L	GAP)	0

- 1. O : Applied, X : Not applied, Embedded : Included with product.
 - Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field.

 Accessory ine-ups varies by region, so check your local catalogue or local sales material.
- 2. Some functions can be limited by remote controller.
- Selecting a wireless remote controller in case of ducted type indoor units requires either a connection to the wired remote controller (Standard II) or an IR receiver accessory to be connected to the duct in order to receive the signal.
- 4. *: These functions need to connect to the wired remote controller.
- 5. **: It is included by default when the product is manufactured.
- 6. ***: This functions need to connect to the Standard III wired remote controller.

◆ Accessory Compatibility List

	Category	Product	Remark	ARNU24GTBB4 ARNU28GTBB4 ARNU30GTBB4 ARNU36GTAB4 ARNU42GTAB4 ARNU48GTAB4
Wireless Pen	note Controller	PQWRHQ0FDB	Heat Pump	0
Wileless Itel	note Controller	PWLSSB21H	Heat Pump	0
	Simple	PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
Wired		PREMTB001	Standard II (White)	0
Remote	Standard	PREMTBB01	Standard II (Black)	0
Controller	Standard	PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)	Premium	0
	Simple Contact	PDRYCB000	Simple Dry Contact	0
Dry contact		PDRYCB400	2 Points Dry Contact (For Setback)	0
Dry contact	Communication type	PDRYCB300	For 3rd Party Thermostat	0
		PDRYCB500	For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	X
Galeway	1D0 F1465	PSNFP14A0	With case	X
	Remote temperature sensor	PQRSTA0	-	Х
	Zone controller	ABZCA	-	X
	CO ₂ Sensor	PES-C0RV0	For ERV, ERV DX Indoor units	X
ETC	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	0
	Extension Wire	PZCWRC1	10m	0
	Wi-Fi Controller*	PWFMDD200	-	0
	Air Cleaning Kit	PTAFMP0	-	0

O: Possible, X: Impossible, - : Not applicable, Embedded : Included with product.
 *: Some advanced functions controlled by individual controller cannot be operated.

^{3. ** :} It could not be operated some functions.

If you need more detail, please refer to the **BECON** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

♦ Panel(Accessory)

Model Name			PT-AAGW0	PT-AFGW0	PT-AEGW0
Description	Description		Standard Panel	Premium Panel	Elevation Grille
Exterior Color		-	White	White	White
RAL		-	9003	9003	9003
Dual Vane		-	0	0	0
Dimensions (W x H x D)	Net	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Shipping	mm	1,006 x 102 x 1,006	1,006 x 102 x 1,006	1,192 x 104 x 1,020
Weight	Net	kg	7.1	7.2	8.5
vveignt	Shipping	kg	9.3	9.4	11.6
	Wi-Fi (Default)	-	X	X	X
	Air Cleaning Kit (Default)	-	X	X	X
Function & Accessory	Elevation Grille	-	X	X	0
	Floor Detection Sensor*	-	Х	0	Х
	Human Detection Sensor*	-	PTVSAA0	PTVSAA0	PTVSAA0
Note					

^{• *:} This functions need to connect to the RS3 wired remote controller(Standard III).

M	lodel Name	Unit	ARNU24GTBB4	ARNU28GTBB4
Davier Commb	#1	V, Φ, Hz	220-230-240, 1, 50	220-230-240, 1, 50
Power Supply	Running Current by Voltage	Α	0.34 / 0.32 / 0.31	0.37 / 0.36 / 0.34
Caalina Canaaitu	Dated	kW	7.1	8.2
Cooling Capacity	Rated	Btu/h	24,200	28,000
Hardina Oran adha	Data d	kW	8.0	9.2
Heating Capacity	Rated	Btu/h	27,300	31,500
Power Input	H/M/L	W	32 / 27 / 20	37 / 30 / 22
Running Current	H/M/L	Α	0.31 / 0.26 / 0.21	0.34 / 0.28 / 0.22
Γ	Туре	-	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	18 / 17 / 15	19 / 17 / 15
	Туре	-	Brushless DC	Brushless DC
	Drive	-	Direct	Direct
Fan Motor	0.1.1	W	51	51
	Output	No.	1	1
	Rows x Columns x FPI	-	3 x 8 x 21	3 x 8 x 21
Heat Exchanger	No.	-	1	1
	Face Area	m²	0.33	0.33
Di	Net(W x H x D)	mm	840 x 204 x 840	840 x 204 x 840
Dimensions	Shipping(W x H x D)	mm	922 x 276 x 917	922 x 276 x 917
	Net	kg	21.0	21.0
Weight	Shipping	kg	26.0	26.0
	Color	-	White	White
Exterior	RAL Code	-	RAL 9003	RAL 9003
Air Filter	Туре	-	Long life	Long life
Temperature Control	-	-	Microprocessor, Thermos	stat for cooling and heating
Sound Absorbing / The	ermal Insulation Material	-	Foamed polystrene	Foamed polystrene
Protection Divice	-	-	Fuse	Fuse
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.32 / 0.26	0.32 / 0.26
	Control Type	-	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)
Dining Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare
Carrad Danasarina I arral	Cooling(H/M/L)	dB(A)	39.0 / 37.0 / 35.0	40.0 / 38.0 / 35.0
Sound Pressure Level	Heating(H/M/L)	dB(A)	39.0 / 37.0 / 35.0	40.0 / 38.0 / 35.0
Cound Dower Lavel	Cooling(H/M/L)	dB(A)	46.0 / 44.0 / 42.0	50.0 / 46.0 / 43.0
Sound Power Level	Heating(H/M/L)	dB(A)	46.0 / 44.0 / 42.0	50.0 / 46.0 / 43.0
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
 - Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.
- Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

М	odel Name	Unit	ARNU30GTBB4	ARNU36GTAB4
Dawar Cumply	#1	V, Ф, Hz	220-230-240, 1, 50	220-230-240, 1, 50
Power Supply	Running Current by Voltage	A	0.47 / 0.45 / 0.43	0.68 / 0.65 / 0.62
Caaling Canacity	Dated	kW	9.0	10.6
Cooling Capacity	Rated	Btu/h	30,700	36,200
Lleating Consoity	Rated	kW	10.0	11.9
Heating Capacity	Raied	Btu/h	34,100	40,600
Power Input	H/M/L	W	48 / 36 / 25	69 / 49 / 37
Running Current	H/M/L	A	0.43 / 0.34 / 0.25	0.62 / 0.46 / 0.36
F	Туре	-	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	21 / 19 / 16	29 / 26 / 22
	Туре	-	Brushless DC	Brushless DC
	Drive	-	Direct	Direct
Fan Motor	Outroot	W	51	135
	Output	No.	1	1
	Rows x Columns x FPI	-	3 x 8 x 21	3 x 12 x 21
Heat Exchanger	No.	-	1	1
-	Face Area	m²	0.33	0.50
Dimensions	Net(W x H x D)	mm	840 x 204 x 840	840 x 288 x 840
Dimensions	Shipping(W x H x D)		922 x 276 x 917	922 x 360 x 917
\\/a:= a4	Net	kg	21.0	26.0
Weight	Shipping	kg	26.0	31.5
Fretznian.	Color	-	White	White
Exterior	RAL Code	-	RAL 9003	RAL 9003
Air Filter	Туре	-	Long life	Long life
Temperature Control	-	-	Microprocessor, Thermo	ostat for cooling and heati
Sound Absorbing / The	ermal Insulation Material	-	Foamed polystrene	Foamed polystrene
Protection Divice	-	-	Fuse	Fuse
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.32 / 0.26	0.49 / 0.41
	Control Type	-	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)
Dining Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare
Sound Pressure Level	Cooling(H/M/L)	dB(A)	43.0 / 40.0 / 36.0	43.0 / 40.0 / 37.0
	Heating(H/M/L)	dB(A)	43.0 / 40.0 / 36.0	43.0 / 40.0 / 37.0
Sound Dower Lovel	Cooling(H/M/L)	dB(A)	53.0 / 50.0 / 45.0	54.0 / 51.0 / 47.0
Sound Power Level	Heating(H/M/L)	dB(A)	53.0 / 50.0 / 45.0	54.0 / 51.0 / 47.0
Connecting Coble	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
 - Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

N	lodel Name	Unit	ARNU42GTAB4	ARNU48GTAB4
Davisa Cumplu	#1	V, Ф, Hz	220-230-240, 1, 50	220-230-240, 1, 50
Power Supply	Running Current by Voltage	A	0.93 / 0.89 / 0.85	1.04 / 0.99 / 0.95
Caalina Canasitu	Datad	kW	12.3	14.1
Cooling Capacity	Rated	Btu/h	42,000	48,100
Llasting Consoits	Rated	kW	13.8	15.9
Heating Capacity	Rated	Btu/h	47,100	54,200
Power Input	H/M/L	W	97 / 69 / 49	110 / 76 / 61
Running Current	H/M/L	A	0.85 / 0.62 / 0.46	0.95 / 0.69 / 0.56
F	Туре	-	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	33 / 29 / 26	34 / 30 / 28
	Туре	-	Brushless DC	Brushless DC
	Drive	-	Direct	Direct
Fan Motor	0.1.1	W	135	135
	Output	No.	1	1
	Rows x Columns x FPI	-	3 x 12 x 21	3 x 12 x 21
Heat Exchanger	No.	-	1	1
-	Face Area	m²	0.50	0.50
Dimanaiana	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917
\\/a:= a4	Net	kg	26.0	26.0
Weight	Shipping	kg	31.5	31.5
Fretanian	Color	-	White	White
Exterior	RAL Code	-	RAL 9003	RAL 9003
Air Filter	Туре	-	Long life	Long life
Temperature Control	-	-	Microprocessor, Thermos	stat for cooling and heating
Sound Absorbing / The	ermal Insulation Material	-	Foamed polystrene	Foamed polystrene
Protection Divice	-	-	Fuse	Fuse
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.49 / 0.41	0.49 / 0.41
	Control Type	-	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)
Dining Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare
Sound Pressure Level	Cooling(H/M/L)	dB(A)	47.0 / 43.0 / 40.0	48.0 / 44.0 / 42.0
	Heating(H/M/L)	dB(A)	47.0 / 43.0 / 40.0	48.0 / 44.0 / 42.0
Sound Dower Lovel	Cooling(H/M/L)	dB(A)	56.0 / 53.0 / 49.0	58.0 / 54.0 / 53.0
Sound Power Level	Heating(H/M/L)	dB(A)	56.0 / 53.0 / 49.0	58.0 / 54.0 / 53.0
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2

Note

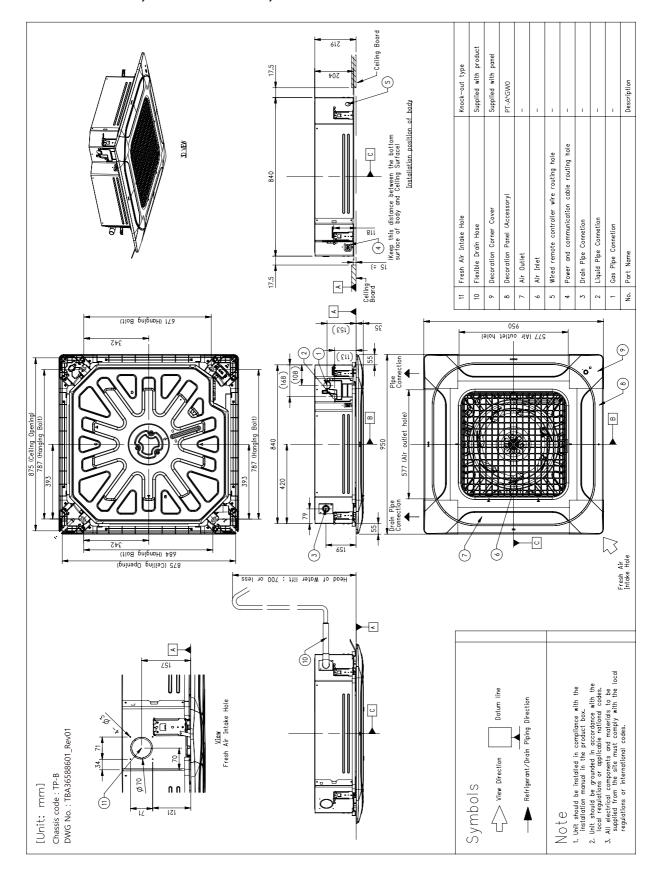
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

Therefore, these values can be increased owing to ambient conditions during operation.

- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

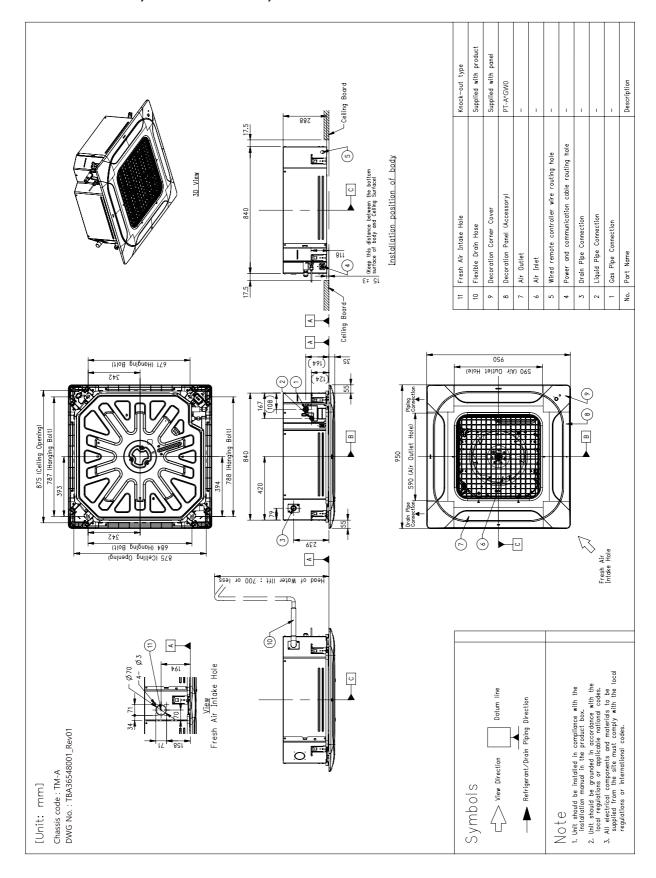
3. Dimensions

ARNU24GTBB4, ARNU28GTBB4, ARNU30GTBB4

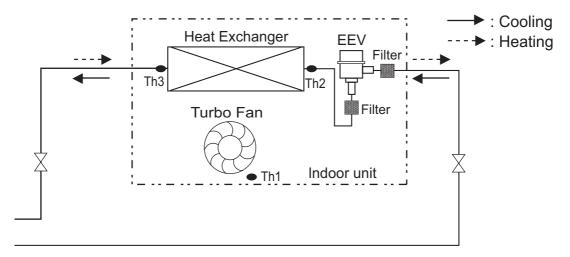


3. Dimensions

ARNU36GTAB4, ARNU42GTAB4, ARNU48GTAB4



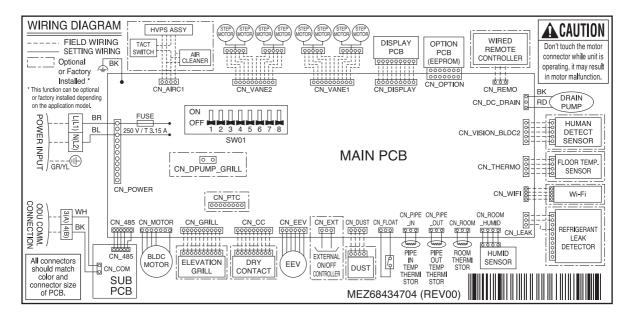
4. Piping Diagrams



LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ Model: ARNU24GTBB4, ARNU28GTBB4, ARNU30GTBB4, ARNU36GTAB4, ARNU42GTAB4, ARNU48GTAB4



6. Capacity Tables

■ Cooling Capacity

Naminal Canasity		Indoor air temp. (DB/WB, °C)												
Nominal Capacity (kBtu/h)	2	:0	2	3	2	6	2	:7	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	0	2	2	2	4
[Capacity index (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
24 [7.1]	4.8	4.2	5.7	4.6	6.6	5.0	7.1	5.1	7.6	5.3	8.2	5.3	8.3	4.9
28 [8.2]	5.5	4.9	6.6	5.4	7.7	5.8	8.2	5.9	8.7	6.1	9.4	6.4	9.6	5.6
30 [9.0]	6.1	5.3	7.2	5.8	8.4	6.3	9.0	6.5	9.6	6.7	10.4	6.7	10.5	6.2
36 [10.6]	7.2	6.3	8.5	6.9	9.9	7.5	10.6	7.6	11.3	7.9	11.4	7.4	11.7	6.8
42 [12.3]	8.3	7.3	9.9	8.0	11.5	8.7	12.3	8.9	13.1	9.1	13.3	8.6	13.5	7.9
48 [14.1]	9.5	8.3	11.3	9.2	13.2	10.0	14.1	10.2	15.0	10.5	15.2	9.9	15.5	9.1

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)									
(kBtu/h)	16	18	20	21	22	24				
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC				
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0				
28 [8.2]	10.4	9.9	9.2	8.9	8.6	8.0				
30 [9.0]	11.3	10.6	10.0	9.7	9.4	8.7				
36 [10.6]	13.4	12.7	11.9	11.5	11.1	10.4				
42 [12.3]	15.6	14.7	13.8	13.4	12.9	12.0				
48 [14.1]	17.9	16.9	15.9	15.4	14.9	13.9				

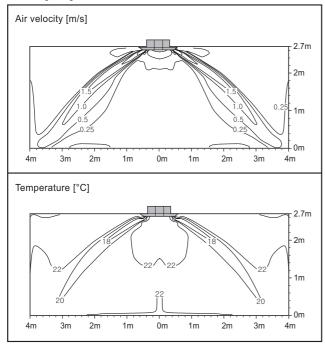
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air flow and temperature distributions (reference data)

■ Model : ARNU24GTBB4

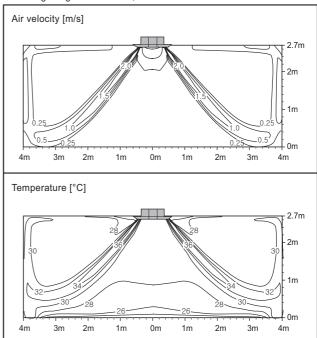
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

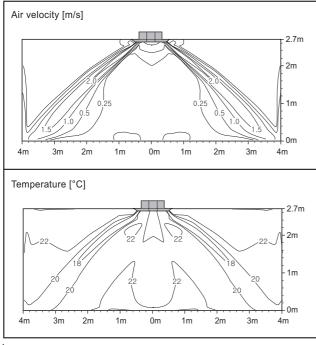
Discharge angle: Outer - 36°, Inner - 70°



■ Model: ARNU28GTBB4

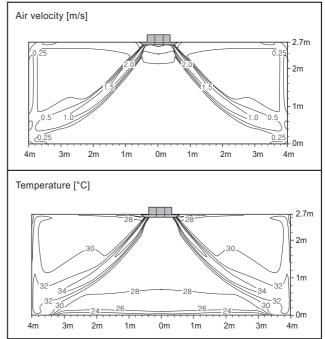
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°



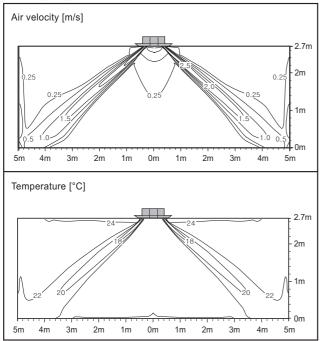
- These figures are accordance with normal certain condition and environment.
- (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
 Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air flow and temperature distributions (reference data)

■ Model: ARNU30GTBB4

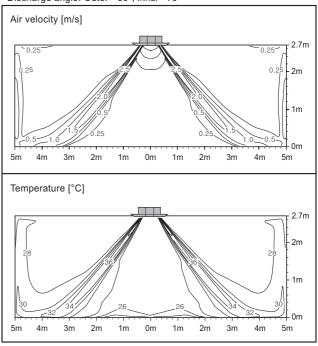
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

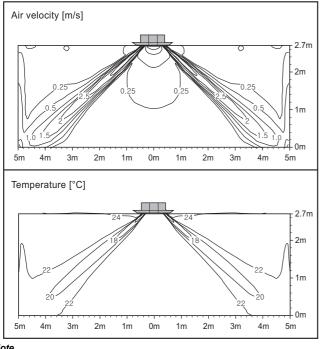
Discharge angle: Outer - 36°, Inner - 70°



■ Model: ARNU36GTAB4

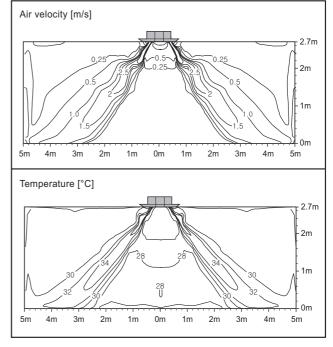
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°



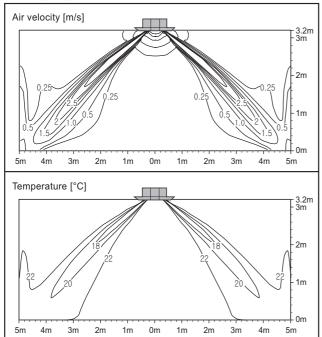
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air flow and temperature distributions (reference data)

■ Model: ARNU42GTAB4

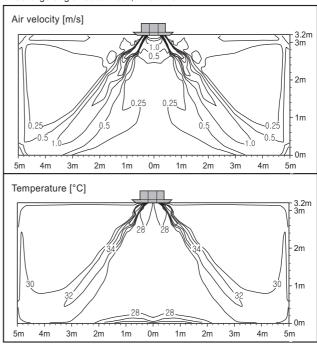
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

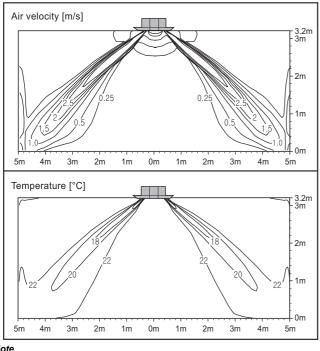
Discharge angle: Outer - 36°, Inner - 70°



■ Model : ARNU48GTAB4

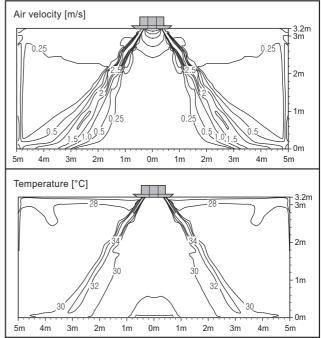
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units					IF	M	F	PI									
Model	Туре	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating									
ARNU24GTBB4	TP-B				1.23	0.051	0.98	63	63									
ARNU28GTBB4	TP-B				1.23	0.051	0.98	63	63									
ARNU30GTBB4	TP-B	50	220-240	Max:264	1.23	0.051	0.98	63	63									
ARNU36GTAB4	TM-A	50		220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	Min:198	2.29	0.135	1.83	223	223
ARNU42GTAB4	TM-A												2.29	0.135	1.83	223	223	
ARNU48GTAB4	TM-A				2.29	0.135	1.83	223	223									
ARNU24GTBB4	TP-B				1.23	0.051	0.98	63	63									
ARNU28GTBB4	TP-B								,	1.23	0.051	0.98	63	63				
ARNU30GTBB4	TP-B	60	220	Max:242	1.23	0.051	0.98	63	63									
ARNU36GTAB4	TM-A	60	00 220	Min:198	2.29	0.135	1.83	223	223									
ARNU42GTAB4	TM-A				2.29	0.135	1.83	223	223									
ARNU48GTAB4	TM-A				2.29	0.135	1.83	223	223									

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

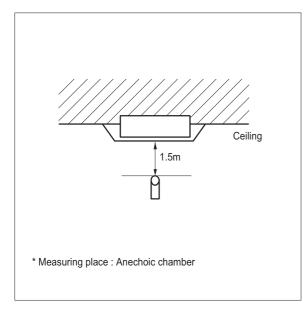
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound pressure level

Overall



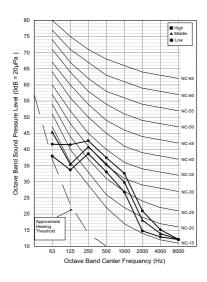
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure $0dB = 20\mu Pa$.
- 4.Data is valid at nominal operation condition.

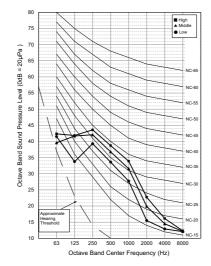
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6.Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Soul	Sound Pressure Levels [dB(A)]					
Wodei	Н	M	L				
ARNU24GTBB4	39	37	35				
ARNU28GTBB4	40	38	35				
ARNU30GTBB4	43	40	36				
ARNU36GTAB4	43	40	37				
ARNU42GTAB4	47	43	40				
ARNU48GTAB4	48	44	42				

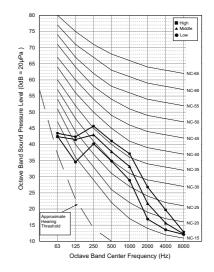
ARNU24GTBB4



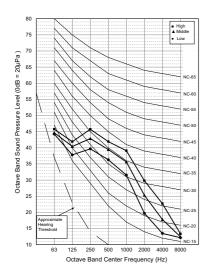
ARNU28GTBB4



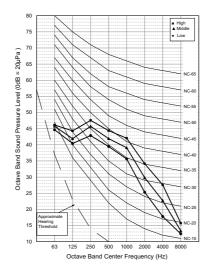
ARNU30GTBB4



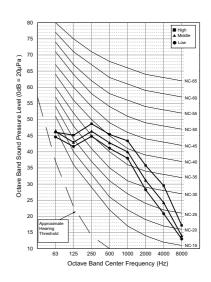
ARNU36GTAB4



ARNU42GTAB4



ARNU48GTAB4



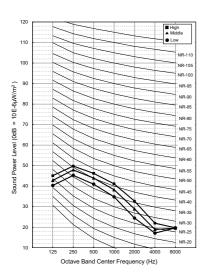
9.2 Sound power level

Note

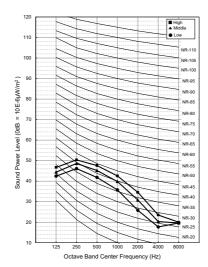
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sou	Sound Power Levels [dB(A)]					
Wiodei	Н	М	L				
ARNU24GTBB4	46	44	42				
ARNU28GTBB4	50	46	43				
ARNU30GTBB4	53	50	45				
ARNU36GTAB4	54	51	47				
ARNU42GTAB4	56	53	49				
ARNU48GTAB4	58	54	53				

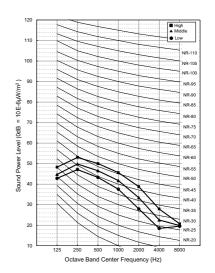
ARNU24GTBB4



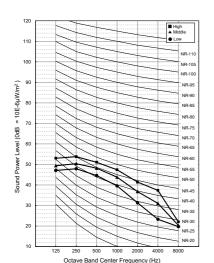
ARNU28GTBB4



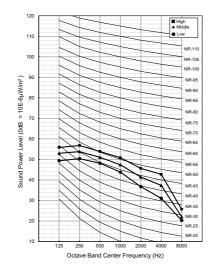
ARNU30GTBB4



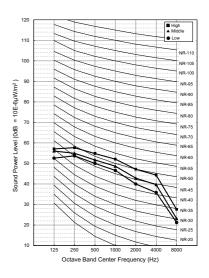
ARNU36GTAB4



ARNU42GTAB4



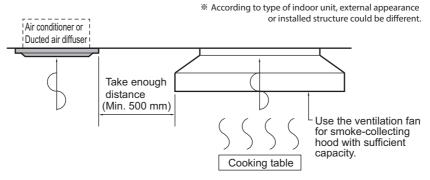
ARNU48GTAB4



- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- · There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - · Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

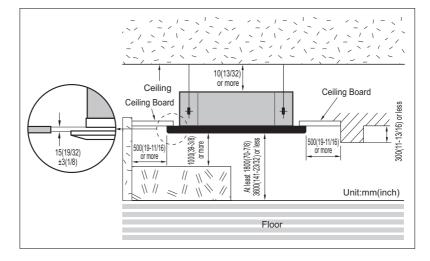


A CAUTION

- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

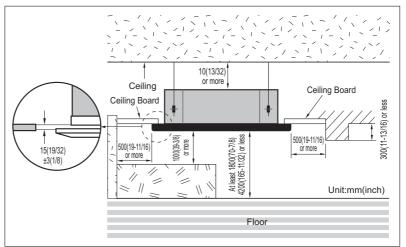
TP/TP-B Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



TM/TM-A/TN Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

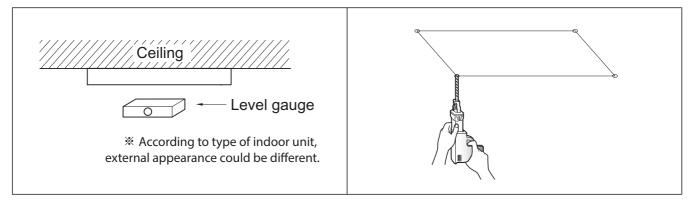




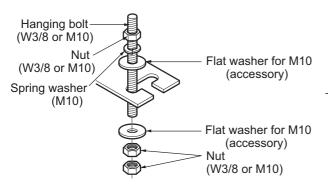
10.2 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



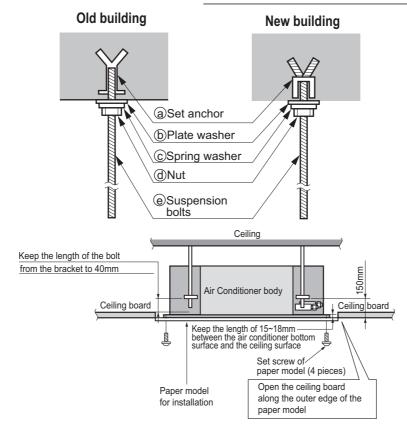
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.

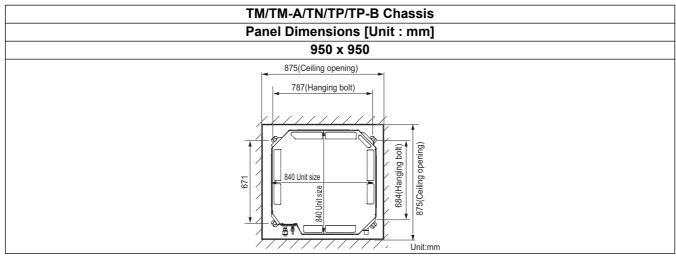


- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)







10.3 Connecting Cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- · A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

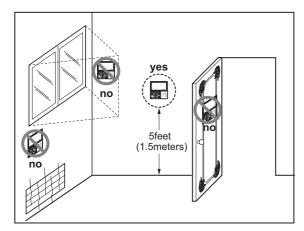
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



10.4 Installation of Decoration Panel

- The decoration panel has its installation direction.
- Before installing the decoration panel, always remove the paper template.

A CAUTION

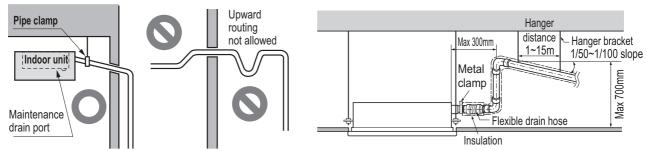
Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.



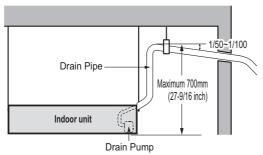
10.5 Indoor Unit Drain Piping

10.5.1 Drain piping of indoor unit with drain pump

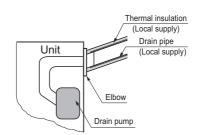
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).





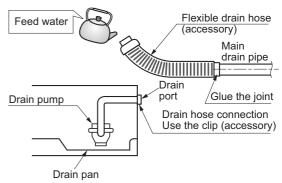


10.5.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

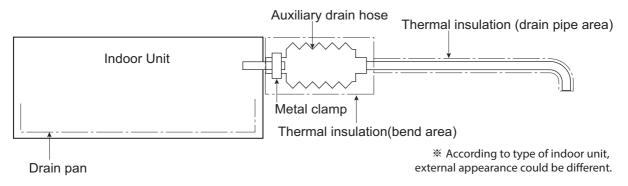
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.5.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
 auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
 excessive strain.



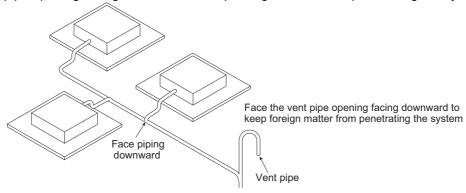
♠ CA

CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.5.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





CeilingMountedCassette(Dual Vane 4way HighSensible)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

♦ List of function

Category	Functions	ARNU05GTAA4, ARNU07GTAA4, ARNU09GTAA4, ARNU12GTAA4, ARNU15GTAA4, ARNU18GTAA4, ARNU24GTAA4, ARNU28GTAA4, ARNU36GTAA4, ARNU42GTAA4, ARNU48GTAA4		
	Air supply outlet	4		
	Airflow direction control (left & right)	X		
	Airflow direction control (up & down)	Auto		
	Auto swing (left & right)	X		
	Auto swing (up & down)	0		
	Airflow steps (fan/cool/heat)	4/5/4		
Air flow	Chaos wind(auto wind)	X		
	Jet cool/heat	0/0		
	Swirl wind	0		
	Refresh Mode***	0		
	Smart Mode***	0		
	Indirect Wind	0		
	Direct wind	0		
	Deodorizing filter	X		
Air purifying	Prefilter(washable / anti-fungus)	0		
	Drain pump	0		
	E.S.P. control*	X		
Installation	Electric heater	X		
	High ceiling operation*	0		
D :: 1:::	Hot start	0		
Reliability	Self diagnosis	0		
	Auto changeover	O(Heat recovery / Heat pump)		
	Auto cleaning	0		
	Auto operation(artificial intelligence)	O(Cooling only)		
	Auto Restart	0		
	Child lock*	0		
Convenience	Forced operation	0		
	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
On a sint From this	Wi-Fi	O (Accessory)		
Special Functions	Comfort Coolng (Humidity Control)	0		
Wireless Remote Controller		O (Accessory)		
Wired Remote Controller		O (Accessory)		
Network Solution(LGAP)		0		
Note	•	· · · · · · · · · · · · · · · · · · ·		

- 1. O : Applied, X : Not applied, Embedded : Included with product.
 - Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.
- 2. Some functions can be limited by remote controller.
- 3. Selecting a wireless remote controller in case of ducted type indoor units requires either a connection to the wired remote controller (Standard II) or an IR receiver accessory to be connected to the duct in order to receive the signal.
- 4. *: These functions need to connect to the wired remote controller.
- 5. ** : It is included by default when the product is manufactured.
- 6. ***: This functions need to connect to the Standard III wired remote controller.

◆ Accessory Compatibility List

Category		Product Remark		ARNU05GTAA4 ARNU07GTAA4 ARNU09GTAA4 ARNU12GTAA4 ARNU15GTAA4 ARNU18GTAA4 ARNU24GTAA4 ARNU28GTAA4 ARNU24GTAA4 ARNU36GTAA4 ARNU42GTAA4 ARNU48GTAA4
Wireless Remote Controller		PQWRHQ0FDB	Heat Pump	0
		PWLSSB21H	Heat Pump	0
	Simple	PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
Wired		PREMTB001	Standard II (White)	0
Remote	Standard	PREMTBB01	Standard II (Black)	0
Controller		PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)	Premium	0
	Simple Contact	PDRYCB000	Simple Dry Contact	0
Dry contact	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	0
Dry contact		PDRYCB300	For 3rd Party Thermostat	0
		PDRYCB500	For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	Х
		PSNFP14A0	With case	X
ETC	Remote temperature sensor	PQRSTA0	-	X
	Zone controller	ABZCA	-	X
	CO₂ Sensor	PES-C0RV0	For ERV, ERV DX Indoor units	Χ
	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	0
	Extension Wire	PZCWRC1	10m	0
	Wi-Fi Controller*	PWFMDD200	-	0
	Air Cleaning Kit	PTAFMP0	-	0

^{1.} O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.

^{2. * :} Some advanced functions controlled by individual controller cannot be operated.

^{3. **:} It could not be operated some functions.

If you need more detail, please refer to the BECON PDB or the manual of product. (http://partner.lge.com/global: Home> Doc.Library> Product > Control(BECON))

♦ Panel(Accessory)

	Model Name		PT-AAGW0	PT-AFGW0	PT-AEGW0
Description		-	Standard Panel Premium Panel		Elevation Grille
Exterior Color		-	White	White	White
RAL		-	9003	9003	9003
Dual Vane		-	0	0	0
Dimensions (W x H x D)	Net	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Shipping	mm	1,006 x 102 x 1,006	1,006 x 102 x 1,006	1,192 x 104 x 1,020
Weight	Net	kg	7.1	7.2	8.5
vveignt	Shipping	kg	9.3	9.4	11.6
Function & Accessory	Wi-Fi (Default)	-	X	X	X
	Air Cleaning Kit (Default)	-	X	X	X
	Elevation Grille	-	X	X	0
	Floor Detection Sensor*	-	X	0	Х
	Human Detection Sensor*	-	PTVSAA0	PTVSAA0	PTVSAA0
Note				•	

^{• *:} This functions need to connect to the RS3 wired remote controller(Standard III).

Model Name		Unit	ARNU05GTAA4	ARNU07GTAA4
Davisa Comple	#1	V, Φ, Hz	220-230-240, 1, 50	220-230-240, 1, 50
Power Supply	Running Current by Voltage	А	0.23 / 0.22 / 0.21	0.25 / 0.24 / 0.23
0 11 0 14	Datad	kW	1.6	2.2
Cooling Capacity	Rated	Btu/h	5,500	7,500
	5	kW	1.8	2.5
Heating Capacity	Rated	Btu/h	6,100	8,500
Power Input	H/M/L	W	20.4 / 14.8 / 10.9	23.3 / 16.1 / 10.9
Running Current	H/M/L	Α	0.21 / 0.18 / 0.14	0.23 / 0.18 / 0.14
	Type	-	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	18 / 15 / 13	19 / 16 / 13
	Туре	-	Brushless DC	Brushless DC
	Drive	-	Direct	Direct
Fan Motor		W	166	166
	Output	No.	1	1
	Rows x Columns x FPI	-	3 x 18 x 22	3 x 18 x 22
Heat Exchanger	No.	_	1	1
Trout Exterioring or	Face Area	m²	0.54	0.54
	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917
	Net	kg	27.0	27.0
Weight	Shipping	kg	32.5	32.5
	Color	-	White	White
Exterior	RAL Code	-	RAL 9003	RAL 9003
Air Filter	Type	-	Long life	Long life
	Туре	-	Microprocessor, Thermostat for	Microprocessor, Thermostat for
Temperature Control	-	-	cooling and heating	cooling and heating
Sound Absorbing / The	ermal Insulation Material	-	Foamed polystrene	Foamed polystrene
Protection Divice	-	-	Fuse	Fuse
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56	0.68 / 0.56
	Control Type	-	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)
Dining Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare
Cound Draggues Lavel	Cooling(H/M/L)	dB(A)	32.0 / 29.0 / 26.0	32.0 / 30.0 / 26.0
Sound Pressure Level	Heating(H/M/L)	dB(A)	32.0 / 29.0 / 26.0	32.0 / 30.0 / 26.0
Sound Power Level	Cooling(H/M/L)	dB(A)	40.0 / 37.0 / 36.0	41.0 / 38.0 / 36.0
Sound Power Level	Heating(H/M/L)	dB(A)	40.0 / 37.0 / 36.0	41.0 / 38.0 / 36.0
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3
Moto	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

M	odel Name	Unit	ARNU09GTAA4	ARNU12GTAA4
Dower Cumply	#1	V, Φ, Hz	220-230-240, 1, 50	220-230-240, 1, 50
Power Supply	Running Current by Voltage	Α	0.27 / 0.26 / 0.25	0.27 / 0.26 / 0.25
O a althour O and a althou	pacity Rated		2.8	3.6
Cooling Capacity Rated		Btu/h	9,600	12,300
	B	kW	3.2	4.0
Heating Capacity	Rated	Btu/h	10,900	13,600
Power Input	H/M/L	W	24.7 / 17.6 / 10.9	26.1 / 19.2 / 13.3
Running Current	H/M/L	Α	0.25 / 0.19 / 0.14	0.25 / 0.20 / 0.16
_	Туре	-	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	19 / 16 / 13	20 / 17 / 15
	Туре	-	Brushless DC	Brushless DC
	Drive	-	Direct	Direct
Fan Motor		W	166	166
	Output	No.	1	1
	Rows x Columns x FPI	-	3 x 18 x 22	3 x 18 x 22
Heat Exchanger	No.	-	1	1
	Face Area	m²	0.54	0.54
<u> </u>	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917
\A(* 1)	Net	kg	27.0	27.0
Weight	Shipping	kg	32.5	32.5
F. A	Color	-	White	White
Exterior	RAL Code	-	RAL 9003	RAL 9003
Air Filter	Туре	-	Long life	Long life
Temperature Control	-	-	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing / The	rmal Insulation Material	-	Foamed polystrene	Foamed polystrene
Protection Divice	-	-	Fuse	Fuse
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56	0.68 / 0.56
	Control Type	-	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)
Dining Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare
Carried Disassina Larral	Cooling(H/M/L)	dB(A)	33.0 / 30.0 / 26.0	34.0 / 31.0 / 27.0
Sound Pressure Level	Heating(H/M/L)	dB(A)	33.0 / 30.0 / 26.0	34.0 / 31.0 / 27.0
Sound Dower Lovel	Cooling(H/M/L)	dB(A)	42.0 / 39.0 / 36.0	42.0 / 40.0 / 37.0
Sound Power Level	Heating(H/M/L)	dB(A)	42.0 / 39.0 / 36.0	42.0 / 40.0 / 37.0
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2
		•		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

Model Name		Unit	ARNU15GTAA4	ARNU18GTAA4		
Davisa Comple	#1	V, Ф, Hz	220-230-240, 1, 50	220-230-240, 1, 50		
Power Supply	Running Current by Voltage	Α	0.29 / 0.28 / 0.27	0.31 / 0.29 / 0.28		
0 11 0 11	B	kW	4.5	5.6		
Cooling Capacity Rated		Btu/h	15,400	19,100		
		kW	5.0	6.3		
Heating Capacity	Rated	Btu/h	17,100	21,500		
Power Input	H/M/L	W	28.5 / 20.4 / 14.8	31.1 / 23.3 / 16.1		
Running Current	H/M/L	Α	0.27 / 0.21 / 0.18	0.28 / 0.23 / 0.18		
	Type	-	3D Turbo Fan	3D Turbo Fan		
Fan	Air Flow Rate(H/M/L)	m³/min	20 / 17 / 15	21 / 19 / 16		
	Туре	-	Brushless DC	Brushless DC		
	Drive	_	Direct	Direct		
Fan Motor		W	166	166		
	Output	No.	1	1		
	Rows x Columns x FPI	-	3 x 18 x 22	3 x 18 x 22		
Heat Exchanger	No.	_	1	1		
Treat Exertainger	Face Area	m²	0.54	0.54		
	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840		
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917		
	Net	kg	27.0	27.0		
Weight	Shipping		32.5	32.5		
	Color	kg -	White	White		
Exterior	RAL Code	_	RAL 9003	RAL 9003		
Air Filter	Type	_	Long life	Long life		
	1,750		Microprocessor, Thermostat for	Microprocessor, Thermostat for		
Temperature Control	-	-	cooling and heating	cooling and heating		
Sound Absorbing / The	rmal Insulation Material	-	Foamed polystrene	Foamed polystrene		
Protection Divice	-	-	Fuse	Fuse		
	Туре	-	R410A / R32	R410A / R32		
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56	0.68 / 0.56		
	Control Type	-	EEV	EEV		
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25		
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)		
Dining Composition	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)		
Piping Connection	Connection Type(Liquid)	-	Flare	Flare		
	Connection Type(Gas)	-	Flare	Flare		
County Description	Cooling(H/M/L)	dB(A)	34.0 / 32.0 / 29.0	35.0 / 32.0 / 30.0		
Sound Pressure Level	Heating(H/M/L)	dB(A)	34.0 / 32.0 / 29.0	35.0 / 32.0 / 30.0		
Council Days and Louis	Cooling(H/M/L)	dB(A)	43.0 / 40.0 / 38.0	44.0 / 41.0 / 38.0		
Sound Power Level	Heating(H/M/L)	dB(A)	43.0 / 40.0 / 38.0	44.0 / 41.0 / 38.0		
Composition Colds	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3		
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - $\bullet \quad \text{Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB}\\$
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

Model Name		Unit	ARNU24GTAA4	ARNU28GTAA4	
Davisa Comple	#1	V, Φ, Hz	220-230-240, 1, 50	220-230-240, 1, 50	
Power Supply	Running Current by Voltage	Α	0.37 / 0.36 / 0.34	0.41 / 0.40 / 0.38	
0 11 0 11	Datad	kW	7.1	8.2	
Cooling Capacity	Rated	Btu/h	24,200	28,000	
11			8.0	9.2	
Heating Capacity	Rated	Btu/h	27,300	31,500	
Power Input	H/M/L	W	35.2 / 28.5 / 20.4	40 / 31.1 / 24.7	
Running Current	H/M/L	Α	0.34 / 0.27 / 0.21	0.38 / 0.30 / 0.25	
	Туре	-	3D Turbo Fan	3D Turbo Fan	
Fan	Air Flow Rate(H/M/L)	m³/min	23 / 21 / 19	24 / 22 / 20	
	Type	-	Brushless DC	Brushless DC	
	Drive	-	Direct	Direct	
Fan Motor		W	166	166	
	Output	No.	1	1	
	Rows x Columns x FPI	-	3 x 18 x 22	3 x 18 x 22	
Heat Exchanger	No.	-	1	1	
_	Face Area	m²	0.54	0.54	
	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840	
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917	
	Net	kg	27.0	27.0	
Weight	Shipping	kg	32.5	32.5	
-	Color	-	White	White	
Exterior	RAL Code	-	RAL 9003	RAL 9003	
Air Filter	Туре	-	Long life	Long life	
Temperature Control	-	-	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	
Sound Absorbing / The	ermal Insulation Material	-	Foamed polystrene	Foamed polystrene	
Protection Divice	-	-	Fuse	Fuse	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56	0.68 / 0.56	
	Control Type	-	EEV	EEV	
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25	
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)	
Piping Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)	
Fibility Confidential	Connection Type(Liquid)	-	Flare	Flare	
	Connection Type(Gas)	-	Flare	Flare	
Sound Pressure Level	Cooling(H/M/L)	dB(A)	39.0 / 36.0 / 33.0	40.0 / 37.0 / 34.0	
Countri lessure Level	Heating(H/M/L)	dB(A)	39.0 / 36.0 / 33.0	40.0 / 37.0 / 34.0	
Sound Power Level	Cooling(H/M/L)	dB(A)	47.0 / 45.0 / 42.0	48.0 / 46.0 / 42.0	
Country ower Level	Heating(H/M/L)	dB(A)	47.0 / 45.0 / 42.0	48.0 / 46.0 / 42.0	
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3	
Moto	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

Model Name		Unit	ARNU36GTAA4	ARNU42GTAA4		
D	#1	V, Ф, Hz	220-230-240, 1, 50	220-230-240, 1, 50		
Power Supply	Running Current by Voltage	Α	0.65 / 0.63 / 0.60	0.87 / 0.84 / 0.80		
O a althour O and a althou	Detail	kW	10.6	12.3		
Cooling Capacity	Rated	Btu/h	36,200	42,000		
	5	kW	11.9	13.8		
Heating Capacity	Rated	Btu/h	40,600	47,000		
Power Input	H/M/L	W	64.7 / 43.4 / 31.1	85.8 / 64.7 / 43.4		
Running Current	H/M/L	Α	0.60 / 0.40 / 0.28	0.80 / 0.60 / 0.40		
-	Туре	-	3D Turbo Fan	3D Turbo Fan		
Fan	Air Flow Rate(H/M/L)	m³/min	28 / 24 / 21	31 / 28 / 24		
	Type	-	Brushless DC	Brushless DC		
	Drive	-	Direct	Direct		
Fan Motor	_	W	166	166		
	Output	No.	1	1		
	Rows x Columns x FPI	-	3 x 18 x 22	3 x 18 x 22		
Heat Exchanger	No.	_	1	1		
3	Face Area	m²	0.54	0.54		
	Net(W x H x D)	mm	840 x 288 x 840	840 x 288 x 840		
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917	922 x 360 x 917		
	Net	kg	27.0	27.0		
Weight	Shipping	kg	32.5	32.5		
	Color	-	White	White		
Exterior	RAL Code	-	RAL 9003	RAL 9003		
Air Filter	Type	-	Long life	Long life		
Temperature Control	-	-	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating		
Sound Absorbing / The	rmal Insulation Material	-	Foamed polystrene	Foamed polystrene		
Protection Divice	-	-	Fuse	Fuse		
	Туре	-	R410A / R32	R410A / R32		
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56	0.68 / 0.56		
•	Control Type	-	EEV	EEV		
Drain Pipe	O.D / I.D	mm(inch)	32/25	32/25		
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)		
D: : 0 ::	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)		
Piping Connection	Connection Type(Liquid)	-	Flare	Flare		
	Connection Type(Gas)	-	Flare	Flare		
0 10 1 1	Cooling(H/M/L)	dB(A)	42.0 / 39.0 / 35.0	46.0 / 42.0 / 39.0		
Sound Pressure Level	Heating(H/M/L)	dB(A)	42.0 / 39.0 / 35.0	46.0 / 42.0 / 39.0		
O I D I	Cooling(H/M/L)	dB(A)	51.0 / 48.0 / 44.0	54.0 / 51.0 / 48.0		
Sound Power Level	Heating(H/M/L)	dB(A)	51.0 / 48.0 / 44.0	54.0 / 51.0 / 48.0		
Connecting Cable	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3	2.5 x 3		
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2	1.0~1.5 x 2		

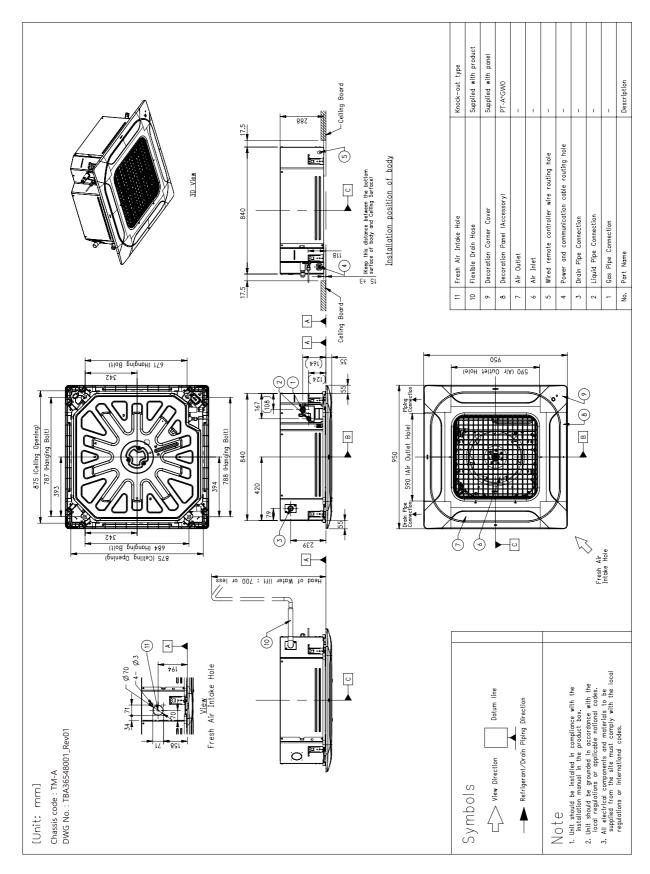
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - $\bullet \quad \text{Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB}\\$
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value

М	odel Name	Unit	ARNU48GTAA4
Davies Comple	#1	V, Ф, Нz	220-230-240, 1, 50
Power Supply	Running Current by Voltage	Α	0.96 / 0.92 / 0.88
Caaling Canasity	Deted	kW	14.1
Cooling Capacity	Rated	Btu/h	48,100
Haatina Canaaitu	Detect	kW	15.9
Heating Capacity	Rated	Btu/h	54,200
Power Input	H/M/L	W	100 / 66.8 / 53.1
Running Current	H/M/L	Α	0.88 / 0.63 / 0.51
_	Туре	-	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m³/min	33 / 28 / 26
	Type	-	Brushless DC
	Drive	-	Direct
Fan Motor	_	W	166
	Output	No.	1
	Rows x Columns x FPI	-	3 x 18 x 22
Heat Exchanger	No.	-	1
3	Face Area	m²	0.54
	Net(W x H x D)	mm	840 x 288 x 840
Dimensions	Shipping(W x H x D)	mm	922 x 360 x 917
	Net	kg	27.0
Weight	Shipping	kg	32.5
	Color	-	White
Exterior	RAL Code	-	RAL 9003
Air Filter	Type	-	Long life
Temperature Control	-	-	Microprocessor, Thermostat for cooling and heating
	rmal Insulation Material	-	Foamed polystrene
Protection Divice	-	-	Fuse
	Туре	-	R410A / R32
Refrigerant	Additional Charging amount	kg(each)	0.68 / 0.56
3	Control Type	-	EEV
Drain Pipe	O.D / I.D	mm(inch)	32/25
	Liquid	mm(inch)	Ф9.52 (3/8)
	Gas	mm(inch)	Ф15.88 (5/8)
Piping Connection	Connection Type(Liquid)	-	Flare
	Connection Type(Gas)	-	Flare
	Cooling(H/M/L)	dB(A)	47.0 / 43.0 / 41.0
Sound Pressure Level	Heating(H/M/L)	dB(A)	47.0 / 43.0 / 41.0
	Cooling(H/M/L)	dB(A)	56.0 / 52.0 / 50.0
Sound Power Level	Heating(H/M/L)	dB(A)	56.0 / 52.0 / 50.0
Onnestine Octob	Power Supply Cable(H07RN-F)	mm² × cores	2.5 x 3
Connecting Cable	Communication Cable(VCTF-SB)	mm² × cores	1.0~1.5 x 2
Note			

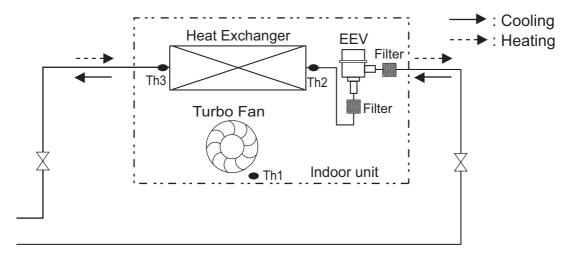
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 - Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
 - Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Air flow rate could be different in accordance with 'High ceiling operation' mode setting value.

3. Dimensions

ARNU05GTAA4, ARNU07GTAA4, ARNU09GTAA4, ARNU12GTAA4, ARNU15GTAA4, ARNU18GTAA4, ARNU24GTAA4, ARNU28GTAA4, ARNU36GTAA4, ARNU42GTAA4, ARNU48GTAA4



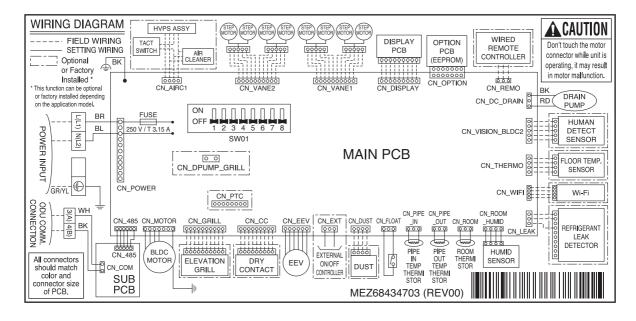
4. Piping Diagrams



LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ Model: ARNU05GTAA4, ARNU07GTAA4, ARNU09GTAA4, ARNU12GTAA4, ARNU15GTAA4, ARNU18GTAA4, ARNU24GTAA4, ARNU28GTAA4, ARNU36GTAA4, ARNU42GTAA4, ARNU48GTAA4



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6. Capacity Tables

■ Cooling Capacity

Naminal Canasita		Indoor air temp. (DB/WB, °C)												
Nominal Capacity (kBtu/h)	2	:0	2	23	2	:6	2	7	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	0	2	22	2	4
[Capacity index (KW)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
5 [1.6]	1.1	1.1	1.3	1.3	1.5	1.5	1.6	1.5	1.7	1.6	1.7	1.5	1.8	1.4
7 [2.2]	1.5	1.5	1.8	1.8	2.0	2.0	2.2	2.1	2.4	2.2	2.4	2.0	2.4	1.9
9 [2.8]	1.9	1.9	2.2	2.2	2.6	2.6	2.8	2.7	3.0	2.8	3.0	2.6	3.1	2.4
12 [3.6]	2.4	2.4	2.9	2.9	3.3	3.3	3.6	3.4	3.9	3.6	3.9	3.4	4.0	3.1
15 [4.5]	3.0	3.0	3.6	3.6	4.2	4.2	4.5	4.3	4.8	4.4	4.9	4.2	4.9	3.9
18 [5.6]	3.8	3.8	4.5	4.5	5.2	5.2	5.6	5.3	6.0	5.5	6.1	5.2	6.2	4.8
24 [7.1]	4.8	4.8	5.7	5.7	6.6	6.6	7.1	6.7	7.6	7.0	7.7	6.6	7.8	6.1
28 [8.2]	5.5	5.5	6.6	6.6	7.6	7.6	8.2	7.8	8.8	8.1	8.9	7.6	9.0	7.0
36 [10.6]	7.2	7.2	8.5	8.5	9.9	9.9	10.6	10.1	11.3	10.5	11.5	9.9	11.6	9.1
42 [12.3]	8.3	8.3	9.9	9.9	11.4	11.4	12.3	11.7	13.2	12.1	13.3	11.5	13.5	10.5
48 [14.1]	9.5	9.5	11.3	11.3	13.1	13.0	14.1	13.4	15.1	13.9	15.3	13.1	15.5	12.1

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

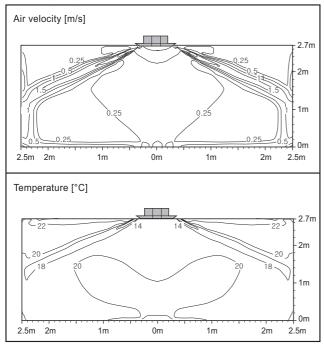
Nominal Capacity			Indoor air te	emp. (DB, °C)		
(kBtu/h)	16	18	20	21	22	24
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC
5 [1.6]	2.0	1.9	1.8	1.7	1.7	1.6
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0
28 [8.2]	10.4	9.8	9.2	8.9	8.6	8.0
36 [10.6]	13.4	12.7	11.9	11.5	11.1	10.4
42 [12.3]	15.6	14.7	13.8	13.4	12.9	12.0
48 [14.1]	17.9	16.9	15.9	15.4	14.9	13.9

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Model : ARNU05GTAA4

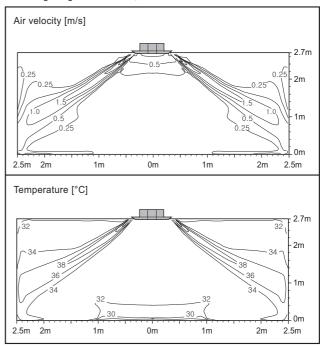
Cooling

Discharge angle: Outer - 30°, Inner - 67°



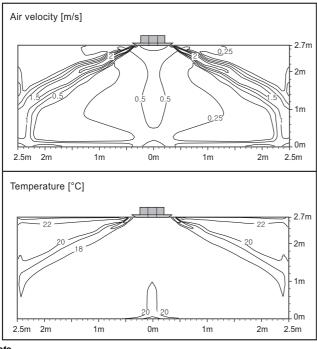
Heating

Discharge angle: Outer - 36°, Inner - 70°



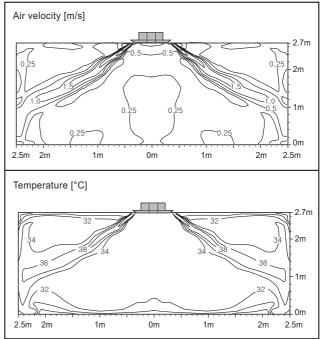
■ Model: ARNU07GTAA4

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°

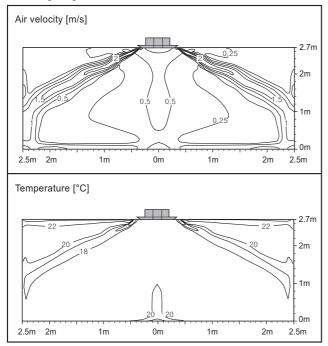


- These figures are accordance with normal certain condition and environment.
- (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
 Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ Model: ARNU09GTAA4

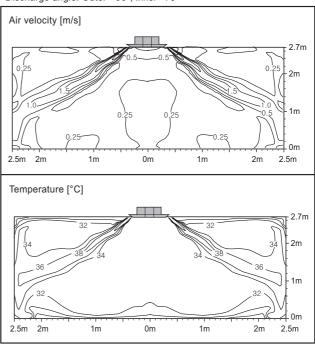
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

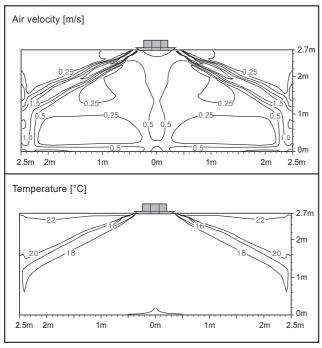
Discharge angle: Outer - 36°, Inner - 70°



■ Model : ARNU12GTAA4

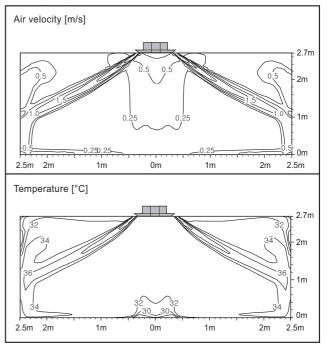
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°

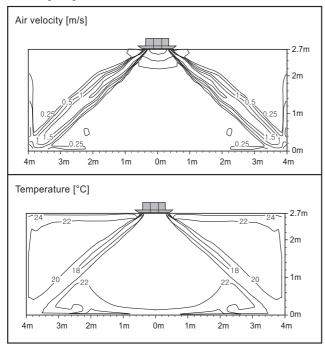


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ Model: ARNU15GTAA4

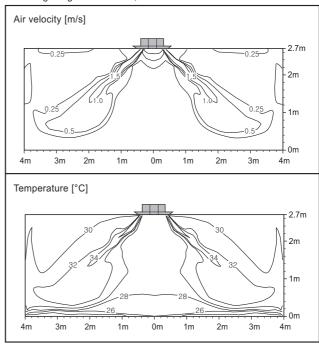
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

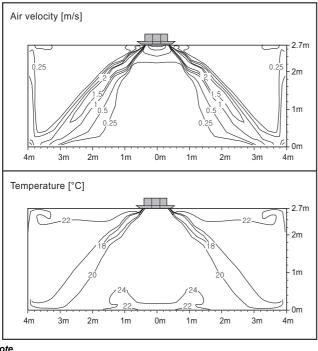
Discharge angle: Outer - 36°, Inner - 70°



■ Model: ARNU18GTAA4

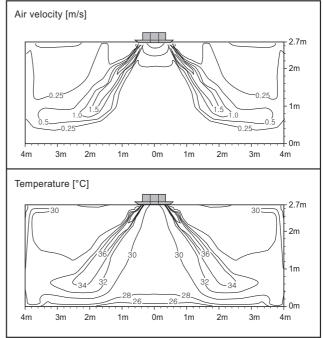
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°

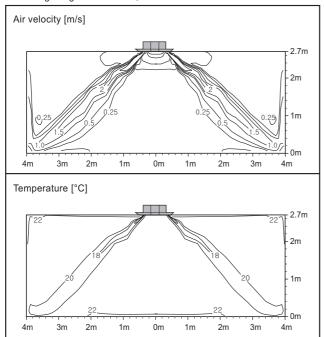


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ Model: ARNU24GTAA4

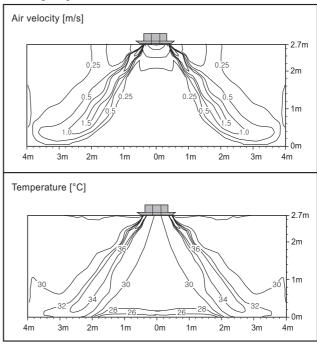
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

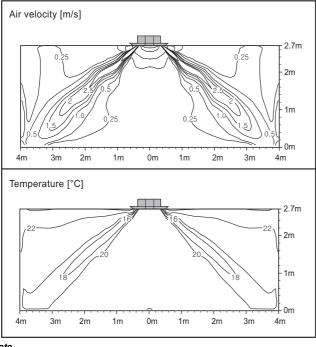
Discharge angle: Outer - 36°, Inner - 70°



■ Model: ARNU28GTAA4

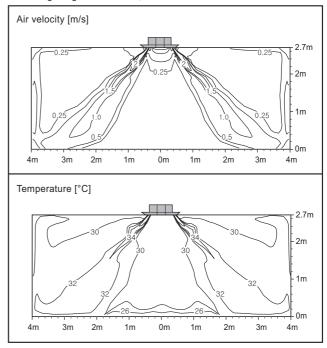
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°

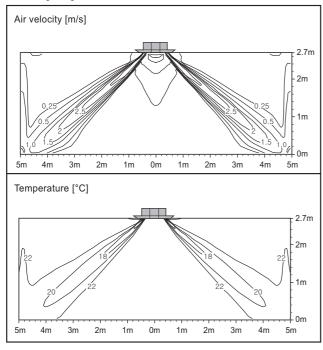


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ Model: ARNU36GTAA4

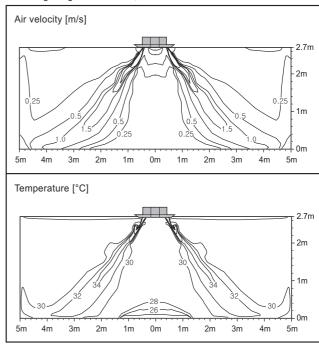
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

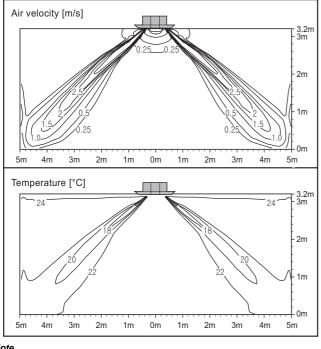
Discharge angle: Outer - 36°, Inner - 70°



■ Model: ARNU42GTAA4

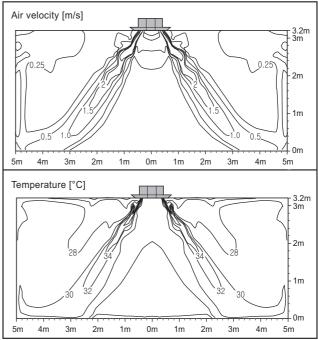
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°

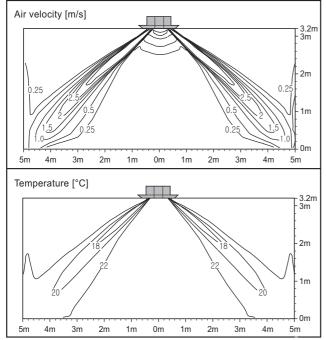


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ Model: ARNU48GTAA4

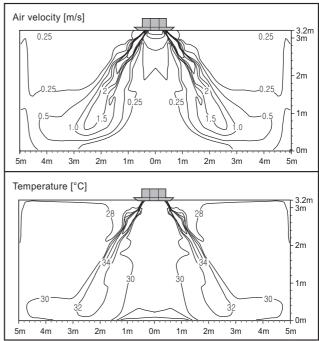
Cooling

Discharge angle: Outer - 30°, Inner - 67°



Heating

Discharge angle: Outer - 36°, Inner - 70°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units					IFM		PI	
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU05GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU07GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU09GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU12GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU15GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU18GTAA4	TM-A	50	220-240	Max:264 Min:198	2.09	0.166	1.67	79	79
ARNU24GTAA4	TM-A			IVIIII. 190	2.09	0.166	1.67	199	199
ARNU28GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU36GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU42GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU48GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU05GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU07GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU09GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU12GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU15GTAA4	TM-A				2.09	0.166	1.67	79	79
ARNU18GTAA4	TM-A	60	220	Max:242 Min:198	2.09	0.166	1.67	79	79
ARNU24GTAA4	TM-A			101111111111111111111111111111111111111	2.09	0.166	1.67	199	199
ARNU28GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU36GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU42GTAA4	TM-A				2.09	0.166	1.67	199	199
ARNU48GTAA4	TM-A				2.09	0.166	1.67	199	199

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

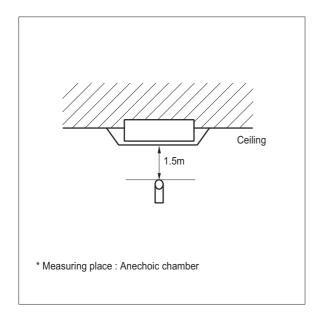
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound pressure level

Overall



Note

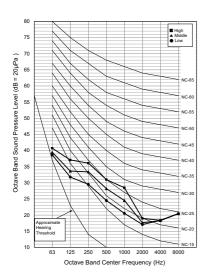
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.

 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

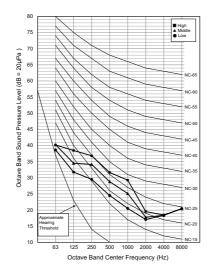
 Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound	d Pressure Levels [dB(A)]
Wiodei	Н	M	L
ARNU05GTAA4	32	29	26
ARNU07GTAA4	32	30	26
ARNU09GTAA4	33	30	26
ARNU12GTAA4	34	31	27
ARNU15GTAA4	34	32	29
ARNU18GTAA4	35	32	30
ARNU24GTAA4	39	36	33
ARNU28GTAA4	40	37	34
ARNU36GTAA4	42	39	35
ARNU42GTAA4	46	42	39
ARNU48GTAA4	47	43	41

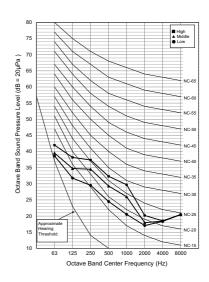
ARNU05GTAA4

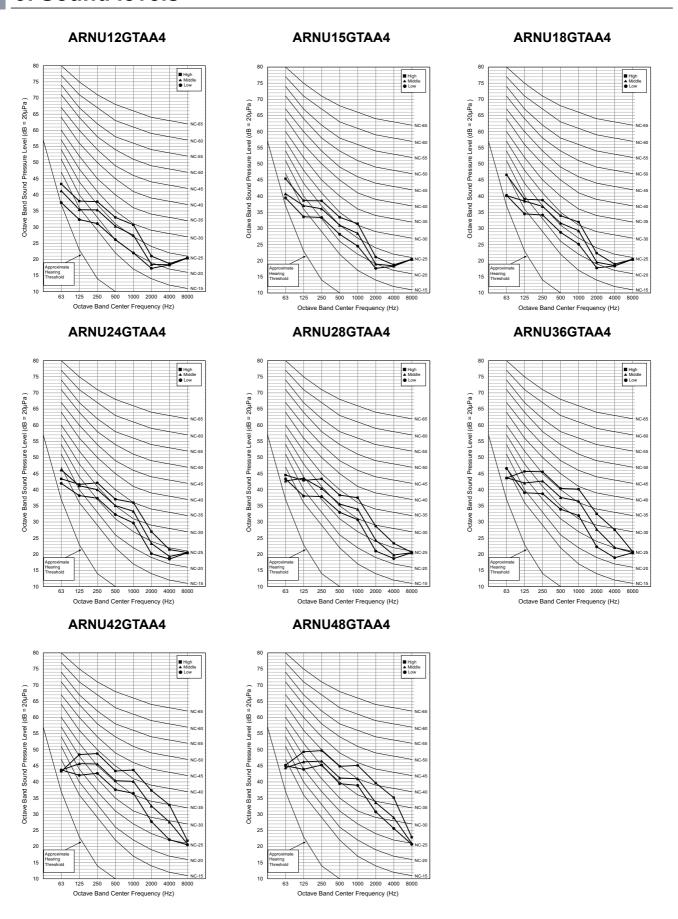


ARNU07GTAA4



ARNU09GTAA4

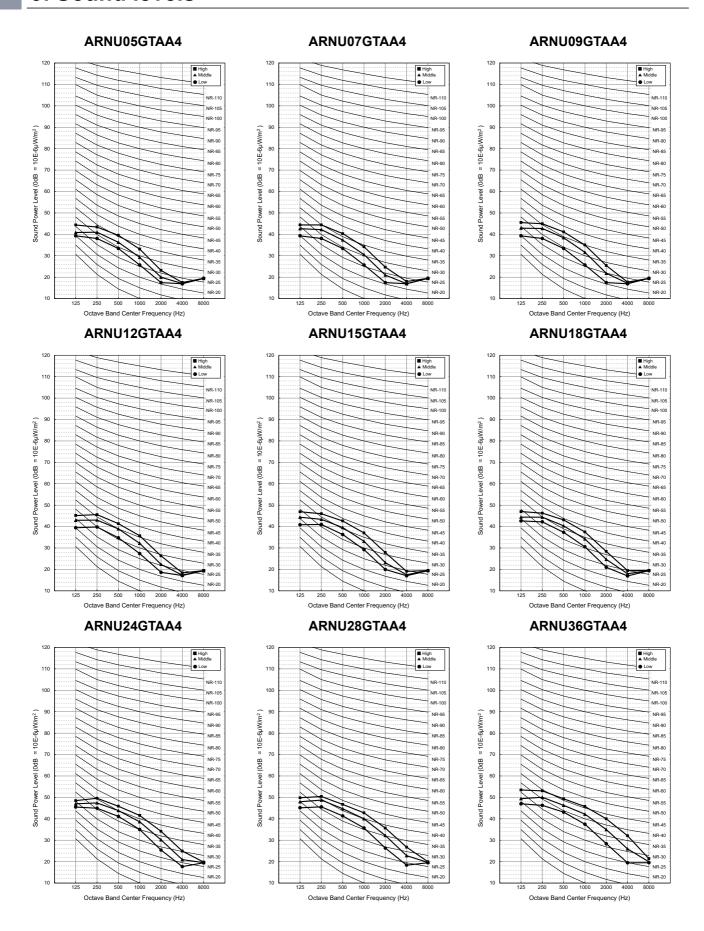




9.2 Sound power level

- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

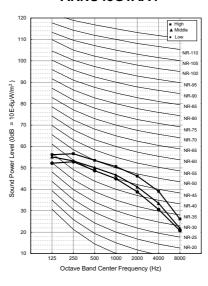
Model	Sound Power Levels [dB(A)]				
Wodei	Н	М	L		
ARNU05GTAA4	40	37	36		
ARNU07GTAA4	41	38	36		
ARNU09GTAA4	42	39	36		
ARNU12GTAA4	42	40	37		
ARNU15GTAA4	43	40	38		
ARNU18GTAA4	44	41	38		
ARNU24GTAA4	47	45	42		
ARNU28GTAA4	48	46	42		
ARNU36GTAA4	51	48	44		
ARNU42GTAA4	54	51	48		
ARNU48GTAA4	56	52	50		



ARNU42GTAA4

Octave Band Center Frequency (Hz)

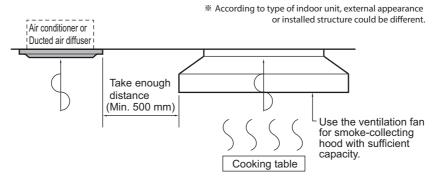
ARNU48GTAA4



- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- · There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

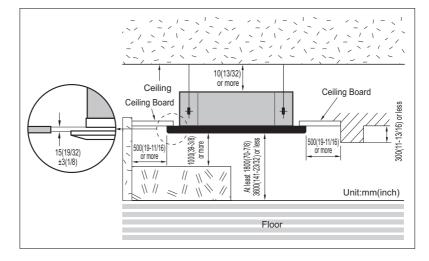


A CAUTION

- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

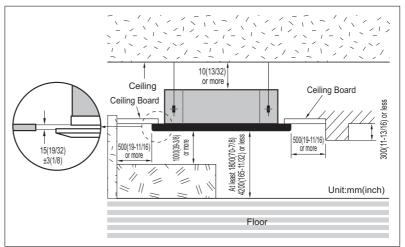
TP/TP-B Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



TM/TM-A/TN Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

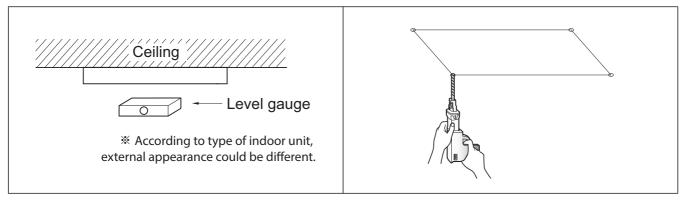




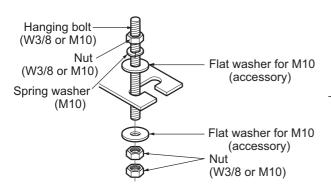
10.2 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



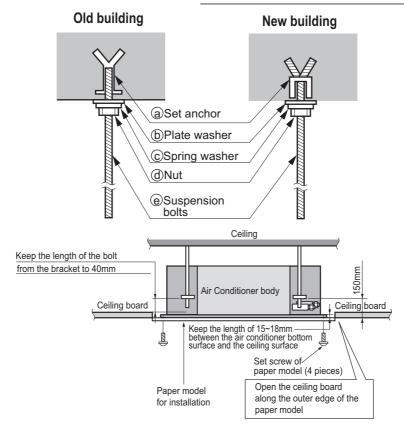
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.

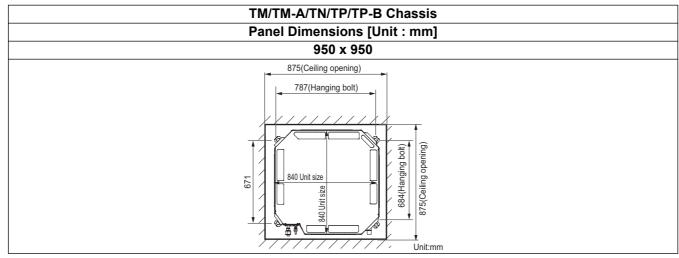


- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)





10.3 Connecting Cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

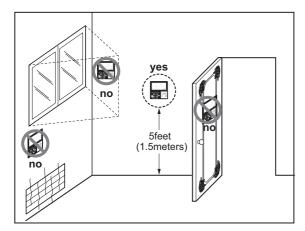
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

10.4 Installation of Decoration Panel

- The decoration panel has its installation direction.
- Before installing the decoration panel, always remove the paper template.

A CAUTION

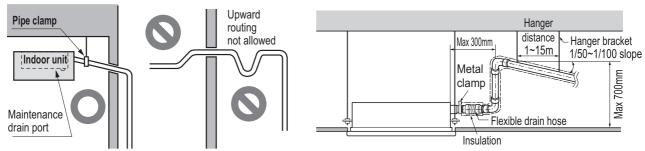
• Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.



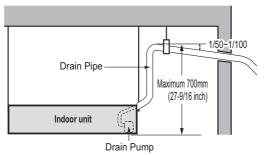
10.5 Indoor Unit Drain Piping

10.5.1 Drain piping of indoor unit with drain pump

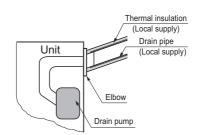
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).





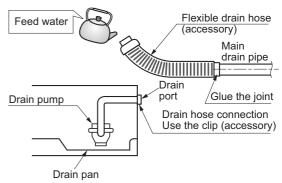


10.5.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

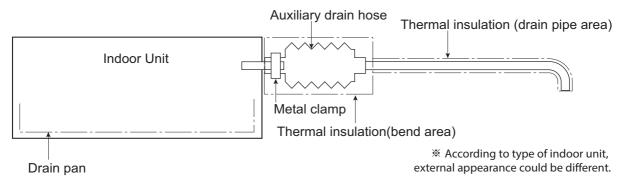
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.5.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
 auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
 excessive strain.



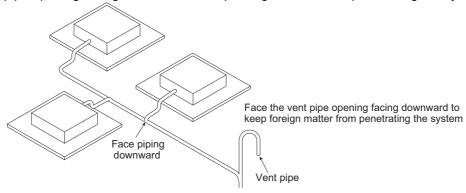
A c

CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.5.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Mounted Cassette (Round)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6.Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

♦ Basic functions of Indoor Unit

Category	Functions	ARNU24GTYA4 ARNU36GTYA4 ARNU48GTYA4
	Air supply outlet	Round
	Airflow direction control (left & right)	X
	Airflow direction control (up & down)	0
	Auto swing (left & right)	X
A	Auto swing (up & down)	0
Air flow	Airflow steps (fan/cool/heat)	4/5/4
	Chaos wind(auto wind)	0
	Jet cool/heat	0
	Swirl wind*	0
	Comfort Air	0
	Triple filter	X
	Air purifier (Plasma)	X
Air purifying	Air purifier (Ionizer)	X
	Allergy Safe filter	X
	Long-life prefilter (washable / anti-fungus)	0
	Drain pump	0
	E.S.P. control*	X
nstallation	Electric heater	X
	High ceiling operation*	0
	Hot start	0
Reliability	Self diagnosis	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	0
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto Restart	0
	Child lock*	0
	Forced operation	0
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)*	0
	Timer(weekly)*	0
	Two thermistor control*	0
	Auto Elevation Grille*	X
	Wi-Fi Control	O (Accessory)
	Humidity Control	O (Necessary)
Special Functions	Human Detecting Control	X
	VAV (Variable Air Volume) Control	X
Network Solution(L0	, ,	0
lote	JAI)	<u> </u>

Note

Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

- 3. In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.
- 4. In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.
- 5. *: These functions need to connect the wired remote controller.
- 6. **: It is included by default when the product is manufactured.

^{1.} O : Applied, X : Not applied, Embedded : Included with product.

^{2.} Some functions can be limited by remote controller.

1. List of functions

♦ Accessory Compatibility List

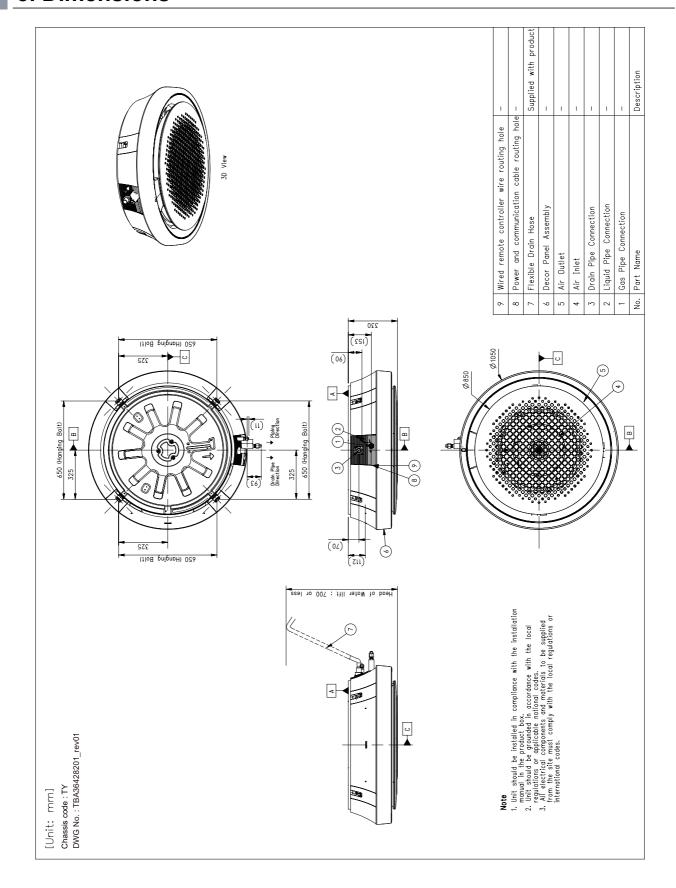
	Category	Product	Remark	ARNU24GTYA4 ARNU36GTYA4 ARNU48GTYA4
Wireless Remote Controller		PQWRHQ0FDB	Heat Pump	0
Wired Remote Controller	Simple	PQRCVCL0Q(W)	Simple	0
		PQRCHCA0Q(W)	for Hotel	0
	Standard	PREMTB001	Standard II (White)	0
		PREMTBB01	Standard II (Black)	0
		PREMTB100**	Standard III (White)	0
		PREMTBB10**	Standard III (Black)	0
	Premium	PREMTA000(A/B)	Premium	0
Dry contact	Simple Contact	PDRYCB000	Simple Dry Contact	0
	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	0
		PDRYCB300	For 3rd Party Thermostat	0
		PDRYCB500	For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Without case	Х
		PSNFP14A0	With case	Х
ETC	Remote temperature sensor	PQRSTA0	-	0
	Zone controller	ABZCA	-	Х
	CO ₂ Sensor	PES-C0RV0	For ERV, ERV DX Indoor units	Х
	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	Х
	Extension Wire	PZCWRC1	10m	0
	Wi-Fi Controller*	PWFMDD200	-	0

- 1. O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
- 2. *: Some advanced functions controlled by individual controller cannot be operated.
- 3. ** : It could not be operated some functions.
- If you need more detail, please refer to the BECON PDB or the manual of product. (http://partner.lge.com/global: Home> Doc.Library> Product > Control(BECON))

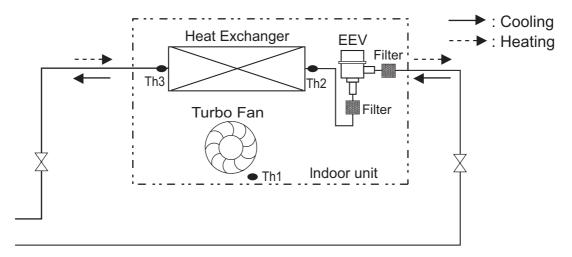
Model Name		Unit	ARNU24GTYA4	ARNU36GTYA4	ARNU48GTYA4
Davisa Comple	-	V, Ф, Hz	220-230-240, 1, 50/60	220-230-240, 1, 50/60	220-230-240, 1, 50/60
Power Supply	Running Current by voltage	Α	0.47 - 0.45 - 0.43	0.67 - 0.64 - 0.61	0.99 - 0.95 - 0.91
Cooling Capacity		kW	7.1	10.6	14.1
	Rated	kcal/h	6,100	9,100	12,100
		Btu/h	24,200	36,200	48,100
Heating Capacity		kW	8.0	11.9	15.9
	Rated	kcal/h	6,900	10,200	13,200
		Btu/h	27,300	40,600	54,200
Power Input	H/M/L	W	44 / 36 / 29	63 / 47 / 36	98 / 70 / 44
Running Current	H/M/L	Α	0.47 / 0.40 / 0.32	0.67 / 0.52 / 0.40	0.99 / 0.74 / 0.47
_	Туре	-	3D Turbo Fan	3D Turbo Fan	3D Turbo Fan
Fan	Air Flow Rate(H/M/L)	m ³ /min	22 / 21 / 19	27 / 24 / 21	32 / 28 / 23
	Туре	-	Brushless DC	Brushless DC	Brushless DC
	Drive	-	Direct	Direct	Direct
Fan Motor	Output	W x No.	157 x 1	157 x 1	157 x 1
	FLA(Full Load Ampere)	Α	1.97	1.97	1.97
Heat Exchanger	(Rows x Columns x FPI) x No.	-	(3 x 12 x 21) x 1	(3 x 12 x 21) x 1	(3 x 12 x 21) x 1
riodi Exoriarigor	Face Area	m ²	0.5	0.5	0.5
	Net(W x H x D)	mm	1,050 x 330 x 1,050	1,050 x 330 x 1,050	1,050 x 330 x 1,050
Dimensions	Shipping(W x H x D)	mm	1,137 x 395 x 1,132	1,137 x 395 x 1,132	1,137 x 395 x 1,132
Weight	Net	kg	30.0	30.0	30.0
	Shipping	kg	37.9	37.9	37.9
	Color	-	White	White	White
Exterior	RAL Code		RAL 9003	RAL 9003	RAL 9003
Air Filter	Туре	-	Long life	Long life	Long life
Temperature Control		-	Microprocessor, Thermostat for cooling and heating		g and heating
Sound Absorbing / Thermal Insulation Material		-	Foamed polystrene		<u> </u>
Safety Divice		-	Fuse	Fuse	Fuse
•	Туре	-	R410A/R32	R410A/R32	R410A/R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.49/0.41	0.49/0.41	0.49/0.41
	Control Type	-	EEV	EEV	EEV
Drain Pipe	O.D / I.D	mm(inch)	32 / 25	32 / 25	32 / 25
	Liquid	mm(inch)	Ф9.52 (3/8)	Ф9.52 (3/8)	Ф9.52 (3/8)
Piping Connection	Gas	mm(inch)	Ф15.88 (5/8)	Ф15.88 (5/8)	Ф15.88 (5/8)
	Connection Type(Liquid)	-	Flare	Flare	Flare
	Connection Type(Gas)	-	Flare	Flare	Flare
Sound Pressure Level	Cooling(H/M/L)	dB(A)	39 / 37 / 34	43 / 39 / 37	47 / 44 / 39
	Heating(H/M/L)	dB(A)	39 / 37 / 34	43 / 39 / 37	47 / 44 / 39
Sound Power Leve	Cooling(H/M/L)	dB(A)	48 / 46 / 43	52 / 48 / 46	56 / 53 / 48
	Heating(H/M/L)	dB(A)	48 / 46 / 43	52 / 48 / 46	56 / 53 / 48
Connecting Cable	Communication Cable (VCTF-SB)	mm² x cores	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 x 2C

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical
 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

3. Dimensions

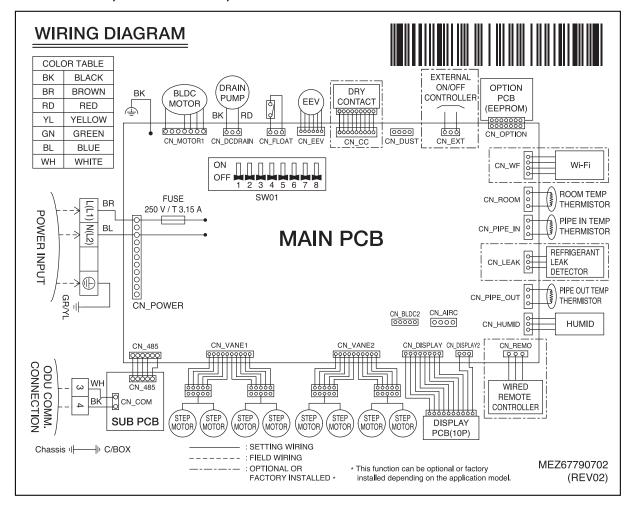


4. Piping Diagrams



LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

◆ ARNU24GTYA4, ARNU36GTYA4, ARNU48GTYA4



6. Capacity Tables

■ Cooling Capacity

						Indoo	r air tem	р. (DB/W	/B, °C)					
Capacity Index	2	:0	2	3	2	6	2	7	2	:8	3	0	3	2
(kW)	1	4	1	6	1	8	1	9	2	:0	2	2	2	4
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7.1	4.8	4.1	5.7	4.5	6.6	4.9	7.1	5.0	7.6	5.2	7.7	4.9	7.8	4.5
10.6	7.2	6.3	8.5	6.9	9.9	7.5	10.6	7.6	11.3	7.9	11.5	7.5	11.6	6.9
14.1	9.5	8.3	11.3	9.1	13.1	9.9	14.1	10.1	15.1	10.5	15.3	9.9	15.5	9.1

■ Heating Capacity

0	Indoor air temp. (DB, °C)							
Capacity Index (kW)	16	18	20	21	22	24		
(KVV)	TC	TC	TC	TC	TC	TC		
7.1	9.0	8.5	8.0	7.7	7.5	7.0		
10.6	13.4	12.7	11.9	11.5	11.1	10.4		
14.1	17.9	16.9	15.9	15.4	14.9	13.9		

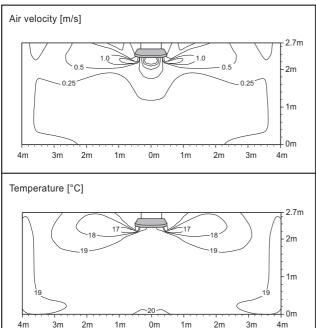
- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution

♦ ARNU24GTYA4

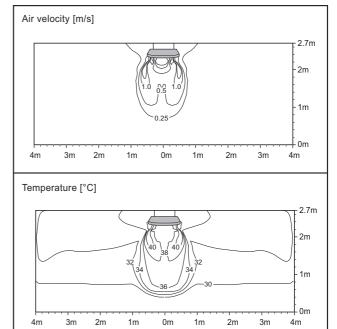
Cooling

Vane : 0 mm



Heating

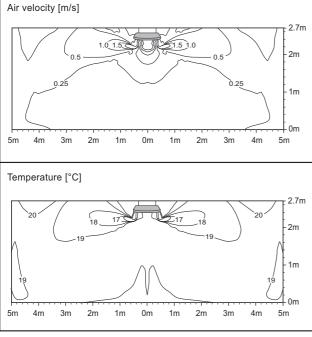
Vane: 15 mm



◆ ARNU36GTYA4

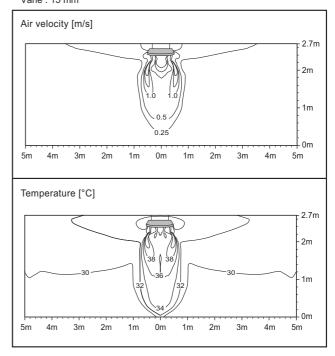
Cooling

Vane : 0 mm



Heating

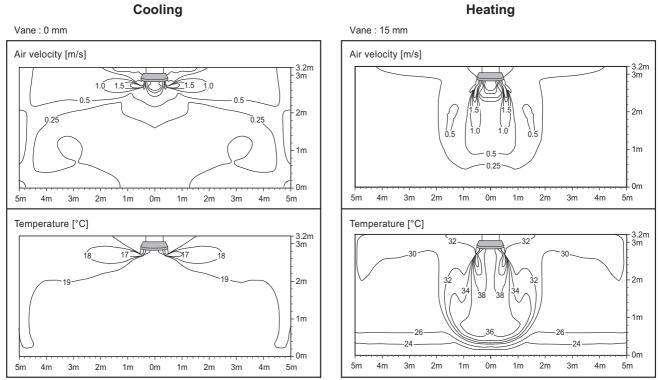
Vane : 15 mm



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution

♦ ARNU48GTYA4



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units			Power Supply	IF	М	F	PI	
Model	Туре	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU24GTYA4				M 004	2.50	0.157	1.97	55	55
ARNU36GTYA4	TY	50	220-240	Max. : 264 Min. : 198	2.50	0.157	1.97	90	90
ARNU48GTYA4					2.50	0.157	1.97	120	120
ARNU24GTYA4				Max. : 253 Min. : 207	2.50	0.157	1.97	55	55
ARNU36GTYA4	TY	60	230		2.50	0.157	1.97	90	90
ARNU48GTYA4					2.50	0.157	1.97	120	120

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

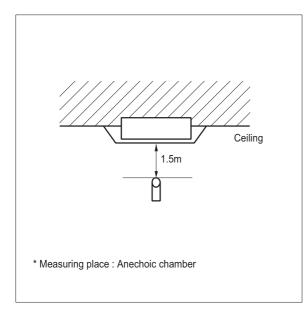
(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

Overall



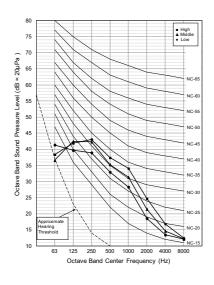
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure $0dB = 20\mu Pa$.
- 4.Data is valid at nominal operation condition.

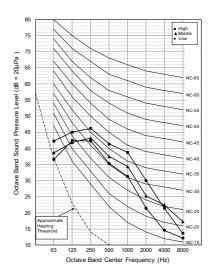
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Soun	Sound Pressure Levels [dB(A)]				
Model	Н	M	L			
ARNU24GTYA4	39	37	34			
ARNU36GTYA4	43	39	37			
ARNU48GTYA4	47	44	39			

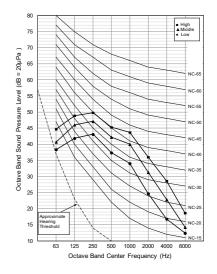
ARNU24GTYA4



ARNU36GTYA4



ARNU48GTYA4



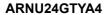
9. Sound Levels

9.2 Sound Power Levels

Note

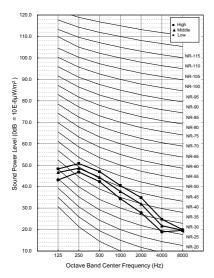
- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

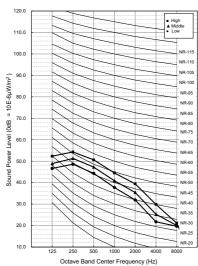
Model	Sound Power Levels [dB(A)]				
Wiodei	Н	M	L		
ARNU24GTYA4	48	46	43		
ARNU36GTYA4	52	48	46		
ARNU48GTYA4	56	53	48		

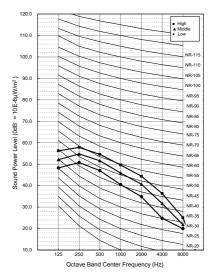


ARNU36GTYA4

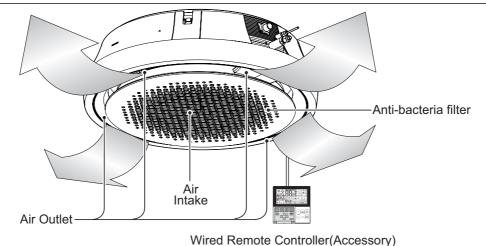
ARNU48GTYA4







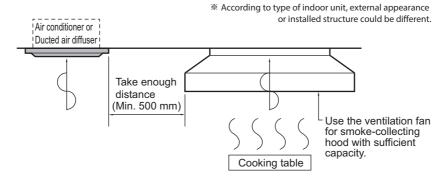
- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)



10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;

- Make sure that ventilation fan is enough to cover all noxious gases from this place.
- Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



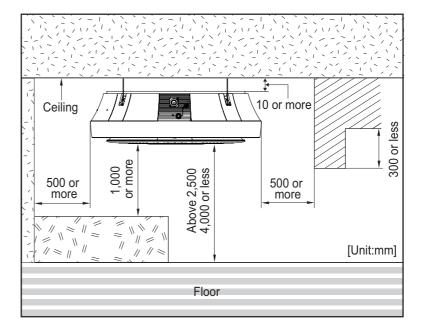
- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 ℃ or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

TY Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



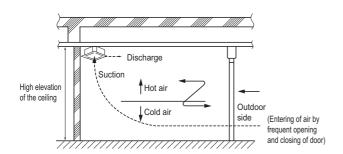
A CAUTION

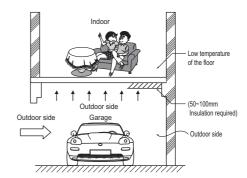
· This product is based on exposure installation. Do not install it in a landfill site such as ceiling tax.

10.2 Precautions regarding cassette indoor unit installation

Main points about the indoor installation

- In general commercial places and offices though the height of the ceiling is 2.7 m, the ceiling height could be over 3 m.
- In such cases because of the temperature difference with the floor the heating effect can fall down.
- · Countermeasure method
 - 1. Air conditioner should be able to operate in high ceiling operation mode.
 - 2. Plan to install the circulator.
 - 3. The air discharge port should be made to give more airflow to the down floor directions.
 - 4. The gate or exit of the building is protected by dual door system to minimize inflow of outdoor air.





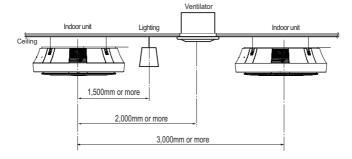
♦ In case the floor or surfaces is contact with the outdoor air directly

- If the floor of air conditioned room contact with the outside air, like the store room or garage, the floor temperature will be decreased and users can have a cold feeling in the feet.
- In such places where the feet comes in direct contact with floors will give a cold feeling to the foot.

A CAUTION

- In case there is a cold air intake,
 - » The duct surface may have some dew drops. So a insulation on the duct is a must.(Insulation material: a glass wool of thickness 25 mm will be appropriate.)
- Countermeasure method
 - 1. Use the carpet on the floor. (compared to the tiles the carpet over it will have a 3 degree rise in temperature)
 - 2. Insulating the floor.
 - 3. Floor heating.

In case of multiple indoor cassette units (recommended)

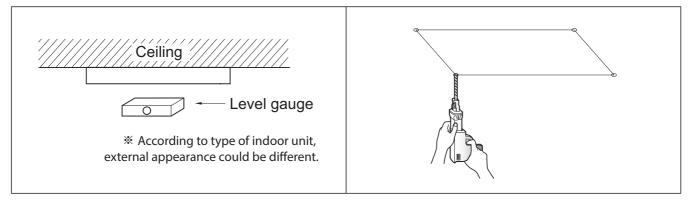




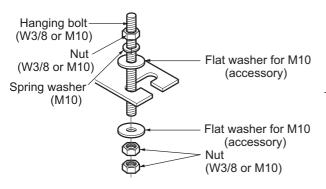
10.3 Ceiling opening dimensions and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



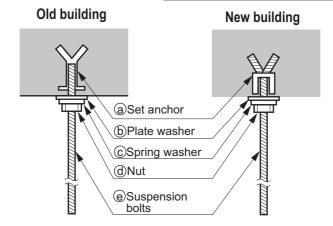
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)





10.4 Connecting Cables between Indoor Unit and Outdoor Unit

10.4.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.4.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.4.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

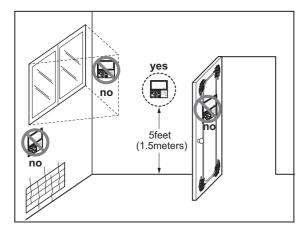
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.4.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



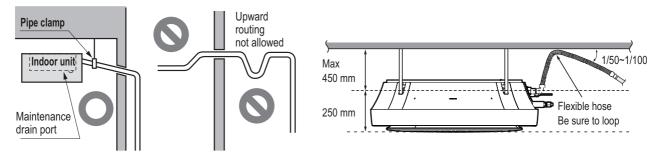
Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

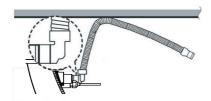
10.5 Indoor Unit Drain Piping

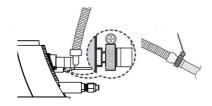
10.5.1 Drain piping of indoor unit with drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe VP-25 and pipe fittings.



* According to type of indoor unit, external appearance could be different.

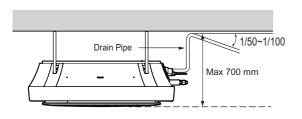


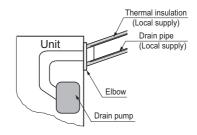


Place the elbow connection upwards and connect to the product.

Place the bolt of the clamp clamping part upwards and fix the connection part.

- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



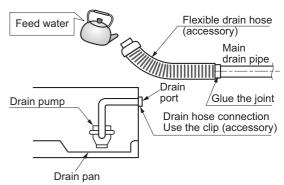


10.5.2 Method of Drainage test

Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

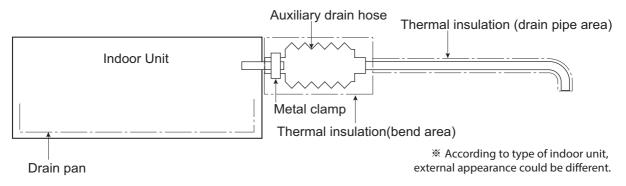
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



According to type of indoor unit, external appearance could be different.

10.5.3 Connection of an auxiliary(flexible) drain hose

To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used.
 auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by
 excessive strain.



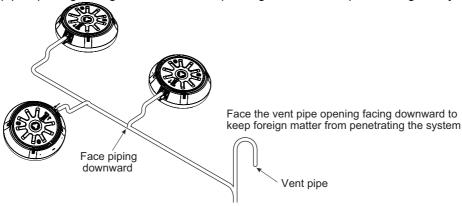
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CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.5.4 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Concealed Duct (High Sensible)

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity Point
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. External Static Pressrue(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GM2A4, ARNU09GM2A4, ARNU12GM2A4, ARNU15GM2A4, ARNU18GM3A4, ARNU24GM3A4, ARNU28GM3A4, ARNU36GB8A4, ARNU42GB8A4, ARNU48GB8A4		
	Air supply outlet	1		
	Airflow direction control(left & right)	-		
	Airflow direction control(up & down)	-		
	Auto swing(left & right)	-		
Air flow	Auto swing(up & down)	-		
ir flow	Airflow steps(fan/cool/heat)	3/3/3		
	Chaos swing	-		
	Chaos wind(auto wind)	-		
	Jet cool(Power wind)	-		
	Swirl wind	-		
	Deodorizing filter	X		
Air purifying	Plasma air purifier	X		
	Prefilter(washable)	0		
	Drain pump	0		
Installation	E.S.P. control*	0		
Installation	Electric heater(operation)	X		
	High ceiling operation*	-		
	Hot start	0		
Reliability	Self diagnosis	0		
	Soft dry operation	0		
	Auto changeover	O(Heat recovery / Heat pump)		
	Auto cleaning	X		
	Auto operation(artificial intelligence)	O(Cooling only)		
	Auto restart operation	0		
	Child lock*	0		
0	Forced operation	-		
Convenience	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
	External On/Off	0		
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01		
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10		
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B		
Individual control	Simple wired remote controller	PQRCVCL0Q(W)		
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)		
	Wireless LCD remote control*	PQWRH(C)Q0FDB		
	Wi-Fi Controller	PWFMDD200		
	Zone control	ABZCA		
	CTIE	-		
	Electro thermostat	-		
0	Remote temperature sensor	PQRSTA0		
Special function kit	Group control wire	PZCWRCG3		
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500		
	Independent Power Module	PRIP0		
	Refrigerant Leakage Detector	PRLDNVS0		
Note	<u>, </u>	1		

Note

1. O : Applied, X : Not Applied

Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

Туре			Ceiling Concealed I	Duct - High Sensible	
Model		Unit	ARNU07GM2A4	ARNU09GM2A4	
		kW	2.2	2.8	
Cooling Capacity		kcal/h	1,900	2,400	
		Btu/h	7,500	9,600	
		kW	2.5	3.2	
Heating Capacity		kcal/h	2,200	2,800	
		Btu/h	8,500	10,900	
Power Input (H / M / L	_)	W	32 / 29 / 27	32 / 29 / 27	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Body	mm	1,250 × 270 × 700	1,250 × 270 × 700	
(WxHxD)	Воду	inch	49-7/32 x 10-5/8 x 27-9/16	49-7/32 x 10-5/8 x 27-9/16	
Coil	Rows x Columns x FPI		2 x 13 x 18	2 x 13 x 18	
Coll	Face Area	m²	0.27	0.27	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	350 x 1	350 x 1	
	Air Flow Rate(H / M / L)	m³/min	13.3 / 9.4 / 6.8	13.3 / 9.4 / 6.8	
	(Factory set)	ft³/min	470 / 332 / 240	470 / 332 / 240	
Fan	External Static Pressure	mmAq (Pa)	6(59)	6(59)	
	Air Flow Rate Range*	m³/min	6.8 ~ 38.0	6.8 ~ 38.0	
	(Min. ~ Max.)	ft³/min	240 ~ 1,342	240 ~ 1,342	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control	•		Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	•	kg(lbs)	38.0(84)	38.0(84)	
Sound Pressure Leve	els (H / M / L)	dB(A)	33 / 33 / 32	33 / 33 / 32	
Sound Power Levels	(H / M / L)	dB(A)	52 / 52 / 52	52 / 52 / 52	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.18 - 0.17 - 0.16	0.18 - 0.17 - 0.16	
Maximum Running Current		А	2.30	2.30	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.35 / 0.29	0.35 / 0.29	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 50Pa External Static Pressure condition.
- 7. *: Air flow rate could be different in accordance with External Static Pressure and setting value.

Туре		ļ	Ceiling Concealed [cealed Duct - High Sensible		
	Model	Unit	ARNU12GM2A4	ARNU15GM2A4		
		kW	3.6	4.5		
Cooling Capacity	!	kcal/h	3,100	3,900		
		Btu/h	12,300	15,400		
		kW	4.0	5.0		
Heating Capacity	ı	kcal/h	3,400	4,300		
<u>.</u>	ı	Btu/h	13,600	17,100		
Power Input (H / M / L	L) '	W	33 / 30 / 28	33 / 30 / 28		
Casing			Galvanized Steel Plate	Galvanized Steel Plate		
Dimensions	D. A.	mm	1,250 × 270 × 700	1,250 × 270 × 700		
(WxHxD)	Body	inch	49-7/32 x 10-5/8 x 27-9/16	49-7/32 x 10-5/8 x 27-9/16		
2 -9	Rows x Columns x FPI		2 x 13 x 18	2 x 13 x 18		
Coil	Face Area	m²	0.27	0.27		
	Туре	,	Sirocco Fan	Sirocco Fan		
	Motor Output x Number	W	350 x 1	350 x 1		
	Air Flow Rate(H / M / L)	m³/min	14.8 / 10.2 / 7.4	14.8 / 10.2 / 7.4		
	(Factory set)	ft³/min	523 / 360 / 261	523 / 360 / 261		
Fan	External Static Pressure	mmAq (Pa)	6(59)	6(59)		
	Air Flow Rate Range*	m³/min	6.8 ~ 38.0	6.8 ~ 38.0		
	(Min. ~ Max.)	ft³/min	240 ~ 1,342	240 ~ 1,342		
	Drive		Direct	Direct		
	Motor type		BLDC	BLDC		
Temperature Control	•		Microprocessor, Thermostat for cooling and heating			
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene		
Air Filter				-		
Safety Device			Fuse	Fuse		
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)		
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)		
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)		
Net Weight		kg(lbs)	38.0(84)	38.0(84)		
Sound Pressure Leve	,	dB(A)	34 / 33 / 32	34 / 33 / 32		
Sound Power Levels	(H / M / L)	dB(A)	53 / 52 / 52	53 / 52 / 52		
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60		
Running Current by voltage	Rated	А	0.18 - 0.18 - 0.17	0.18 - 0.18 - 0.17		
Maximum Running Co	urrent	А	2.30	2.30		
	Туре	-	R410A / R32	R410A / R32		
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.35 / 0.29	0.35 / 0.29		
	Control	-	EEV	EEV		
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C		
Note		·				

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- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 50Pa External Static Pressure condition.
- 7. *: Air flow rate could be different in accordance with External Static Pressure and setting value.

	Туре		Ceiling Concealed Duct - High Sensible		
Model		Unit	ARNU18GM3A4	ARNU24GM3A4	
		kW	5.6	7.1	
Cooling Capacity		kcal/h	4,800	6,100	
		Btu/h	19,100	24,200	
		kW	6.3	8.0	
Heating Capacity		kcal/h	5,400	6,900	
		Btu/h	21,500	27,300	
Power Input (H / M / I	-)	W	97 / 70 / 51	109 / 83 / 60	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dody	mm	1,250 × 360 × 700	1,250 × 360 × 700	
(WxHxD)	Body	inch	49-7/32 x 14-3/16 x 27-9/16	49-7/32 x 14-3/16 x 27-9/16	
Cail	Rows x Columns x FPI	•	3 x 16 x 18	3 x 16 x 18	
Coil	Face Area	m²	0.32	0.32	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	500 x 1	500 x 1	
	Air Flow Rate(H / M / L)	m³/min	32.7 / 26.7 / 23.0	35.5 / 30.6 / 26.2	
	(Factory set) `	ft³/min	1,155 / 943 / 812	1,254 / 1081 / 925	
Fan	External Static Pressure	mmAq (Pa)	6(59)	6(59)	
	Air Flow Rate Range*	m³/min	23.0 ~ 50.0	23.0 ~ 50.0	
	(Min. ~ Max.)	ft³/min	812 ~ 1,766	812 ~ 1,766	
	Drive	•	Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control	·		Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	•	kg(lbs)	44(97)	44(97)	
Sound Pressure Leve	els (H / M / L)	dB(A)	38 / 36 / 34	39 / 37 / 35	
Sound Power Levels	(H / M / L)	dB(A)	52 / 51 / 50	53 / 52 / 51	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	Α	0.59 - 0.56 - 0.54	0.66 - 0.63 - 0.61	
Maximum Running Current		Α	2.50	2.50	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.61 / 0.50	0.61 / 0.50	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 50Pa External Static Pressure condition.
- 7. *: Air flow rate could be different in accordance with External Static Pressure and setting value.

Туре			Ceiling Concealed Duct - High Sensible		
Model		Unit	ARNU28GM3A4	ARNU36GB8A4	
		kW	8.2	10.6	
Cooling Capacity		kcal/h	7,100	9,100	
		Btu/h	28,000	36,200	
		kW	9.2	11.9	
Heating Capacity		kcal/h	8,000	10,200	
		Btu/h	31,500	40,600	
Power Input (H / M / I	L)	W	109 / 83 / 60	420 / 403 / 478	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dady	mm	1,250 × 360 × 700	1,562 x 460 x 688	
(WxHxD)	Body	inch	49-7/32 x 14-3/16 x 27-9/16	61-1/2 x 18-1/8 x 27-3/32	
O-ii	Rows x Columns x FPI		3 x 16 x 18	3 x 21 x 19	
Coil	Face Area	m²	0.32	0.59	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	500 x 1	375 x 2	
	Air Flow Rate(H / M / L)	m³/min	35.5 / 30.6 / 26.2	49.0 / 37.3 / 30.2	
	(Factory set)	ft³/min	1,254 / 1,081 / 925	1,730 / 1,317 / 1,066	
Fan	External Static Pressure	mmAq (Pa)	6(59)	18 (176)	
	Air Flow Rate Range*	m³/min	23.0 ~ 50.0	30.2 ~ 100.0	
	(Min. ~ Max.)	ft³/min	812 ~ 1,766	1,066 ~ 3,531	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight		kg(lbs)	44(97)	87(192)	
Sound Pressure Leve	els (H / M / L)	dB(A)	39 / 37 / 35	46 / 45 / 42	
Sound Power Levels	(H / M / L)	dB(A)	53 / 52 / 51	65 / 64 / 62	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	Α	0.66 - 0.63 - 0.61	2.55 - 2.43 - 2.33	
Maximum Running Current		А	2.50	5.20	
	Type	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.61 / 0.50	1.00 / 0.83	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

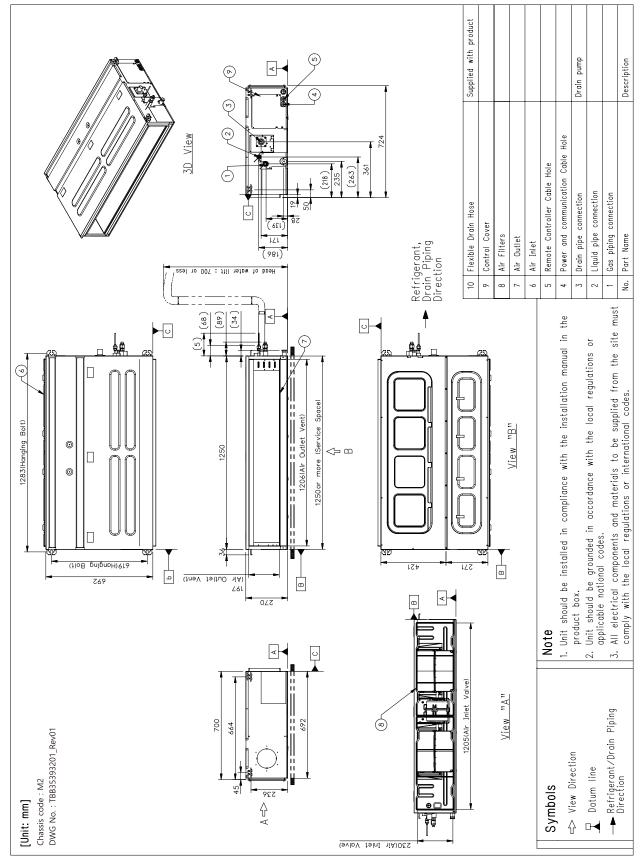
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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 50Pa External Static Pressure condition.
- 7. *: Air flow rate could be different in accordance with External Static Pressure and setting value.

	Туре		Ceiling Concealed Duct - High Sensible		
Model		Unit	ARNU42GB8A4	ARNU48GB8A4	
		kW	12.3	14.1	
Cooling Capacity		kcal/h	10,600	12,100	
		Btu/h	42,000	48,100	
		kW	13.8	15.9	
Heating Capacity		kcal/h	11,000	13,200	
		Btu/h	43,800	51,200	
Power Input (H / M / L)	W	528 / 497 / 465	538 / 505 / 482	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dadu	mm	1,562 x 460 x 688	1,562 x 460 x 688	
(WxHxD)	Body	inch	61-1/2 x 18-1/8 x 27-3/32	61-1/2 x 18-1/8 x 27-3/32	
0 - 11	Rows x Columns x FPI		3 x 21 x 19	3 x 21 x 19	
Coil	Face Area	m²	0.59	0.59	
	Туре	1	Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	375 x 2	375 x 2	
	Air Flow Rate(H / M / L)	m³/min	54.2 / 41.3 / 31.8	57.2 / 43.0 / 34.0	
	(Factory set)	ft³/min	1,914 / 1,458 / 1,123	2,019 / 1,518 / 1,200	
Fan	External Static Pressure	mmAq (Pa)	18 (176)	18 (176)	
	Air Flow Rate Range*	m³/min	. , , , , , , , , , , , , , , , , , , ,	100.0	
	(Min. ~ Max.)	ft³/min	1,066	~ 3,531	
	Drive		Direct	Direct	
	Motor type		BLDC BLDC		
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Ther	mal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight		kg(lbs)	87(192)	87(192)	
Sound Pressure Level	s(H/M/L)	dB(A)	47 / 46 / 43	47 / 46 / 44	
Sound Power Levels (dB(A)	66 / 65 / 63	66 / 65 / 64	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	3.20 - 3.06 - 2.93	3.26 - 3.12 - 2.99	
Maximum Running Current		А	5.20	5.20	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	1.00 / 0.83	1.00 / 0.83	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 50Pa External Static Pressure condition.
- 7. *: Air flow rate could be different in accordance with External Static Pressure and setting value.

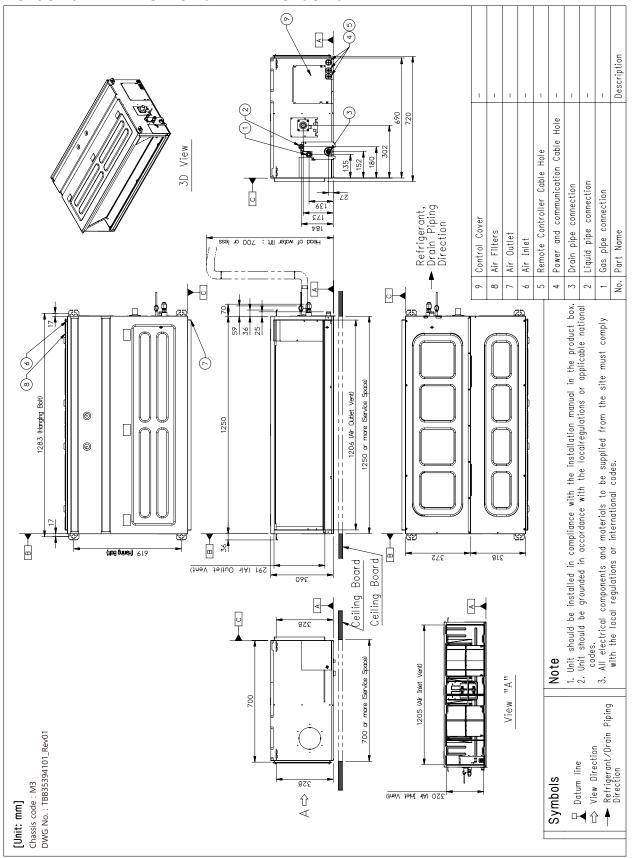
3. Dimensions & Gravity point

ARNU07GM2A4 / ARNU09GM2A4 / ARNU12GM2A4 / ARNU15GM2A4



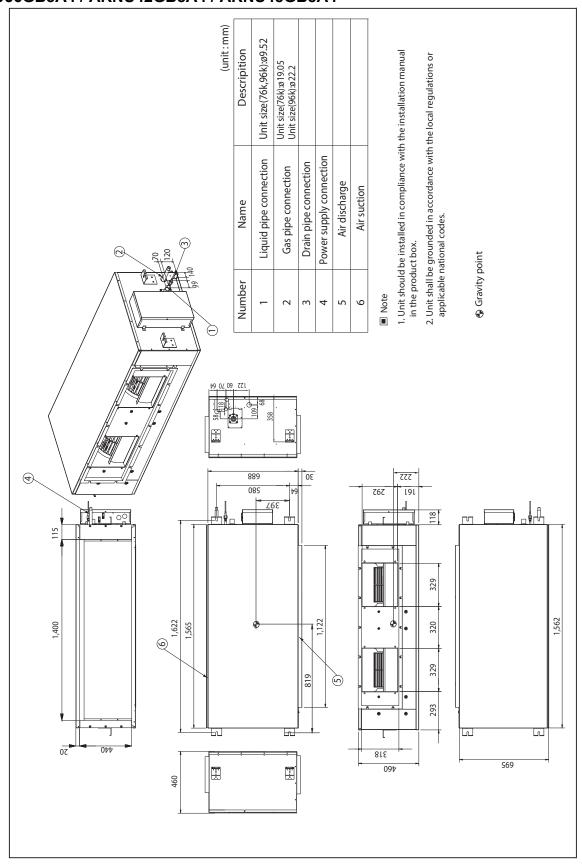
3. Dimensions & Gravity point

ARNU18GM3A4 / ARNU24GM3A4 / ARNU28GM3A4



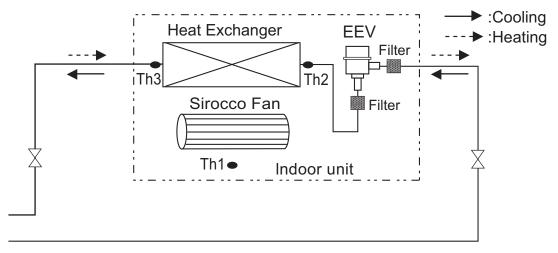
3. Dimensions & Gravity point

ARNU36GB8A4 / ARNU42GB8A4 / ARNU48GB8A4



4. Piping Diagrams

■ M2, M3 Chassis



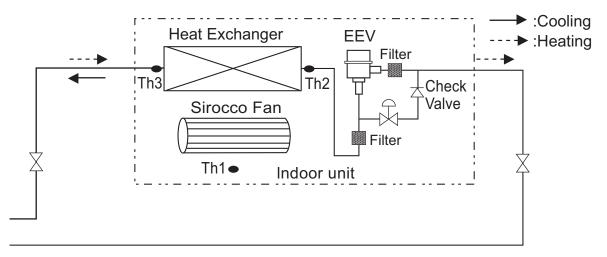
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU07GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU09GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU12GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU15GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU18GM3A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU24GM3A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU28GM3A4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Thermistor for room air temperature
Th2	Thermistor for pipe in temperature
Th3	Thermistor for pipe out temperature

4. Piping Diagrams

■ B8 Chassis



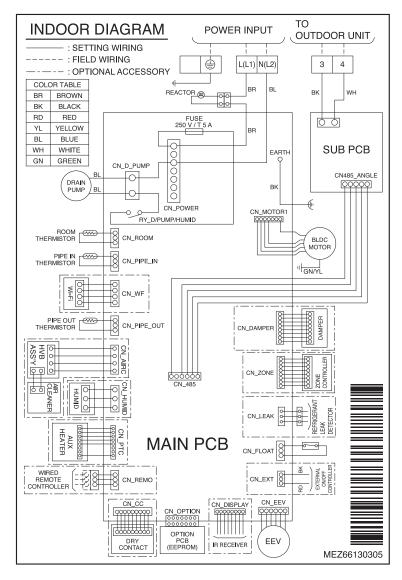
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU36GB8A4	Ø19.05(3/4)	Ø9.52(3/8)
ARNU42GB8A4	Ø19.05(3/4)	Ø9.52(3/8)
ARNU48GB8A4	Ø19.05(3/4)	Ø9.52(3/8)

* A : Global line-up, C : Brazil line-up only

LOC.	Description	PCB Connector (Color)
Th1	Thermistor for room air temperature	CN-ROOM (Yellow)
Th2	Thermistor for pipe in temperature	CN-PIPE_IN (White)
Th3	Thermistor for pipe out temperature	CN-PIPE_OUT (Red)

■ M2 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZONE	Zontroller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

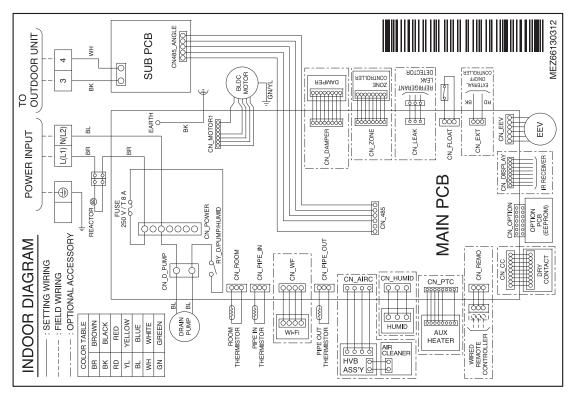
	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off

	Function	Description	Setting Off	Setting On	Default
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF

■ M3 Chassis



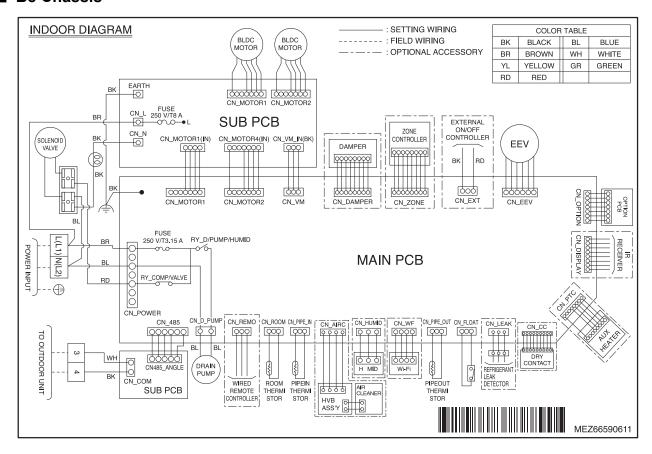
CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZONE	Zontroller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)		-	Off
SW3	Group Control	Selection of Master or Slave	Selection of Master or Slave Master Slave		Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	n continuous operation Continuous operation Removal		Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection Selection tropical region		General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF

■ B8 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1, CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC Output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-DISPLAY	RF Remocon	RF Remocon receiver
CN-OPTION	Option PCB	Option PCB connector
CN-ZONE	Zone controller	Zone controller line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humid sensor	Humid sensing

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console) Selection of up/down side		Up side + Down side Vane	Up side Vane Only	Off
	Region selection Selection tropical region		General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity	Indoor air temp. (DB/WB, °C)													
Nominal Capacity (kBtu/h)	2	:0	2	:3	2	26	2	7	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	0	2	2	2	:4
[Capacity mack (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7 [2.2]	1.5	1.5	1.8	1.8	2.0	2.0	2.2	2.1	2.4	2.2	2.4	2.1	2.4	1.9
9 [2.8]	1.9	1.9	2.2	2.2	2.6	2.6	2.8	2.7	3.0	2.8	3.0	2.7	3.1	2.4
12 [3.6]	2.4	2.4	2.9	2.9	3.3	3.3	3.6	3.5	3.9	3.6	3.9	3.4	4.0	3.1
15 [4.5]	3.0	3.0	3.6	3.6	4.2	4.2	4.5	4.3	4.8	4.4	4.9	4.2	4.9	3.9
18 [5.6]	3.8	3.8	4.5	4.5	5.2	5.2	5.6	5.3	6.0	5.5	6.1	5.2	6.2	4.7
24 [7.1]	4.8	4.8	5.7	5.7	6.6	6.5	7.1	6.6	7.6	6.9	7.7	6.5	7.8	6.0
28 [8.2]	5.5	5.5	6.6	6.6	7.6	7.3	8.2	7.5	8.8	7.8	8.9	7.3	9.0	6.7
36 [10.6]	7.2	7.2	8.5	8.5	9.9	9.9	10.6	10.1	11.3	10.5	11.5	9.9	11.6	9.1
42 [12.3]	8.3	8.3	9.9	9.9	11.4	11.4	12.3	11.7	13.2	12.1	13.3	11.5	13.5	10.5
48 [14.1]	9.5	9.5	11.3	11.3	13.1	13.1	14.1	13.4	15.1	13.9	15.3	13.1	15.5	12.1

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity (kBtu/h) [Capacity Index (kW)]	Indoor air temp. (DB, °C)					
	16 TC	18 TC	20 TC	21 TC	22 TC	24 TC
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0
28 [8.2]	10.4	9.8	9.2	8.9	8.6	8.0
36 [10.6]	13.4	12.7	11.9	11.5	11.1	10.4
42 [12.3]	15.6	14.7	13.8	13.4	12.9	12.0
48 [14.1]	17.9	16.9	15.9	15.4	14.9	13.9

- TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Table 1 : Air Flow Rate vs External Static Pressure

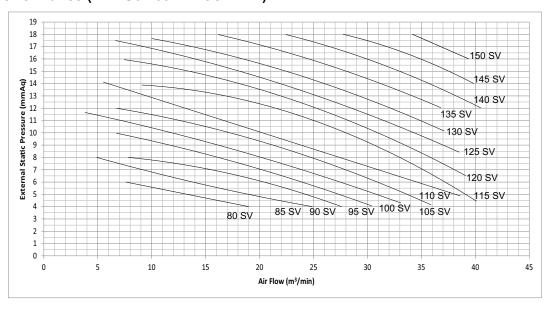
◆ ARNU07GM2A4, ARNU09GM2A4, ARNU12GM2A4, ARNU15GM2A4

	Static Pressure(mmAq(Pa))											
Setting Value	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	16(157)	18(177)				
	Air Flow Rate (m³/min)											
65	4.7											
70	10.3											
75	15.0											
80	19.0	7.6										
85	24.9	13.8	4.9									
90	27.6	20.4	7.8									
95	30.4	24.4	15.7	5.2								
100	33.1	28.7	20.8	9.2	3.8							
105	35.9	31.7	24.1	17.5	6.7							
110	38.6	34.7	30.5	22.2	11.5	5.5						
115	40.1	37.8	33.8	27.9	20.2	9.1						
120		39.1	37.1	31.4	24.6	17.9	7.5					
125			38.5	35.0	30.1	21.2	11.0	6.7				
130				37.1	32.0	27.6	15.6	10.0				
135					36.8	31.5	24.3	16.3				
140					40.5	35.9	29.8	22.4				
145						39.9	34.9	27.8				
150							39.4	34.2				
155								37.1				

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

◆ Fan Performance (ARNU07/09/12/15GM2A4)



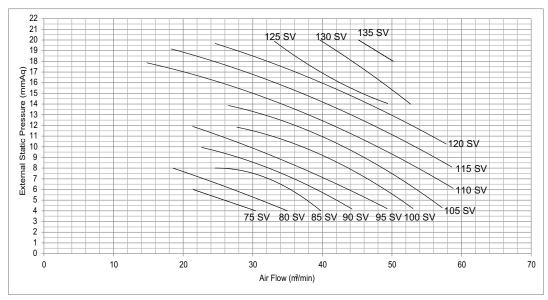
◆ ARNU18GM3A4, ARNU24GM3A4, ARNU28GM3A4

				Static I	Pressure(mm	Aq(Pa))					
Setting Value	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	16(157)	18(177)	20(196)		
	Air Flow Rate (m³/min)										
70	25.2	-	-	-	-	-	-	-	-		
75	30.4	21.4	-	-	-	-	-	-	-		
80	35.0	27.2	18.5	-	-	-	-	-	-		
85	39.8	35.4	24.6	-	-	-	-	-	-		
90	44.3	40.1	31.5	22.7	-	-	-	-	-		
95	49.3	44.8	36.8	28.8	21.4	-	-	-	-		
100	53.0	49.4	44.6	35.4	27.7	-	-	-	-		
105	57.2	54.1	49.2	43.0	35.0	26.5	-	-	-		
110	-	58.8	53.9	47.9	42.4	33.8	24.3	14.8	-		
115	-	-	58.6	52.9	47.8	42.5	31.4	20.3	18.3		
120	-	-	-	57.8	53.1	48.2	39.2	30.2	24.6		
125	-	-	-	-	-	49.4	43.1	36.7	33.1		
130	-	-	-	-	-	52.7	48.6	44.4	39.6		
135	-	-	-	-	-	-	-	50.2	45.2		

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

◆ Fan Performance (ARNU18/24/28GM3A4)



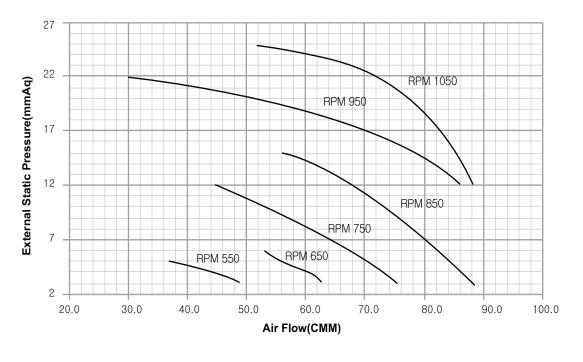
♦ ARNU36GB8A4, ARNU42GB8A4, ARNU48GB8A4

		Static Pressure(mmAq(Pa))											
Setting Value	3(29)	4(39)	5(49)	6(59)	9(88)	12(118)	15(147)	18(177)	20(196)	22(216)	23(226)	25(245)	
		Air Flow Rate (m³/min)											
50	40.3	36.2	-	-	-	-	-	-	-	-	-	-	
55	48.8	44.2	36.4	-	-	-	-	-	-	-	-	-	
60	54.9	50.2	49.7	45.0	-	-	-	-	-	-	-	-	
65	62.6	60.4	55.1	52.9	-	-	-	-	-	-	-	-	
70	67.9	64.5	62.1	60.7	47.1	-	-	-	-	-	-	-	
75	75.5	72.2	69.0	68.5	56.9	44.7	-	-	-	-	-	-	
80	82.6	80.9	76.6	75.4	69.7	55.2	-	-	-	-	-	-	
85	88.8	85.9	82.0	81.6	78.6	67.4	55.9	-	-	-	-	-	
91	94.7	93.0	90.4	90.2	87.1	78.9	67.6	54.2	-	-	-	-	
95	-	-	-	-	-	86.1	77.0	66.4	50.6	30.0	-	-	
100	-	-	-	-	-	-	84.9	75.9	69.5	60.8	43.1	-	
105	-	-	-	-	-	-	-	81.1	77.4	72.0	67.9	51.3	

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

◆ Fan Performance (ARNU36/42/48GB8A4)



■ Table 2 : Lower and Upper Limit of External Static Pressure

◆ ARNU07GM2A4, ARNU09GM2A4, ARNU12GM2A4, ARNU15GM2A4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	115	HI	83		13.3			
	High (factory set)	Mid	81	6(59)	9.4	4(39)	18(177)	
7k	(lactory set)	Low	79		6.8			
/ N		HI	81		13.3			
	Standard	Mid	79	5(49)	9.4	4(39)	18(177)	
		Low	77		6.8			
	115	HI	83		13.3			
	High (factory set)	Mid	81	6(59)	9.4	4(39)	18(177)	
9k	(lactory set)	Low	79		6.8			
9K		HI	81		13.3			
	Standard	Mid	79	5(49)	9.4	4(39)	18(177)	
		Low	77		6.8			
		HI	84		14.8			
	High (factory set)	Mid	82	6(59)	10.2	4(39)	18(177)	
12k	(lactory set)	Low	80		7.4			
IZK		HI	82		14.8			
	Standard	Mid	80	5(49)	10.2	4(39)	18(177)	
		Low	78		7.4			
		HI	84		14.8			
	High (factory set)	Mid	82	6(59)	10.2	4(39)	18(177)	
15k	(lactory set)	Low	80		7.4			
IOK	ТЭК		82		14.8			
	Standard	Mid	80	5(49)	10.2	4(39)	18(177)	
		Low	78		7.4		` ′	

Note

◆ ARNU18GM3A4, ARNU24GM3A4, ARNU28GM3A4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
		HI	83		32.7			
	High (factory set)	Mid	79	6(59)	26.7	4(39)	20(196)	
18k	(lactory set)	Low	75		23.0			
IOK		HI	80		32.7			
	Standard		76	5(49)	26.7	4(39)	20(196)	
			70		23.0			
	High (factory set)	HI	85		35.5			
		Mid	81	6(59)	30.6	4(39)	20(196)	
24k	(lactory set)	Low	77		26.2			
24K		HI	83		35.5		20(196)	
	Standard	Mid	79	5(49)	30.6	4(39)		
		Low	75		26.2			
		HI	85		35.5			
	High (factory set)	Mid	81	6(59)	30.6	4(39)	20(196)	
` ' '	Low	77		26.2				
∠oĸ	28k Standard	HI	83		35.5		20(196)	
		Mid	79	5(49)	30.6	4(39)		
			75		26.2	7	, ,	

Note

^{1.} The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

^{1.} The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

♦ ARNU36GB8A4, ARNU42GB8A4, ARNU48GB8A4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.151.	HI	90		49.0			
	High (factory set)	Mid	87	18(176)	37.3	9(88)	25(245)	
36k	(lactory sor)	Low	84		30.2			
JOK		Ħ	72		53.7			
	Standard	Mid	69	9(88)	49.5	9(88)	25(245)	
		Low	66		43.9			
	1.151.	HI	91		54.2			
	High (factory set)	Mid	88	18(176)	41.3	9(88)	25(245)	
42k	(lactory sor)	Low	85		31.8			
42K		HI	73		55.6			
	Standard	Mid	70	9(88)	50.6	9(88)	25(245)	
		Low	67		45.0			
	1.151.	HI	92		57.2			
	High (factory set)	Mid	89	18(176)	43.0	9(88)	25(245)	
48k	` ' '	Low	86		34.0			
40K	40K		74		58.0			
	Standard	Mid	71	9(88)	52.3	9(88)	25(245)	
		Low	68		47.3			

Note

^{1.} The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

8. Electric Characteristics

	U	nit			Power Supply	IF	М	F	ગ
Model	Туре	Hz	Volts	Voltage Range	MCA	kW	FLA	cooling	Heating
ARNU07GM2A4	M2				2.90	0.350	2.30	430	430
ARNU09GM2A4	M2				2.90	0.350	2.30	430	430
ARNU12GM2A4	M2				2.90	0.350	2.30	430	430
ARNU15GM2A4	M2				2.90	0.350	2.30	430	430
ARNU18GM3A4	M3	50	220-240	Max:264	3.10	0.500	2.50	650	650
ARNU24GM3A4	М3	30	220-240	Min:198	3.10	0.500	2.50	650	650
ARNU28GM3A4	M3				3.10	0.500	2.50	650	650
ARNU36GB8A4	B8				6.50	0.750	5.20	800	800
ARNU42GB8A4	B8				6.50	0.750	5.20	800	800
ARNU48GB8A4	B8				6.50	0.750	5.20	800	800
ARNU07GM2A4	M2				2.90	0.350	2.30	430	430
ARNU09GM2A4	M2				2.90	0.350	2.30	430	430
ARNU12GM2A4	M2				2.90	0.350	2.30	430	430
ARNU15GM2A4	M2				2.90	0.350	2.30	430	430
ARNU18GM3A4	M3	60	220	Max:242	3.10	0.500	2.50	650	650
ARNU24GM3A4	M3	00	220	Min:198	3.10	0.500	2.50	650	650
ARNU28GM3A4	M3				3.10	0.500	2.50	650	650
ARNU36GB8A4	B8				6.50	0.750	5.20	800	800
ARNU42GB8A4	B8				6.50	0.750	5.20	800	800
ARNU48GB8A4	B8				6.50	0.750	5.20	800	800

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

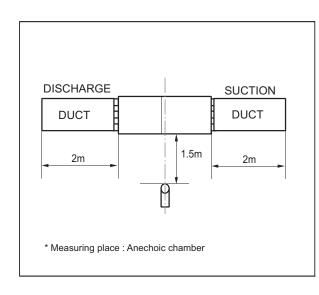
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.

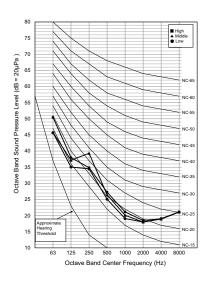
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

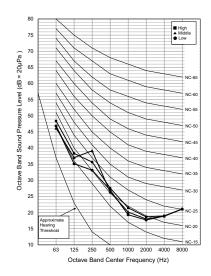
 Therefore, these values can be increased owing to ambient conditions during operation.

		Sound Pressure Levels [dB(A),H-M-L]								
Model	External Static Pressure [Pa]									
	39	49	59	147	177					
ARNU07GM2A4 ARNU09GM2A4	32-31-29	33-33-32	38-37-36	38-37-36	42-42-41					
ARNU12GM2A4 ARNU15GM2A4	32-32-29	34-33-32	38-37-36	38-37-37	43-42-41					

■ Sound Pressure Level (39Pa)

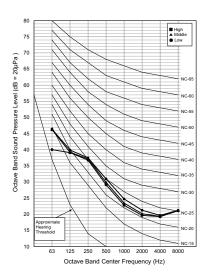
ARNU07GM2A4 ARNU09GM2A4



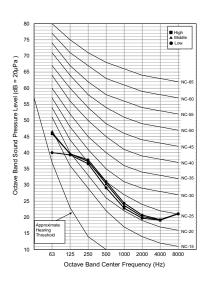


■ Sound Pressure Level (49Pa)

ARNU07GM2A4 ARNU09GM2A4

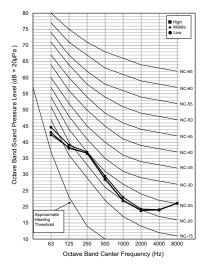


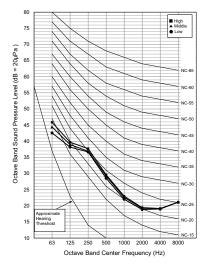
ARNU12GM2A4 ARNU15GM2A4



■ Sound Pressure Level (59Pa)

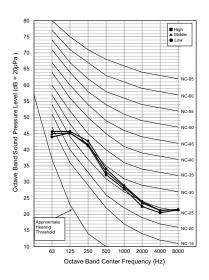
ARNU07GM2A4 ARNU09GM2A4



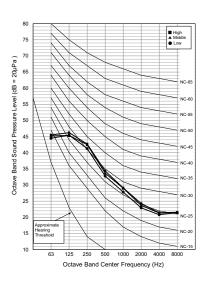


■ Sound Pressure Level (147Pa)

ARNU07GM2A4 ARNU09GM2A4

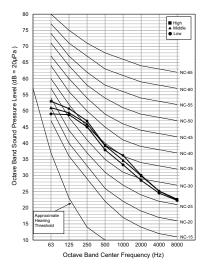


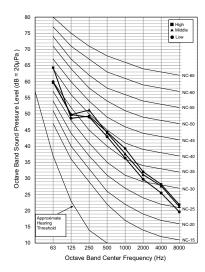
ARNU12GM2A4 ARNU15GM2A4



■ Sound Pressure Level (177Pa)

ARNU07GM2A4 ARNU09GM2A4

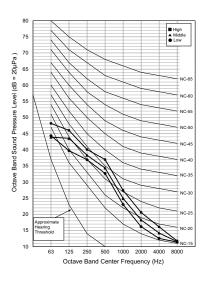




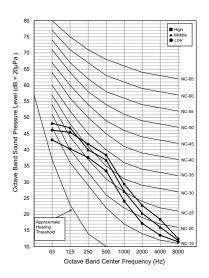
		Sound Pressure Levels [dB(A),H-M-L]								
Model	External Static Pressure [Pa]									
	39	49	59	147	196					
ARNU18GM3A4	37-34-32	38-36-34	40-38-37	45-45-45	45-46-44					
ARNU24GM3A4 ARNU28GM3A4	38-37-33	39-37-35	40-39-37	46-45-46	46-46-44					

■ Sound Pressure Level (39Pa)

ARNU18GM3A4

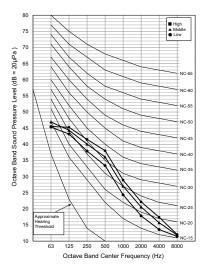


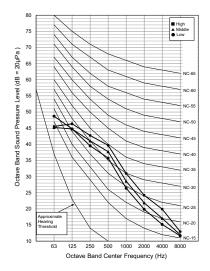
ARNU24GM3A4 ARNU28GM3A4



■ Sound Pressure Level (49Pa)

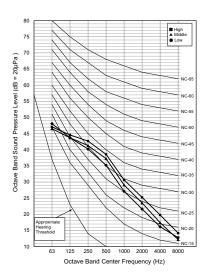
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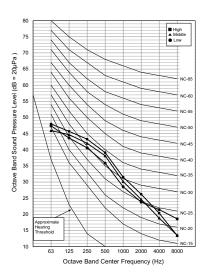


■ Sound Pressure Level (59Pa)

ARNU18GM3A4

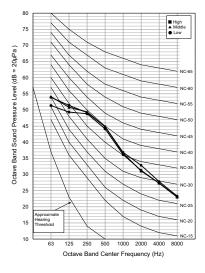


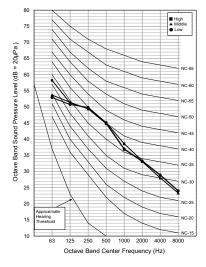
ARNU24GM3A4 ARNU28GM3A4



■ Sound Pressure Level (147Pa)

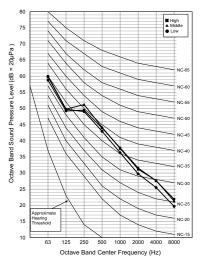
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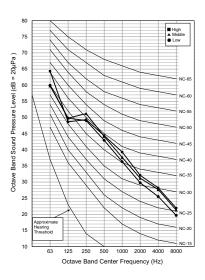


■ Sound Pressure Level (196Pa)

ARNU18GM3A4

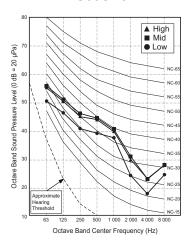


ARNU24GM3A4 ARNU28GM3A4

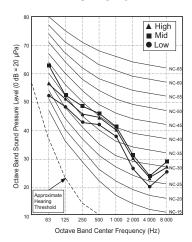


Model	Sound Level [dB(A)]						
Wiodei	Н	M	L				
ARNU36GB8A4	46	45	42				
ARNU42GB8A4	47	46	43				
ARNU48GB8A4	47	46	44				

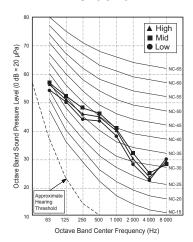
ARNU36GB8A4



ARNU42GB8A4



ARNU48GB8A4



9.2 Sound Power Levels

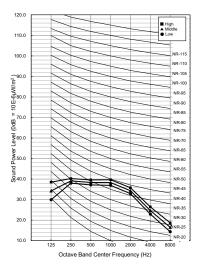
Note

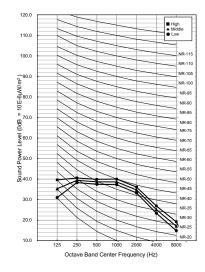
- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

		Sound Power Levels [dB(A),H-M-L] External Static Pressure [Pa]								
Model										
	39	49	59	147	177					
ARNU07GM2A4 ARNU09GM2A4	51-51-50	52-52-52	53-52-52	54-54-54	63-61-59					
ARNU12GM2A4 ARNU15GM2A4	52-51-50	53-52-52	53-53-52	55-54-54	64-62-60					

■ Sound Power Level (39Pa)

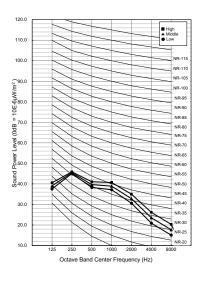
ARNU07GM2A4 ARNU09GM2A4



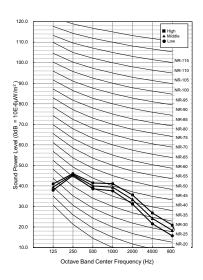


■ Sound Power Level (49Pa)

ARNU07GM2A4 ARNU09GM2A4

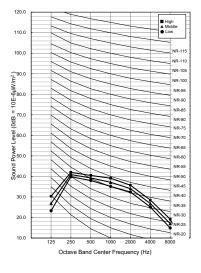


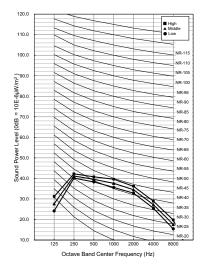
ARNU12GM2A4 ARNU15GM2A4



■ Sound Power Level (59Pa)

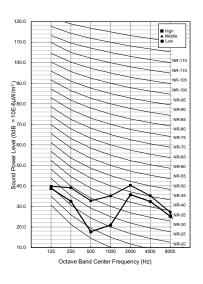
ARNU07GM2A4 ARNU09GM2A4



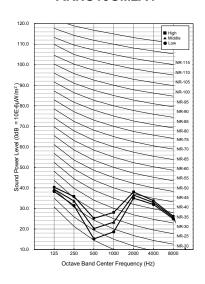


■ Sound Power Level (147Pa)

ARNU07GM2A4 ARNU09GM2A4

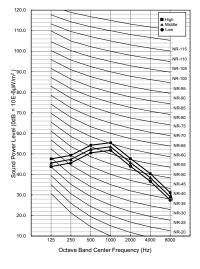


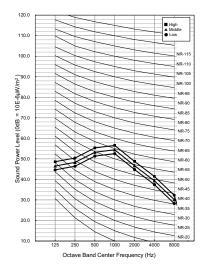
ARNU12GM2A4 ARNU15GM2A4



■ Sound Power Level (177Pa)

ARNU07GM2A4 ARNU09GM2A4

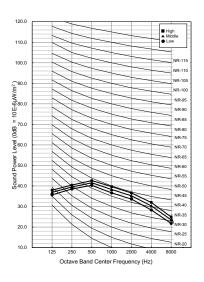




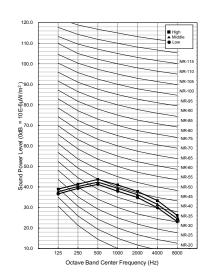
	Sound Power Levels [dB(A),H-M-L]								
Model	External Static Pressure [Pa]								
	39	49	59	147	196				
ARNU18GM3A4	51-50-49	52-51-50	53-52-51	58-58-58	70-70-69				
ARNU24GM3A4 ARNU28GM3A4	52-51-49	53-52-51	54-52-51	59-58-58	70-70-69				

■ Sound Power Level (39Pa)

ARNU18GM3A4

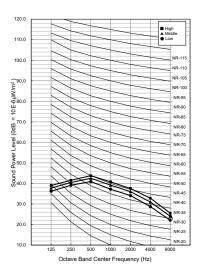


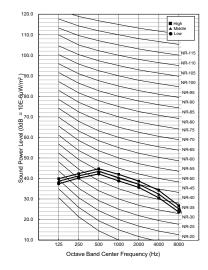
ARNU24GM3A4 ARNU28GM3A4



■ Sound Power Level (49Pa)

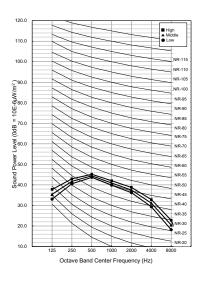
ARNU18GM3A4



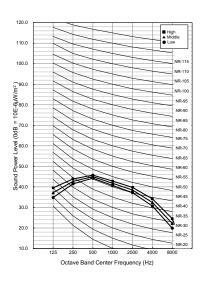


■ Sound Power Level (59Pa)

ARNU18GM3A4

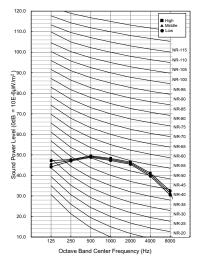


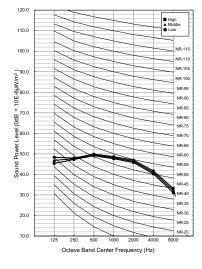
ARNU24GM3A4 ARNU28GM3A4



■ Sound Power Level (147Pa)

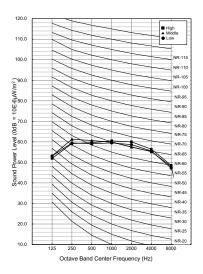
ARNU18GM3A4

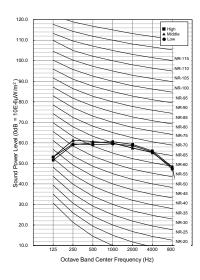




■ Sound Power Level (196Pa)

ARNU18GM3A4

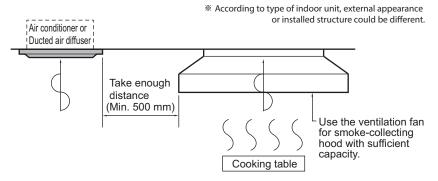




- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.

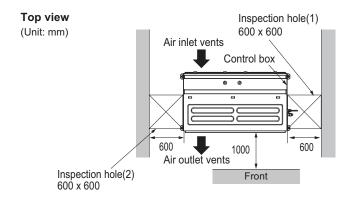


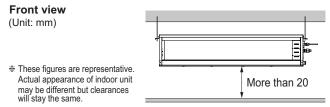
- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

■ M2 / M3 Chassis

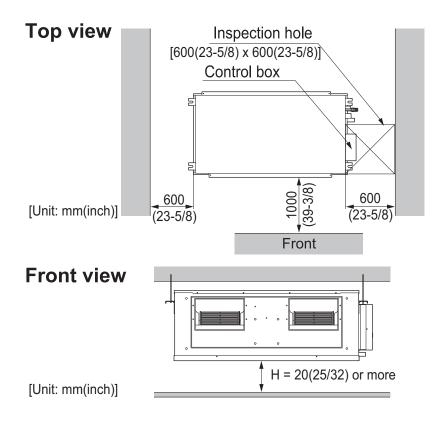




♦ Inspection Hole Standard

Distance between false ceiling & actual ceiling	Number of in spection hole	Remarks
More than 100cm	1	Sufficient space in the ceiling for servicing.
20cm to 100cm	2	Insufficient space. Difficult for servicing
Less than 20cm	Hole size should be more than the size of IDU.	Minimum height for motor replacement.

■ B8 Chassis

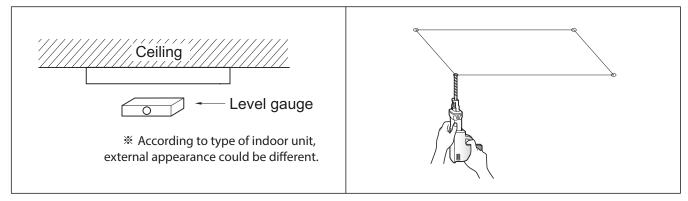




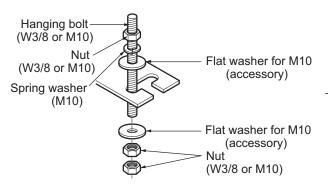
10.2 Ceiling dimension and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



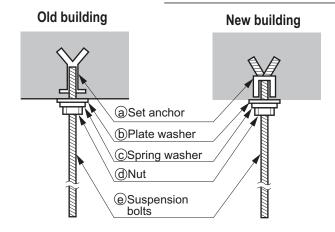
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

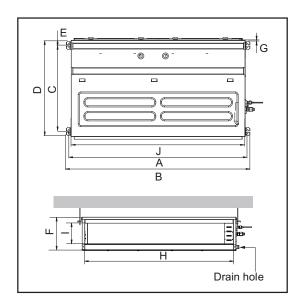
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



■ Installation dimension of Indoor unit

M2/M3 Chassis

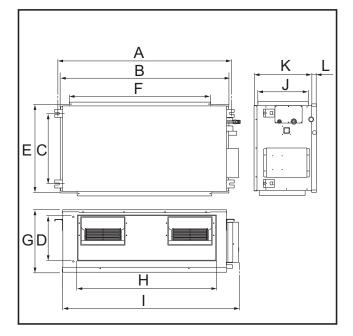
* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



Chassis	Dimension (mm)									
name	Α	В	С	D	Е	F	G	Н	I	J
M2	1,283.4	1,321.6	619.2	689.6	30	270	15.2	1,208	201.4	1,250
М3	1,283.4	1,321.6	619.2	689.6	30	360	15.2	1,208	291.4	1,250

B8 Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



Chassis						Dimensi	on (mm)				
Cilassis	Α	В	С	D	E	F	G	Н	ı	J	K	L
B8	1622	1565	580	292	695	1400	460	1122	1680	390	445	15

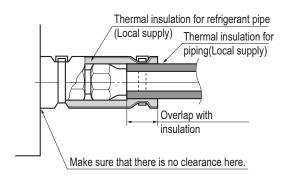
10.3 Connecting pipes to the indoor unit

Refrigerant piping work

To detail information for connecting the refrigerant pipes, please refer to the installation manual included withproduct.

■ Piping insulation work

- Perform heat insulation work completely on both gas and the liquid pipe. Because improper insulation will result condensate formation over pipe.
- Use the heat insulation material for the refrigerant piping which has an excellent heat resistance (over 120°C (248°F)).
- · Precautions in high humidity circumstance
 - This air conditioner has been tested according to the "KS Conditions" and confirmed.
 - If it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C(73°F)),
 water drops are liable to fall. In this case, add heat insulation material according to the following procedure.



- Heat insulation material: Adiabatic glass wool with thickness of 10~20mm(13/32 ~13/16 inch).
- Stick glass wool on all air conditioners that are located in ceiling atmosphere.

A CAUTION

Make sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping
may cause condensation or burns if touched.

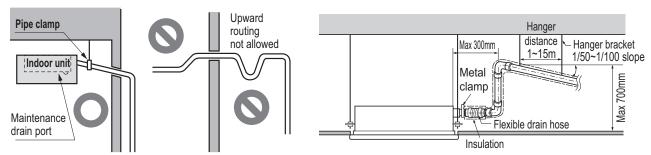
10.4 Indoor Unit Drain Piping

Important

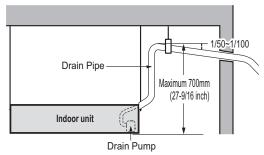
- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- · All connections should be secure. (Special care is needed with PVC pipe)

10.4.1 Drain piping of indoor unit with drain pump

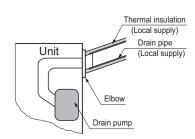
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

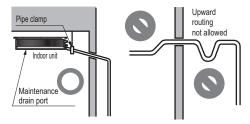




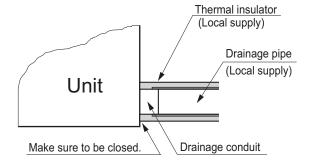


10.4.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

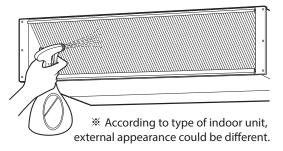


10.4.3 Method of Drainage test

♦ Drainage test of indoor unit

Use the following procedure to test the drainage.

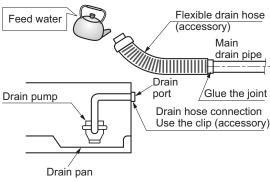
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- 3. Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

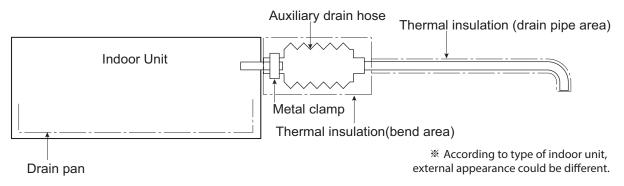
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.4.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.



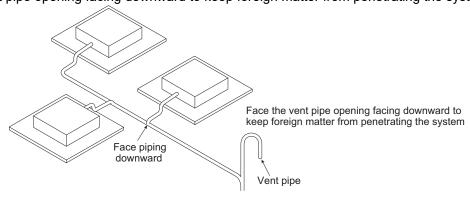
A

CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.4.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.



10.5 Electric wiring work

10.5.1 General instructions

- All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- · A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.5.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.5.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

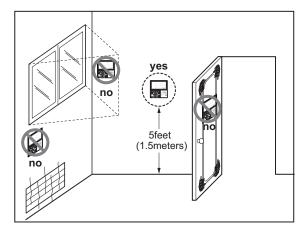
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.5.4 Wired Remote Controller Installation

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



Ceiling Concealed Duct (High Static)

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity Point
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6.Capacity Tables**
- 7.External Static Pressrue(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU76GB8A4, ARNU96GB8A4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	•
A ! £1	Auto swing(up & down)	-
Air flow	Airflow steps(fan/cool/heat)	3/3/3
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	-
	Deodorizing filter	X
Air purifying	Plasma air purifier	X
1 7 3	Prefilter(washable / anti-fungus)	0
	Drain pump	0
	E.S.P. control*	0
nstallation	Electric heater(operation)	X
	High ceiling operation*	
	Hot start	0
Reliability	Self diagnosis	0
rtonability	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	- -
Convenience	Group control	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
ndividual control	Simple wired remote controller	PQRCVCL0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	ABZCA
	CTIE	-
	Electro thermostat	
	Remote temperature sensor	PQRSTA0
Special function kit	Group control wire	PZCWRCG3
	11)ry contact	PDRYCBOOO/PDRYCB300/PDRYCB400/PDRYCB500
	Dry contact Independent Power Module	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500 PRIP0

O : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.
 Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

2. Specifications

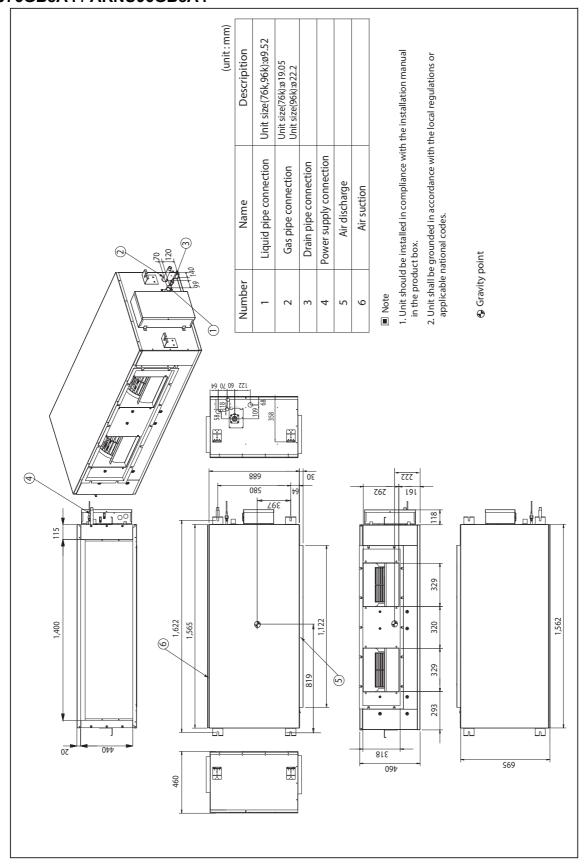
	Туре	Ceiling Concealed Duct (High Static)			
	Model	Unit	ARNU76GB8A4	ARNU96GB8A4	
		kW	22.4	28.0	
Cooling Capacity		kcal/h	19,300	24,100	
		Btu/h	76,400	95,900	
		kW	25.2	31.5	
Heating Capacity		kcal/h	21,700	27,100	
		Btu/h	86,000	107,500	
Power Input (H / M /	L)	W	765 / 500 / 500	800 / 750 / 750	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	D. t.	mm	1,562 x 460 x 688	1,562 x 460 x 688	
(WxHxD)	Body	inch	61-1/2 x 18-1/8 x 27-3/32	61-1/2 x 18-1/8 x 27-3/32	
0-11	Rows x Columns x FPI		3 x 21 x 19	3 x 21 x 19	
Coil	Face Area	m²	0.59	0.59	
	Type		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	375 x 2	375 x 2	
	Air Flow Rate (H / M / L)	m³/min	60.0 / 50.0 / 50.0	72.0 / 64.0 / 64.0	
Fan	(Factory set)	ft³/min	2,119 / 1,766 / 1,766	2542 / 2,260 / 2,260	
	External Static Pressure	mmAq(Pa)	22(216)	22(216)	
	Drive	,	Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
-	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight		kg(lbs)	87(192)	87(192)	
Sound Pressure Leve	els (H / M / L)	dB(A)	45 / 41 / 40	47 / 42 / 41	
Sound Power Levels	(H / M / L)	dB(A)	67 / 62 / 60	68 / 64 / 62	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage Rated		А	4.64 - 4.43 - 4.25	4.85 - 4.64 - 4.44	
Maximum Running Current		Α	5.20	5.20	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	1.00 / 0.83	1.00 / 0.83	
	Control	-	EEV	EEV	
Transmission cable	-	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

Note

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.
- 6. Sound pressure levels are measured at External Static Pressure condition like below.
- ARNU76GB8A4 / ARNU96GB8A4 (H/M/L) : 220Pa / 150Pa / 120Pa

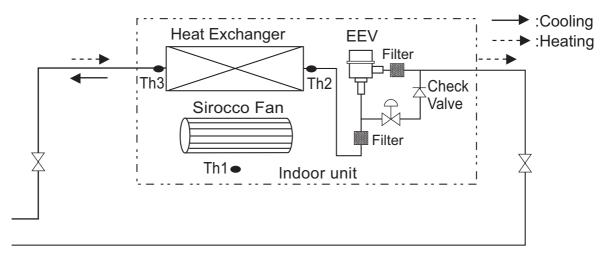
3. Dimensions & Gravity point

ARNU76GB8A4 / ARNU96GB8A4



4. Piping Diagrams

■ B8 Chassis

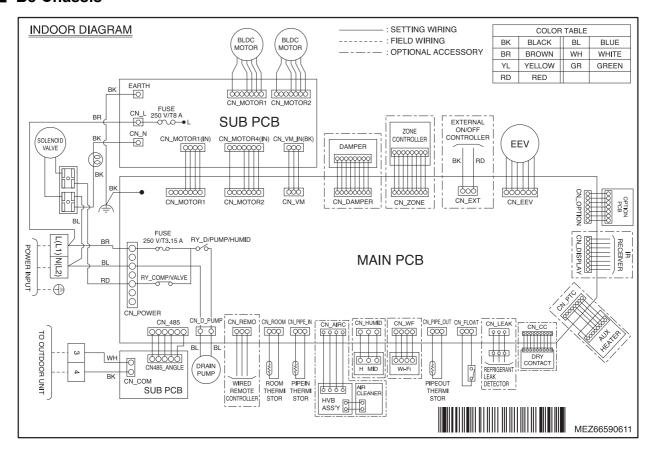


◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU76GB8A4	Ø19.05(3/4)	Ø9.52(3/8)
ARNU96GB8A4	Ø22.2(7/8)	Ø9.52(3/8)

LOC.	Description			
Th1	Thermistor for room air temperature			
Th2	Thermistor for pipe in temperature			
Th3	Thermistor for pipe out temperature			

■ B8 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1, CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D/PUMP	Drain pump output	AC Output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-DISPLAY	RF Remocon	RF Remocon receiver
CN-OPTION	Option PCB	Option PCB connector
CN-ZONE	Zone controller	Zone controller line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humid sensor	Humid sensing



	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
SW7	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF

6. Capacity Table

■ Cooling Capacity

◆ B8 Chassis

Naminal Canacity		Indoor air temp. (DB/WB, °C)												
Nominal Capacity (kBtu/h)	2	0	2	3	2	6	2	7	2	8	3	0	3	2
[Capacity Index (kW)]	14		14 16 18		8	19		2	20		22		24	
[Capacity mack (KTT)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
76 [22.4]	15.1	12.9	18.0	14.2	20.8	15.4	22.4	15.7	24.0	16.3	24.3	15.4	24.6	14.2
96 [28.0]	18.9	16.1	22.5	17.7	26.0	19.2	28.0	19.6	30.0	20.4	30.4	19.2	30.8	17.7

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity		Indoor air temp. (DB, °C)								
(kBtu/h)	16	18	20	21	22	24				
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC				
76 [22.4]	28.4	26.8	25.2	24.4	23.6	22.0				
96 [28.0]	35.5	33.5	31.5	30.5	29.5	27.5				

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. External Static Pressure(E.S.P) & Air Flow

■ Table 1 : Air Flow Rate vs External Static Pressure

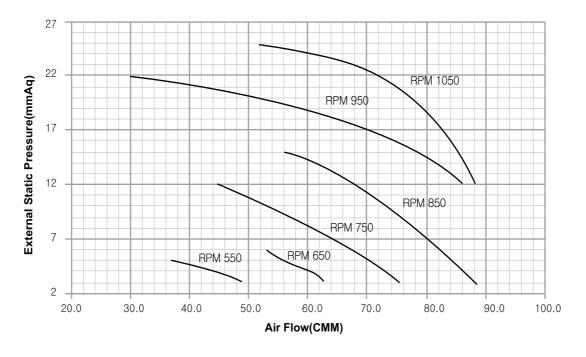
◆ ARNU76GB8A4, ARNU96GB8A4

					Stat	ic Pressu	re(mmAq((Pa))				
Setting Value	3(29)	4(39)	5(49)	6(59)	9(88)	12(118)	15(147)	18(177)	20(196)	22(216)	23(226)	25(245)
		Air Flow Rate [m³/min]										
50	40.3	36.2	-	-	-	-	-	-	-	-	-	-
55	48.8	44.2	36.4	-	-	-	-	-	-	-	-	-
60	54.9	50.2	49.7	45.0	-	-	-	-	-	-	-	-
65	62.6	60.4	55.1	52.9	-	-	-	-	-	-	-	-
70	67.9	64.5	62.1	60.7	47.1	-	-	-	-	-	-	-
75	75.5	72.2	69.0	68.5	56.9	44.7	-	-	-	-	-	-
80	82.6	80.9	76.6	75.4	69.7	55.2	-	-	-	-	-	-
85	88.8	85.9	82.0	81.6	78.6	67.4	55.9	-	-	-	-	-
91	94.7	93.0	90.4	90.2	87.1	78.9	67.6	54.2	-	-	-	-
95	-	-	-	-	-	86.1	77.0	66.4	50.6	30.0	-	-
100	-	-	-	-	-	88.3	84.9	75.9	69.5	60.8	43.1	-
105	-	-	-	-	-	88.3	84.9	81.1	77.4	72.0	67.9	51.3

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

Fan Performance



7. External Static Pressure(E.S.P) & Air Flow

■ Table 2 : Lower and Upper Limit of External Static Pressure

◆ ARNU76GB8A4, ARNU96GB8A4

Capacity	Mode		Set value	ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
		HI	77		60.0			
	factory set	Mid	74	10(98)	50.0	10(98)	25(245)	
76k		Low	74		50.0			
/ UK		HI	86		64.0			
	Standard	Mid	83	15(147)	50.0	10(98)	25(245)	
		Low	83		50.0			
		HI	86		72.0			
	factory set	Mid	81	10(98)	64.0	10(98)	25(245)	
96k		Low	81		64.0			
90K		HI	94		76.0		25(245)	
	Standard	Mid	89	15(147)	64.0	10(98)		
		Low	89		64.0			

^{1.} The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

8. Electric Characteristics

	Units					Power Supply		IFM		PI	
Model	Туре	Hz	Volts	Voltage Range	MCA	MFA	kW	FLA	Cooling	Heating	
ARNU76GB8A4	B8	50	220-240	Max:264	6.50	15	0.750	5.20	800	800	
ARNU96GB8A4	B8	30	220-240	Min:198	6.50	15	0.750	5.20	800	800	
ARNU76GB8A4	B8	60	220	Max:242	6.50	15	0.750	5.20	800	800	
ARNU96GB8A4	B8	00	220	Min:198	6.50	15	0.750	5.20	800	800	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

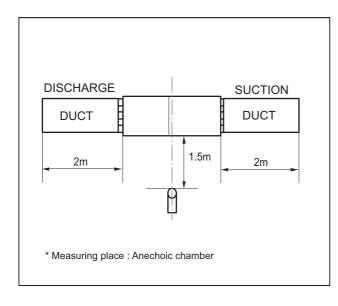
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



Note

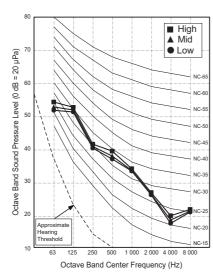
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.

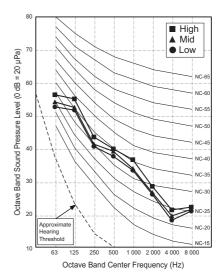
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6.Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

	Sound Pressure Levels (dB(A),H-M-L) External Static Pressure (Pa)						
Model							
	120	150	220				
ARNU76GB8A4	41-40-40	42-41-41	45-43-43				
ARNU96GB8A4	43-41-41	44-42-42	47-45-45				

■ Sound Pressure Level (120Pa)

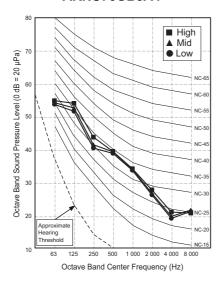
ARNU76GB8A4



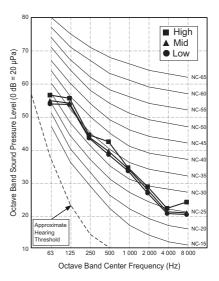


■ Sound Pressure Level (150Pa)

ARNU76GB8A4

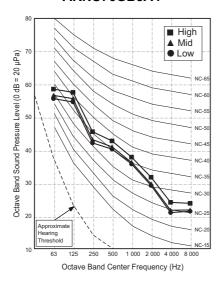


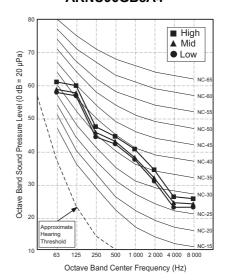
ARNU96GB8A4



■ Sound Pressure Level (220Pa)

ARNU76GB8A4





9.2 Sound Power Levels

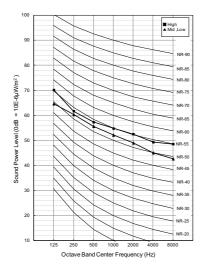
Note

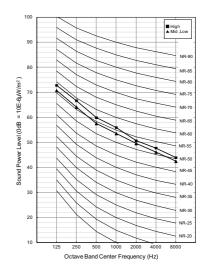
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

	Sound Pressure Levels (dB(A),H-M-L)							
Model	External Static Pressure (Pa)							
	120	150	220					
ARNU76GB8A4	61-60-60	63-62-62	67-66-66					
ARNU96GB8A4	63-62-62	65-64-64	68-67-67					

■ Sound Power Level (120Pa)

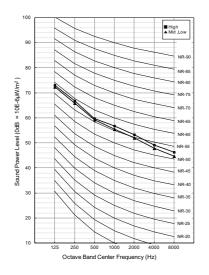
ARNU76GB8A4



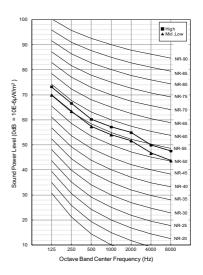


■ Sound Power Level (150Pa)

ARNU76GB8A4

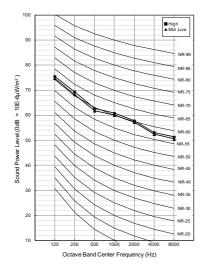


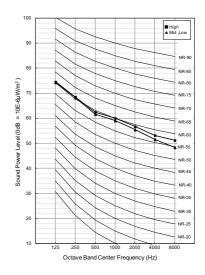
ARNU96GB8A4



■ Sound Power Level (220Pa)

ARNU76GB8A4

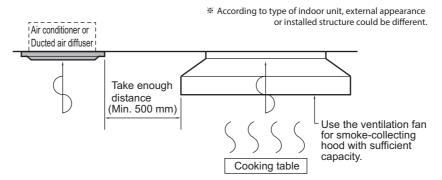




- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- · The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.

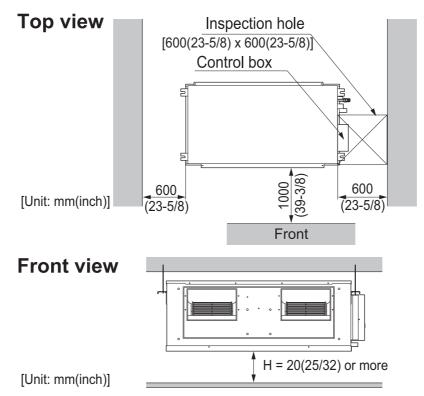


- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 ℃ or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

◆ B8 Chassis



◆ Inspection Hole Standard

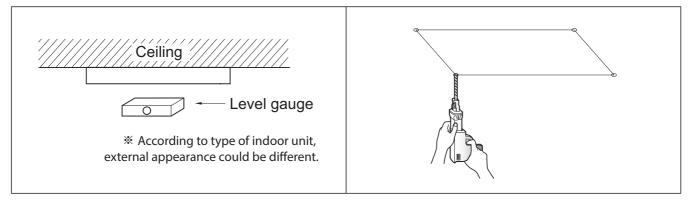
Distance between false ceiling & actual ceiling	Number of in spection hole	Remarks
More than 100cm	1	Sufficient space in the ceiling for servicing.
20cm to 100cm	2	Insufficient space. Difficult for servicing
Less than 20cm	Hole size should be more than the size of IDU.	Minimum height for motor replacement.



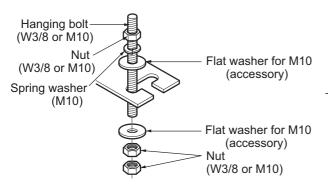
10.2 Ceiling dimension and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



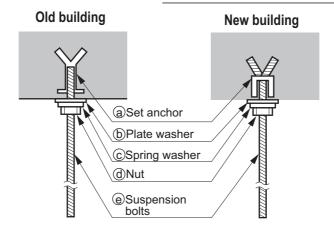
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

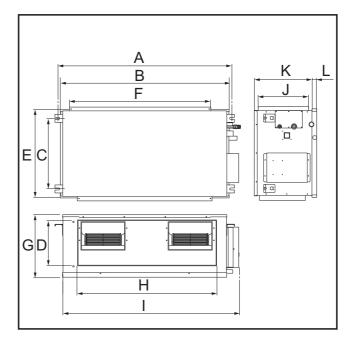
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



■ Installation dimension of Indoor unit

B8 Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



Chassis		Dimension (mm)										
Cilassis	Α	В	С	D	Е	F	G	Н	I	J	K	L
B8	1622	1565	580	292	695	1400	460	1122	1680	390	445	15

10.3 Connecting cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

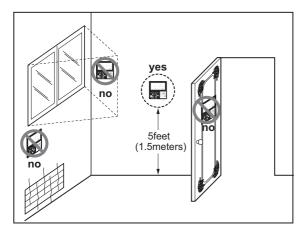
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to
 which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly
 fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 WIRED REMOTE CONTROLLER INSTALLATION

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



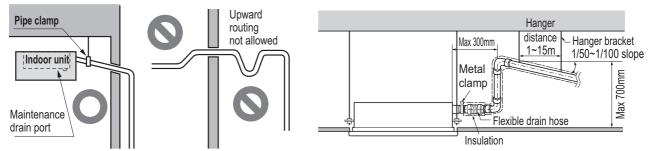
• Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

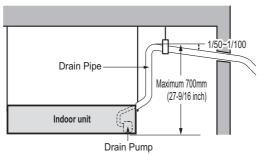
10.4 Indoor Unit Drain Piping

10.4.1 Drain piping of indoor unit with drain pump

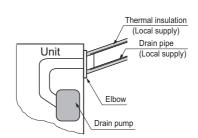
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

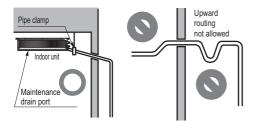




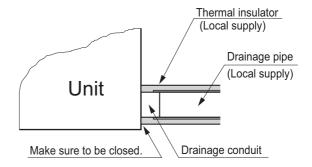


10.4.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

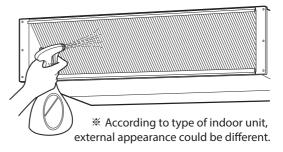


10.4.3 Method of Drainage test

◆ Drainage test of indoor unit

Use the following procedure to test the drainage.

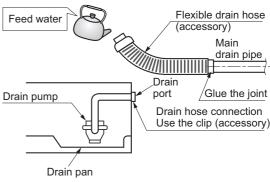
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

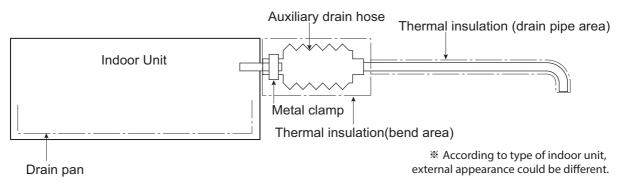
- 1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.4.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.



A

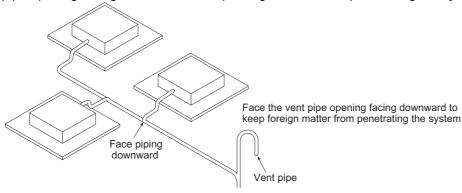
CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.



10.4.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Concealed Duct (Middle Static)

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity Point
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6.Capacity Tables**
- 7.External Static Pressrue(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GM1A4, ARNU09GM1A4, ARNU12GM1A4 ARNU15GM1A4, ARNU18GM1A4, ARNU24GM1A4 ARNU28GM2A4, ARNU36GM2A4, ARNU42GM2A4 ARNU48GM3A4, ARNU54GM3A4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
	Auto swing(up & down)	-
Air flow	Airflow steps(fan/cool/heat)	3/3/3
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	
	Deodorizing filter	X
Air purifying	Plasma air purifier	X
, ba)g	Prefilter(washable / anti-fungus)	0
	Drain pump	0
	E.S.P. control*	0
Installation	Electric heater(operation)	X
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
rtonability	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	
Convenience	Group control	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Simple wired remote controller	PQRCVCL0Q(W)
marvidudi control	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	ABZCA
	CTIE	-
	Electro thermostat	-
		PQRSTA0
Special function kit	Remote temperature sensor Group control wire	
	Group control wire Dry contact	PZCWRCG3 PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
Note	Refrigerant Leakage Detector	PRLDNVS0

Note

Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{1.} O : Applied, X : Not Applied

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

	Туре		Ceiling Concealed Duct (Middle Static)	
	Model	Unit	ARNU07GM1A4	ARNU09GM1A4
		kW	2.2	2.8
Cooling Capacity		kcal/h	1,900	2,400
		Btu/h	7,500	9,600
		kW	2.5	3.2
Heating Capacity		kcal/h	2,200	2,800
		Btu/h	8,500	10,900
Power Input (H / M /	L)	W	39 / 30 / 25	40 / 32 / 26
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions	Dadu	mm	900 × 270 × 700	900 × 270 × 700
(WxHxD)	Body	inch	35-7/16 x 10-5/8 x 27-9/16	35-7/16 x 10-5/8 x 27-9/16
Cail	Rows x Columns x FPI		2 x 13 x 18	2 x 13 x 18
Coil	Face Area	m²	0.21	0.21
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W	136 x 1	136 x 1
	Air Flow Rate (H / M / L) (Factory set)	m³/min	9.0 / 7.5 / 6.0	9.5 / 7.5 / 6.0
Fan		ft³/min	318 / 265 / 212	336 / 265 / 212
	External Static Pressure	mmAq(Pa)	6(59)	6(59)
	Drive		Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
Net Weight	Body	kg(lbs)	25.5(56)	25.5(56)
Sound Pressure Leve	els (H / M / L)	dB(A)	26 / 24 / 23	27 / 25 / 23
Sound Power Levels	(H / M / L)	dB(A)	55 / 54 / 51	55 / 54 / 52
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.34 - 0.33 - 0.31	0.35 - 0.34 - 0.32
Maximum Running Current		Α	1.60	1.60
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20
	Control	-	EEV	EEV
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

Туре			Ceiling Concealed Duct (Middle Static)		
	Model	Unit	ARNU12GM1A4	ARNU15GM1A4	
		kW	3.6	4.5	
Cooling Capacity		kcal/h	3,100	3,900	
		Btu/h	12,300	15,400	
		kW	4.0	5.0	
Heating Capacity		kcal/h	3,400	4,300	
		Btu/h	13,600	17,100	
Power Input (H / M / I	_)	W	46 / 38 / 31	67 / 53 / 46	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dedu	mm	900 × 270 × 700	900 × 270 × 700	
(WxHxD)	Body	inch	35-7/16 x 10-5/8 x 27-9/16	35-7/16 x 10-5/8 x 27-9/16	
0 - 11	Rows x Columns x FPI		2 x 13 x 18	2 x 13 x 18	
Coil	Face Area	m²	0.21	0.21	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	136 x 1	136 x 1	
	Air Flow Rate (H / M / L) (Factory set)	m³/min	11.0 / 9.0 / 7.0	16.0 / 12.0 / 9.0	
Fan		ft³/min	388 / 318 / 247	565 / 424 / 318	
	External Static Pressure	mmAq(Pa)	6(59)	6(59)	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
-	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	Body	kg(lbs)	25.5(56)	25.5(56)	
Sound Pressure Leve	els (H / M / L)	dB(A)	27 / 25 / 23	30 / 27 / 23	
Sound Power Levels	(H / M / L)	dB(A)	56 / 54 / 52	59 / 57 / 55	
Power Supply	•	Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.40 - 0.39 - 0.37	0.59 - 0.56 - 0.54	
Maximum Running Current		А	1.60	1.60	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

Туре			Ceiling Concealed Duct (Middle Static)		
	Model		ARNU18GM1A4	ARNU24GM1A4	
		kW	5.6	7.1	
Cooling Capacity		kcal/h	4,800	6,100	
		Btu/h	19,100	24,200	
		kW	6.3	8.0	
Heating Capacity		kcal/h	5,400	6,900	
		Btu/h	21,500	27,300	
Power Input (H / M / I	_)	W	85 / 63 / 55	91 / 74 / 58	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dedu	mm	900 × 270 × 700	900 × 270 × 700	
(WxHxD)	Body	inch	35-7/16 x 10-5/8 x 27-9/16	35-7/16 x 10-5/8 x 27-9/16	
0-11	Rows x Columns x FPI		2 x 13 x 18	3 x 13 x 18	
Coil	Face Area	m²	0.21	0.21	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	136 x 1	136 x 1	
	Air Flow Rate (H / M / L) (Factory set)	m³/min	17.0 / 14.5 / 12.0	19.0 / 16.0 / 14.0	
Fan		ft³/min	600 / 512 / 424	671 / 565 / 494	
	External Static Pressure	mmAq(Pa)	6(59)	6(59)	
	Drive	,	Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
-	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	Body	kg(lbs)	25.5(56)	26.5(58)	
Sound Pressure Leve	els (H / M / L)	dB(A)	31 / 28 / 25	32 / 29 / 26	
Sound Power Levels	(H / M / L)	dB(A)	59 / 57 / 55	59 / 58 / 56	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.75 - 0.72 - 0.69	0.80 - 0.77 - 0.73	
Maximum Running Current		Α	1.60	1.60	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.36 / 0.30	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Туре		Ceiling Concealed Duct (Middle Static)		
Model		Unit	ARNU28GM2A4	ARNU36GM2A4	
		kW	8.2	10.6	
Cooling Capacity		kcal/h	7,100	9,100	
		Btu/h	28,000	36,200	
		kW	9.2	11.9	
Heating Capacity		kcal/h	8,000	10,200	
		Btu/h	31,500	40,600	
Power Input (H / M / L	.)	W	123 / 81 / 57	184 / 123 / 81	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Dody	mm	1,250 × 270 × 700	1,250 × 270 × 700	
(WxHxD)	Body	inch	49-7/32 x 10-5/8 x 27-9/16	49-7/32 x 10-5/8 x 27-9/16	
Coil	Rows x Columns x FPI		2 x 13 x 18	2 x 13 x 18	
Coll	Face Area	m²	0.27	0.27	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	350 x 1	350 x 1	
	Air Flow Rate (H / M / L) (Factory set)	m³/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0	
Fan		ft³/min	989 / 848 / 742	1,130 / 989 / 848	
	External Static Pressure	mmAq(Pa)	6(59)	6(59)	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control	•		Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
Net Weight	Body	kg(lbs)	38.0(84)	38.0(84)	
Sound Pressure Leve	ls (H / M / L)	dB(A)	38 / 36 / 35	40 / 38 / 36	
Sound Power Levels	(H / M / L)	dB(A)	59 / 57 / 55	60 / 59 / 57	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.69 - 0.66 - 0.63	1.03 - 0.98 - 0.94	
Maximum Running Current		Α	2.30	2.30	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.35 / 0.29	0.35 / 0.29	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

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 work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - $\bullet \quad \text{Cooling: Indoor Ambient Temp. } 27^{\circ}\text{CDB / } 19^{\circ}\text{CWB, Outdoor Ambient Temp. } 35^{\circ}\text{CDB / } 24^{\circ}\text{CWB}$
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

Туре			Ceiling Concealed	Duct (Middle Static)
Model		Unit	ARNU42GM2A4	ARNU48GM3A4
		kW	12.3	14.1
Cooling Capacity		kcal/h	10,600	12,100
		Btu/h	42,000	48,100
		kW	13.8	15.9
Heating Capacity		kcal/h	11,800	13,600
		Btu/h	47,000	54,200
Power Input (H / M / I	_)	W	231 / 162 / 111	172 / 105 / 65
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions	5.1	mm	1,250 × 270 × 700	1,250 × 360 × 700
(WxHxD)	Body	inch	49-7/32 x 10-5/8 x 27-9/16	49-7/32 x 14-3/16 x 27-9/16
0-11	Rows x Columns x FPI		3 x 13 x 18	3 x 16 x 18
Coil	Face Area	m²	0.27	0.32
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W	350 x 1	400 x 1
	Air Flow Rate (H / M / L) (Factory set)	m³/min	38.0 / 33.0 / 28.0	40.0 / 34.0 / 28.0
Fan		ft³/min	1,342 / 1,165 / 989	1,413 / 1,201 / 989
	External Static Pressure	mmAq(Pa)	6(59)	6(59)
	Drive	,	Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)
Net Weight	Body	kg(lbs)	39.5(87)	44(97)
Sound Pressure Leve	els (H / M / L)	dB(A)	42 / 41 / 39	41 / 38 / 37
Sound Power Levels	(H / M / L)	dB(A)	62 / 61 / 60	63 / 60 / 59
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	1.29 - 1.24 - 1.18	0.85 - 0.81 - 0.78
Maximum Running Current		А	2.30	2.50
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.52 / 0.43	0.61 / 0.50
	Control	-	EEV	EEV
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C

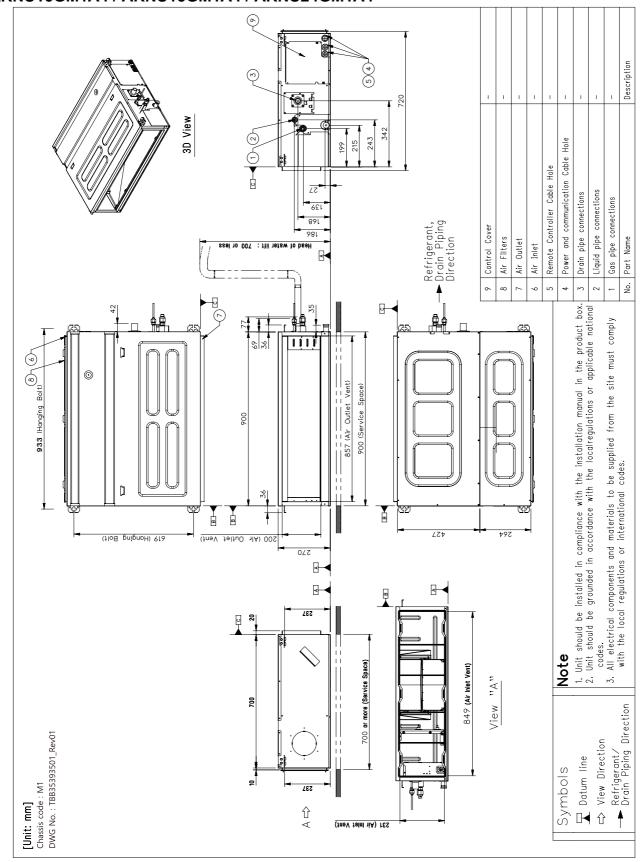
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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

Туре			Ceiling Concealed Duct (Middle Static)
	Model	Unit	ARNU54GM3A4
Cooling Capacity		kW	15.8
		kcal/h	13,600
		Btu/h	54,000
		kW	18.0
Heating Capacity		kcal/h	15,500
		Btu/h	61,400
Power Input (H / M / L	.)	W	260 / 215 / 172
Casing			Galvanized Steel Plate
Dimensions	Dadu	mm	1,250 × 360 × 700
(WxHxD)	Body	inch	49-7/32 x 14-3/16 x 27-9/16
Call	Rows x Columns x FPI		3 x 16 x 18
Coil	Face Area	m²	0.32
	Туре		Sirocco Fan
	Motor Output x Number	W	400 x 1
	Air Flow Rate (H / M / L)	m³/min	50.0 / 45.0 / 40.0
Fan	(Factory set)	ft³/min	1,766 / 1,589 / 1,413
	External Static Pressure	mmAq(Pa)	6(59)
	Drive		Direct
	Motor type		BLDC
Temperature Control	•		Microprocessor, Thermostat for cooling and heating
Sound Absorbing The	rmal Insulation Material		Foamed polystrene
Air Filter			-
Safety Device			Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)
	Drain Pipe(Internal Dia.)	mm(inch)	25(1)
Net Weight	Body	kg(lbs)	44(97)
Sound Pressure Leve	Is (H / M / L)	dB(A)	42 / 41 / 40
Sound Power Levels ((H / M / L)	dB(A)	65 / 64 / 62
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	1.28 - 1.23 - 1.18
Maximum Running Current		Α	2.50
	Туре	-	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.61 / 0.50
	Control	-	EEV
Transmission cable		mm²	1.0~1.5 x 2C

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- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - $\bullet \quad \text{Cooling: Indoor Ambient Temp. } 27^{\circ}\text{CDB / } 19^{\circ}\text{CWB, Outdoor Ambient Temp. } 35^{\circ}\text{CDB / } 24^{\circ}\text{CWB}$
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

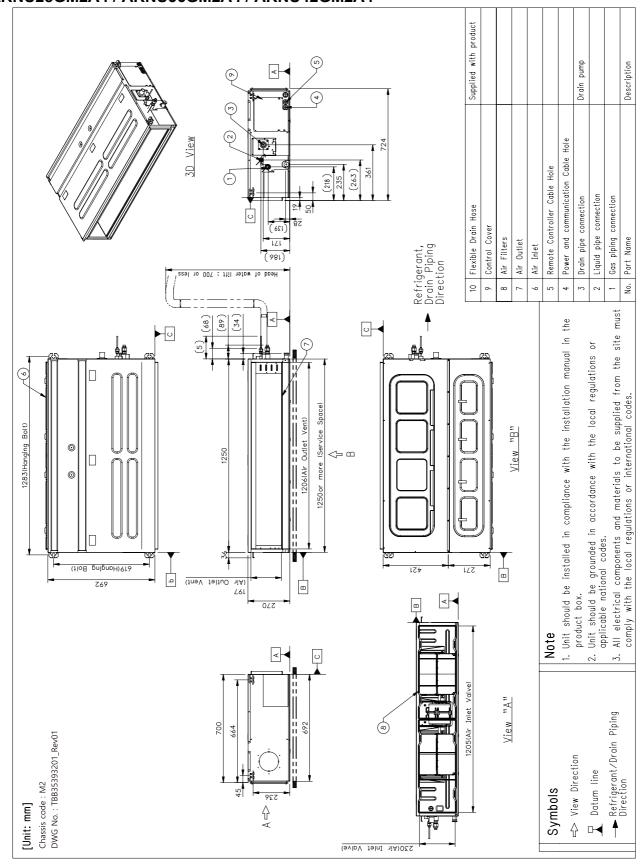
3. Dimensions & Gravity point

ARNU07GM1A4 / ARNU09GM1A4 / ARNU12GM1A4 ARNU15GM1A4 / ARNU18GM1A4 / ARNU24GM1A4



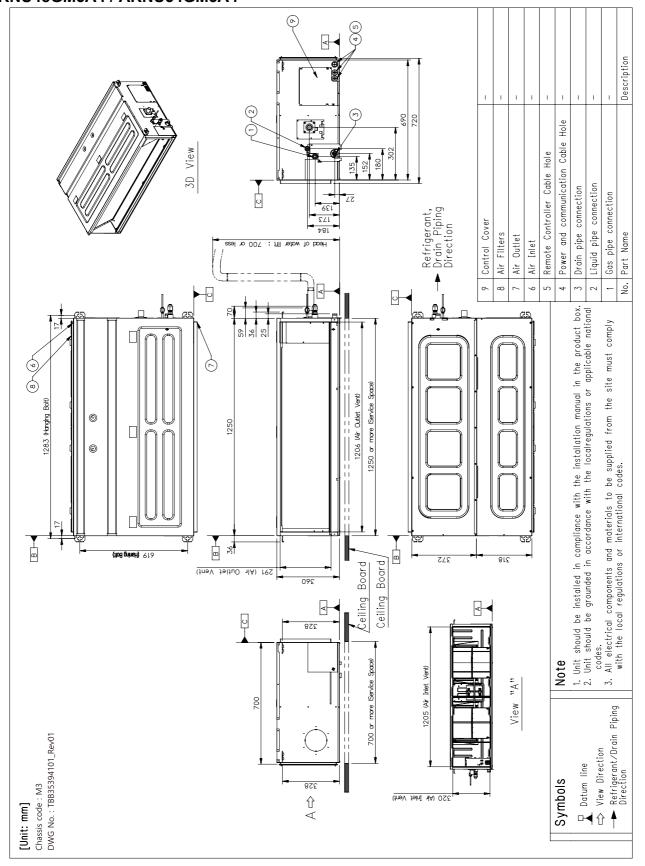
3. Dimensions & Gravity point

ARNU28GM2A4 / ARNU36GM2A4 / ARNU42GM2A4

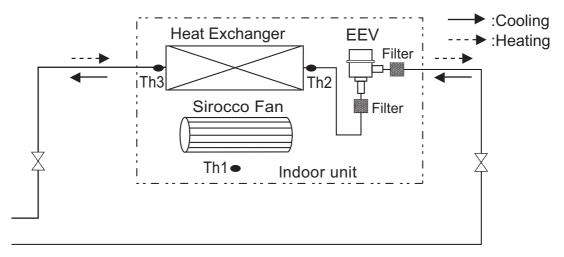


3. Dimensions & Gravity point

ARNU48GM3A4 / ARNU54GM3A4



4. Piping Diagrams

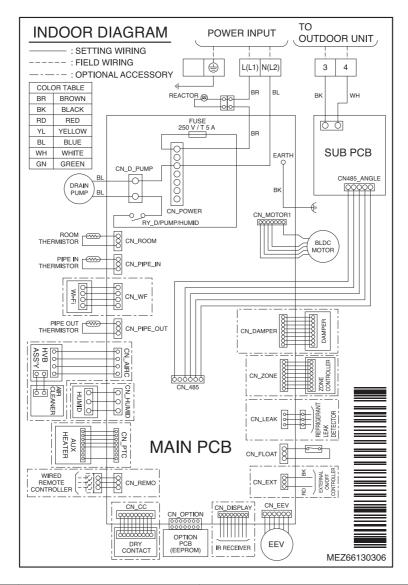


◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU07GM1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GM1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GM1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GM1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GM1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU24GM1A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU28GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU36GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU42GM2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU48GM3A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU54GM3A4	Ø19.05(3/4)	Ø9.52(3/8)

LOC.	Description
Th1	Thermistor for room air temperature
Th2	Thermistor for pipe in temperature
Th3	Thermistor for pipe out temperature

■ M1 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZONE	Zontroller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

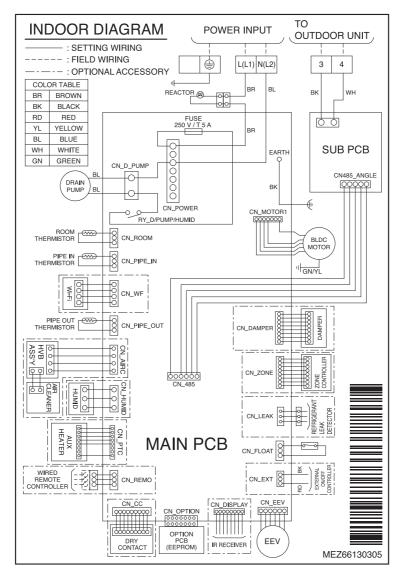
	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off

	Function	Description	Setting Off	Setting On	Default
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

■ M2 / M3(M3A4) Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZONE	Zontroller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off

	Function	Description	Setting Off	Setting On	Default
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
SW7	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF



■ Cooling Capacity

						Indoo	r air tem	p. (DB/W	/B, °C)					
Capacity Index	20		23		2	:6	2	7	7 28		30		32	
Capacity index	14		1	6	1	8	1	9	2	:0	2	2	24	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
2.2	1.5	1.4	1.8	1.5	2.0	1.7	2.2	1.7	2.4	1.8	2.4	1.7	2.4	1.5
2.8	1.9	1.8	2.2	2.0	2.6	2.2	2.8	2.2	3.0	2.3	3.0	2.2	3.1	2.0
3.6	2.4	2.3	2.9	2.5	3.3	2.7	3.6	2.8	3.9	2.9	3.9	2.7	4.0	2.5
4.5	3.0	2.9	3.6	3.2	4.2	3.4	4.5	3.5	4.8	3.6	4.9	3.4	4.9	3.2
5.6	3.8	3.4	4.5	3.7	5.2	4.0	5.6	4.1	6.0	4.2	6.0	4.0	6.2	3.6
7.1	4.8	4.3	5.7	4.7	6.6	5.1	7.1	5.2	7.6	5.3	7.7	5.0	7.8	4.6
8.2	5.5	5.0	6.6	5.5	7.7	6.0	8.2	6.1	8.7	6.2	8.9	5.9	9.0	5.4
10.6	7.2	6.4	8.5	7.1	9.9	7.7	10.6	7.8	11.3	8.1	11.4	7.6	11.7	7.0
12.3	8.3	7.5	9.9	8.3	11.5	9.0	12.3	9.1	13.1	9.4	13.3	8.8	13.5	8.1
14.1	9.5	8.7	11.3	9.6	13.2	10.4	14.1	10.6	15.0	10.9	15.2	10.3	15.5	9.4
15.8	10.7	10.1	12.7	11.1	14.7	12.1	15.8	12.3	16.9	12.8	17.1	12.1	17.4	11.1

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

			Indoor air te	mp. (DB, °C)		
Capacity Index	16	18	20	21	22	24
	TC	TC	TC	TC	TC	TC
2.2	2.8	2.7	2.5	2.4	2.3	2.2
2.8	3.6	3.4	3.2	3.1	3.0	2.8
3.6	4.5	4.3	4.0	3.9	3.7	3.5
4.5	5.6	5.3	5.0	4.8	4.7	4.4
5.6	7.1	6.7	6.3	6.1	5.9	5.5
7.1	9.0	8.5	8.0	7.7	7.5	7.0
8.2	10.4	9.8	9.2	8.9	8.6	8.0
10.6	13.4	12.7	11.9	11.5	11.1	10.4
12.3	15.6	14.7	13.8	13.4	12.9	12.0
14.1	17.9	16.9	15.9	15.4	14.9	13.9
15.8	20.3	19.2	18.0	17.4	16.8	15.7

Note

- TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Table 1 : Air Flow Rate vs External Static Pressure

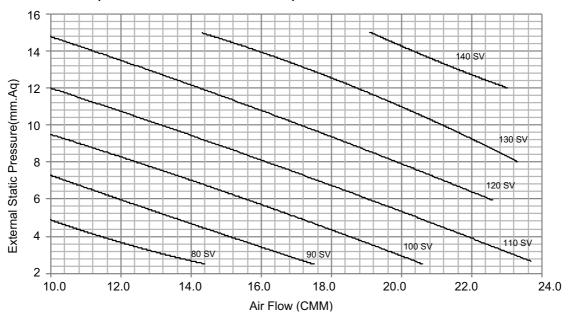
◆ ARNU07GM1A4, ARNU09GM1A4, ARNU12GM1A4, ARNU15GM1A4, ARNU18GM1A4

	Static Pressure (mmAq(Pa))										
SV (Setting Value)	2.5(25)	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	15(147)			
(Setting value)				Air Flow R	ate (m³/min)	•		•			
60	6.3	-	-	-	-	-	-	-			
65	8.5	-	-	-	-	-	-	-			
70	11.3	7.8	-	-	-	-	-	-			
75	12.8	9.6	6.6	-	-	-	-	-			
80	14.4	11.4	8.4	-	-	-	-	-			
85	15.9	13.2	10.2	-	-	-	-	-			
90	17.5	15.0	12.0	8.9	-	-	-	-			
95	19.0	16.7	13.7	10.7	-	-	-	-			
100	20.6	18.5	15.5	12.5	9.1	-	-	-			
105	22.1	20.3	17.3	14.3	11.1	7.8	-	-			
110	23.7	22.1	19.0	16.1	13.1	10.0	-	-			
115	-	23.8	20.8	17.9	15.1	12.2	9.0	-			
120	-	-	22.6	19.7	17.1	14.3	11.3	9.5			
125	-	-	-	21.5	19.1	16.5	13.6	11.9			
130	-	-	-	23.3	21.2	18.7	15.8	14.3			
135	-	-	-	-	23.2	20.8	18.0	16.7			
140	-	-	-	-	-	23.0	20.3	19.1			
145	-	-	-	-	-	-	22.5	21.5			
150	-	-	-	-	-	-	-	23.8			

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

♦ Fan Performance (ARNU07/09/12/15/18GM1A4)



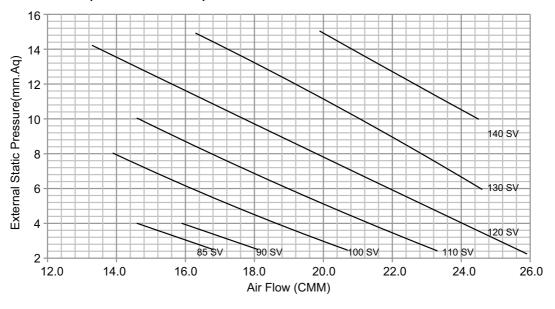
♦ ARNU24GM1A4

				Static Pressu	re (mmAq(Pa))							
SV (Setting Value)	2.5(25)	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	15(147)				
(Setting value)		Air Flow Rate (m³/min)										
85	16.8	14.6	-	-	-	-	-	-				
90	18.1	15.9	-	-	-	-	-	-				
95	19.4	17.2	15.0	-	-	-	-	-				
100	20.7	18.5	16.3	13.9	-	-	-	-				
105	22.0	19.8	17.7	15.3	13.0	-	-	-				
110	23.3	21.1	19.1	16.8	14.6	-	-	-				
115	24.6	22.4	20.5	18.3	16.3	14.2	-	-				
120	25.9	23.7	21.8	19.7	17.9	15.9	13.3	-				
125	-	25.1	23.2	21.2	19.6	17.5	15.2	14.6				
130	-	-	24.6	22.7	21.2	19.2	17.1	16.3				
135	-	-	-	24.2	22.9	20.9	19.0	18.1				
140	-	-	-	-	24.5	22.6	20.9	19.9				

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

♦ Fan Performance (ARNU24GM1A4)



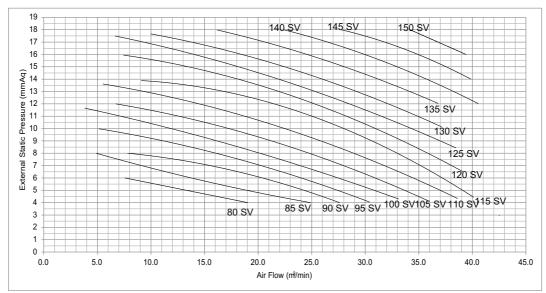
◆ ARNU28GM2A4, ARNU36GM2A4

21.				Static Pressu	re (mmAq(Pa))	ı		
SV (Setting Value)	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	16(157)	18(176)
(Setting value)		•	Air	Flow Rate (m³	min)			
65	4.7	-	-	-	-	-	-	-
70	10.3	-	-	-	-	-	-	-
75	15.0	-	-	-	-	-	-	-
80	19.0	7.6	-	-	-	-	-	-
85	24.9	13.8	4.9	-	-	-	-	-
90	27.6	20.4	7.8	-	-	-	-	-
95	30.4	24.4	15.7	5.15	-	-	-	-
100	33.1	28.7	20.8	9.21	3.82	-	-	-
105	35.9	31.7	24.1	17.5	6.73	-	-	-
110	38.6	34.7	30.5	22.2	11.5	5.52	-	-
115	40.1	37.8	33.8	27.9	20.2	9.10	-	-
120	-	39.1	37.1	31.4	24.6	17.9	7.45	-
125	-	-	38.5	35.0	30.1	21.2	11.01	6.65
130	-	-	-	37.1	32.0	27.6	15.61	10.00
135	-	-	-	-	36.8	31.53	24.27	16.19
140	-	-	-	-	40.5	35.88	29.79	22.43
145	-	-	-	-	-	39.86	34.92	27.75
150	-	-	-	-	-	-	39.40	34.18
155	-	-	-	-	-	-	-	37.09

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

◆ Fan Performance (ARNU28GM2A4, ARNU36GM2A4)



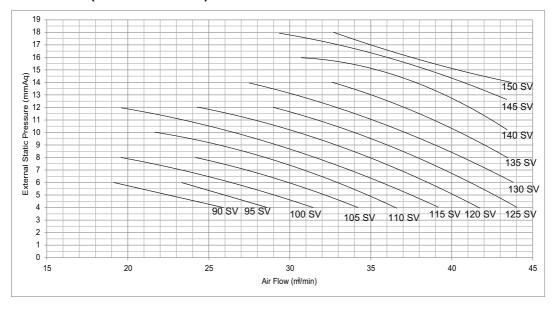
♦ ARNU42GM2A4

				Static Pressu	re (mmAq(Pa))			
SV (Setting Value)	4(39)	6(59)	8(78)	10(98)	12(118)	14(137)	16(157)	18(176)
(Setting value)			Air	Flow Rate (m³/	min)	•	•	
90	22.99	-	-	-	-	-	-	-
95	25.9	19.14	-	-	-	-	-	-
100	28.62	23.32	-	-	-	-	-	-
105	31.44	26.38	19.58	-	-	-	-	-
110	34.21	29.92	24.18	-	-	-	-	-
115	36.61	32.67	28.77	21.67	-	-	-	-
120	39.17	35.70	31.77	26.24	19.60	-	-	-
125	41.73	38.47	34.76	30.80	24.29	-	-	-
130	44.03	41.24	37.73	34.08	28.98	22.3	-	-
135	-	43.78	40.70	37.35	32.57	27.5	20.49	-
140	-	-	43.47	40.39	37.2	32.60	25.76	19.85
145	-	-	-	43.43	41.6	37.4	30.71	24.60
150	-	-	-	-	43.4	42.3	35.37	29.36
155	-	-	-	-	-	43.7	37.52	32.71

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

♦ Fan Performance (ARNU42GM2A4)



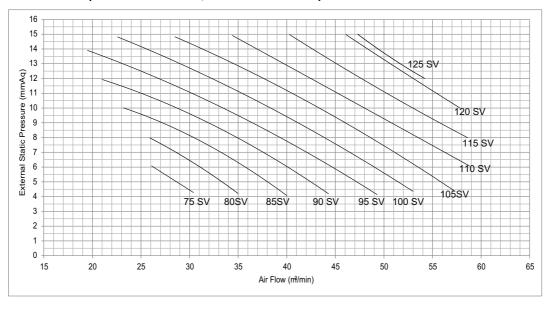
◆ ARNU48GM3A4, ARNU54GM3A4

		Static Pressure (mmAq(Pa))										
SV (Setting Value)	4(39)	5(49)	6(59)	8(78)	10(98)	12(118)	14(137)	15(147)				
(Setting value)		Air Flow Rate (m³/min)										
70	25.2	25.1	-	-	-	-	-	-				
75	30.4	29.5	26.1	-	-	-	-	-				
80	35.0	34.0	30.8	25.9	-	-	-	-				
85	40.0	38.4	35.4	30.6	23.2	-	-	-				
90	44.3	42.9	40.1	35.2	28.1	21.0	-	-				
95	49.3	47.3	44.8	39.9	33.1	26.3	19.5	-				
100	53.0	51.8	49.4	44.6	38.0	31.7	25.2	22.6				
105	57.2	56.2	54.1	49.2	43.0	37.1	31.0	28.5				
110	-	-	58.8	53.9	47.9	42.4	36.7	34.4				
115	-	-	-	58.6	52.9	47.8	42.5	40.3				
120	-	-	-	-	57.8	53.1	48.2	46.1				
125	-	-	-	-	-	54.2	49.4	47.3				

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The set value of the remote controller is proportional to the RPM of the blower and can be changed by the wired remote controller operation. For more information on how to change it, refer to the manual included with the remote controller or product.
- 3. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.
- 4. Refer to the installation manual included with the how to set E.S.P.

◆ Fan Performance (ARNU48GM3A4, ARNU54GM3A4)



■ Table 2: Lower and Upper Limit of External Static Pressure ARUN07GM1A4, ARUN09GM1A4, ARNU12GM1A4, ARUN15GM1A4, ARUN18GM1A4, ARNU24GM1A4, ARNU28GM2A4, ARNU36GM2A4 ARNU42GM2A4, ARNU48GM3A4, ARNU54GM3A4

Capacity	Mode		SV (Setting Value)	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of Externa Static Pressure(mmAq(Pa))	
	115	Hi	84		9.0			
	High (factory set)	Mid	79	(mmAq(Pa)) Pressure(mmAq(Pa)) Pr	15(147)			
7k	(lactory set)	Low	75		6.0			
/ K		Hi	69		9.0			
	Standard	Mid	65	2.5(25)	7.5	2(20)	15(147)	
		Low	61					
	High	Hi	85					
	(factory set)	Mid	80	6(59)		2(20)	15(147)	
9k	, ,	Low	76					
O.C		Hi	70					
	Standard	Mid	66	2.5(25)		2(20)	15(147)	
		Low	62					
	High	Hi	86					
	(factory set)	Mid	82	6(59)		2(20)	15(147)	
12k	` ,	Low	78					
		Hi	71					
	Standard	Mid	67	2.5(25)		2(20)	15(147)	
		Low	63					
	High	Hi	98					
	(factory set)	Mid	86	6(59)		2(20)	15(147)	
15k	`	Low	82					
		Hi	86					
	Standard	Mid	72	2.5(25)		2(20)	15(147)	
		Low	67					
	High	Hi	103					
	(factory set)	Mid	97	6(59)		2(20)	15(147)	
18k		Low	86					
		Hi	87			2(22)	4=/44=\	
	Standard	Mid	78	2.5(25)		2(20)	15(147)	
		Low	72					
	High	Hi	108			2(22)	4=/44=\	
	(factory set)	Mid	103	6(59)		2(20)	15(147)	
24k		Low	97					
	Otendend	Hi	92	0.5(05)		0(00)	45(4.47)	
	Standard	Mid	87	2.5(25)		2(20)	15(147)	
		Low	77					
	High	Hi	101	0(50)	28.0	4(00)	40(470)	
	(factory set)	Mid	95	6(59)	24.0	4(39)	18(176)	
28k		Low	90		21.0			
	Otendend	Hi	99	5(40)	28.0	4(00)	40(470)	
	Standard	Mid	94	5(49)	24.0	4(39)	18(176)	
	1	Low	89		21.0			
	High	Hi Mid	109	G(EO)	32.0	4(20)	18(176)	
	(factory set)		101	6(59)	28.0	4(39)	10(170)	
36k		Low	95		24.0			
	Standard	Hi	105	F(40)		2.0 8.0 4(39)	18(176)	
	Standard	Mid	97	5(49)				
te		Low	91		24.0			

The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

Capacity	Mode		SV (Setting Value)	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.0	Hi	120		38.0			
	High (factory set)	Mid	111	6(59)	33.0	4(39)	18(176)	
42k	(lactory sor)	Low	103		28.0			
42K		Hi	117		38.0			
	Standard	Mid	108	5(49)	33.0	4(39)	18(176)	
		Low	100		28.0			
	High (factory set)	Hi	92		40.0			
		Mid	84	6(59)	34.0	4(39)	15(147)	
48k	(lactory set)	Low	79		28.0			
40K		Hi	89		40.0			
	Standard	Mid	82	5(49)	34.0	4(39)	15(147)	
		Low	76		28.0			
	1.00 1.	Hi	100		50.0			
	High (factory set)	Mid	96	6(59)	45.0	4(39)	15(147)	
54k	(lactory sor)	Low	92		40.0			
34K		Hi	97		50.0			
	Standard	Mid	92	5(49)	45.0	4(39)	15(147)	
		Low	88		40.0			

Note

1. The above table shows the available E.S.P range. If the E.S.P values of the installed indoor system is less or more than mentioned in the table, indoor components could be failed and performance would be decreased.

8. Electric Characteristics

	Un	its			Power	Supply	IF	М	PI	
Model	Туре	Hz	Volts	Voltage Range	MCA	MFA	kW	FLA	Cooling	Heating
ARNU07GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU09GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU12GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU15GM1A4	M1		220-240		2.00	15	0.136	1.60	190	190
ARNU18GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU24GM1A4	M1	50		Max:264 Min:198	2.00	15	0.136	1.60	190	190
ARNU28GM2A4	M2			141111.100	2.90	15	0.350	2.30	430	430
ARNU36GM2A4	M2				2.90	15	0.350	2.30	430	430
ARNU42GM2A4	M2				2.90	15	0.350	2.30	430	430
ARNU48GM3A4	М3				3.10	15	0.400	2.50	530	530
ARNU54GM3A4	M3				3.10	15	0.400	2.50	530	530
ARNU07GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU09GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU12GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU15GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU18GM1A4	M1				2.00	15	0.136	1.60	190	190
ARNU24GM1A4	M1	60	220	Max:242 Min:198	2.00	15	0.136	1.60	190	190
ARNU28GM2A4	M2			WIII1. 130	2.90	15	0.350	2.30	430	430
ARNU36GM2A4	M2				2.90	15	0.350	2.30	430	430
ARNU42GM2A4	M2				2.90	15	0.350	2.30	430	430
ARNU48GM3A4	M3				3.10	15	0.400	2.50	530	530
ARNU54GM3A4	M3				3.10	15	0.400	2.50	530	530

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

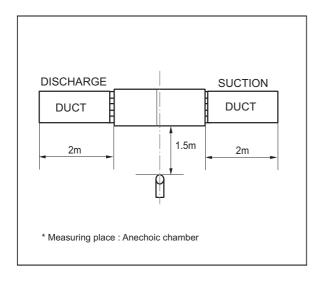
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



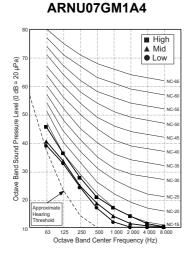
Note

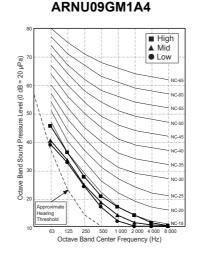
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.

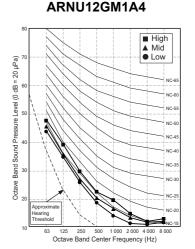
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

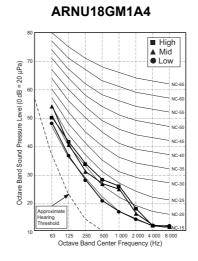
	Sound Pressure Levels [dB(A),H-M-L]								
Model	External Static Pressure [Pa]								
	20	25	59	147					
ARNU07GM1A4	26-24-23	26-24-23	27-24-23	33-28-25					
ARNU09GM1A4	27-25-23	27-25-23	27-25-23	33-29-26					
ARNU12GM1A4	27-25-23	27-25-23	28-25-23	33-30-27					
ARNU15GM1A4	30-27-23	30-27-23	30-27-24	37-33-30					
ARNU18GM1A4	31-28-25	31-28-25	32-29-27	37-34-29					
ARNU24GM1A4	32-29-26	32-29-26	33-30-28	38-35-32					

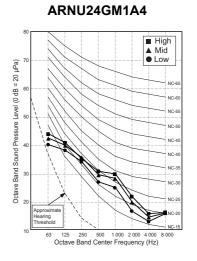
■ Sound Pressure Level (20Pa)





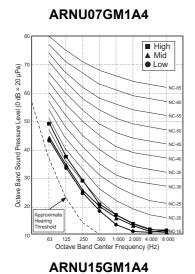


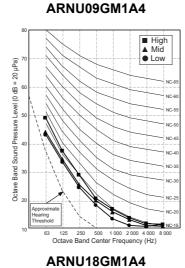


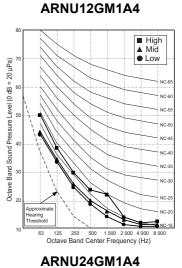


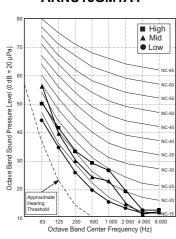
■ Sound Pressure Level (25Pa)

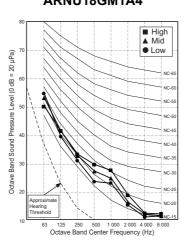
125 250 500 1 000 2 000 4 000 Octave Band Center Frequency (Hz)

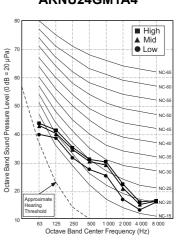




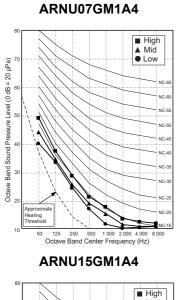


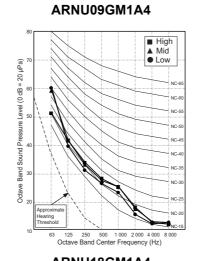


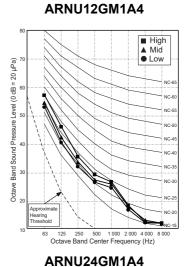


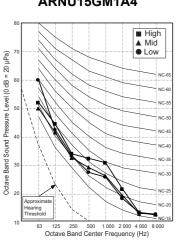


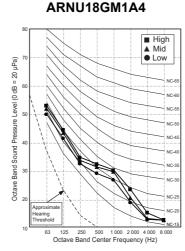
■ Sound Pressure Level (59Pa)

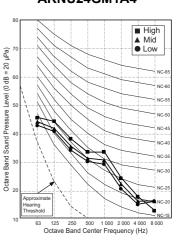




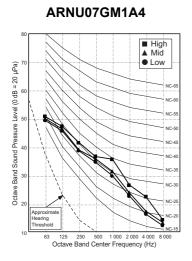


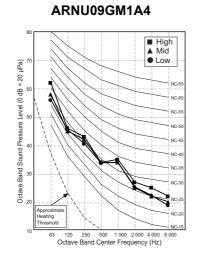


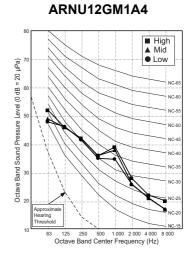




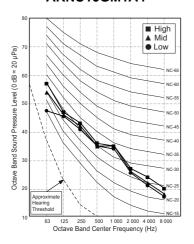
■ Sound Pressure Level (147Pa)



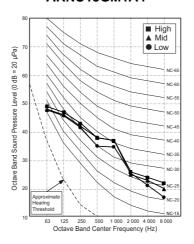




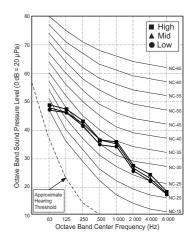
ARNU15GM1A4



ARNU18GM1A4



ARNU24GM1A4

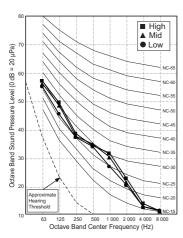




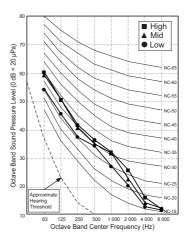
		Sound Pressure Levels [dB(A),H-M-L]							
Model	External Static Pressure [Pa]								
	39	49	59	147	176				
ARNU28GM2A4	36-34-33	38-36-35	38-36-35	40-39-38	47-45-45				
ARNU36GM2A4	36-34-33	40-38-36	40-38-36	42-40-39	47-47-45				
ARNU42GM2A4	-	42-41-39	42-41-39	44-43-42	50-49-48				

■ Sound Pressure Level (39Pa)

ARNU28GM2A4

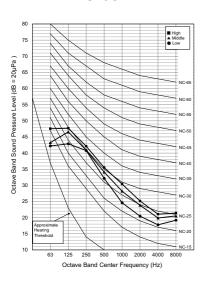


ARNU36GM2A4

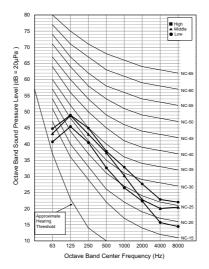


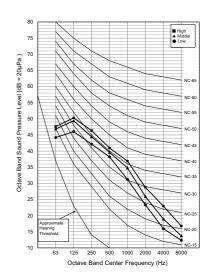
■ Sound Pressure Level (49Pa)

ARNU28GM2A4



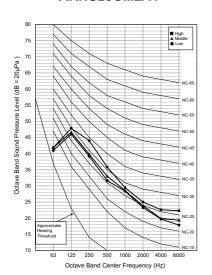
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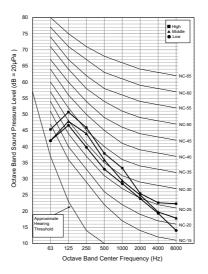


■ Sound Pressure Level (59Pa)

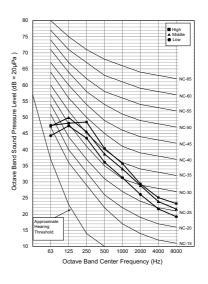
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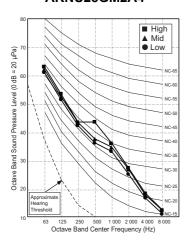


ARNU42GM2A4

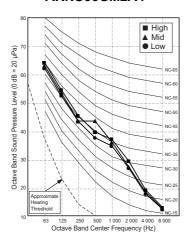


■ Sound Pressure Level (147Pa)

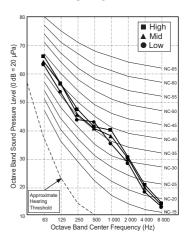
ARNU28GM2A4



ARNU36GM2A4

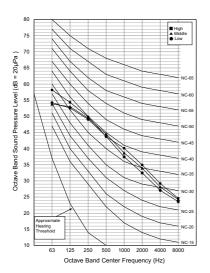


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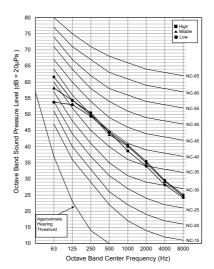


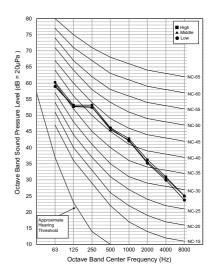
■ Sound Pressure Level (176Pa)

ARNU28GM2A4



ARNU36GM2A4

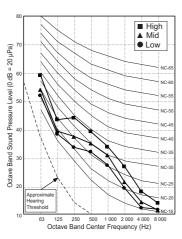




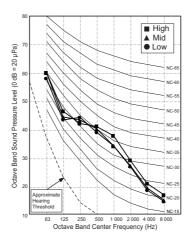
	Sound Pressure Levels [dB(A),H-M-L]						
Model	External Static Pressure [Pa]						
	39	49	59	147			
ARNU48GM3A4	39-37-35	41-38-37	41-38-37	43-42-41			
ARNU54GM3A4	42-40-39	42-41-40	42-41-40	45-44-43			

■ Sound Pressure Level (39Pa)

ARNU48GM3A4

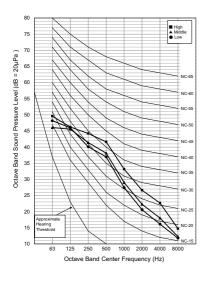


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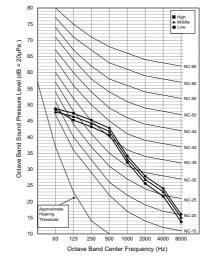


■ Sound Pressure Level (49Pa)

ARNU48GM3A4



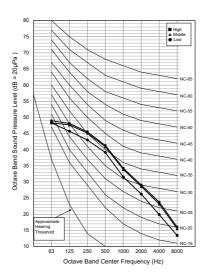
ARNU54GM3A4



■ Sound Pressure Level (59Pa)

ARNU48GM3A4

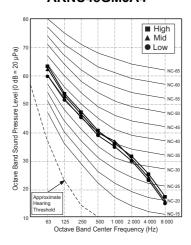
ARNU54GM3A4



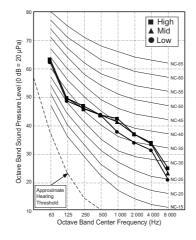
■ Sound Pressure Level (147Pa)

Octave Band Center Frequency (Hz)

ARNU48GM3A4



ARNU54GM3A4



9.2 Sound Power Levels

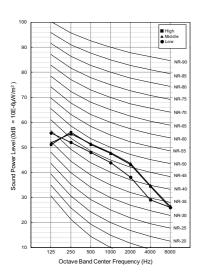
Note

- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

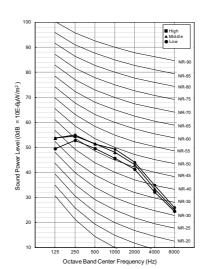
	Sound Power Levels [dB(A),H-M-L]							
Model	External Static Pressure [Pa]							
	20	25	59	147				
ARNU07GM1A4	54-54-50	55-54-51	56-54-52	62-61-60				
ARNU09GM1A4	54-54-52	55-54-52	56-54-52	62-61-60				
ARNU12GM1A4	54-54-52	56-54-52	57-56-53	62-61-60				
ARNU15GM1A4	57-56-53	59-57-55	60-58-57	63-62-62				
ARNU18GM1A4	58-57-55	59-57-55	60-58-58	63-62-62				
ARNU24GM1A4	58-57-56	59-58-56	60-58-58	66-65-64				

■ Sound Power Level (20Pa)

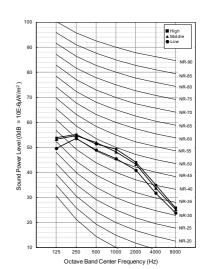
ARNU07GM1A4

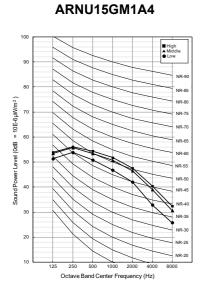


ARNU09GM1A4

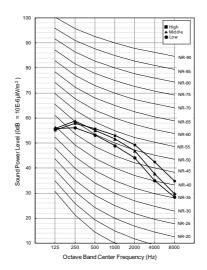


ARNU12GM1A4

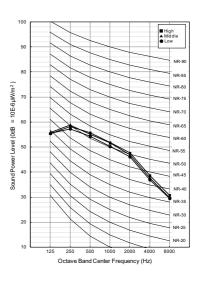




ARNU18GM1A4

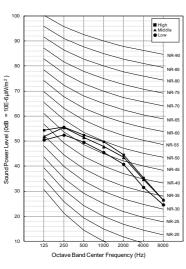


ARNU24GM1A4

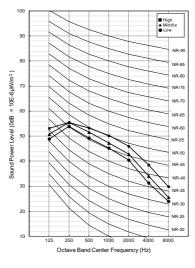


■ Sound Power Level (25Pa)

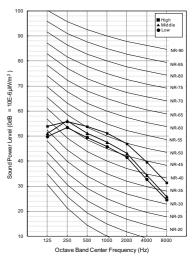
ARNU07GM1A4



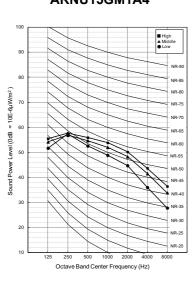
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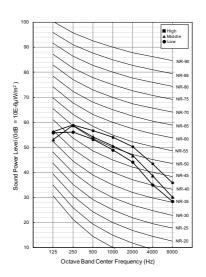
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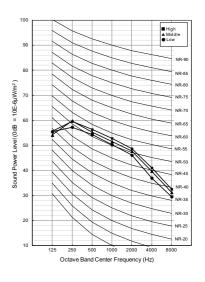
ARNU15GM1A4



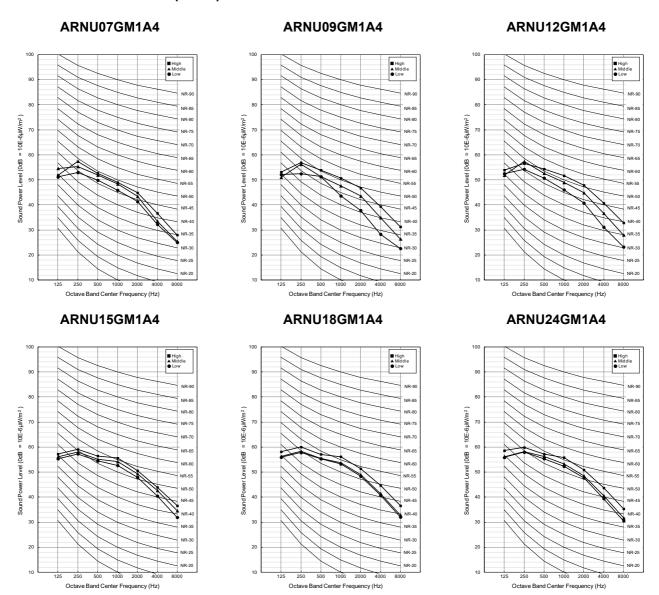
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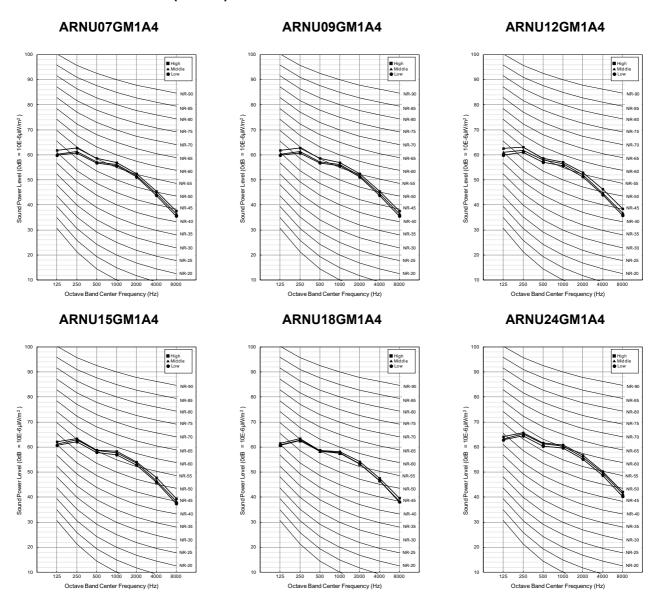
ARNU24GM1A4



■ Sound Power Level (59Pa)



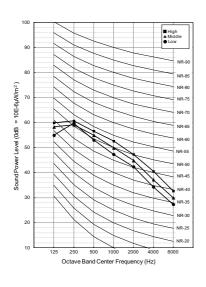
■ Sound Power Level (147Pa)



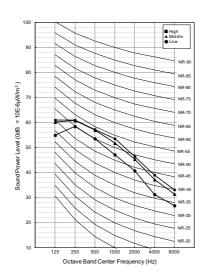
	Sound Power Levels [dB(A),H-M-L]							
Model	External Static Pressure [Pa]							
	39	49	59	147	176			
ARNU28GM2A4	59-57-55	59-57-55	61-58-54	63-60-58	73-70-69			
ARNU36GM2A4	59-58-55	60-59-57	62-59-57	63-62-61	75-73-70			
ARNU42GM2A4	-	62-61-60	63-62-60	65-65-64	77-75-73			

■ Sound Power Level (39Pa)

ARNU28GM2A4

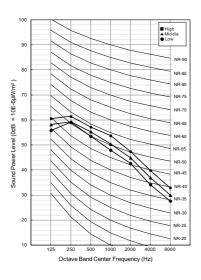


ARNU36GM2A4

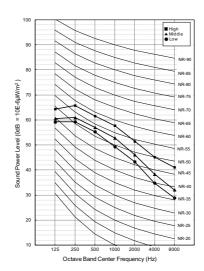


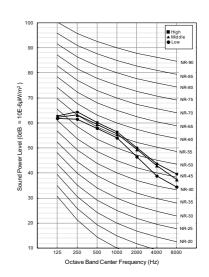
■ Sound Power Level (49Pa)

ARNU28GM2A4



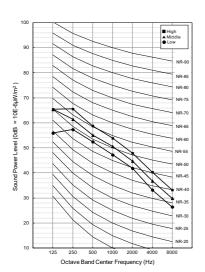
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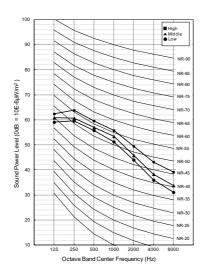


■ Sound Power Level (59Pa)

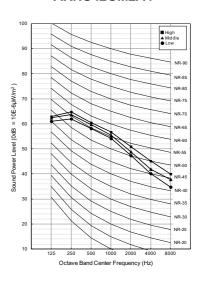
ARNU28GM2A4



ARNU36GM2A4

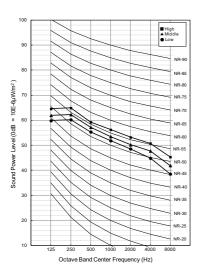


ARNU42GM2A4

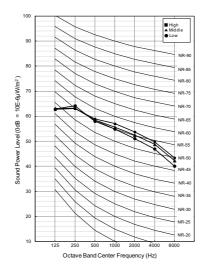


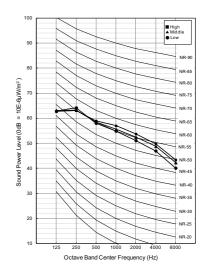
■ Sound Power Level (147Pa)

ARNU28GM2A4



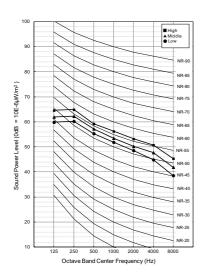
ARNU36GM2A4



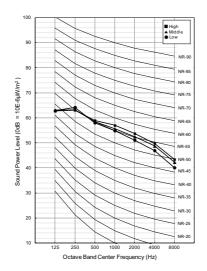


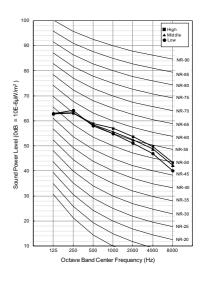
■ Sound Power Level (176Pa)

ARNU28GM2A4



ARNU36GM2A4



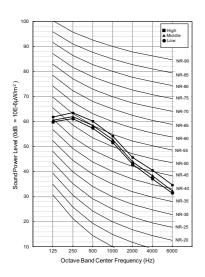




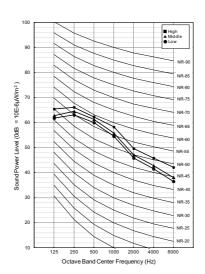
	Sound Power Levels [dB(A),H-M-L]						
Model	External Static Pressure [Pa]						
	39	49	59	147			
ARNU48GM3A4	61-60-59	63-60-59	63-61-59	66-66-64			
ARNU54GM3A4	64-62-61	65-64-62	65-64-64	66-66-65			

■ Sound Power Level (39Pa)

ARNU48GM3A4

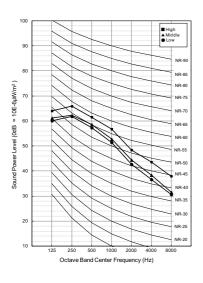


ARNU54GM3A4

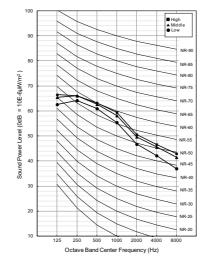


■ Sound Power Level (49Pa)

ARNU48GM3A4

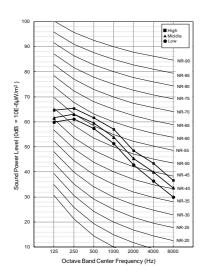


ARNU54GM3A4

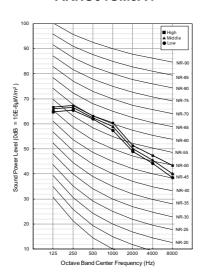


■ Sound Power Level (59Pa)

ARNU48GM3A4

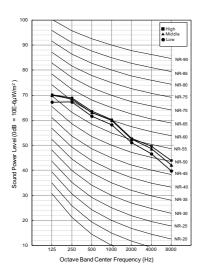


ARNU54GM3A4

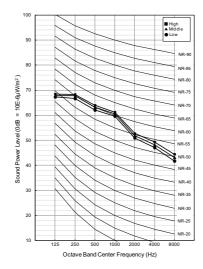


■ Sound Power Level (147Pa)

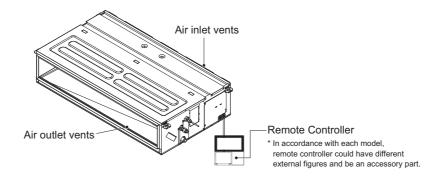
ARNU48GM3A4



ARNU54GM3A4

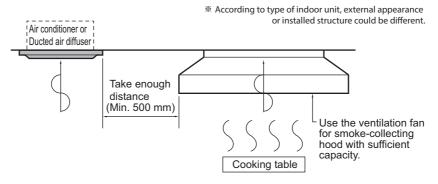


- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)



10.1 Selection of the best location

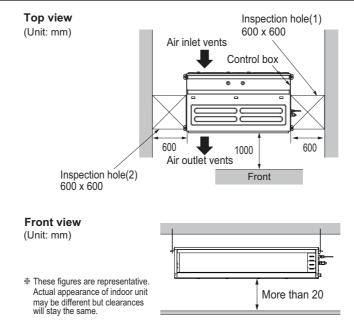
- · The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- · The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 ℃ or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.



◆ Inspection Hole Standard

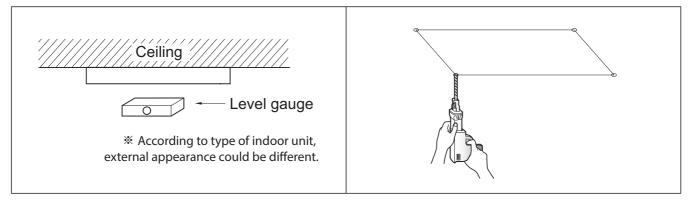
Distance between false ceiling & actual ceiling	Number of in spection hole	Remarks		
More than 100cm	1	Sufficient space in the ceiling for servicing.		
20cm to 100cm	2	Insufficient space. Difficult for servicing		
Less than 20cm	Hole size should be more than the size of IDU.	Minimum height for motor replacement.		



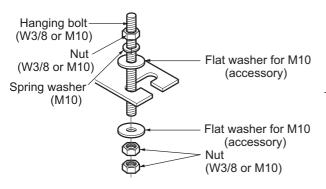
10.2 Ceiling dimension and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



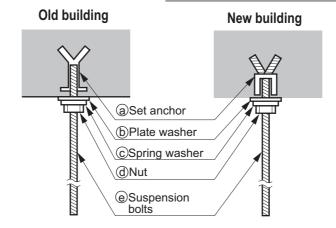
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3.Spring washer M10
 - 4.Plate washer M10

A CAUTION

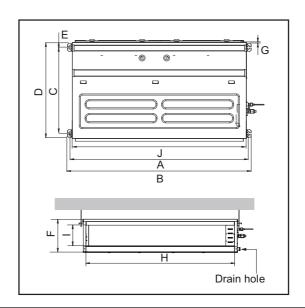
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



■ Installation dimension of Indoor unit

M1/M2/M3 Chassis

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



Chassis name	Dimension (mm)									
	Α	В	С	D	Е	F	G	Н	ı	J
M1	933.4	971.6	619.2	700	30	270	15.2	858	201.4	900
M2	1,283.4	1,321.6	619.2	689.6	30	270	15.2	1,208	201.4	1,250
M3	1,283.4	1,321.6	619.2	689.6	30	360	15.2	1,208	291.4	1,250

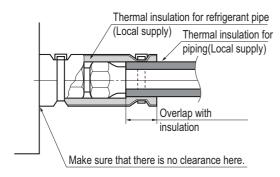
10.3 Connecting pipes to the indoor unit

■ Refrigerant piping work

To detail information for connecting the refrigerant pipes, please refer to the installation manual included withproduct.

■ Piping insulation work

- Perform heat insulation work completely on both gas and the liquid pipe. Because improper insulation will result condensate formation over pipe.
- Use the heat insulation material for the refrigerant piping which has an excellent heat resistance (over 120°C (248°F)).
- · Precautions in high humidity circumstance
 - This air conditioner has been tested according to the "KS Conditions" and confirmed.
 - If it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C(73°F)),
 water drops are liable to fall. In this case, add heat insulation material according to the following procedure.



- Heat insulation material: Adiabatic glass wool with thickness of 10~20mm(13/32 ~13/16 inch).
- Stick glass wool on all air conditioners that are located in ceiling atmosphere.

A CAUTION

Make sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping
may cause condensation or burns if touched.

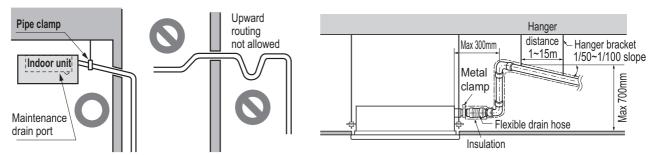
10.4 Indoor Unit Drain Piping

Important

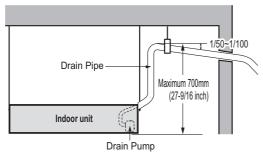
- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- · All connections should be secure. (Special care is needed with PVC pipe)

10.4.1 Drain piping of indoor unit with drain pump

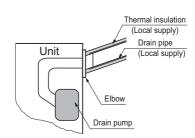
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

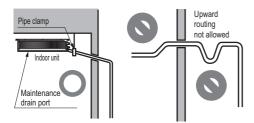




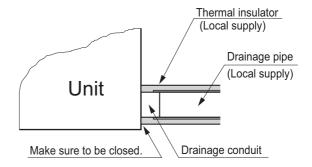


10.4.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

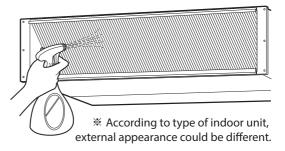


10.4.3 Method of Drainage test

◆ Drainage test of indoor unit

Use the following procedure to test the drainage.

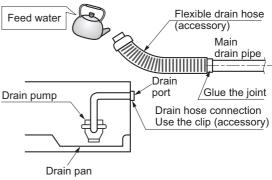
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

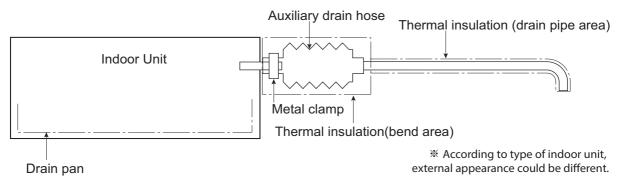
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.4.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.



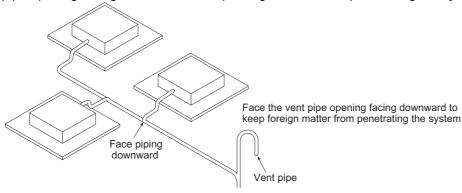
A

CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.4.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.



10.5 Electric wiring work

10.5.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.5.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.5.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

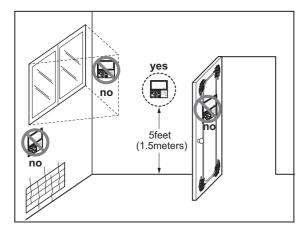
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.5.4 Wired Remote Controller Installation

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



Ceiling Concealed Duct (Low Static)

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity points
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. External Static Pressure(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU05GL1G4, ARNU07GL1G4, ARNU09GL1G4, ARNU12GL2G4, ARNU15GL2G4, ARNU18GL2G4, ARNU21GL3G4, ARNU24GL3G4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
Air flow	Auto swing(up & down)	-
All llow	Airflow steps(fan/cool/heat)	3/3/3
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	-
	Deodorizing filter	X
Air purifying	Plasma air purifier	X
	Prefilter(washable)	0
	Drain pump	0
	E.S.P. control*	0
Installation	Electric heater(operation)	X
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
,	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	-
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Simple wired remote controller	PQRCVCL0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control*	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	-
	CTIE	_
	Electro thermostat	_
	Remote temperature sensor	PQRSTA0
Special function kit	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
	Refrigerant Leakage Detector	PRLDNVS0
Note	Tremgerant Leakage Detector	LIVEDIAA20

Note

Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{1.} O : Applied, X : Not Applied

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

	Туре		Ceiling Concealed Duct (Low Static)				
	Model	Unit	ARNU05GL1G4	ARNU07GL1G4			
		kW	1.7	2.2			
Cooling Capacity		kcal/h	1,500	ARNU07GL1G4 2.2 1,900 7,500 2.5 2,200 8,500 31 / 28 / 24 Galvanized Steel Plate 700 x 190 x 700 27-9/16 × 7-15/32 × 27-9 2 x 11 x 14 0.12 Sirocco Fan 19 x 1 7.5 / 6.5 / 5.5 270 / 230 / 200 2.54 (25) Direct BLDC estat for cooling and heating Foamed polystrene - Fuse Ø6.35(1/4) Ø12.7(1/2) 25.4(1) 17.5 (38.6) 26 / 24 / 22 50 / 47 / 45 1, 220 - 230 - 240, 50/6 0.26 - 0.25 - 0.23 0.40 R410A / R32 0.14 / 0.12 EEV			
		Btu/h	5,800	7,500			
		kW	1.9	2.5			
Heating Capacity		kcal/h	1,600	2,200			
Power Input (H / M / L)		Btu/h	6,500	8,500			
Power Input (H / M / L)	W	29 / 26 / 24	31 / 28 / 24			
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions (MALIND)	Dadu	mm	700 x 190 x 700	700 x 190 x 700			
Dimensions(WxHxD) Coil Fan Temperature Control	Body	inch	27-9/16 × 7-15/32 × 27-9/16	27-9/16 × 7-15/32 × 27-9/16			
0-11	Rows x Columns x FPI		2 x 11 x 14	2 x 11 x 14			
	Face Area	m²	0.12	0.12			
	Туре	•	Sirocco Fan	Sirocco Fan			
Fan	Motor Output x Number	W	19 x 1	19 x 1			
	Air Flow Rate (H / M / L)	m³/min 6.7 / 6.2 / 5.5		7.5 / 6.5 / 5.5			
Fan	(Factory set)	ft³/min	240 / 220 / 200	270 / 230 / 200			
	External Static Pressure	mmAq(Pa)	2.54 (25)	2.54 (25)			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control			Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing Ther	mal Insulation Material		Foamed polystrene	Foamed polystrene			
Air Filter			-	-			
Safety Device			Fuse	Fuse			
-	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)			
Temperature Control Sound Absorbing Therr Air Filter Safety Device Pipe Connections Net Weight Sound Pressure Levels Sound Power Levels (F	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)			
	Drain Pipe(Internal Dia.)	mm(inch)	25.4(1)				
Net Weight		kg(lbs)	17.5 (38.6)	17.5 (38.6)			
Sound Pressure Level	s(H/M/L)	dB(A)	25 / 24 / 22	26 / 24 / 22			
Sound Power Levels (H / M / L)	dB(A)	48 / 46 / 45	50 / 47 / 45			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	Α	0.24 - 0.23 - 0.22	0.26 - 0.25 - 0.23			
Maximum Running Current		Α	0.40	0.40			
<u> </u>	Туре	-	R410A / R32	R410A / R32			
Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Femperature Control Gound Absorbing Ther Air Filter Cafety Device Pipe Connections Net Weight Cound Power Levels (I) Power Supply Running Current by voltage Maximum Running Cu Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.14 / 0.12	0.14 / 0.12			
	Control	-	EEV	EEV			
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C			

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 20Pa External Static Pressure condition.

Type Ceiling Concealed Duct (Lo			Duct (Low Static)		
	Model	Unit	ARNU09GL1G4	ARNU12GL2G4	
		kW	2.8	3.6	
Cooling Capacity		kcal/h	2,400	3,100	
		Btu/h	9,600	12,300	
		kW	3.2	4.0	
Heating Capacity		kcal/h	2,800	3,400	
Power Input (H / M / L)		Btu/h	10,900	13,600	
Power Input (H / M / L)	W	39 / 29 / 24	41 / 34 / 29	
Casing		'	Galvanized Steel Plate	Galvanized Steel Plate	
	5.1	mm	700 x 190 x 700	900 x 190 x 700	
Dimensions(WXHXD)	Body	inch	27-9/16 × 7-15/32 × 27-9/16	35-7/16 × 7-15/32 × 27-9/16	
0.0	Rows x Columns x FPI	!	2 x 11 x 14	2 x 11 x 18	
Coll	Face Area	m²	0.12	Sirocco Fan Sirocco Fan 19 x 1 19 x 1, 5 x 1 0.0 / 7.0 / 5.5 10.0 / 8.5 / 7.0	
	Туре	1	19 x 1 19 x 1, 5 x 1		
	Motor Output x Number	W	19 x 1	19 x 1, 5 x 1	
Fan	Air Flow Rate (H / M / L)	m³/min	9.0 / 7.0 / 5.5	10.0 / 8.5 / 7.0	
	(Factory set)	ft³/min	320 / 250 / 200	360 / 310 / 250	
	External Static Pressure	mmAq(Pa)	2.54 (25)	2.54 (25)	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control	-		Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing Ther	rmal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			-	-	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Temperature Control Sound Absorbing Therr Air Filter Safety Device Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	mm(inch)	25.4(1)	25.4(1)	
Net Weight		kg(lbs)	17.5 (38.6)	23 (50.7)	
Sound Pressure Level	s (H/M/L)	dB(A)	28 / 25 / 22	30 / 27 / 25	
Sound Power Levels (H / M / L)	dB(A)	53 / 49 / 45	50 / 47 / 46	
	,	Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
	Rated	А	0.32 - 0.31 - 0.30	0.38 - 0.37 - 0.35	
	ırrent	Α	A 0.40 0.76		
	Туре	-	R410A / R32	R410A / R32	
Heating Capacity Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Temperature Control Sound Absorbing Ther Air Filter Cafety Device Pipe Connections Net Weight Sound Power Levels (I) Power Supply Running Current by voltage Maximum Running Cu Refrigerant Transmission cable	Additional Charging Amount (CF Value of IDU)	kg(each)	0.14 / 0.12	0.19 / 0.16	
	Control	-	EEV	EEV	
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	
Note		1	1	1	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 20Pa External Static Pressure condition.

	Туре		Ceiling Concealed Duct (Low Static)				
	Model	Unit	ARNU15GL2G4	ARNU18GL2G4			
		kW	4.5	5.6			
Cooling Capacity		kcal/h	3,900	ARNU18GL2G4 5.6 4,800 19,100 6.3 5,400 21,500 71 / 56 / 41 Galvanized Steel Plate 900 x 190 x 700 35-7/16 × 7-15/32 × 27-9/ 2 x 11 x 18 0.17 Sirocco Fan 19 x 1, 5 x 1 15.0 / 12.5 / 10.0 530 / 450 / 360 2.54 (25) Direct BLDC ostat for cooling and heating Foamed polystrene - Fuse Ø6.35(1/4) Ø12.7(1/2) 25.4(1) 23 (50.7) 35 / 32 / 29 56 / 54 / 51			
		Btu/h	15,400	19,100			
		kW	5.0	6.3			
Heating Capacity		kcal/h	4,300	5,400			
Power Input (H / M / L)		Btu/h	17,100	21,500			
Power Input (H / M / L)	W	56 / 41 / 34	71 / 56 / 41			
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions (MALIND)	Darte	mm	900 x 190 x 700	900 x 190 x 700			
Casing Dimensions(WxHxD) Coil Fan Temperature Control Sound Absorbing Therm	Body	inch	35-7/16 × 7-15/32 × 27-9/16	35-7/16 × 7-15/32 × 27-9/16			
Cail	Rows x Columns x FPI		2 x 11 x 18	2 x 11 x 18			
Coll	Face Area	m²	0.17	0.17			
	Туре	•	Sirocco Fan	Sirocco Fan			
Fan	Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1			
	Air Flow Rate (H / M / L)	m³/min 12.5 / 10.0 / 8.5		15.0 / 12.5 / 10.0			
Fan	(Factory set)	ft³/min	450 / 360 / 310	530 / 450 / 360			
	External Static Pressure	mmAq(Pa)	2.54 (25)	2.54 (25)			
	Drive		Direct				
	Motor type		BLDC	BLDC			
Temperature Control	-		Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing Ther	rmal Insulation Material		Foamed polystrene	Foamed polystrene			
Air Filter			-	-			
Safety Device			Fuse	Fuse			
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)			
Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Temperature Control Sound Absorbing There Air Filter Safety Device Pipe Connections Net Weight Sound Pressure Levels (Head of the control	Gas Side	mm(inch)	Ø12.7(1/2)	. ,			
	Drain Pipe(Internal Dia.)	mm(inch)	25.4(1)	25.4(1)			
Net Weight		kg(lbs)	23 (50.7)	23 (50.7)			
Sound Pressure Level	s (H / M / L)	dB(A)	33 / 30 / 28	35 / 32 / 29			
Sound Power Levels (H / M / L)	dB(A)	54 / 51 / 47	56 / 54 / 51			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	Α	0.52 - 0.50 - 0.48	0.66 - 0.63 - 0.61			
<u> </u>	ırrent	Α	0.76	0.76			
	Туре	-	R410A / R32	R410A / R32			
Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Femperature Control Gound Absorbing Ther Air Filter Cafety Device Pipe Connections Net Weight Cound Power Levels (I) Power Supply Running Current by voltage Maximum Running Cu Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.19 / 0.16	0.19 / 0.16			
	Control	-	EEV	EEV			
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C			

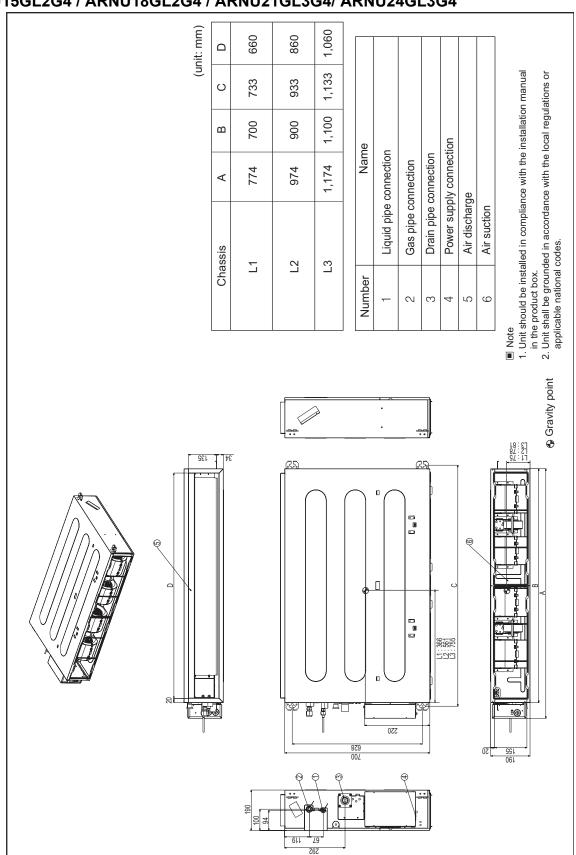
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 20Pa External Static Pressure condition.

	Туре		Ceiling Concealed Duct (Low Static)				
	Model	Unit	ARNU21GL3G4	ARNU24GL3G4			
		kW	6.2	7.1			
Cooling Capacity		kcal/h	5,300	ARNU24GL3G4 7.1 6,100 24,000 8.0 6,900 27,300 103 / 63 / 48 Galvanized Steel Plate 1,100 × 190 × 700 43-5/16 × 7-15/32 × 27-9/- 2 x 11 x 18 0.21 Sirocco Fan 19 x 2 20.0 / 16.0 / 12.0 710 / 570 / 430 2.54 (25) Direct BLDC tat for cooling and heating Foamed polystrene - Fuse Ø9.52(3/8) Ø15.88(5/8) 25.4(1) 27 (59.5) 36 / 33 / 28 63 / 59 / 55			
		Btu/h 21,000 24,000 kW 7.0 8.0 kcal/h 6,000 6,900 Btu/h 23,900 27,300 W 72 / 53 / 48 103 / 63 / 48 Galvanized Steel Plate Galvanized Steel Plate Galvanized Steel Plate mm 1,100 × 190 × 700 1,100 × 190 × 700 inch 43-5/16 × 7-15/32 × 27-9/16 43-5/16 × 7-15/32 × 27-9/1 x Columns x FPI 2 x 11 x 18 2 x 11 x 18 Area m² 0.21 0.21 Sirocco Fan Sirocco Fan Output x Number W 19 x 2 19 x 2 ow Rate (H / M / L) m³/min 17.5 / 14.0 / 12.0 20.0 / 16.0 / 12.0 ory set) ft³/min 620 / 500 / 430 710 / 570 / 430					
		kW	7.0	8.0			
, , ,		kcal/h	6,000	6,900			
		Btu/h	23,900	27,300			
Power Input (H / M / L)	W	72 / 53 / 48	103 / 63 / 48			
Casing			Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions (MALIND)	Dadu	mm	1,100 × 190 × 700	1,100 × 190 × 700			
Dimensions(WxHxD) Coil Fan	Body	inch	43-5/16 × 7-15/32 × 27-9/16	43-5/16 × 7-15/32 × 27-9/16			
0.0	Rows x Columns x FPI		2 x 11 x 18	2 x 11 x 18			
Coll	Face Area	m²	0.21	0.21			
	Туре	•	Sirocco Fan	Sirocco Fan			
Fan	Motor Output x Number	W	19 x 2	19 x 2			
	Air Flow Rate (H / M / L)	m³/min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0			
	(Factory set)	ft³/min	620 / 500 / 430	710 / 570 / 430			
	External Static Pressure	mmAq(Pa)	2.54 (25)	2.54 (25)			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control			Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene			
Air Filter			-	-			
Safety Device			Fuse	Fuse			
-	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)			
Sound Absorbing Theri Air Filter	Gas Side	mm(inch)	Ø15.88(5/8)	, ,			
	Drain Pipe(Internal Dia.)	mm(inch)	25.4(1)	25.4(1)			
Net Weight		kg(lbs)	27 (59.5)	27 (59.5)			
Sound Pressure Level	s (H / M / L)	dB(A)	35 / 29 / 28	36 / 33 / 28			
Sound Power Levels (H / M / L)	dB(A)	59 / 55 / 54	63 / 59 / 55			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	А	0.63 - 0.61 - 0.58	0.91 - 0.87 - 0.83			
Maximum Running Current		Α	0.97	0.97			
-	Туре	-	R410A / R32	R410A / R32			
Power Input (H / M / L) Casing Dimensions(WxHxD) Coil Fan Femperature Control Gound Absorbing Ther Air Filter Safety Device Pipe Connections Net Weight Sound Power Levels (I Power Supply Running Current by voltage Maximum Running Cu Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.25 / 0.21	0.25 / 0.21			
	Control	-	EEV	EEV			
Transmission cable	'	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C			

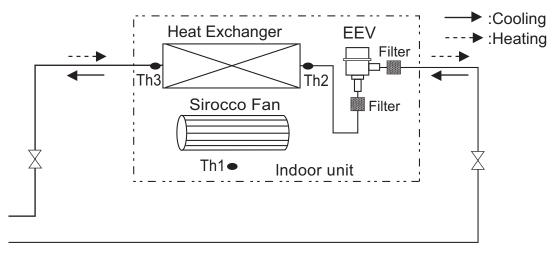
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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. Sound levels are measured at 20Pa External Static Pressure condition.

3. Dimensions & Gravity point

ARNU05GL1G4 / ARNU07GL1G4 / ARNU09GL1G4 / ARNU12GL2G4 ARNU15GL2G4 / ARNU18GL2G4 / ARNU21GL3G4/ ARNU24GL3G4



4. Piping Diagrams



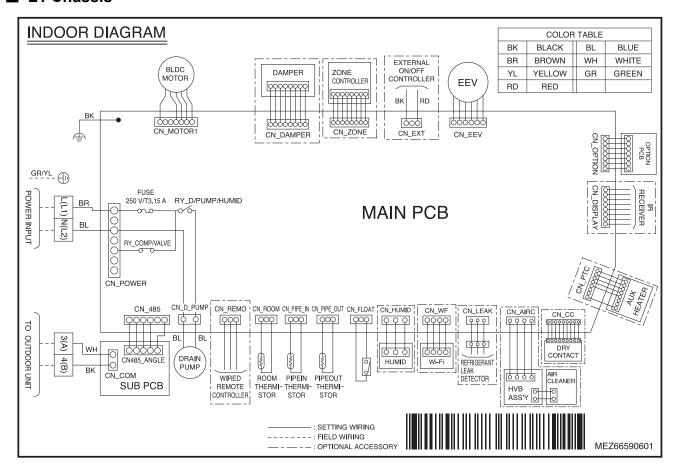
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU05GL1G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GL1G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GL1G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GL2G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GL2G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GL2G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU21GL3G4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU24GL3G4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Thermistor for room air temperature
Th2	Thermistor for pipe in temperature
Th3	Thermistor for pipe out temperature

5. Wiring Diagrams

■ L1 Chassis



CONNECTOR NUMBER	SPEC.	DESCRIPTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing



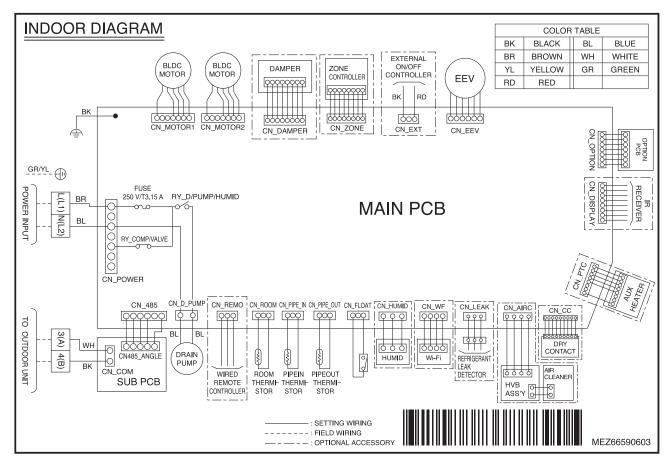
	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)		-	Off
SW3	Group Control	Selection of Master or Slave Master		Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

5. Wiring Diagrams

■ L2/L3 Chassis



CONNECTOR NUMBER	SPEC.	DESCRIPTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

5. Wiring Diagrams

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default) -		-	Off
SW3	Group Control	Selection of Master or Slave Master		Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection Selection tropical region		General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.



6. Capacity Tables

■ Cooling Capacity

Naminal Canacity						Indoor	air tem	p. (DB/V	VB, °C)					
Nominal Capacity (kBtu/h)	2	20	2	3	2	6	2	27	2	:8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	2	2	4
[Capacity index (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
5 [1.6]	1.1	1.1	1.4	1.3	1.6	1.4	1.7	1.4	1.8	1.5	1.8	1.4	1.9	1.3
7 [2.2]	1.5	1.4	1.8	1.5	2.0	1.6	2.2	1.7	2.4	1.7	2.4	1.6	2.4	1.5
9 [2.8]	1.9	1.8	2.2	1.9	2.6	2.1	2.8	2.1	3.0	2.2	3.0	2.1	3.1	1.9
12 [3.6]	2.4	2.2	2.9	2.4	3.3	2.6	3.6	2.6	3.9	2.7	3.9	2.6	4.0	2.4
15 [4.5]	3.0	2.7	3.6	3.0	4.2	3.2	4.5	3.3	4.8	3.4	4.9	3.2	4.9	3.0
18 [5.6]	3.8	3.4	4.5	3.7	5.2	4.0	5.6	4.1	6.0	4.2	6.1	4.0	6.2	3.7
21 [6.2]	4.2	3.9	5.0	4.3	5.8	4.6	6.2	4.7	6.6	4.9	6.7	4.6	6.8	4.3
24 [7.1]	4.8	4.4	5.7	4.9	6.6	5.3	7.1	5.4	7.6	5.6	7.7	5.3	7.8	4.9

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity		Indoor air temp. (DB, °C)									
Nominal Capacity (kBtu/h)	16	18	20	21	22	24					
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC					
5 [1.6]	2.1	2.0	1.9	1.8	1.8	1.7					
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2					
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8					
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5					
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4					
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5					
21 [6.2]	7.9	7.4	7.0	6.8	6.6	6.1					
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0					

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

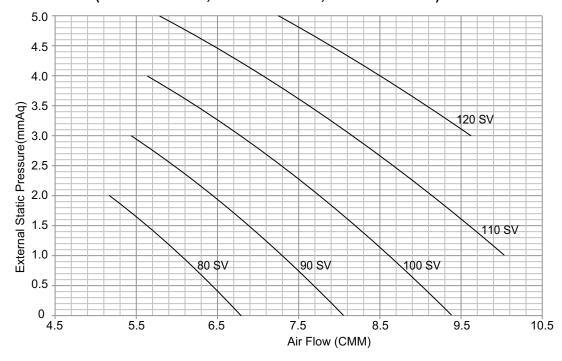
◆ ARNU05GL1G4, ARNU07GL1G4, ARNU09GL1G4

	Static Pressure(mmAq(Pa))										
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)					
	Air Flow Rate (m³/min)										
60	-	-	-	-	-	-					
65	5.03	-	-	-	-	-					
70	5.60	4.85	-	-	-	-					
75	6.19	5.44	4.57	-	-	-					
80	6.79	6.05	5.17	-	-	-					
85	7.41	6.67	5.80	4.80	-	-					
90	8.05	7.31	6.43	5.44	-	-					
95	8.71	7.96	7.09	6.09	4.97	-					
100	9.38	8.63	7.76	6.76	5.64	-					
105	10.07	9.32	8.45	7.45	6.33	5.08					
110	-	10.03	9.16	8.16	7.04	5.79					
115	-	-	9.88	8.88	7.76	6.51					
120	-	-	-	9.62	8.50	7.25					
125	-	-	-	10.38	9.26	8.01					
130	-	-	-	-	10.03	8.78					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU05GL1G4, ARNU07GL1G4, ARNU09GL1G4)



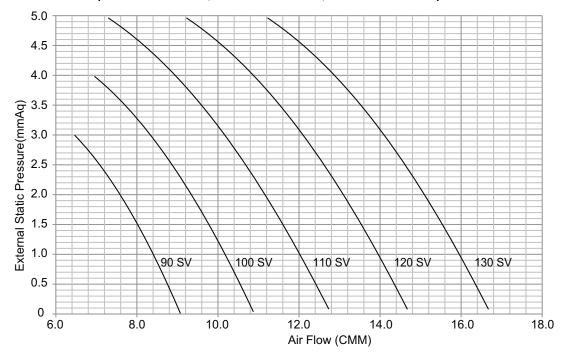
♦ ARNU12GL2G4, ARNU15GL2G4, ARNU18GL2G4

		Static Pressure(mmAq(Pa))									
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)					
		Air Flow Rate (m³/min)									
75	6.50	-	-	-	-	-					
80	7.34	6.70	-	-	-	-					
85	8.20	7.55	6.69	-	-	-					
90	9.07	8.43	7.56	6.47	-	-					
95	9.96	9.32	8.45	7.36	-	-					
100	10.87	10.22	9.36	8.27	6.96	-					
105	11.79	11.15	10.28	9.19	7.89	6.35					
110	12.73	12.09	11.22	10.14	8.83	7.30					
115	13.69	13.05	12.18	11.09	9.78	8.25					
120	14.67	14.02	13.16	12.07	10.76	9.23					
125	15.66	15.01	14.15	13.06	11.75	10.22					
130	16.67	16.02	15.16	14.07	12.76	11.23					
135	-	-	16.18	15.10	13.79	12.26					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU12GL2G4, ARNU15GL2G4, ARNU18GL2G4)



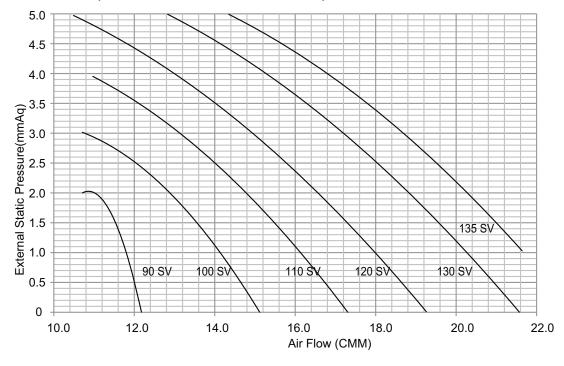
♦ ARNU21GL3G4, ARNU24GL3G4

	Static Pressure(mmAq(Pa))										
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)					
		Air Flow Rate (m³/min)									
85	10.19	-	-	-	-	-					
90	12.18	10.71	11.09	-	-	-					
95	13.81	12.34	12.19	-	-	-					
100	15.16	13.69	13.38	10.71	-	-					
105	16.30	14.83	14.36	11.85	-	-					
110	17.31	15.85	15.23	12.86	10.97	-					
115	18.27	16.80	16.07	13.82	11.93	-					
120	19.26	17.79	16.93	14.80	12.91	10.49					
125	20.34	18.87	17.89	15.88	13.99	11.57					
130	21.60	20.13	19.01	17.14	15.25	12.83					
135	-	21.64	20.36	18.66	16.76	14.35					
139	-	-	21.08	20.00	17.34	15.29					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU21GL3G4, ARNU24GL3G4)



♦ ARNU05GL1G4, ARNU07GL1G4, ARNU09GL1G4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.051.	HI	96		6.7			
	High (factory set)	Mid	91	2.54 (25)	6.2	-	5(49)	
5k	(lactory sor)	Low	86		5.5			
JK.		HI	79		6.7			
Standard	Mid	74	0 (0)	6.2	-	5(49)		
		Low	69		5.5			
115	1.151.	HI	100		7.5		· · · · · · · · · · · · · · · · · · ·	
	High (factory set)	Mid	93	2.54 (25)	6.5	-	5(49)	
7k	(lactory scr)	Low	86		5.5			
/ K		HI	86		7.5			
	Standard	Mid	78	0 (0)	6.5] -	5(49)	
		Low	69		5.5			
		HI	113		9.0			
	High (factory set)	Mid	97	2.54 (25)	7.0] -	5(49)	
9k	(lactory set)	Low	86		5.5		, ,	
9K		HI	97		9.0			
	Standard	Mid	81	0 (0)	7.0	_	5(49)	
		Low	69		5.5			

Note

1. The above table shows the available E.S.P. range.

◆ ARNU12GL2G4, ARNU15GL2G4, ARNU18GL2G4

Capacity	Mode	Mode		Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.151.	HI	105		10.0			
	High (factory set)	Mid	96	2.54 (25)	8.5	-	5(49)	
12k	(lactory scr)	Low	89		7.0			
IZK		HI	96		10.0			
	Standard	Mid	87	0 (0)	8.5	-	5(49)	
		Low	78		7.0			
	1.151.	HI	119		12.5			
	High (factory set)	Mid	105	2.54 (25)	10.0	_	5(49)	
15k	(lactory sor)	Low	96		8.5			
ISK		HI	109		12.5		5(49)	
	Standard	Mid	96	0 (0)	10.0	-		
		Low	87		8.5			
		HI	131		15.0			
	High (factory set)	Mid	119	2.54 (25)	12.5	-	5(49)	
18k	(lactory set)	Low	105		10.0			
IOK		HI	120		15.0			
	Standard	Mid	109	0 (0)	12.5	_	5(49)	
		Low	96		10.0			

Note

1. The above table shows the available E.S.P. range.

♦ ARNU21GL3G4, ARNU24GL3G4

Capacity	Mode		Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))
	1.151.	HI	125		17.5				
	High (factory set)	Mid	110	2.54 (25)	14.0	-	5(49)		
21k	(lactory sor)	Low	105		12.0				
2 IK		HI	113		17.5		5(49)		
	Standard	Mid	95	0 (0)	14.0] -			
		Low	89		12.0				
		HI	139		20.0				
	High (factory set)	Mid	118	2.54 (25)	16.0] -	5(49)		
24k	(lactory set)	Low	105		12.0				
		HI	125		20.0		5(49)		
	Standard	Mid	102	0 (0)	16.0	_			
		Low	89		12.0				

Note

1. The above table shows the available E.S.P. range.

8. Electric Characteristics

	Units						М	PI		
Model	Туре	Hz	Volts	Voltage Range	МСА	kW	FLA	Cooling	Heating	
ARNU05GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU07GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU09GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU12GL2G4	L2	50	220-240	Max:264	1.00	0.024	0.76	85	85	
ARNU15GL2G4	L2	30	220-240	Min:198	1.00	0.024	0.76	85	85	
ARNU18GL2G4	L2				1.00	0.024	0.76	85	85	
ARNU21GL3G4	L3]			1.20	0.038	0.97	115	115	
ARNU24GL3G4	L3					1.20	0.038	0.97	115	115
ARNU05GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU07GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU09GL1G4	L1				0.50	0.019	0.40	40	40	
ARNU12GL2G4	L2	60	220	Max:242	1.00	0.024	0.76	85	85	
ARNU15GL2G4	L2] 60	220	Min:198	1.00	0.024	0.76	85	85	
ARNU18GL2G4	L2				1.00	0.024	0.76	85	85	
ARNU21GL3G4	L3				1.20	0.038	0.97	115	115	
ARNU24GL3G4	L3				1.20	0.038	0.97	115	115	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

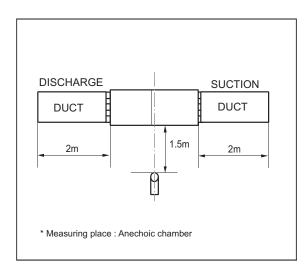
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



Note

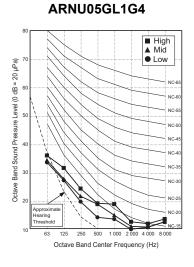
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.

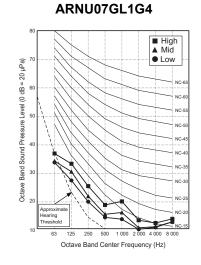
conditions during operation.

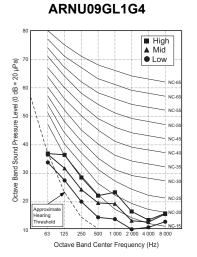
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient

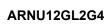
	Sound Pressure Levels (dB(A),H-M-L) External Static Pressure (Pa)							
Model								
	10	20	50					
ARNU05GL1G4	24-22-21	25-24-22	29-28-27					
ARNU07GL1G4	25-22-21	26-24-22	31-29-27					
ARNU09GL1G4	27-24-21	28-25-22	32-30-27					
ARNU12GL2G4	28-26-24	30-27-25	34-32-30					
ARNU15GL2G4	32-28-26	33-30-28	36-34-32					
ARNU18GL2G4	34-31-28	35-32-29	38-36-34					
ARNU21GL3G4	33-28-27	35-29-28	38-36-34					
ARNU24GL3G4	35-32-27	36-33-28	39-36-34					

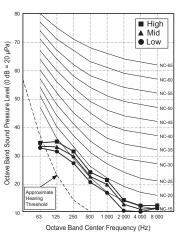
9.1.1 Sound Pressure Levels(10pa)



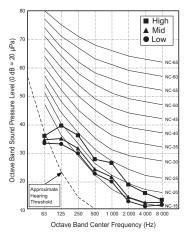




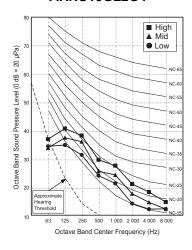




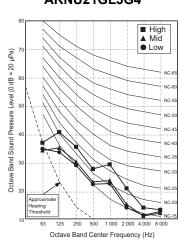
ARNU15GL2G4



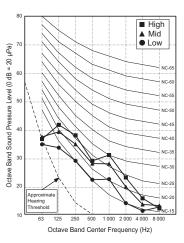
ARNU18GL2G4



ARNU21GL3G4

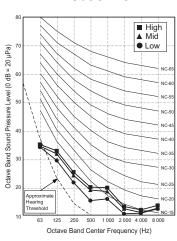


ARNU24GL3G4

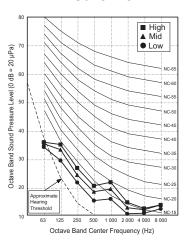


9.1.2 Sound Pressure Levels(20pa)

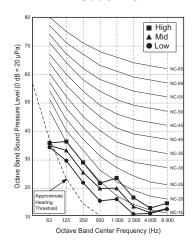
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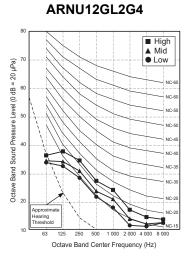
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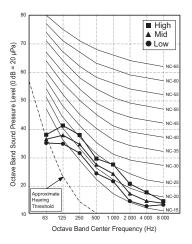
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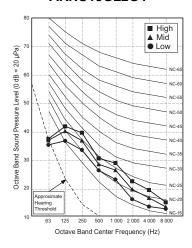
Dound Ecvers



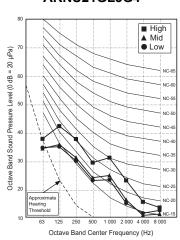
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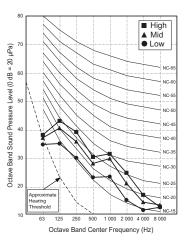
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ARNU21GL3G4

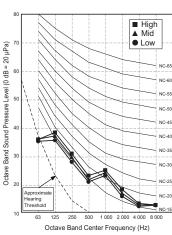


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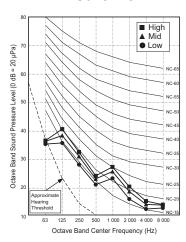


9.1.3 Sound Pressure Levels(50pa)

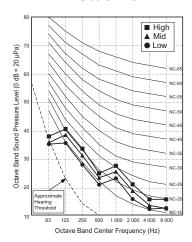




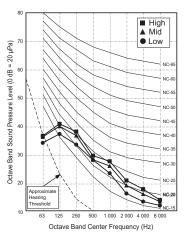
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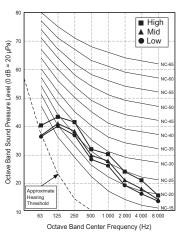
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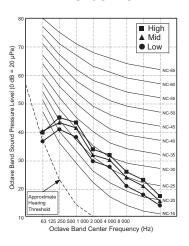
ARNU12GL2G4



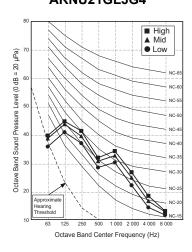
ARNU15GL2G4



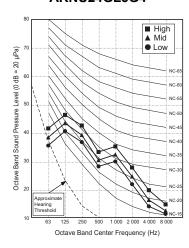
ARNU18GL2G4



ARNU21GL3G4



ARNU24GL3G4



9.2 Sound Power Levels

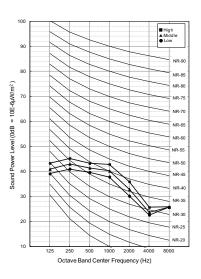
Note

- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

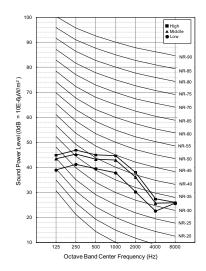
	Sc	Sound Power Levels [dB(A)]						
Model	External Static Pressure (Pa)							
	10	20	50					
ARNU05GL1G4	47-45-43	48-46-45	53-51-50					
ARNU07GL1G4	49-47-42	50-47-45	53-52-50					
ARNU09GL1G4	52-48-43	53-49-45	55-53-50					
ARNU12GL2G4	50-48-46	50-47-46	54-52-50					
ARNU15GL2G4	55-52-48	54-51-47	56-54-52					
ARNU18GL2G4	57-55-52	56-54-51	57-56-54					
ARNU21GL3G4	59-55-53	59-55-54	62-59-58					
ARNU24GL3G4	63-58-55	63-59-55	63-60-58					

9.2.1 Sound Power Levels (10Pa)

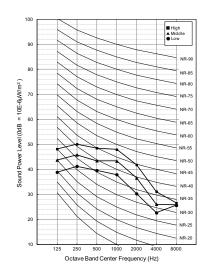
ARNU05GL1G4



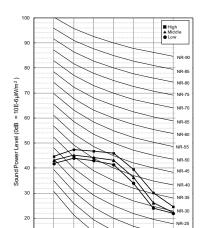
ARNU07GL1G4



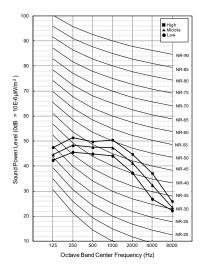
ARNU09GL1G4



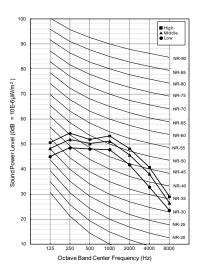




ARNU15GL2G4

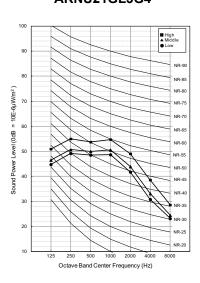


ARNU18GL2G4

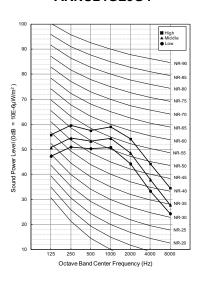


Octave Band Center Frequency (Hz)

ARNU21GL3G4

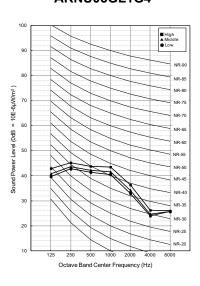


ARNU24GL3G4

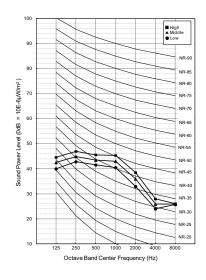


9.2.2 Sound Power Levels (20Pa)

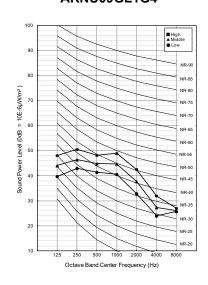
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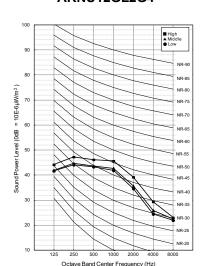
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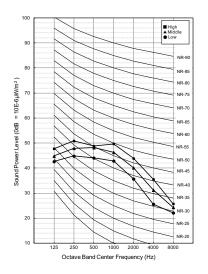
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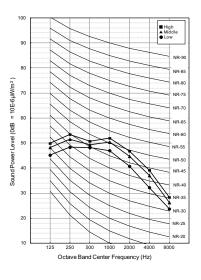




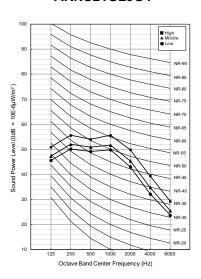
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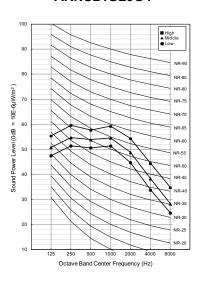
ARNU18GL2G4



ARNU21GL3G4

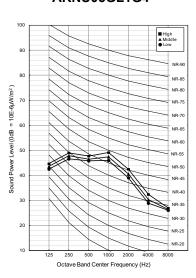


ARNU24GL3G4

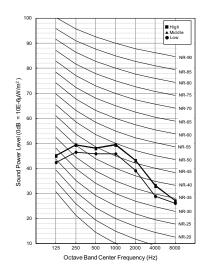


9.2.3 Sound Power Levels (50Pa)

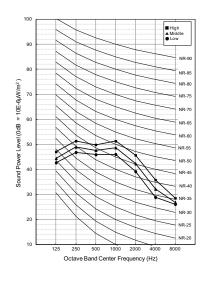
ARNU05GL1G4



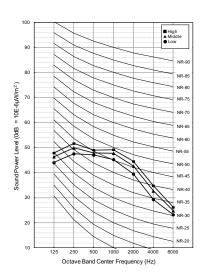
ARNU07GL1G4



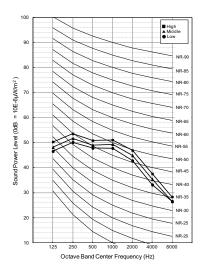
ARNU09GL1G4



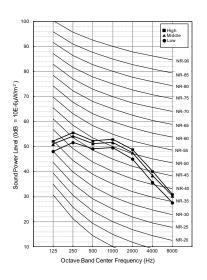
ARNU12GL2G4



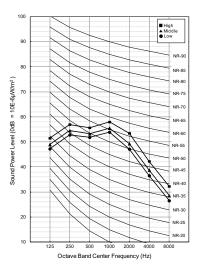
ARNU15GL2G4



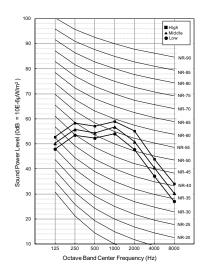
ARNU18GL2G4



ARNU21GL3G4



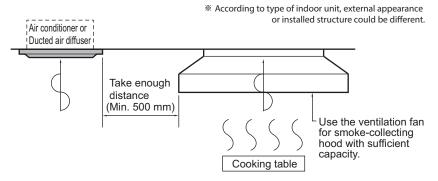
ARNU24GL3G4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- · The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- · There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.

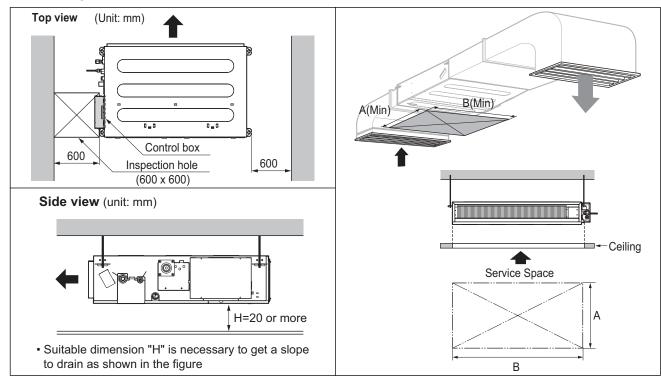


- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 °C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

◆ L1 / L2 / L3



Chassis code	A [mm]	B [mm]
L1	800	800
L2	800	1,000
L3	800	1,200

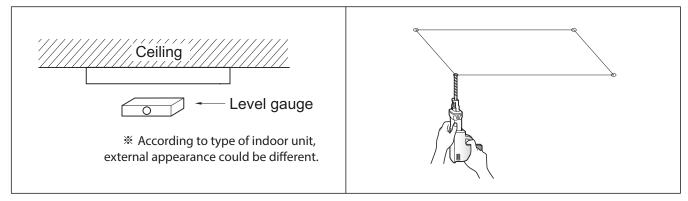


10.2 Ceiling dimension and hanging bolt location

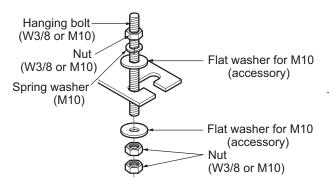
A

CAUTION

- During the installation, care should be taken not to damage electric wires.
- · In case of using a drain pump, install the unit horizontally using a level gauge.



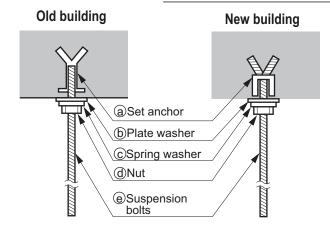
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - · Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring
 washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

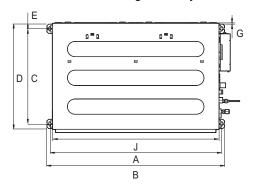
A CAUTION

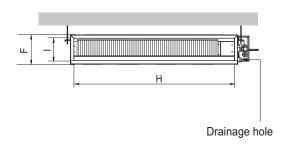
- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



■ Installation of Unit

Install the unit above the ceiling correctly.





Chassis		Dimension (mm)									
	Α	В	С	D	E	F	G	Н	ı	J	
L1	733	772	628	700	36	190	20	660	155	700	
L2	933	972	628	700	36	190	20	860	155	900	
L3	1,133	1,172	628	700	36	190	20	1,060	155	1,100	



10.3 Connecting cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- · A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

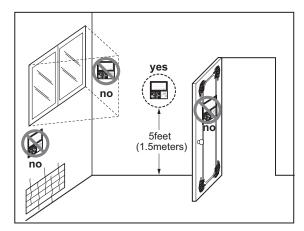
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wire Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



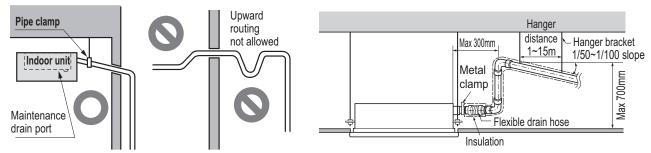
Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

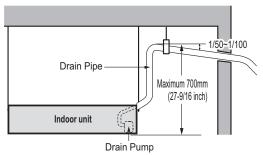
10.4 Indoor Unit Drain Piping

10.4.1 Drain piping of indoor unit with drain pump

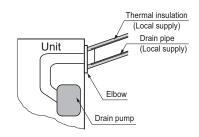
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

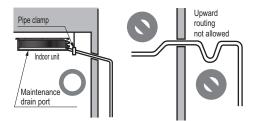




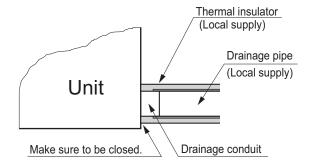


10.4.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

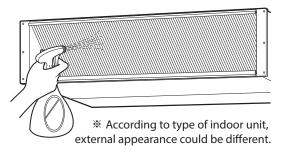


10.4.3 Method of Drainage test

Drainage test of indoor unit

Use the following procedure to test the drainage.

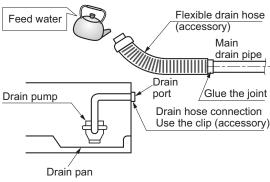
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- 3. Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

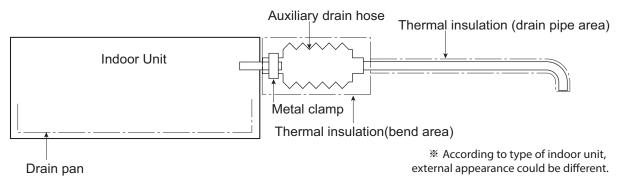
- 1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.4.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.

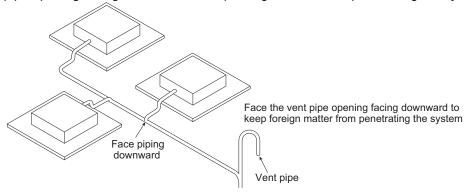


A CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.4.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling Concealed Duct (Low Static(Slim))

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity points
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7.External Static Pressure(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU05GL4G4, ARNU07GL4G4, ARNU09GL4G4, ARNU12GL5G4, ARNU15GL5G4, ARNU18GL5G4, ARNU21GL6G4, ARNU24GL6G4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
A in flow	Auto swing(up & down)	-
Air flow	Airflow steps(fan/cool/heat)	3/3/3
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	-
	Deodorizing filter	X
Air purifying	Plasma air purifier	X
	Prefilter(washable / anti-fungus)	0
	Drain pump	0
	E.S.P. control*	0
Installation	Electric heater(operation)	X
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat Pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	O
	Child lock*	0
	Forced operation	-
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	· ,	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Premium wired remote controller Simple wired remote controller	PQRCVCL0Q(W)
individual control	'	
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control*	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	-
	CTIE	-
	Electro thermostat	- POPOTAG
Special function kit	Remote temperature sensor	PQRSTA0
•	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
Note	Refrigerant Leakage Detector	PRLDNVS0

Note

1. O : Applied, X : Not Applied
Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

	Model Name	Unit	ARNU05GL4G4	ARNU07GL4G4		
		kW	1.8	2.2		
	Rated	kcal/h	1,600	1,900		
Сарасну		Btu/h 6,100		7,500		
		kW	2.2	2.5		
	Rated	kcal/h	1,900	2,200		
Сараспу		Btu/h	7,500	8,500		
Power Input	H/M/L	W	15 / 13 / 11	28 / 24 / 21		
Running Current	H/M/L	Α	0.12 / 0.10 / 0.09	0.23 / 0.19 / 0.17		
	Туре	-	Sirocco Fan	Sirocco Fan		
Indoor Fan	Air Flow Rate(H/M/L)	m ³ /min	7.0 / 6.5 / 5.5	7.5 / 6.5 / 5.5		
muoori an	External Static Pressure (Factory Set)	mmAq(Pa)	1 (10)	1 (10)		
	Туре	-	BLDC	BLDC		
Cooling Capacity Heating Capacity Power Input Running Current Indoor Fan Indoor Fan Motor Heat Exchanger Dimensions Weight Exterior Air Filter Temperature Cont Sound Absorbing Safety Divice Refrigerant Drain Pipe Piping Connection Sound Pressure Level Sound Power	Drive	-	Direct	Direct		
	Output	W x No.	19 x 1	19 x 1		
	FLA(Full Load Ampere)	Α	0.40	0.40		
Heat Exchanger	(Rows x Columns x FPI) x No.	-	(2 x 6 x 14) x 2	(2 x 6 x 14) x 2		
Heat Exchanger Dimensions Weight	Face Area	m ²	0.12	0.12		
D	Net(W x H x D)	mm	700 x 190 x 460	700 x 190 x 460		
Dimensions	Shipping(W x H x D)	mm	925 x 255 x 561	925 x 255 x 561		
	Net	kg(lbs)	14.6(32.2)	14.6(32.2)		
Weight	Shipping	kg(lbs)	17.8(39.0)	17.8(39.0)		
Exterior	Color(RAL Code)	-	-	-		
Air Filter	Туре	-	Pre Filter	Pre Filter		
Temperature Con	trol	-	Microprocessor Thermost	at for cooling and heating		
Sound Absorbing	/ Thermal Insulation Material	-	Foamed polystrene			
		-	Fuse	Fuse		
•	Туре	-	R410A/R32	R410A/R32		
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.14/0.12	0.14/0.12		
	Control Type	-	EEV	EEV		
Drain Pipe	O.D / I.D	mm(inch)	-/25.4(1)	-/25.4(1)		
	Liquid	mm(inch)	6.35(1/4)	6.35(1/4)		
Piping	Gas	mm(inch)	12.7(1/2)	12.7(1/2)		
Exterior Air Filter Temperature Cor Sound Absorbing Safety Divice	Connection Type(Liquid)	-	Flare	Flare		
Connection Type(Liquid) Connection Type(Gas)		-	Flare	Flare		
Sound Pressure	Cooling(H/M/L)	dB(A)	25 / 24 / 22	26 / 24 / 22		
Level	Heating(H/M/L)	dB(A)	25 / 24 / 22	26 / 24 / 22		
Sound Power	Cooling(H/M/L)	dB(A)	37 / 36 / 34	38 / 37 / 33		
Level	Heating(H/M/L)	dB(A)	37 / 36 / 34	38 / 37 / 33		
	-	V, Ф, Hz	220 - 230 - 240, 1,50/60	220 - 230 - 240, 1,50/60		
Power Supply	Running Current by voltage	Α	0.12 - 0.12 - 0.11	0.23 - 0.23 - 0.22		
Transmission Cal		mm² x cores	1.0~1.5 x 2C	1.0~1.5 x 2C		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Model Name	Unit	ARNU09GL4G4	ARNU12GL5G4	
		kW	2.8	3.6	
	Rated	kcal/h	2,400	3,100	
Сарасну		Btu/h 9,600		12,300	
	Landin II		3.2	4	
	Rated	kcal/h	2,800	3,400	
Сараспу		KW 2.8	10,900	13,600	
Power Input	H/M/L	W	28 / 24 / 21	43 / 38 / 35	
Running Current	H/M/L	Α	0.22 / 0.19 / 0.17	0.39 / 0.34 / 0.32	
	Туре	-	Sirocco Fan	Sirocco Fan	
Indoor Fan	Air Flow Rate(H/M/L)	m ³ /min	9.0 / 7.0 / 5.5	10.0 / 8.5 / 7.0	
muoori an	External Static Pressure (Factory Set)	mmAq(Pa)	1 (10)	1 (10)	
	Туре	-	BLDC	BLDC	
Cooling Capacity Heating Capacity Power Input Running Current Indoor Fan Motor Heat Exchanger Dimensions Weight Exterior Air Filter Temperature Conf	Drive	-	Direct	Direct	
	Output	W x No.	19 x 1	19 x 1+5x 1	
	FLA(Full Load Ampere)	Α	0.40	0.76	
Heat Exchanger	(Rows x Columns x FPI) x No.	EDI\ v		(2 x 6 x 18) x 2	
Dimensions · Weight ·	Face Area	m ²	0.12	0.17	
<u> </u>	nensions Net(W x H x D)		700 x 190 x 460	900 x 190 x 460	
Dimensions	Shipping(W x H x D)	mm	925 x 255 x 561	1,125 x 255 x 561	
	Net	kg(lbs)		20(44.1)	
Weight	Shipping	kg(lbs)	` '	22.2(49.0)	
Exterior	Color(RAL Code)	-	-	-	
Air Filter	Type	-	Pre Filter	Pre Filter	
Temperature Con	trol	-	Microprocessor Thermost	at for cooling and heating	
	/ Thermal Insulation Material	-	Foamed p		
		-	-	Fuse	
•	Туре	-	R410A/R32	R410A/R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.14/0.12	0.19/0.17	
	Control Type	-	EEV	EEV	
Drain Pipe	O.D / I.D	mm(inch)	-/25.4(1)	-/25.4(1)	
	Liquid	mm(inch)	6.35(1/4)	6.35(1/4)	
Piping	Gas	mm(inch)	12.7(1/2)	12.7(1/2)	
	Connection Type(Liquid)	-	Flare	Flare	
Connection Type(Liquid) Connection Type(Gas)		-	Flare	Flare	
Sound Pressure	Cooling(H/M/L)	dB(A)	28 / 25 / 22	29 / 27 / 25	
	Heating(H/M/L)	dB(A)	28 / 25 / 22	29 / 27 / 25	
Sound Power	Cooling(H/M/L)	dB(A)	40 / 37 / 34	41 / 38 / 38	
	Heating(H/M/L)	dB(A)	40 / 37 / 34	41 / 38 / 38	
	-		220 - 230 - 240, 1,50/60	220 - 230 - 240, 1,50/60	
Power Supply	Running Current by voltage			0.40 - 0.39 - 0.37	
Transmission Cal		mm² x cores	1.0~1.5 x 2C	1.0~1.5 x 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Model Name	Unit	ARNU15GL5G4	ARNU18GL5G4	
		kW	4.5	5.6	
	Rated	kcal/h	3,900	4,800	
Сарасну		Btu/h	15,400	19,100	
Lla ation		kW	5	6.3	
	Rated	kcal/h	4,300	5,400	
Сараспу		Btu/h	17,100	21,500	
Power Input	H/M/L	W	54 / 45 / 38	57 / 39 / 30	
Running Current	H/M/L	Α	0.48 / 0.40 / 0.34	0.51 / 0.35 / 0.30	
	Туре	-	Sirocco Fan	Sirocco Fan	
Indoor Fan	Air Flow Rate(H/M/L)	m ³ /min	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0	
mador r arr	External Static Pressure (Factory Set)	mmAq(Pa)	1 (10)	1 (10)	
	Туре	-	BLDC	BLDC	
Cooling Capacity Heating Capacity Power Input Running Current Indoor Fan Motor Heat Exchanger Dimensions Weight Exterior Air Filter Temperature Con Sound Absorbing Safety Divice	Drive	-	Direct	Direct	
	Output	W x No.	19 x 1+5x 1	19 x 1+5x 1	
	FLA(Full Load Ampere)	Α	0.76	0.76	
Heat Exchanger	(Rows x Columns x FPI) x No.	-	(2 x 6 x 18) x 2	(2 x 6 x 18) x 2	
Dimensions Weight Exterior	Face Area	m ²	0.17	0.17	
5	Net(W x H x D)	mm	900 x 190 x 460	900 x 190 x 460	
eat Exchanger Faimensions /eight xterior ir Filter Compensature Control	Shipping(W x H x D)	mm	1,125 x 255 x 561	1,125 x 255 x 561	
	Net	kg(lbs)	20(44.1)		
Weight	Shipping	kg(lbs)	22.2(49.0)	22.2(49.0)	
Exterior	Color(RAL Code)	-	-	-	
Air Filter	Туре	-	Pre Filter	Pre Filter	
Temperature Con	trol	-	Microprocessor Thermost	at for cooling and heating	
Sound Absorbing	/ Thermal Insulation Material	-	Foamed polystrene		
Safety Divice		-	Fuse	Fuse	
	Туре	-	R410A/R32	R410A/R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.19/0.17	0.19/0.17	
	Control Type	-	EEV	EEV	
Drain Pipe	O.D / I.D	mm(inch)	-/25.4(1)	-/25.4(1)	
	Liquid	mm(inch)	6.35(1/4)	6.35(1/4)	
Piping	Gas	mm(inch)	12.7(1/2)	12.7(1/2)	
Weight Exterior Air Filter Temperature Co Sound Absorbing Safety Divice Refrigerant Drain Pipe Piping	Connection Type(Liquid)	-	Flare	Flare	
	Connection Type(Liquid) Connection Type(Gas)		Flare	Flare	
Sound Pressure	Cooling(H/M/L)	dB(A)	32 / 29 / 27	35 / 32 / 29	
Level	Heating(H/M/L)	dB(A)	32 / 29 / 27	35 / 32 / 29	
Sound Power	Cooling(H/M/L)	dB(A)	45 / 42 / 40	47 / 45 / 42	
	Heating(H/M/L)	dB(A)	45 / 42 / 40	47 / 45 / 42	
Dawan Commit	-	V, Ф, Hz	220 - 230 - 240, 1,50/60	220 - 230 - 240, 1,50/60	
Power Supply	Running Current by voltage	Α	0.50 - 0.48 - 0.46	0.53 - 0.51 - 0.49	
Transmission Cal	ole	mm² x cores	1.0~1.5 x 2C	1.0~1.5 x 2C	

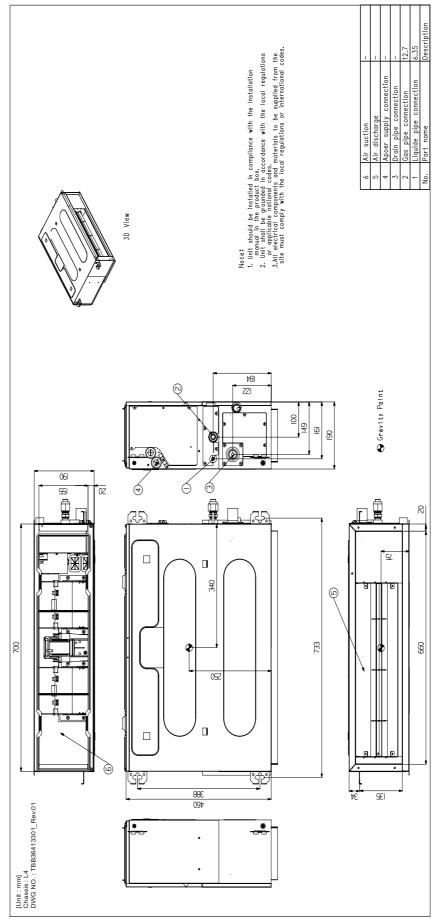
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Model Name	Unit	ARNU21GL6G4	ARNU24GL6G4		
		kW	6.3	7.1		
	Rated	kcal/h	5,400	6,100		
Сарасну		Btu/h	21,500	24,200		
la attina		kW	7.1	8		
	Rated	kcal/h	6,100	6,900		
Сарасну		Btu/h	kW 6.3 kcal/h 5,400 6, Btu/h 21,500 24 kW 7.1 kcal/h 6,100 6, Btu/h 24,200 27 W 65/50/42 81/ A 0.55/0.42/0.36 0.68/0 - Sirocco Fan Sirocco Fan Sirocco Fan Maq(Pa) 1(10) 1 - BLDC BlDC BlDC BLDC Direct Do Vx No. 19 x 2 19 X2 19 X4 0.97 - (2 x 6 x 18) x 2 (2 x 6 Mag) 25 x 255 x 561 1,325 x 265 (2 x 6) (2 x 6) (2 x 6) (3	27,300		
Power Input	H/M/L	W	65 / 50 / 42	81 / 59 / 43		
Running Current	H/M/L	Α	0.55 / 0.42 / 0.36	0.68 / 0.50 / 0.35		
	Туре	-	Sirocco Fan	Sirocco Fan		
Indoor Fan	Air Flow Rate(H/M/L)	m ³ /min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0		
muoori an	External Static Pressure (Factory Set)	mmAq(Pa)	1 (10)	1 (10)		
	Туре	-	BLDC	BLDC		
Cooling Capacity Heating Capacity Power Input Running Current Indoor Fan Motor Heat Exchanger Dimensions Weight Exterior Air Filter Temperature Con	Drive	-	Direct	Direct		
	Output	W x No.	19 x 2	19 x 2		
	FLA(Full Load Ampere)	Α	0.97	0.97		
Heat Exchanger	(Rows x Columns x FPI) x No.	-	(2 x 6 x 18) x 2	(2 x 6 x 18) x 2		
Dimensions	Face Area	m ²	0.22	0.22		
	Net(W x H x D)	mm	1.100 x 190 x 460	1,100 x 190 x 460		
Dimensions	Shipping(W x H x D)		<u>'</u>	1,325 x 255 x 561		
	Net	kg(lbs)	·-	22(48.5)		
Weight	Shipping	kg(lbs)	, ,	25.8(56.9)		
Exterior	Color(RAL Code)	٥, ,	-	-		
Air Filter	Type	-	Pre Filter	Pre Filter		
Temperature Con	trol	-	Microprocessor Thermost	at for cooling and heating		
	/ Thermal Insulation Material	_	<u> </u>			
		_	-	Fuse		
<u> </u>	Туре	-		R410A/R32		
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)		0.25/0.22		
	Control Type	-	EEV	EEV		
Drain Pipe	O.D / I.D	mm(inch)	-/25.4(1)	-/25.4(1)		
	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)		
Pipina	Gas	mm(inch)	15.88(5/8)	15.88(5/8)		
	Connection Type(Liquid)	-	Flare	Flare		
	Connection Type(Liquid) Connection Type(Gas)		Flare	Flare		
Sound Pressure	Cooling(H/M/L)	dB(A)	35 / 30 / 29	36 / 33 / 29		
	Heating(H/M/L)	dB(A)	35 / 30 / 29	36 / 33 / 29		
Sound Power	Cooling(H/M/L)	dB(A)	53 / 48 / 46	57 / 50 / 47		
	Heating(H/M/L)	dB(A)	53 / 48 / 46	57 / 50 / 47		
	-	V, Φ, Hz	220 - 230 - 240, 1,50/60	220 - 230 - 240, 1,50/60		
Power Supply	Running Current by voltage			0.71 - 0.68 - 0.66		
Transmission Cal	, , , , , , , , , , , , , , , , , , , ,	mm² x cores	1.0~1.5 x 2C	1.0~1.5 x 2C		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

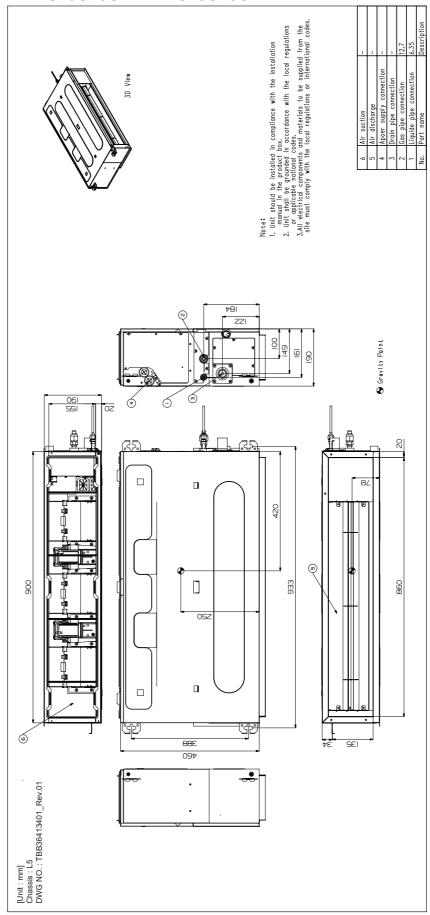
3. Dimensions & Gravity point

ARNU05GL4G4 / ARNU07GL4G4 / ARNU09GL4G4



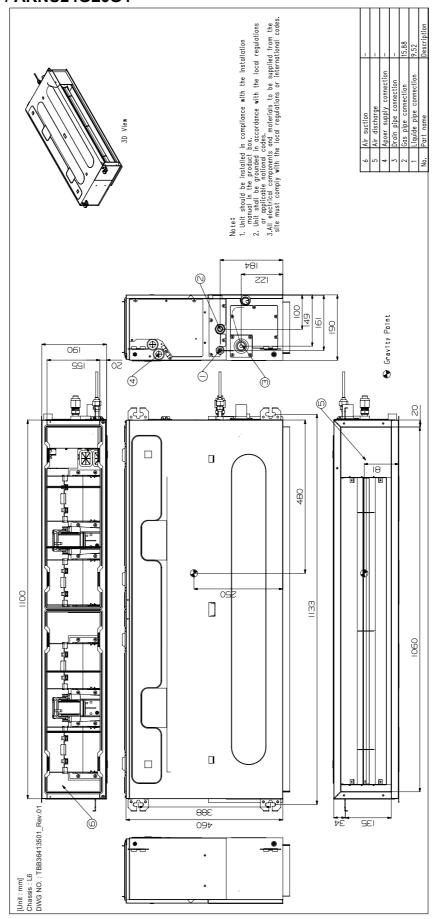
3. Dimensions & Gravity point

ARNU12GL5G4 / ARNU15GL5G4 / ARNU18GL5G4

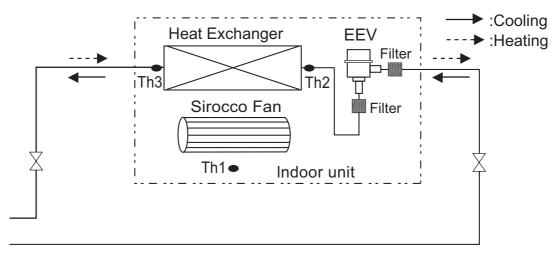


3. Dimensions & Gravity point

ARNU21GL6G4 / ARNU24GL6G4



4. Piping Diagrams

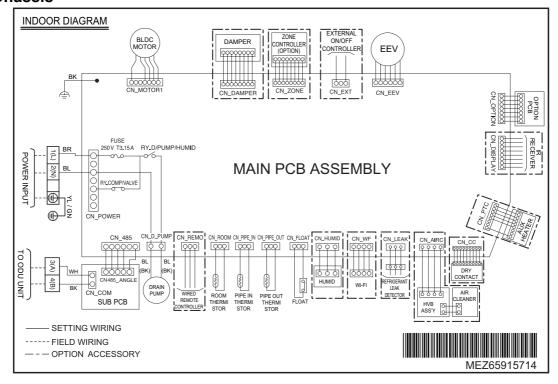


◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU05GL4G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GL4G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GL4G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GL5G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GL5G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GL5G4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU21GL6G4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU24GL6G4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Thermistor for room air temperature
Th2	Thermistor for pipe in temperature
Th3	Thermistor for pipe out temperature

■ L4 Chassis



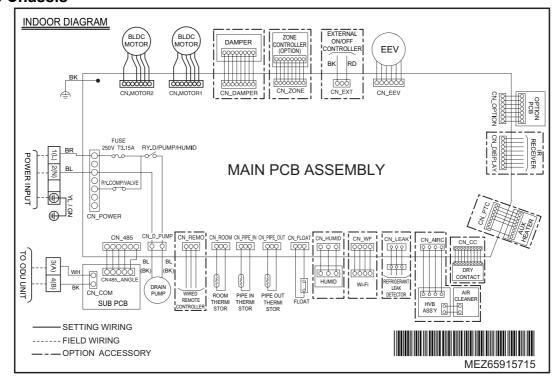
CONNECTOR NUMBER	SPEC.	DESCRIPTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	Default)		Off
SW3	Group Control	Selection of Master or Slave			Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

■ L5/6 Chassis



CONNECTOR NUMBER	SPEC.	DESCRIPTION
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-ROOM	Room sensor	Room thermistor
CN-REMO	Remote controller	Remote control line
CN-FLOAT	Float switch input	Float switch sensing
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-OPTION	Option PWB.	Communication between main and option
CN-COM	Communication	Communication between indoor and outdoor
CN-POWER	AC power supply	AC power line input for indoor controller
CN-ZONE	Zone Controller	Zone control line
CN-DISPLAY	RF Remote controller	RF remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)		-	Off
SW3	Group Control	Selection of Master or Slave Master		Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

6. Capacity Tables

■ Cooling Capacity

						Indoo	r air tem	p. (DB/W	/B, °C)					
Capacity Index	2	:0	2	3	2	6	2	27	2	:8	3	0	3	2
Capacity index	1	4	1	6	1	8	1	9	2	:0	2	2	2	:4
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1.6	1.2	1.2	1.4	1.3	1.7	1.4	1.8	1.5	1.9	1.5	2.0	1.4	2.0	1.3
2.2	1.5	1.4	1.8	1.5	2.0	1.6	2.2	1.7	2.4	1.7	2.4	1.6	2.4	1.5
2.8	1.9	1.8	2.2	1.9	2.6	2.1	2.8	2.1	3.0	2.2	3.0	2.1	3.1	1.9
3.6	2.4	2.2	2.9	2.4	3.3	2.6	3.6	2.6	3.9	2.7	3.9	2.6	4.0	2.4
4.5	3.0	2.7	3.6	3.0	4.2	3.2	4.5	3.3	4.8	3.4	4.9	3.2	4.9	3.0
5.6	3.8	3.4	4.5	3.7	5.2	4.0	5.6	4.1	6.0	4.2	6.1	4.0	6.2	3.7
6.2	4.3	3.9	5.1	4.3	5.9	4.7	6.3	4.8	6.7	5.0	6.8	4.7	6.9	4.3
7.1	4.8	4.4	5.7	4.9	6.6	5.3	7.1	5.4	7.6	5.6	7.7	5.3	7.8	4.9

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Capacity Index	16	18	20	emp. (DB, °C) 21	22	24
	TC	TC	TC	TC	TC	TC
1.6	2.5	2.3	2.2	2.1	2.1	1.9
2.2	2.8	2.7	2.5	2.4	2.3	2.2
2.8	3.6	3.4	3.2	3.1	3.0	2.8
3.6	4.5	4.3	4.0	3.9	3.7	3.5
4.5	5.6	5.3	5.0	4.8	4.7	4.4
5.6	7.1	6.7	6.3	6.1	5.9	5.5
6.2	8.0	7.6	7.1	6.9	6.6	6.2
7.1	9.0	8.5	8.0	7.7	7.5	7.0

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

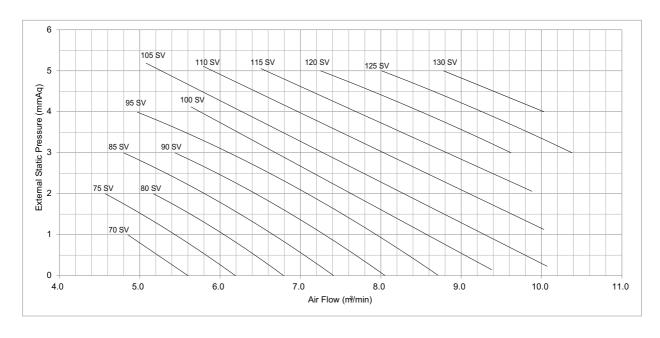
♦ ARNU05GL4G4, ARNU07GL4G4, ARNU09GL4G4

	Static Pressure(mmAq(Pa))										
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)					
		Air Flow Rate (m³/min)									
60	-	-	-	-	-	-					
65	5.03	-	-	-	-	-					
70	5.60	4.85	-	-	-	-					
75	6.19	5.44	4.57	-	-	-					
80	6.79	6.05	5.17	-	-	-					
85	7.41	6.67	5.80	4.80	-	-					
90	8.05	7.31	6.43	5.44	-	-					
95	8.71	7.96	7.09	6.09	4.97	-					
100	9.38	8.63	7.76	6.76	5.64	-					
105	10.07	9.32	8.45	7.45	6.33	5.08					
110	-	10.03	9.16	8.16	7.04	5.79					
115	-	-	9.88	8.88	7.76	6.51					
120	-	-	-	9.62	8.50	7.25					
125	-	-	-	10.38	9.26	8.01					
130	-	-	-	-	10.03	8.78					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU05GL4G4, ARNU07GL4G4, ARNU09GL4G4)



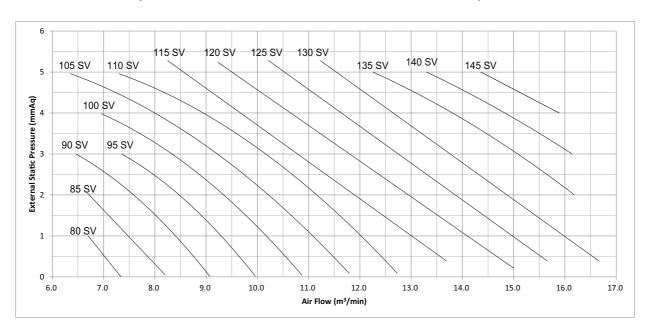
♦ ARNU12GL5G4, ARNU15GL5G4, ARNU18GL5G4

		Static Pressure(mmAq(Pa))									
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)					
	•	Air Flow Rate (m³/min)									
75	6.50	-	-	-	-	-					
80	7.34	6.70	-	-	-	-					
85	8.20	7.55	6.69	-	-	-					
90	9.07	8.43	7.56	6.47	-	-					
95	9.96	9.32	8.45	7.36	-	-					
100	10.87	10.22	9.36	8.27	6.96	-					
105	11.79	11.15	10.28	9.19	7.89	6.35					
110	12.73	12.09	11.22	10.14	8.83	7.30					
115	13.69	13.05	12.18	11.09	9.78	8.25					
120	14.67	14.02	13.16	12.07	10.76	9.23					
125	15.66	15.01	14.15	13.06	11.75	10.22					
130	16.67	16.02	15.16	14.07	12.76	11.23					
135	-	-	16.18	15.10	13.79	12.26					
140	-	-	-	16.14	14.83	13.30					
145	-	-	-	-	15.89	14.36					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU12GL5G4, ARNU15GL5G4, ARNU18GL5G4)



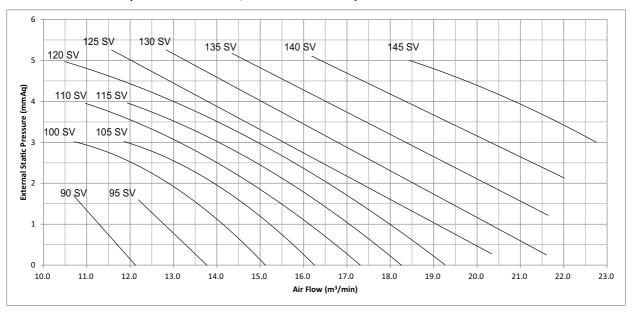
◆ ARNU21GL6G4, ARNU24GL6G4

	Static Pressure(mmAq(Pa))								
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)	5 (49)			
		Air Flow Rate (m³/min)							
85	10.19	-	-	-	-	-			
90	12.18	10.97	10.70	-	-	-			
95	13.81	12.34	12.19	-	-	-			
100	15.16	13.69	13.38	10.71	-	-			
105	16.30	14.83	14.36	11.85	-	-			
110	17.31	15.85	15.23	12.86	10.97	-			
115	18.27	16.80	16.07	13.82	11.93	-			
120	19.26	17.79	16.93	14.80	12.91	10.49			
125	20.34	18.87	17.89	15.88	13.99	11.57			
130	21.60	20.13	19.01	17.14	15.25	12.83			
135	-	21.64	20.36	18.66	16.76	14.35			
140	-	-	22.01	20.50	18.61	16.19			
145	-	-	-	22.75	20.86	18.44			

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU21GL6G4, ARNU24GL6G4)



♦ ARNU05GL4G4, ARNU07GL4G4, ARNU09GL4G4

Capacity	Mode	Mode		Set value Standard ESP (mmAq(Pa))		Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	110	HI	86		7.0			
	High (factory set)	Mid	82	1 (10)	6.5	-	5(49)	
El.	(lactory set)	Low	76		5.5			
5k		HI	82		7.0			
	Standard	Mid	78	0 (0)	6.5	-	5(49)	
		Low	69		5.5			
		HI	92		7.5			
	High (factory set)	Mid	82	1 (10)	6.5	-	5(49)	
7k	(lactory sor)	Low	76		5.5			
/ K		HI	86		7.5			
	Standard	Mid	78	0 (0)	6.5	-	5(49)	
		Low	69		5.5			
	1.151.	HI	101		9.0			
	High (factory set)	Mid	86	1 (10)	7.0	-	5(49)	
9k	Low	76		5.5				
j 9K		HI	97		9.0			
	Standard	Mid	81	0 (0)	7.0	_	5(49)	
		Low	69		5.5			

Note

1. The above table shows the available E.S.P. range.

◆ ARNU12GL5G4, ARNU15GL5G4, ARNU18GL5G4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.151.	HI	98		10.0			
	High (factory set)	Mid	90	1 (10)	8.5	_	5(49)	
12k	(lactory scr)	Low	84		7.0			
12K		HI	96		10.0			
	Standard	Mid	85	0 (0)	8.5	_	5(49)	
		Low	78		7.0			
	1.151.	HI	110	1 (10)	12.5			
	High (factory set)	Mid	98		10.0	-	5(49)	
15k	(lactory sor)	Low	90		8.5			
ISK		HI	109		12.5			
	Standard	Mid	96	0 (0)	10.0	-	5(49)	
		Low	87		8.5			
	1.151.	HI	125		15.0			
	High (factory set)	Mid	110	1 (10)	12.5	-	5(49)	
18k	` ' '	Low	98		10.0			
IOK		HI	120		15.0			
	Standard	Mid	109	0 (0)	12.5	-	5(49)	
		Low	96		10.0			

Note

1. The above table shows the available E.S.P. range.

♦ ARNU21GL6G4, ARNU24GL6G4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	1.151.	HI	118		17.5			
	High (factory set)	Mid	102	1 (10)	14.0	-	5(49)	
21k	(lactory set)	Low	94		12.0			
ZIK		HI	113		17.5			
	Standard	Mid	95	0 (0)	14.0	-	5(49)	
		Low	89		12.0			
		HI	129		20.0			
	High (factory set)	Mid	111	1 (10)	16.0	-	5(49)	
24k	` ' '		94		12.0			
24K	24K		125		20.0			
	Standard	Mid	102	0 (0)	16.0	-	5(49)	
		Low	89		12.0			

Note

1. The above table shows the available E.S.P. range.

8. Electric Characteristics

	Units					Supply	IF	М	F	PI								
Model	Туре	Hz	Volts	Voltage Range	MCA	MFA	kW	FLA	Cooling	Heating								
ARNU05GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU07GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU09GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU12GL5G4	L5	50	220-240	Max:264	0.95	15	0.024	0.76	85	85								
ARNU15GL5G4	L5	50	220-240	Min:198	0.95	15	0.024	0.76	85	85								
ARNU18GL5G4	L5												0.95	15	0.024	0.76	85	85
ARNU21GL6G4	L6											1.21	15	0.038	0.97	115	115	
ARNU24GL6G4	L6				1.21	15	0.038	0.97	115	115								
ARNU05GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU07GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU09GL4G4	L4				0.50	15	0.019	0.40	40	40								
ARNU12GL5G4	L5	60	220	Max:242	0.95	15	0.024	0.76	85	85								
ARNU15GL5G4	L5	60	220	Min:198	0.95	15	0.024	0.76	85	85								
ARNU18GL5G4	L5				0.95	15	0.024	0.76	85	85								
ARNU21GL6G4	L6						1.21	15	0.038	0.97	115	115						
ARNU24GL6G4	L6				1.21	15	0.038	0.97	115	115								

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

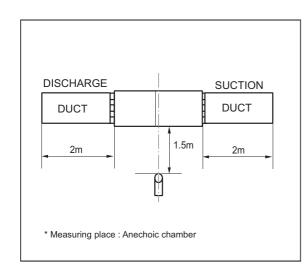
MFA = 1.1 x MCA, MFA \leq 4 x FLA

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall

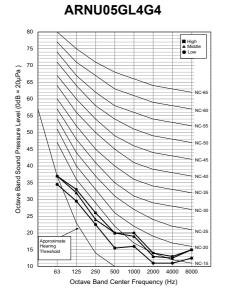


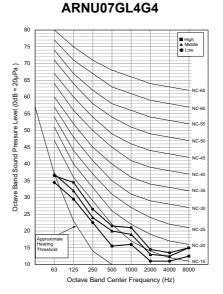
Note

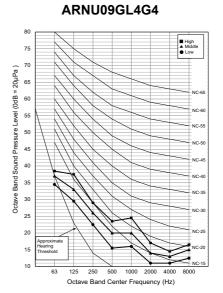
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

	Sound Pressure Levels (dB(A),H-M-L) External Static Pressure (Pa)						
Model							
	10	20	50				
ARNU05GL4G4	25-24-22	26-25-22	30-29-27				
ARNU07GL4G4	26-24-22	26-25-22	30-29-27				
ARNU09GL4G4	28-25-22	29-25-22	33-30-27				
ARNU12GL5G4	29-27-25	30-28-25	34-33-30				
ARNU15GL5G4	32-29-27	33-30-28	36-34-32				
ARNU18GL5G4	35-32-29	35-33-30	38-37-35				
ARNU21GL6G4	35-30-29	36-33-31	39-38-37				
ARNU24GL6G4	36-33-29	38-34-31	41-38-37				

■ Sound Pressure Level (10Pa)



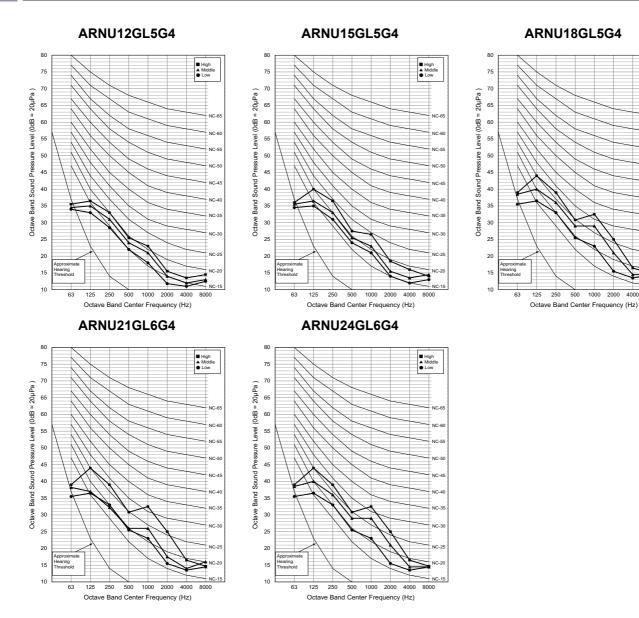




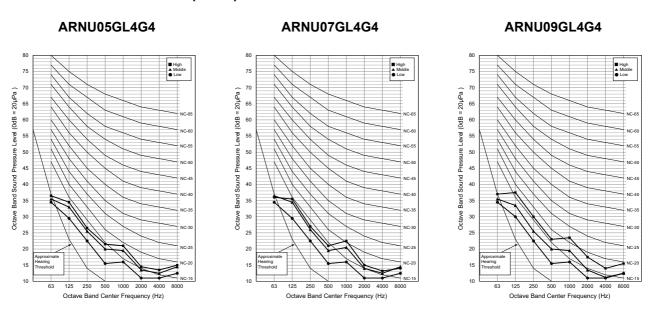
■ High ▲ Middle ● Low

1000 2000 4000

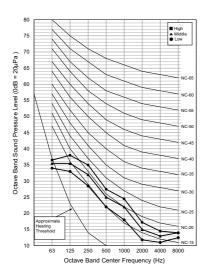
9. Sound Levels



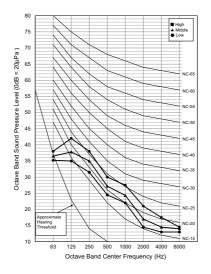
■ Sound Pressure Level (20Pa)



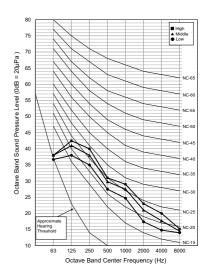
ARNU12GL5G4



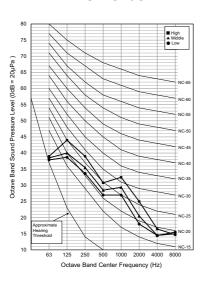
ARNU15GL5G4



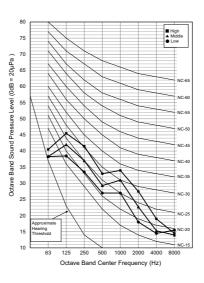
ARNU18GL5G4



ARNU21GL6G4

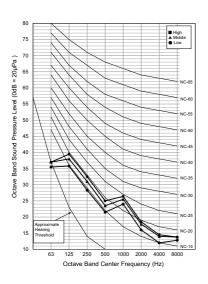


ARNU24GL6G4

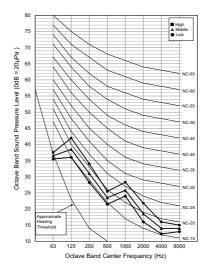


■ Sound Pressure Level (50Pa)

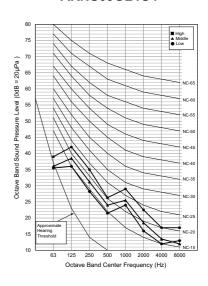
ARNU05GL4G4



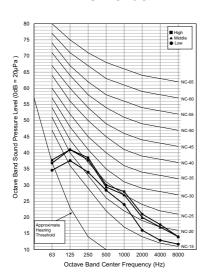
ARNU07GL4G4



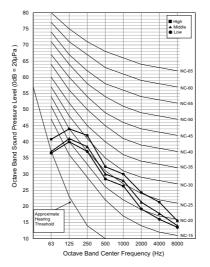
ARNU09GL4G4



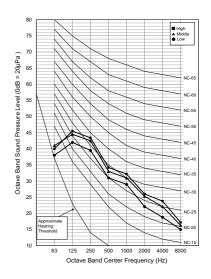
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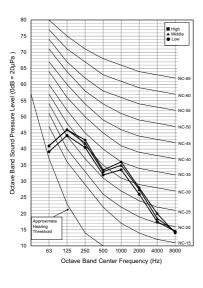
ARNU15GL5G4



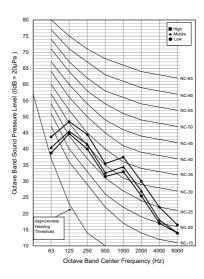
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ARNU21GL6G4



ARNU24GL6G4



9.2 Sound Power Levels

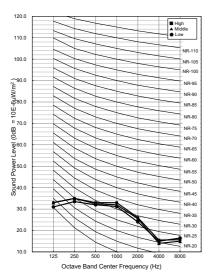
Note

- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- · Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

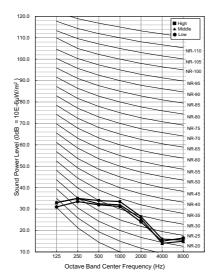
	Sound Power Levels [dB(A)]						
Model	External Static Pressure (Pa)						
	10	20	50				
ARNU05GL4G4	37-36-34	38-37-36	43-42-41				
ARNU07GL4G4	38-37-33	39-37-36	43-42-41				
ARNU09GL4G4	40-37-34	41-38-36	43-42-41				
ARNU12GL5G4	41-38-38	41-39-38	45-44-42				
ARNU15GL5G4	45-42-40	44-41-39	46-44-44				
ARNU18GL5G4	47-45-42	46-44-41	47-46-44				
ARNU21GL6G4	53-48-46	53-48-47	56-52-51				
ARNU24GL6G4	57-50-47	57-51-47	57-52-50				

■ Sound Power Levels (10Pa)

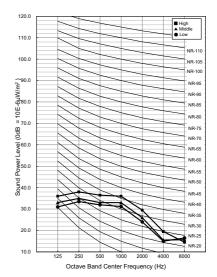
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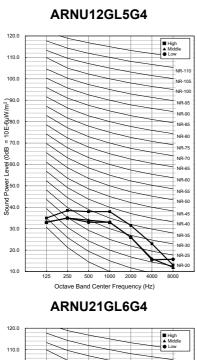


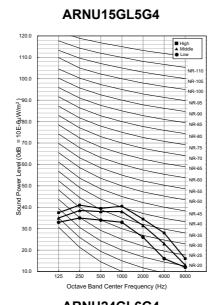
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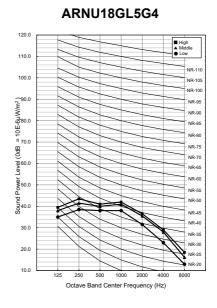


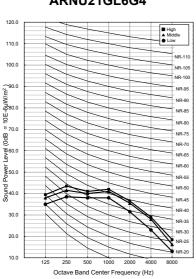
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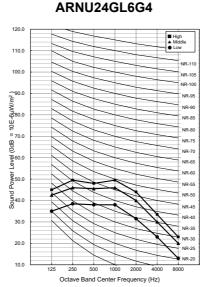




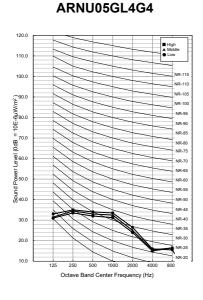


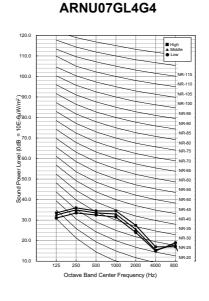


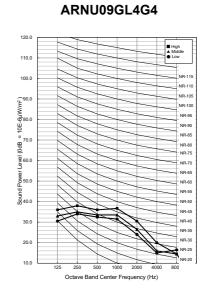




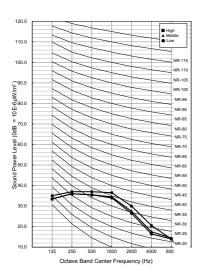
■ Sound Power Levels (20Pa)



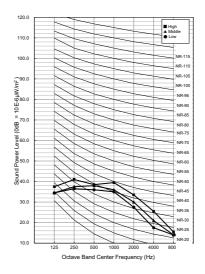




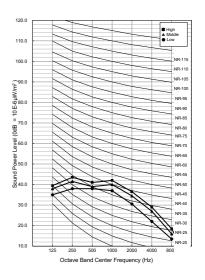
ARNU12GL5G4



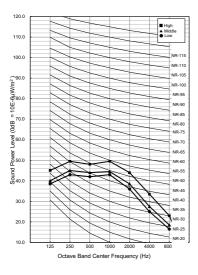
ARNU15GL5G4



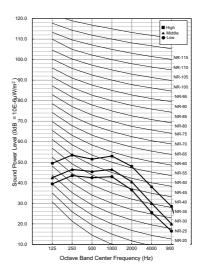
ARNU18GL5G4



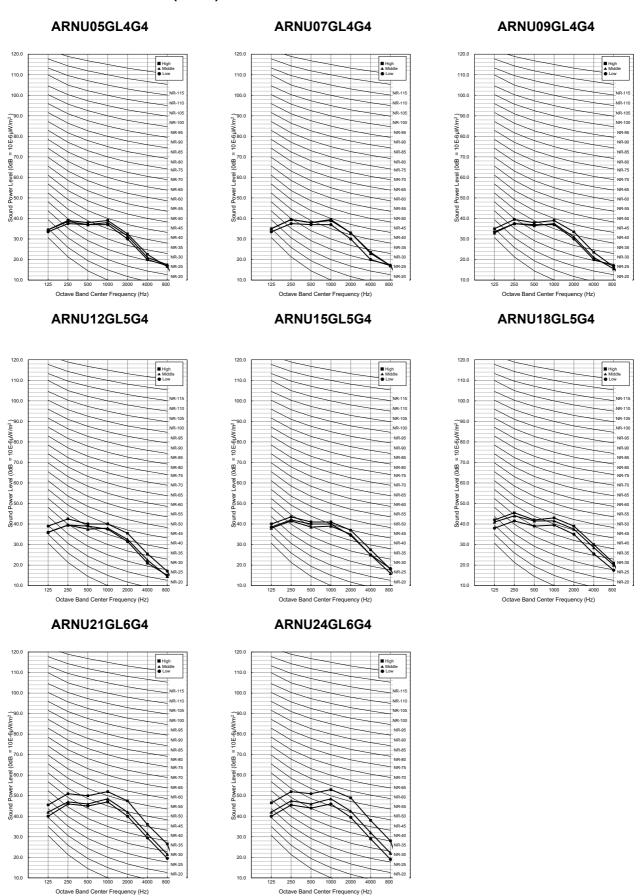
ARNU21GL6G4



ARNU24GL6G4



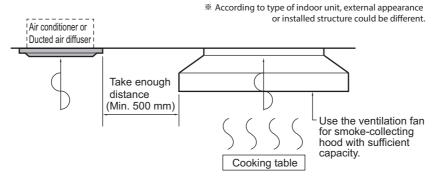
■ Sound Power Levels (50Pa)



- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- · There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.

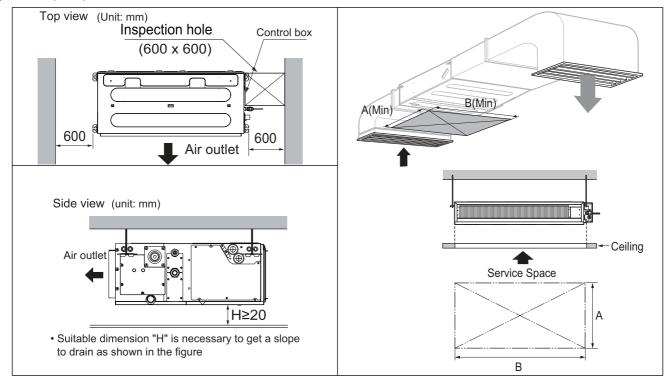


- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 ℃ or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

◆ L4 / L5 / L6



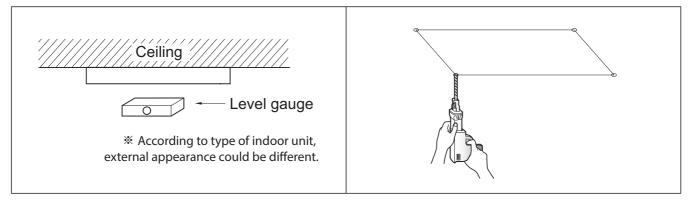
Chassis code	A [mm]	B [mm]
L4	600	800
L5	600	1,000
L6	600	1,200



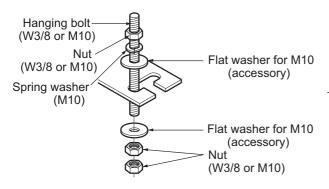
10.2 Ceiling dimension and hanging bolt location

CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



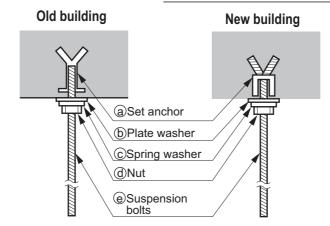
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3.Spring washer M10
 - 4.Plate washer M10

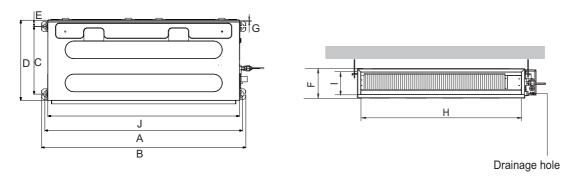
A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



■ Installation of Unit

Install the unit above the ceiling correctly.



Chassis		Dimension (mm)									
Cilassis	Α	В	С	D	Е	F	G	Н	ı	J	
L4	733	772	338	460	36	190	20	660	148	700	
L5	933	972	338	460	36	190	20	860	148	900	
L6	1,133	1,172	338	460	36	190	20	1,060	148	1,100	

10.3 Connecting cables between Indoor Unit and Outdoor Unit

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

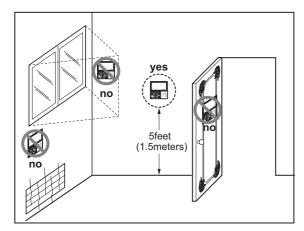
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wire Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



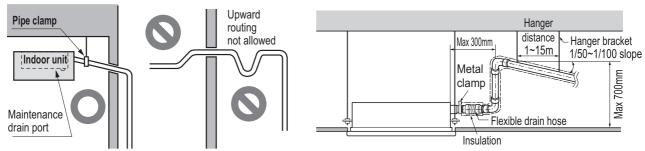
Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

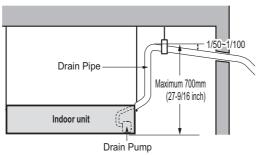
10.4 Indoor Unit Drain Piping

10.4.1 Drain piping of indoor unit with drain pump

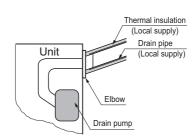
- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



- * According to type of indoor unit, external appearance could be different.
- * According to type of indoor unit, external appearance could be different.
- Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

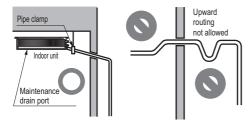




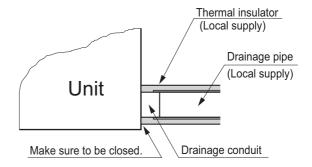


10.4.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

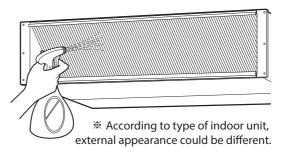


10.4.3 Method of Drainage test

◆ Drainage test of indoor unit

Use the following procedure to test the drainage.

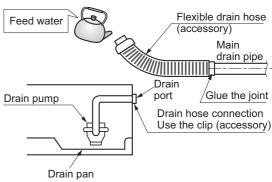
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- 3. Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

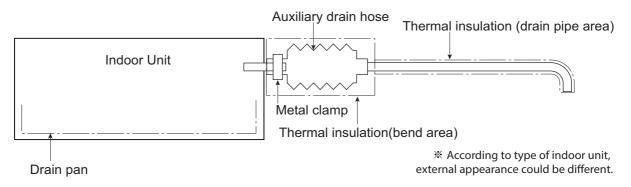
- 1.Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

10.4.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.



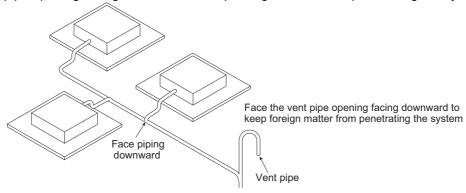
A

CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

10.4.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Ceiling & Floor Convertible Unit

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- 4. Piping Diagrams
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU09GVEA4, ARNU12GVEA4		
	Air supply outlet	1		
	Airflow direction control(left & right)	Manual		
	Airflow direction control(up & down)	Auto		
	Auto swing(left & right)	X		
Air flow	Auto swing(up & down)	0		
	Airflow steps(fan/cool/heat)	3/4/3		
	Chaos wind(auto wind)	0		
	Jet cool (Power wind)	0		
	Swirl wind	X		
	Triple filter	Х		
Air purifying	Plasma air purifier	Х		
. , ,	Prefilter (washable)	0		
	Drain pump	X		
	E.S.P. control*	X		
Installation	Electric heater(operation)	X		
	High ceiling operation*	0		
	Hot start	0		
Reliability	Self diagnosis	0		
,	Soft dry operation	0		
	Auto changeover	O (Heat recovery / Heat pump)		
	Auto cleaning	X		
	Auto operation(artificial intelligence)	O (Cooling only)		
	Auto restart operation	0		
	Child lock*	0		
Convenience	Forced operation	0		
	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01		
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10		
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B		
Individual control	Simple wired remote controller	PQRCVCL0Q(W)		
	Wired remote controller (for hotel use)	PQRCHCA0Q(W)		
	Wireless LCD remote controller	PQWRH(C)Q0FDB		
	Wi-Fi Controller	PWFMDD200		
	Zone controller	-		
	CTI (Communication transfer interface)	-		
	Electronic thermostat	-		
	Remote temperature sensor	-		
Special function kit	Group control wire	PZCWRCG3		
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500		
	Independent Power Module	PRIP0		
	Refrigerant Leakage Detector	PRLDNVS0		
Note		<u> </u>		

1. O: Applied, X: Not Applied
Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.
2. Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

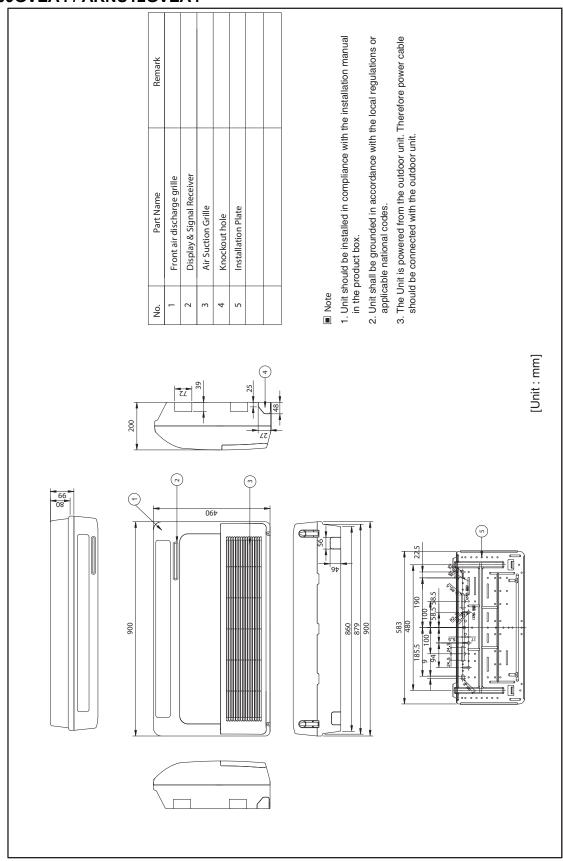
2. Specifications

	Туре		Ceiling & Floor	Convertible Unit	
	Model	Unit	ARNU09GVEA4	ARNU12GVEA4	
		kW	2.8	3.6	
Cooling Capacity		kcal/h	2,400	3,100	
		Btu/h	9,600	12,300	
		kW	3.2	4.0	
Heating Capacity		kcal/h	2,800	3,400	
		Btu/h	10,900	13,600	
Power Input (H / M /	L)	W	19 / 15 / 11	28 / 19 / 15	
Casing			-	-	
Dimensions	Do do	mm	900 × 490 × 200	900 × 490 × 200	
$(W \times H \times D)$	Body	inch	35-7/16 × 19-9/32 × 7-7/8	35-7/16 × 19-9/32 × 7-7/8	
O-il	Rows × Columns × FPI		2 × 12 × 20	2 × 12 × 20	
Coil	Face Area	m²	0.10	0.10	
	Type		Cross Flow Fan	Cross Flow Fan	
	Motor Output	W × No.	27 × 1	27 × 1	
-	Air Flow Date (II (AA/II)	m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9	
Fan	Air Flow Rate (H / M / L)	ft³/min	268 / 244 / 219	325 / 268 / 244	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heatir		
Sound Absorbing Th	ermal Insulation Material		Foamed polystrene		
Safety Device			Fu	ıse	
	Liquid Side	mm(inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	
	Drain (I.D.)	mm	16 (5/8)	16 (5/8)	
Net Weight	·	kg(lbs)	13.3	13.3	
Shipping Weight		kg(lbs)	17.8	17.8	
Sound Pressure Lev	els (H / M / L)	dB(A)	36 / 32 / 28	38 / 36 / 30	
Sound Power Levels	(H / M / L)	dB(A)	55 / 51 / 45	56 / 55 / 49	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.17 - 0.16 - 0.15	0.24 - 0.23 - 0.22	
Maximum Running C	Current	Α	0.25	0.25	
	Туре		R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.10 / 0.08	0.10 / 0.08	
	Control	-	EEV	EEV	
Transmission Cable	•	mm² × Cores	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	

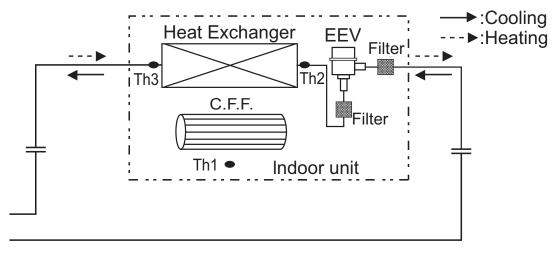
- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

3. Dimensions

ARNU09GVEA4 / ARNU12GVEA4



4. Piping Diagrams



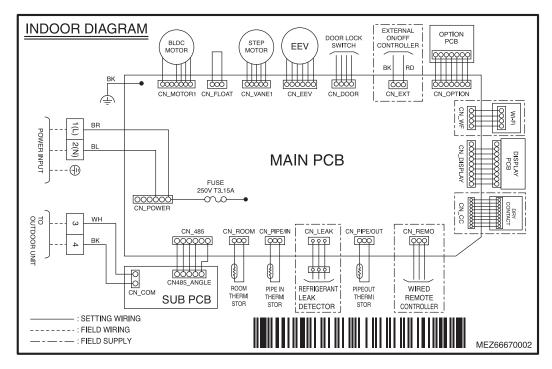
♦ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU09GVEA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GVEA4	Ø12.7(1/2)	Ø6.35(1/4)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ VE Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor and outdoor
CN-DISPLAY	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-VANE1	Step motor	Step motor output
CN-FLOAT	Float switch input (not used)	Float switch sensing (not used)
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-OPTION	Option pwb.	Communication between main and option
CN-EXT	External On/Off	External On/Off signal input
CN-DOOR	Door lock switch	Door lock switch line
CN_WF	Wi-Fi Controller	Wifi control line

Dip S	Switch Setting	Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.
SW5	EXTRA 1	Off	On	1. Duct model OFF: Default(not operate continuosly) ON: Fan operate continuosly 2. Cassette Model: No Function 3. Ceiling Suspended Model OFF: Ceiling(default) ON: Floor



A CAUTION

For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF

That dip switch is used for the other model.

6. Capacity Tables

■ Cooling Capacity

Nominal Capacity (kBtu/h) [Capacity Index (kW)]						Indoor	air tem	p. (DB/V	VB, °C)					
	2	20	2	3	2	26	2	27	2	8	3	0	3	2
	1	4	1	6	1	8	1	9	2	0	2	2	2	4
[Capacity mack (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
9 [2.8]	1.9	1.6	2.3	1.8	2.6	2.0	2.8	2.0	3.0	2.0	3.0	1.9	3.1	1.8
12 [3.6]	2.4	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.6	3.9	2.5	4.0	2.3

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

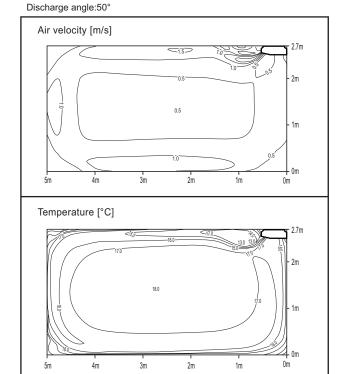
Nominal Capacity	Indoor air temp. (DB, °C)							
(kBtu/h)	16	18	20	21	22	24		
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC		
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8		
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5		

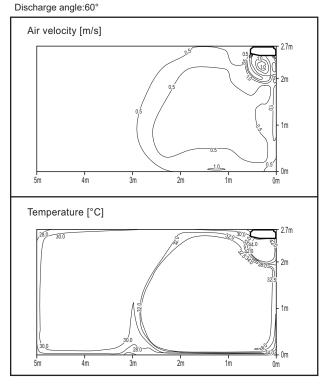
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ ARUN09GVEA4

Ceiling Installation







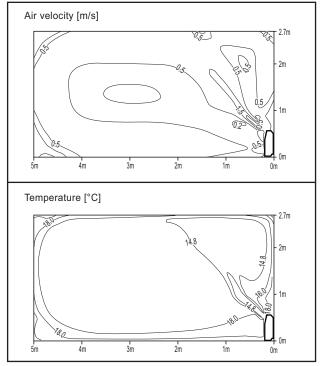
Heating

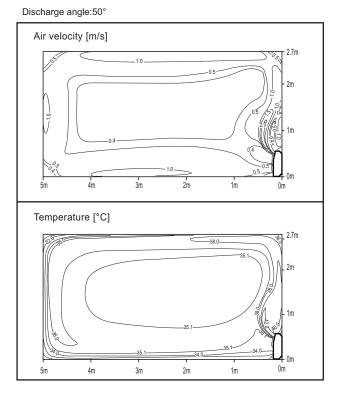
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

♦ Floor Installation



Discharge angle:45°





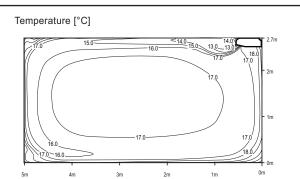
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARUN12GVEA4

♦ Ceiling Installation

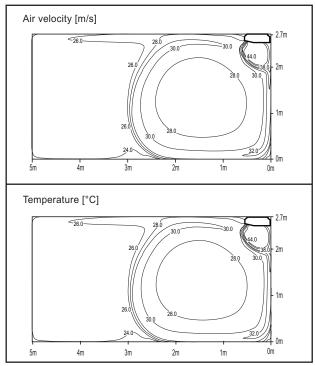
Cooling

Coolii



Heating



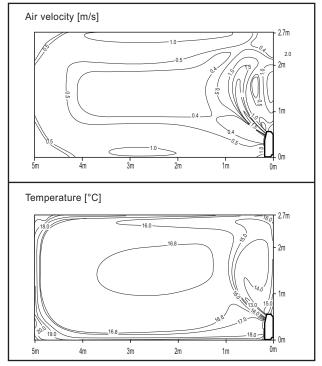


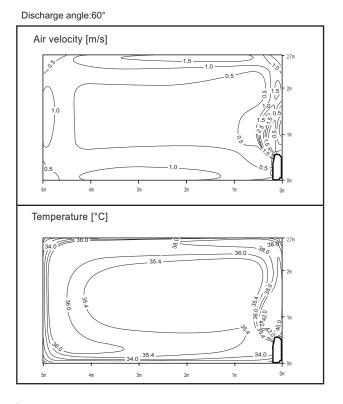
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

♦ Floor Installation



Discharge angle:50°





- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units					IF	М	PI		
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating	
ARNU09GVEA4	VE	50	220-240	Min :109 May :264	0.31	0.027	0.25	30	30	
ARNU12GVEA4	VE	50	220-240	Min.:198, Max.:264	0.31	0.027	0.25	30	30	
ARNU09GVEA4	VE	60	220	Min.:198, Max.:242	0.31	0.027	0.25	30	30	
ARNU12GVEA4	VE	00	220		0.31	0.027	0.25	30	30	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

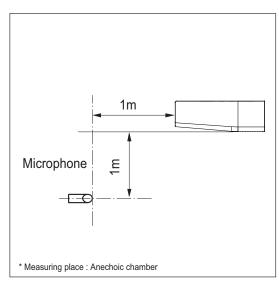
(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

Overall

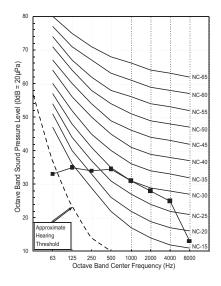


Note

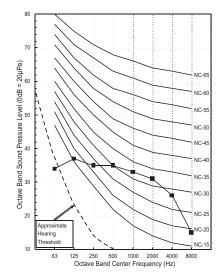
- 1. Sound measured at some distance away from the center of the unit.
- 2. Data is valid at free field condition.
- 3. Reference accoustic pressure 0dB = 20µPa.
- Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- - Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]					
Wiodei	Н	M	L			
ARNU09GVEA4	36	32	28			
ARNU12GVEA4	38	36	30			

ARNU09GVEA4



ARNU12GVEA4



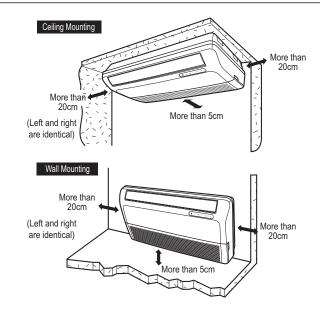
- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.

1) Installation parts provided

- Installation Plate (VE, 1pcs)
- Washer Bolt (M8×L25, 4pcs, type "A")
- Floor Mount Bracket (1pcs)
- · Drain Hose, Insulated
- Drain Hose Hanger and screw

2) The other installation parts needed

- · Suspension Bolt
- · Bolts for Mount Bracket
- Connecting Tube(mm)
 - Gas side : Ø9.52, Ø12.7
- Liquid side : Ø6.35Connecting Cable
- Drain Hose Extended



10.1 Selection of the best location

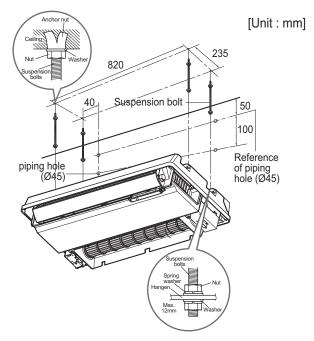
- There should not be any heat source or steam near the unit.
- · There should not be any obstacles to the air circulation.
- There should be provision of easy condensate drain.
- · Taking into accounting the noise prevention criteria, spot the installation location.
- · Do not install the unit near the door way.
- Keep proper distances, of the unit, from ceiling, fence, floor, walls and other obstacles as shown in figure.
- The indoor unit must have the maintenance space.
- The mounting ceiling or wall should be strong and solid enough to protect it from the vibration.

10.2 Installation of indoor units

■ VE Chassis

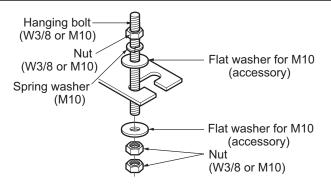
1. Installation on the ceiling

- 1) Prepare 4 suspension bolts (Each bolts length should be same.)
- 2) Measure and mark the position for the suspension bolts and the piping hole.
- 3) Insert the nuts and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
- 4) Mount the suspension bolts to the anchor-nuts firmly.
- 5) Secure the hangers onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 6) Adjust a level with a level gauge on the direction of leftright, back-forth by adjusting suspension bolts.
- 7) Adjust a level on the direction of top-bottom by adjusting supension bolts. Then the unit will be declined to the bottomside so as to drain well.



A CAUTION

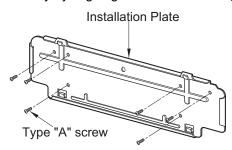
Tighten the nut and bolt to prevent unit from falling.



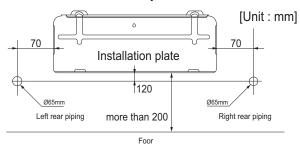
2. Installation on the wall

The wall you select should be strong and socover enough to prevent vibration.

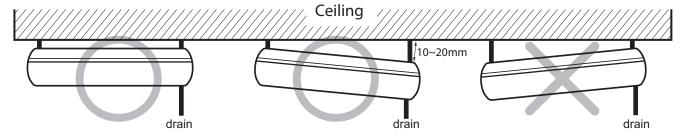
- 1) Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.
- 2) Mount the installation plate horizontally by aligning the centerline using a level.



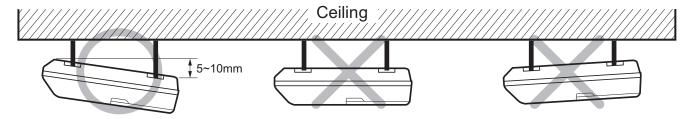
3) Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate-routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.



- The unit must be horizontal or inclined at angle.
- The inclination should be less than or equal to 1° or in between 10 to 20mm inclined in drain direction as shown in fig.



• The unit must be declined to the bottomside of the unit when finished installation.



10.3 Piping and drainage

■ Connecting the pipes to the indoor unit

The pipe can be connected to right side, bottom or back of the unit.

◆ For the right/left side piping

- 1. After bending an end of the connecting tube, align the center of the pipings and sufficiently tighten the flare nut with fingers.
- 2. Finally, tighten the flare nut with torque wrench until the wrench clicks.

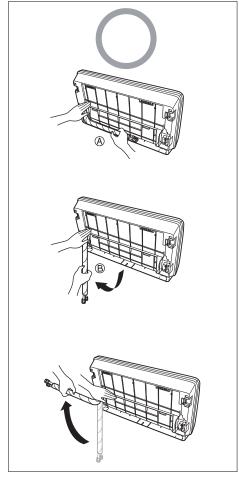
◆ For the bottom side piping

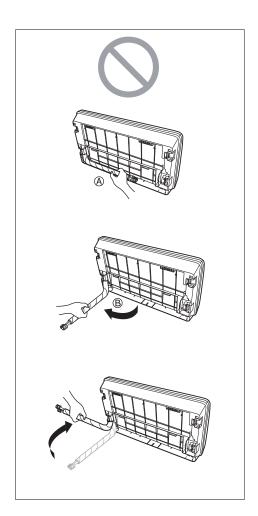
- 1. Remove the knock-out from the bottomside of inlet grille
- 2. Align the center of the pipings and sufficiently tighten the flare nut with fingers.
- 3. Finally, tighten the flare nut with torque wrench until the wrench clicks.

A CAUTION

◆ Right or Left side Piping Instruction

- Bending type from right to left could cause problem of pipe damage. Follow the instruction below.
 - 1. Press on the upper side of clamp. (Fig.A)
 - 2. Unfold the tubing to downward slowly. (Fig.B)
 - 3. Bend the tubing to the left side of chassis.





Connecting the drain hose

Open panel front

- 1)Remove the five screws.
- 2)Release the claws in the 3 places indicated.
- 3)Pull up the Front Panel.

Cover pipe and cover side remove

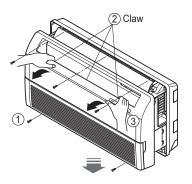
- 1)Pull up the side cover of desired connecting direction, then cover side is separated.
- 2)Pick the pipe hole of the side cover.

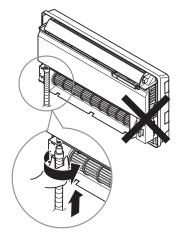
A CAUTION

- After removing the pipe hole, cut the burr for safety.
- When making pipe path through rear wall, you don't need to pick the pipe hole.

Drain hose junction

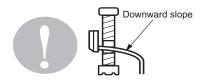
- 1)Remove the rubber stopple in the left side drain hole. (Do not use the right side drain hole)
- 2)Insert drain hose into the handle of drain pan, and join drain hose and connecting hose according to the figure by.



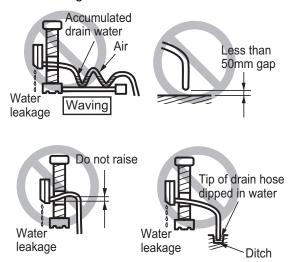


■ Indoor Unit Drain piping

• Drain piping must have down-slope (1/50 to 1/100): be sure not to provide up-and-down slope to prevent reversal flow.



- · During drain piping connection, be careful not to exert extra force on the drain port on the indoor unit.
- · Remove the rubber stopple before connecting drain hose.
- · Do not make drain piping like the following.



- * The feature can be changed according to type of model.
- · Be sure to execute heat insulation on the drain piping.

Note

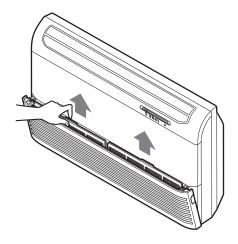
Heat insulation material: Polyethylene foam with thickness more than 8 mm.

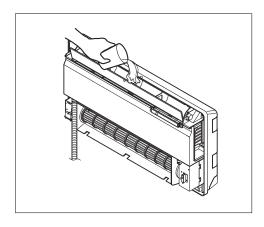
■ Drain test

- Set the air direction louvers up-and-down to the position(horizontally) by hand.
- Pour a glass of water on the evaporator using a kettle.
- · Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

Check the drainage

- 1) To remove air filter, take hold of tab and pull slightly upwards.
- 2) Spray one or two glasses of water upon the evaporator.
- 3) Ensure that water flows through drain hose of indoor unit without any leakage.





10.4 Electric wiring work

1. General instructions

- 1) All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- 3) All wiring must be performed by an authorized electrician.
- 4) This system consists of multiple indoor units. Mark each indoor unit as unit A, unit B...., and be sure the terminal board wiring to the outdoor unit and indoor unit are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.
- 5) A circuit breaker capable of shutting down the power supply to the entire system must be installed.

2. Wiring connection

♦ Connecting cables to the indoor unit

Connect the wires to the terminals on the control board individually according to the outdoor unit connection. Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively

Λ

A CAUTION

- Make sure that the screws of the terminal are fixed tightly.
- Make sure to attach the sealing material (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts box cover, make sure no wires get caught in the edges. Pass wiring through the holes to prevent damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause mistaken operation or breakage.



Ceiling Suspended Unit

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU18GV1A4, ARNU24GV1A4, ARNU36GV2A4, ARNU48GV2A4
	Air supply outlet	1
	Airflow direction control(left & right)	Х
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
Air flow	Auto swing(up & down)	0
	Airflow steps(fan/cool/heat)	3/4/3
	Chaos wind(auto wind)	X
	Jet cool (Power wind)	0
	Swirl wind	X
	Triple filter	X
Air purifying	Plasma air purifier	X
1 7 3	Prefilter (washable)	0
	Drain pump	X
	E.S.P. control*	X
Installation	Electric heater(operation)	X
	High ceiling operation*	0
	Hot start	0
Reliability	Self diagnosis	0
ronabinty	Soft dry operation	0
	Auto changeover	O (Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O (Cooling only)
	Auto restart operation	O
	Child lock*	0
Convenience	Forced operation	0
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Simple wired remote controller	PQRCVCL0Q(W)
individual control	Wired remote controller (for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote controller	
		PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone controller	<u>-</u>
	CTI (Communication transfer interface)	<u>-</u>
	Electronic thermostat	<u>-</u>
Special function kit	Remote temperature sensor	- PZOWDOCO
	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
Note	Refrigerant Leakage Detector	PRLDNVS0

1. O : Applied, X : Not Applied

Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.

Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

2. Specifications

	Туре		Ceiling Suspended Unit		
Model		Unit	ARNU18GV1A4	ARNU24GV1A4	
		kW	5.6	7.1	
Cooling Capacity		kcal/h	4,800	6,100	
		Btu/h	19,100	24,200	
		kW	6.3	8	
Heating Capacity		kcal/h	5,400	6,900	
		Btu/h	21,500	27,300	
Power Input (H / M /	L)	W	23 / 20 / 17	25 / 21 / 17	
Casing			Galvanized Steel Plate + Painting		
Dimensions	D. d.	mm	1,200 × 235 × 690	1,200 × 235 × 690	
$(W \times H \times D)$	Body	inch	47-1/4 × 9-1/4 × 27-3/16	47-1/4 × 9-1/4 × 27-3/16	
0	Rows × Columns × FPI		3 × 18 × 18	3 × 18 × 18	
Coil	Face Area	m²	0.32	0.32	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output × Number	W × No.	85.9 × 1	85.9 × 1	
_		m³/min	13.5 / 12.5 / 12 .0	14.0 / 13.0 / 12.0	
Fan	Air Flow Rate (H / M / L)	ft³/min	477 / 441 / 424	495 / 459 / 424	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	
	Drain (O.D. / I.D.)	mm	Ø 25.0 / 16.0	Ø 25.0 / 16.0	
Net Weight		kg(lbs)	29.0 (63.9)	29.0 (63.9)	
Shipping Weight		kg(lbs)	36.0 (79.4)	36.0 (79.4)	
Sound Pressure Leve	els (H / M / L)	dB(A)	36 / 34 / 33	37 / 35 / 33	
Sound Power Levels (H / M / L)		dB(A)	61 / 59 / 56	62 / 59 / 56	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.18 - 0.17 - 0.16	0.20 - 0.19 - 0.18	
Maximum Running Current		Α	0.97	0.97	
Refrigerant	Туре	-	R410A	R410A	
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.53	0.53	
	Control	-	EEV	EEV	
Transmission Cable	'	mm² × Cores	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

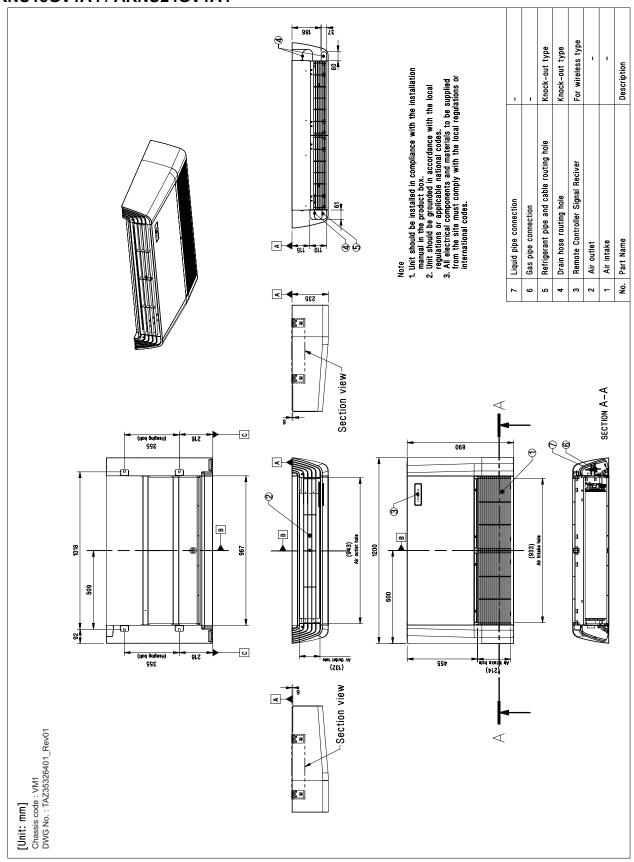
2. Specifications

Туре			Ceiling Suspended Unit		
Model		Unit	ARNU36GV2A4	ARNU48GV2A4	
		kW	10.6	14.1	
Cooling Capacity		kcal/h	9,100	12,100	
		Btu/h	36,200	48,100	
		kW	11.9	15.9	
Heating Capacity		kcal/h	10,200	13,200	
		Btu/h	40,600	51,200	
Power Input (H / M / L	-)	W	84 / 77 / 66	91 / 79 / 66	
Casing			Galvanized Steel Plate + Painting		
Dimensions	D. dv.	mm	1,600 × 235 × 690	1,600 × 235 × 690	
$(W \times H \times D)$	Body	inch	63 × 9-1/4 × 27-5/32	63 × 9-1/4 × 27-5/32	
Cail	Rows × Columns × FPI		3 × 18 × 18	3 × 18 × 18	
Coil	Face Area	m²	0.46	0.46	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output × Number	W × No.	125 × 1	125 × 1	
Гоп	Air Flow Date (II / M / I)	m³/min	27.0 / 24.0 / 20.0	29.0 / 24.0 / 20.0	
Fan	Air Flow Rate (H / M / L)	ft³/min	954 / 848 / 706	1,024 / 848/ 706	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain (O.D. / I.D.)	mm	Ø 25.0 / 16.0	Ø 25.0 / 16.0	
Net Weight	Body	kg(lbs)	37.0 (81.6)	37.0 (81.6)	
Shipping Weight		kg(lbs)	45.5 (100.3)	45.5 (100.3)	
Sound Pressure Levels (H / M / L)		dB(A)	48 / 46 / 44	49 / 47 / 44	
Sound Power Levels (H / M / L)		dB(A)	68 / 66 / 64	68 / 67 / 66	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.46 - 0.44 - 0.42	0.50 - 0.48 - 0.46	
Maximum Running Current		Α	0.97	0.97	
	Туре	-	R410A	R410A	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.79	0.79	
	Control	-	EEV	EEV	
Transmission Cable		mm² × Cores	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
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 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

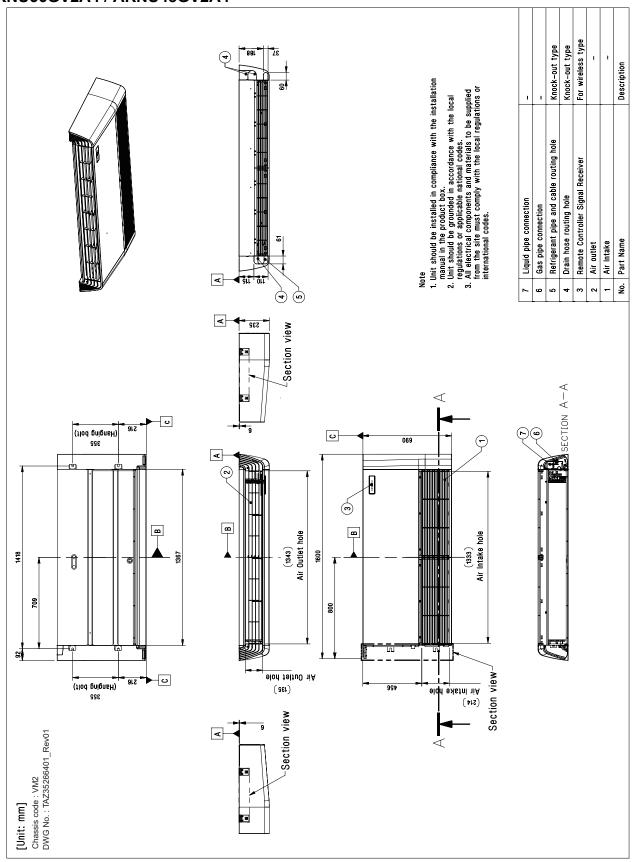
3. Dimensions

ARNU18GV1A4 / ARNU24GV1A4

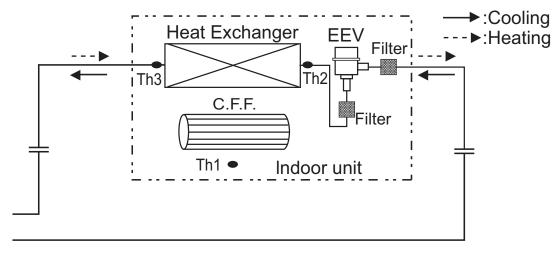


3. Dimensions

ARNU36GV2A4 / ARNU48GV2A4



4. Piping Diagrams



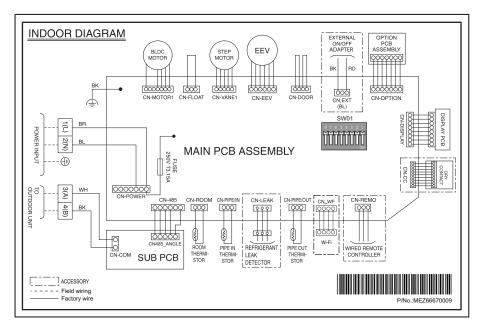
♦ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU18GV1A4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU24GV1A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU36GV2A4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU48GV2A4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

■ VM1,VM2 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor and outdoor
CN-DISPLAY	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-VANE1	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-OPTION	Option pwb.	Communication between main and option
CN-EXT	External On/Off	External On/Off signal input
CN-DOOR	- (not used)	-

Dip Switch Setting		Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.
SW5	EXTRA 1	Off	On	1. Duct model OFF: Default(not operate continuosly) ON: Fan operate continuosly 2. Cassette Model: No Function 3. Ceiling Suspended Model OFF: Ceiling(default) ON: Floor



For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF

That dip switch is used for the other model.

6. Capacity Tables

■ Cooling Capacity

Naminal Canasi						Indoor	air tem	p. (DB/V	VB, °C)						
Nominal Capaci (kBtu/h)	ity [2	:0	2	3	2	6	2	7	2	8	3	0	3	2
, ,	kW/)1	1	4	1	6	1	8	1	9	2	0	2	2	2	:4
[Capacity Index (kW)]	```'J	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
18 [5.6]		3.8	3.7	4.5	4.0	5.2	4.4	5.6	4.5	6.0	4.6	6.1	4.4	6.2	4.0
24 [7.1]		4.8	4.4	5.7	4.8	6.6	5.2	7.1	5.3	7.6	5.5	7.7	5.2	7.8	4.8
36 [10.6]		7.2	7.2	8.5	7.9	9.9	8.6	10.6	8.8	11.3	9.1	11.5	8.6	11.6	7.9
48 [14.1]		9.5	9.0	11.3	9.9	13.1	10.7	14.1	10.9	15.1	11.4	15.3	10.7	15.5	9.9

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

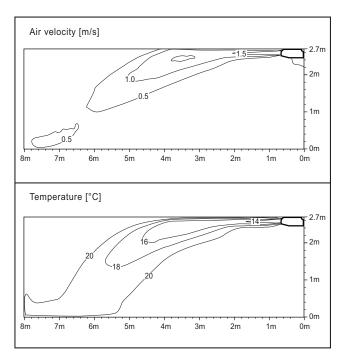
Nominal Capacity	Indoor air temp. (DB, °C)								
(kBtu/h)	16	18	20	21	22	24			
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC			
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5			
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0			
36 [10.6]	13.4	12.7	11.9	11.5	11.1	10.4			
48 [14.1]	17.9	16.9	15.9	15.4	14.9	13.9			

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

♦ ARNU18GV1A4, ARNU24GV1A4

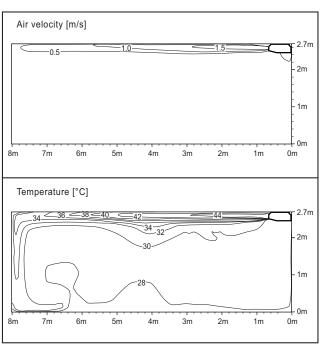
Cooling

Discharge angle: 0°



Heating

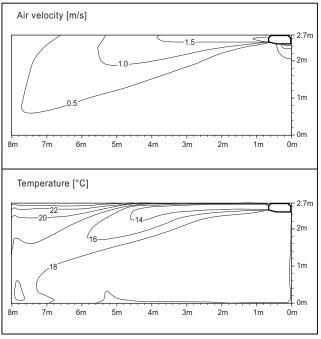
Discharge angle: 0°



◆ ARNU36GV2A4

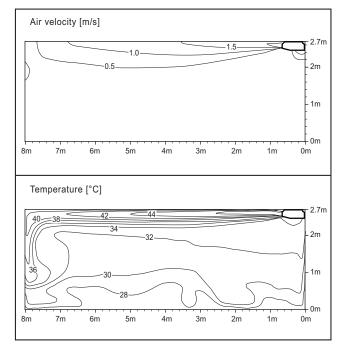
Cooling

Discharge angle: 0°



Heating

Discharge angle: 0°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

♦ ARNU48GV2A4

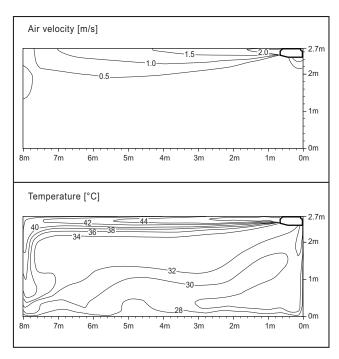


Discharge angle: 0°

Air velocity [m/s] 2m 1m l 0m 6m 4m 3m 0m 8m 7m 2m 1m Temperature [°C] 2m 1m 0m

Heating

Discharge angle: 0°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units			Power Supply	IF	М	P	PI			
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating		
ARNU18GV1A4	VM1			Min.:198, Max.:264	1.21	0.086	0.97	130	130		
ARNU24GV1A4	VM1	50	220-240		1.21	0.086	0.97	130	130		
ARNU36GV2A4	VM2	30	30	30	30 220-240	Willi 190, Wax204	1.21	0.125	0.97	184	184
ARNU48GV2A4	VM2				1.21	0.125	0.97	184	184		
ARNU18GV1A4	VM1				1.21	0.086	0.97	130	130		
ARNU24GV1A4	VM1	60	220	Min.:198. Max.:242	1.21	0.086	0.97	130	130		
ARNU36GV2A4	VM2	60	220	Willi 190, Wax242	1.21	0.125	0.97	184	184		
ARNU48GV2A4	VM2				1.21	0.125	0.97	184	184		

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

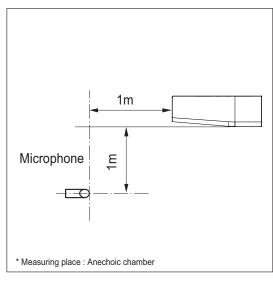
(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

Overall

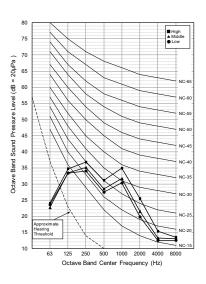


Note

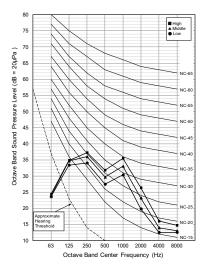
- 1. Sound measured at some distance away from the center of the unit.
- 2. Data is valid at free field condition.
- 3. Reference accoustic pressure $0dB = 20\mu Pa$.
- Data is valid at nominal operation condition. Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7. So und pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 - Therefore, these values can be increased owing to ambient conditions during operation.

Model		Sound Levels [dB(A)]					
Wiodei	Н	M	L				
ARNU18GV1A4	36	34	33				
ARNU24GV1A4	37	35	33				
ARNU36GV2A4	48	46	44				
ARNU48GV2A4	49	47	44				

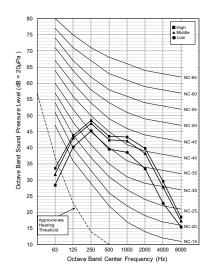
ARNU18GV1A4



ARNU24GV1A4

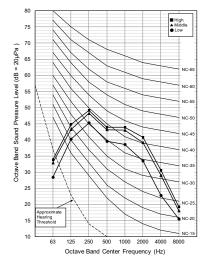


ARNU36GV2A4



9. Sound Levels

ARNU48GV2A4





9.2 Sound Power Levels

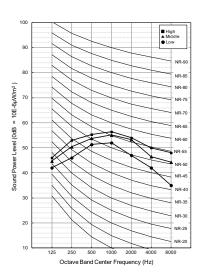
Note

- 1. Data is valid at diffuse field condition.
- 2. Data is valid at nominal operation condition.

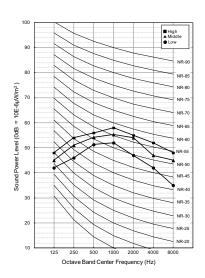
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 3. Sound level can be increased in static pressure mode or used air guide.
- 4. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient).
- 5. Reference acoustic intensity $0dB = 10E-6\mu W/m^2$
- 6. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model		Sound Levels [dB(A)]					
Wiodei	Н	M	L				
ARNU18GV1A4	61	59	56				
ARNU24GV1A4	62	59	56				
ARNU36GV2A4	68	66	64				
ARNU48GV2A4	68	67	66				

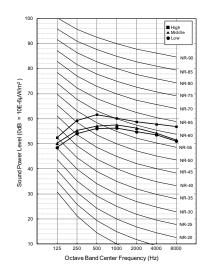
ARNU18GV1A4



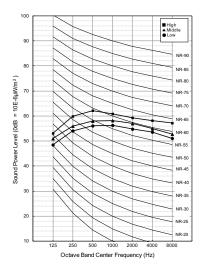
ARNU24GV1A4



ARNU36GV2A4



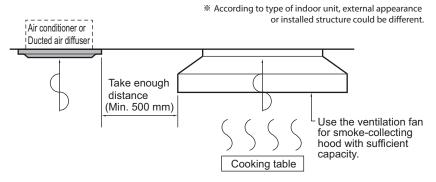
ARNU48GV2A4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

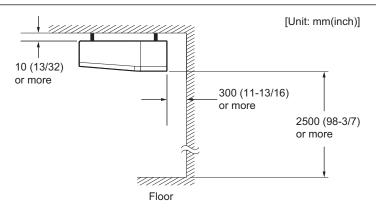
- The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- · There should not be any heat source or steam near the unit. Avoid the following installation location.
 - Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
 These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
 In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.

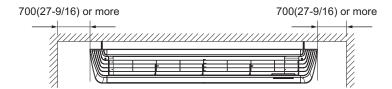


- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 $^{\circ}$ C or the humidity rise above RH 80%, the dew-protective kit should be equipped or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.





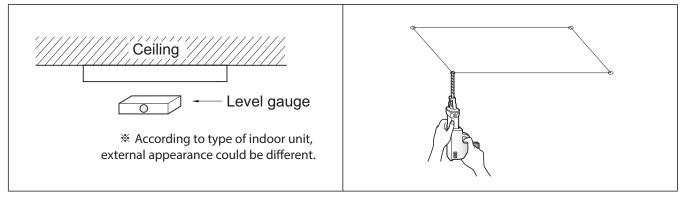


10.2 Installation of indoor units

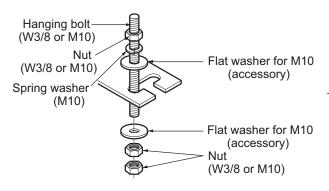
10.2.1 Ceiling dimension and hanging bolt location

A CAUTION

- · During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



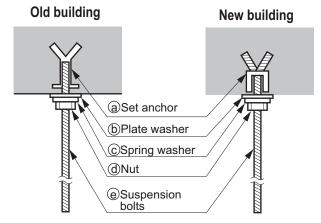
- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



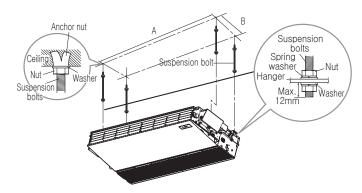
- · The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



♦ Hanging bolts dimensions



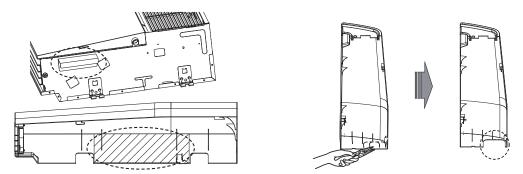
Chassis	Bolt lactions [Unit: mm]				
Cilassis	Α	В			
VM1	1,018	355			
VM2	1,418	355			

10.2.2 Preparing work for Installation

■ Open side cover

- 1) Remove two screws from Left and Right side-cover.
- 2) Unlock side-cover from side panel by slightly pulling the edge of side cover. Tap the side-cover with your palm on the backside.
- 3) Remove bracket from side-panel and paper bracket from side-cover.

4) Knock out the pipe hole from the left side cover with nipper/plier.



5) Remove the rubber stopple in the desired drain direction.

Notice

For more details, refer to the product or panel installation manual.

Important

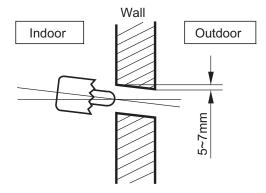
- It is recommended to select the left side for drain to have common hole in the side-cover along with pipe and wiring.
- · Knock hole on right side-cover only if right side is selected for water drain.

A CAUTION

• Hold the side-cover with other hand while tapping to prevent it to fall down.

■ Drill a hole in the wall

- Drill the piping hole with a ø70mm hole core drill.
- Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.



10.2.3 Indoor unit installation

Hang the Indoor unit on suspension bolt as per following guidelines:

- 1) Lift the indoor unit to sufficient height.
- 2) Insert the suspended part of four suspension bolt in the four hangers provided on the side of main body one by one.
- 3) Lower the indoor unit till the hangers rest on their respective flat washer.
- 4) Adjust the level in the top down direction by adjusting the suspension bolts. Inclined the indoor unit as per direction provided in the figures.



■ Installation Information For Declination

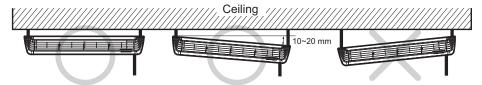
Λ

CAUTION

- Installation with declination of the indoor unit is very important for the drain of air conditioner.
- Minimum thickness of the insulation for the connecting pipe shall be 10mm.
- If the Installation Plates are fixed to horizontal line, the indoor unit after installing will be declined to the bottomside.

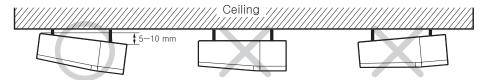
[Front of view]

- · The unit must be horizontal or inclined at angle.
- The inclination should be less than or equal to 1° or in between 10 to 20mm inclined in drain direction as shown in fig.



[Side of view]

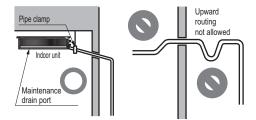
• The unit must be declined to the bottomside of the unit when finished installation.



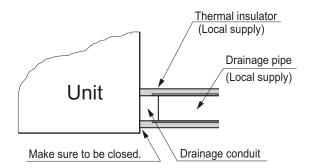
10.3 Indoor Unit Drain Piping

10.3.1 Drain piping of indoor unit

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- · During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

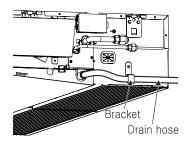


U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)

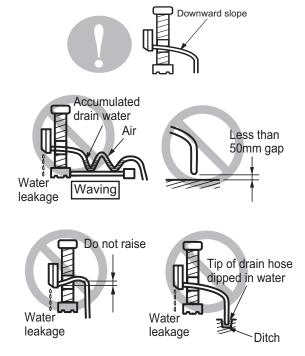


Important

 Hook on the bracket after connecting the drain hose as shown figure.



- The drain hose should point downward for easy drain flow.
- · Do not make drain piping like the following.
- · Be sure to execute heat insulation on the drain piping.



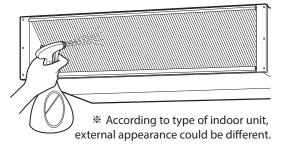
* The feature can be changed according to type of model.

10.3.2 Drain test

Drainage test of indoor unit

Use the following procedure to test the drainage.

- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- 3. Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



10.4 Connecting Cables between Indoor Unit and Outdoor Unit

10.4.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.4.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.4.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

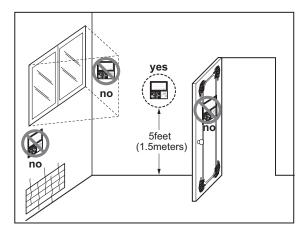
MARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to
 which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly
 fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.4.4 Wired Remote Controller Installation (Accessory)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



• Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



Floor Standing Unit

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GCEA4, ARNU09GCEA4, ARNU12GCEA4, ARNU15GCEA4, ARNU18GCFA4, ARNU24GCFA4, ARNU07GCEU4, ARNU09GCEU4, ARNU12GCEU4, ARNU15GCEU4, ARNU18GCFU4, ARNU24GCFU4		
	Air supply outlet	1		
	Airflow direction control(left & right)	-		
	Airflow direction control(up & down)	-		
	Auto swing(left & right)	-		
Air flow	Auto swing(up & down)	-		
All llow	Airflow steps(fan/cool/heat)	3/3/3		
	Chaos swing	-		
	Chaos wind(auto wind)	-		
	Jet cool(Power wind)	-		
	Swirl wind	-		
	Deodorizing filter	X		
Air purifying	Plasma air purifier	X		
	Prefilter(washable)	0		
	Drain pump	X		
I 4 - II - 4!	E.S.P. control*	0		
Installation	Electric heater(operation)	X		
	High ceiling operation*	-		
	Hot start	0		
Reliability	Self diagnosis	0		
-	Soft dry operation	0		
	Auto changeover	O(Heat recovery / Heat pump)		
	Auto cleaning	X		
	Auto operation(artificial intelligence)	O(Cooling only)		
	Auto restart operation	0		
	Child lock*	0		
	Forced operation	-		
Convenience	Group control*	0		
	Sleep mode	0		
	Timer(on/off)	0		
	Timer(weekly)*	0		
	Two thermistor control*	0		
	External On/Off	0		
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01		
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10		
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B		
Individual control	Simple wired remote controller	PQRCVCL0Q(W)		
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)		
	Wireless LCD remote control	PQWRH(C)Q0FDB		
	Wi-Fi Controller	PWFMDD200		
	Zone control	•		
	CTIE	-		
	Electro thermostat	-		
	Remote temperature sensor	_		
Special function kit	Group control wire	PZCWRCG3		
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500		
	Independent Power Module	PRIPO		
	Refrigerant Leakage Detector	PRLDNVS0		
Note	Traingularit Louitage Detector	I INEDITY OU		

O: Applied, X: Not Applied
 Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

	Type		Floor Standing		
Model		Unit	ARNU07GCEA4	ARNU09GCEA4	
		kW	2.2	2.8	
Cooling Capacity		kcal/h	1,900	2,400	
		Btu/h	7,500	9,600	
		kW	2.5	3.2	
Heating Capacity		kcal/h	2,200	2,800	
		Btu/h	8,500	10,900	
Power Input (H / M / L	-)	W	24 / 17 / 14	30 / 24 / 17	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	Padv	mm	1,067 x 635 x 203	1,067 x 635 x 203	
(WxHxD)	Body	inch	42 × 25 × 8	42 × 25 × 8	
Cail	Rows x Columns x FPI		2 x 12 x 19	2 x 12 x 19	
Coil	Face Area	m²	0.16	0.16	
	Туре		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1	
Гоп	Air Flow Rate	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	
Fan	(H / M / L)	ft³/min	300 / 265 / 229	335 / 300 / 265	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control	•		Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			Resin Net(washable)	Resin Net(washable)	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)	
Net Weight	·	kg(lbs)	27(59.5)	27(59.5)	
Sound Pressure Leve	els (H / M / L)	dB(A)	35 / 33 / 31	36 / 34 / 32	
Sound Power Levels	(H / M / L)	dB(A)	52 / 47 / 43	54 / 51 / 47	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.22 - 0.21 - 0.21	0.28 - 0.27 - 0.26	
Maximum Running Current		Α	0.76	0.76	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14	
	Control	-	EEV	EEV	
Transmission cable	-	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

	Туре		Floor S	Standing
	Model	Unit	ARNU12GCEA4	ARNU15GCEA4
		kW	3.6	4.5
Cooling Capacity		kcal/h	3,100	3,900
ı		Btu/h	12,300	15,400
		kW	4.0	5.0
Heating Capacity		kcal/h	3,400	4,300
	ļ	Btu/h	13,600	17,100
Power Input (H / M / L	.)	W	36 / 30 / 24	44 / 35 / 28
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions	Dody	mm	1,067 x 635 x 203	1,067 x 635 x 203
(WxHxD)	Body	inch	42 × 25 × 8	42 × 25 ×8
Coil	Rows x Columns x FPI		2 x 12 x 19	2 x 12 x 19
Coll	Face Area	m²	0.16	0.16
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1
Fan	Air Flow Rate	m³/min	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5
ran	(H / M / L)	ft³/min	371 / 335 / 300	406 / 353 / 335
	Drive		Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control	•		Microprocessor, Thermos	stat for cooling and heating
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
ı	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)
Net Weight		kg(lbs)	27(59.5)	27(59.5)
Sound Pressure Level	ls (H / M / L)	dB(A)	37 / 35 / 33	38 / 37 / 35
Sound Power Levels ((H / M / L)	dB(A)	54 / 51 / 50	55 / 54 / 51
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.34 - 0.32 - 0.31	0.41 - 0.39 - 0.38
Maximum Running Current		Α	0.76	0.76
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14
	Control	-	EEV	EEV
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

	Туре	Floor Standing			
	Model	Unit	ARNU18GCFA4	ARNU24GCFA4	
		kW	5.6	7.1	
Cooling Capacity		kcal/h	4,800	6,100	
		Btu/h	19,100	24,200	
		kW	6.3	8.0	
Heating Capacity		kcal/h	5,400	6,900	
		Btu/h	21,500	27,300	
Power Input (H / M / I	L)	W	54 / 41 / 29	84 / 54 / 41	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions	D - dv	mm	1,345 x 635 x 203	1,345 x 635 x 203	
(WxHxD)	Body	inch	52-15/16 x 25 x 8	52-15/16 x 25 x 8	
Coil	Rows x Columns x FPI		3 x 11 x 19	3 x 11 x 19	
Coll	Face Area	m²	0.23	0.23	
	Type		Sirocco Fan	Sirocco Fan	
	Motor Output x Number	W	19 x 2	19 x 2	
Γ	Air Flow Rate	m³/min	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0	
Fan	(H / M / L)	ft³/min	565 / 494 / 424	635 / 565 / 494	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			Resin Net(washable)	Resin Net(washable)	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	
	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)	
Net Weight	•	kg(lbs)	34(75.0)	34(75.0)	
Sound Pressure Leve	els (H / M / L)	dB(A)	40 / 37 / 34	43 / 40 / 37	
Sound Power Levels	(H / M / L)	dB(A)	57 / 54 / 50	61 / 57 / 54	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.48 - 0.46 - 0.44	0.74 - 0.71 - 0.68	
Maximum Running Current		Α	0.97	0.97	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.37 / 0.31	0.37 / 0.31	
	Control	-	EEV	EEV	
Transmission cable	'	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

	Туре		Floor S	standing
	Model	Unit	ARNU07GCEU4	ARNU09GCEU4
		kW	2.2	2.8
Cooling Capacity		kcal/h	1,900	2,400
0 , ,		Btu/h	7,500	9,600
		kW	2.5	3.2
Heating Capacity		kcal/h	2,200	2,800
		Btu/h	8,500	10,900
Power Input (H / M /	L)	W	24 / 17 / 14	30 / 24 / 17
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions	Dadu	mm	978 x 639 x 190	978 x 639 x 190
(WxHxD)	Body	inch	38-1/2 x 25-5/32 x 7-15/32	38-1/2 x 25-5/32 x 7-15/32
Coil	Rows x Columns x FPI	•	2 x 12 x 19	2 x 12 x 19
Coll	Face Area	m²	0.16	0.16
	Type	•	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1
Ton.	Air Flow Rate	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5
Fan	(H / M / L)	ft³/min	300 / 265 / 229	335 / 300 / 265
	Drive	•	Direct	Direct
Motor type			BLDC	BLDC
Temperature Control	·		Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)
Net Weight		kg(lbs)	20(44.1)	20(44.1)
Sound Pressure Leve	els (H / M / L)	dB(A)	35 / 33 / 31	36 / 34 / 32
Sound Power Levels	(H / M / L)	dB(A)	52 / 47 / 43	54 / 51 / 47
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.22 - 0.21 - 0.21	0.28 - 0.27 - 0.26
Maximum Running Current		Α	0.76	0.76
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14
	Control	-	EEV	EEV
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

	Туре		Floor Standing			
Model		Unit	ARNU12GCEU4	ARNU15GCEU4		
		kW	3.6	4.5		
Cooling Capacity		kcal/h	3,100	3,900		
		Btu/h	12,300	15,400		
		kW	4.0	5.0		
Heating Capacity		kcal/h	3,400	4,300		
		Btu/h	13,600	17,100		
Power Input (H / M / L)	W	36 / 30 / 24	44 / 35 / 28		
Casing			Galvanized Steel Plate	Galvanized Steel Plate		
Dimensions	Deste	mm	978 x 639 x 190	978 x 639 x 190		
(WxHxD)	Body	inch	38-1/2 x 25-5/32 x 7-15/32	38-1/2 x 25-5/32 x 7-15/32		
0 - 11	Rows x Columns x FPI	•	2 x 12 x 19	2 x 12 x 19		
Coil	Face Area	m²	0.16	0.16		
	Туре	•	Sirocco Fan	Sirocco Fan		
	Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1		
-	Air Flow Rate	m³/min	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5		
Fan	(H / M / L)	ft³/min	371 / 335 / 300	406 / 353 / 335		
	Drive	•	Direct	Direct		
	Motor type		BLDC	BLDC		
Temperature Control			Microprocessor, Thermos	tat for cooling and heating		
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene		
Air Filter			Resin Net(washable)	Resin Net(washable)		
Safety Device			Fuse	Fuse		
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)		
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)		
	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)		
Net Weight	•	kg(lbs)	20(44.1)	20(44.1)		
Sound Pressure Leve	ls (H / M / L)	dB(A)	37 / 35 / 33	38 / 37 / 35		
Sound Power Levels ((H / M / L)	dB(A)	54 / 51 / 50	55 / 54 / 51		
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60		
Running Current by voltage	Rated	Α	0.34 - 0.32 - 0.31	0.41 - 0.39 - 0.38		
Maximum Running Current		Α	0.76	0.76		
	Туре	-	R410A / R32	R410A / R32		
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14		
	Control	-	EEV	EEV		
Transmission cable	•	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C		

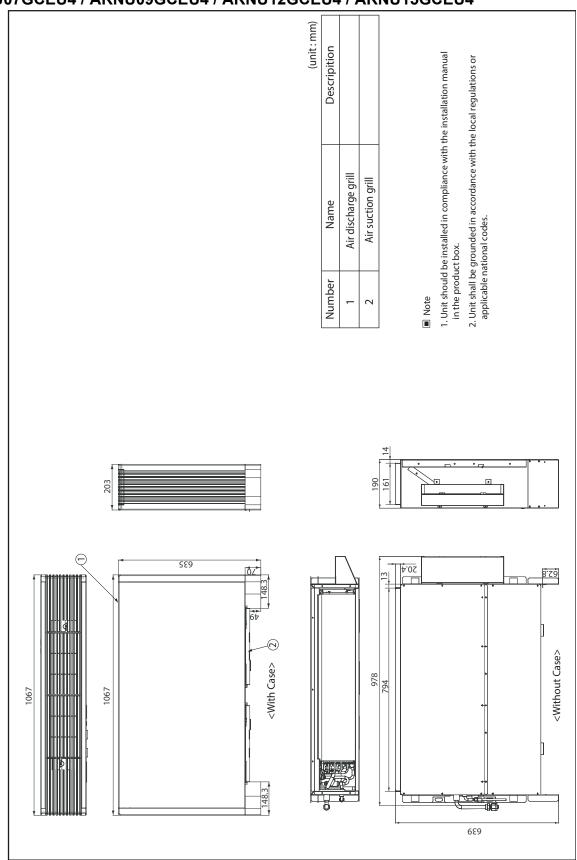
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- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

	Туре	Floor Standing					
	Model	Unit	ARNU18GCFU4	ARNU24GCFU4			
		kW	5.6	7.1			
Cooling Capacity		kcal/h	4,800	6,100			
		Btu/h	19,100	24,200			
		kW	6.3	8.0			
Heating Capacity	eating Capacity		5,400	6,900			
ower Input (H / M / L)		Btu/h	21,500	27,300			
Power Input (H / M /	L)	W	54 / 41 / 29	84 / 54 / 41			
Casing			Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions	Dadu	mm	1,256 x 639 x 190	1,256 x 639 x 190			
(WxHxD)	Body	inch	49-7/16 x 25-5/32 x 7-15/32	49-7/16 x 25-5/32 x 7-15/32			
O-il	Rows x Columns x FPI		3 x 11 x 19	3 x 11 x 19			
Coil	Face Area	m²	0.23	0.23			
	Туре		Sirocco Fan	Sirocco Fan			
	Motor Output x Number	W	19 x 2	19 x 2			
	Air Flow Rate	W 19 x 2 m³/min 16.0 / 14.0 / 12.0 ft³/min 565 / 494 / 424 Direct BLDC Microprocessor, Thermo	18.0 / 16.0 / 14.0				
Fan	(H / M / L)	ft³/min	565 / 494 / 424	635 / 565 / 494			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control	•		Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene			
Air Filter			Resin Net(washable)	Resin Net(washable)			
Safety Device			Fuse	Fuse			
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)			
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)			
	Drain Pipe(Internal Dia.)	mm(inch)	12(15/32)	12(15/32)			
Net Weight	•	kg(lbs)	26(57.3)	26(57.3)			
Sound Pressure Leve	els (H / M / L)	dB(A)	40 / 37 / 34	43 / 40 / 37			
Sound Power Levels	(H / M / L)	dB(A)	57 / 54 / 50	61 / 57 / 54			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage Rated		А	0.48 - 0.46 - 0.44	0.74 - 0.71 - 0.68			
Maximum Running C	Current	Α	0.97	0.97			
	Туре	-	R410A / R32	R410A / R32			
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.37 / 0.31	0.37 / 0.31			
	Control	-	EEV	EEV			
Transmission cable	<u> </u>	mm²	1.0~1.5 x 2C	1.0~1.5 x 2C			

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

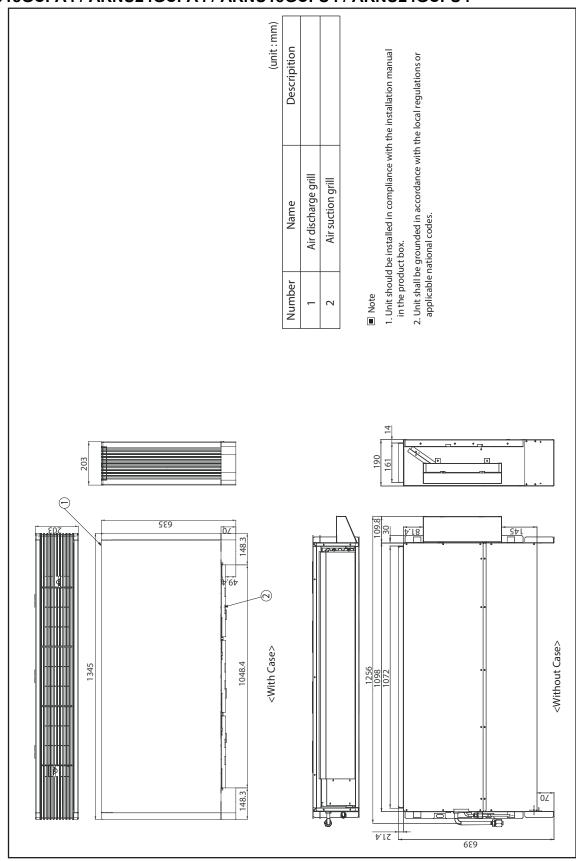
3. Dimensions

ARNU07GCEA4 / ARNU09GCEA4 / ARNU12GCEA4 / ARNU15GCEA4 ARNU07GCEU4 / ARNU09GCEU4 / ARNU12GCEU4 / ARNU15GCEU4

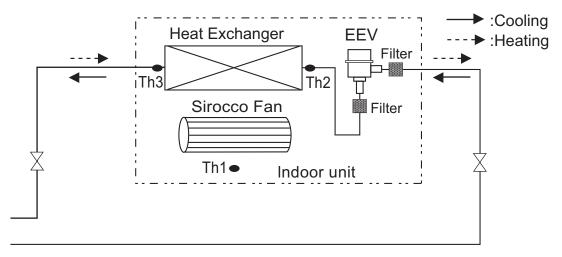


3. Dimensions

ARNU18GCFA4 / ARNU24GCFA4 / ARNU18GCFU4 / ARNU24GCFU4



4. Piping Diagrams



♦ Refrigerant pipe connection port diameter

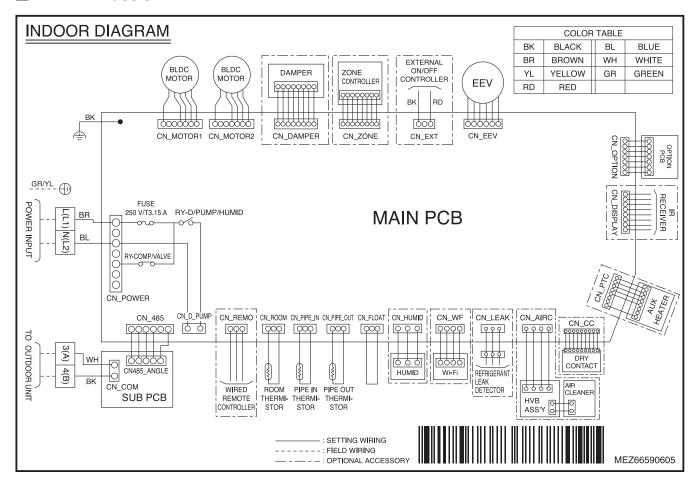
Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU07GCEA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GCEU4	Ø12.7(1/2)	20.33(174)
ARNU09GCEA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GCEU4	Ø12.7(1/2)	20.33(174)
ARNU12GCEA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GCEU4	Ø12.7(1/2)	20.33(1/4)
ARNU15GCEA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GCEU4	Ø12.7(1/2)	20.33(1/4)
ARNU18GCFA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GCFU4	₩12.7(1/2)	20.33(1/4)
ARNU24GCFA4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU24GCFU4	13.00(3/6)	ωθ.32(3/6)

LOC.	Description
Th1	Thermistor for room air temperature
Th2	Thermistor for pipe in temperature
Th3	Thermistor for pipe out temperature

MULTI V Indoor Unit Floor Standing Unit

5. Wiring Diagrams

■ CE/CF Chassis



CONNECTOR NUMBER	SPEC.	DESCRIPTION
CN_POWER	AC power supply	AC Power line input for indoor controller
CN_MOTOR1	Fan motor output	Motor output of BLDC
CN_MOTOR2	Fan motor output	Motor output of BLDC
CN_COMM	Communication	Communication between indoor and outdoor
CN-EEV	Float switch input	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN_PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN_PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN_ROOM	Room sensor	Room thermistor
CN_REMO	Remote controller	Remote control line
CN_OPTION	Option PCB	Communication between main and option
CN_ZONE	Zone controller	Zone control line
CN_DISPLAY	RF Remote controller	RF Remote control line
CN_CC	Dry contact	Dry contact line
CN_EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line
CN_HUMID	Humidity sensor	Humid sensing

5. Wiring Diagrams

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



For Multi V Model, Dip Switch 1,2,6,8 must be set OFF.

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity						Indoor	air tem	p. (DB/V	VB, °C)					
Nominal Capacity (kBtu/h)	2	:0	2	3	2	:6	2	27	2	:8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	2	2	:4
[Capacity index (kw/)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7 [2.2]	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.6	2.3	1.6	2.4	1.5	2.4	1.4
9 [2.8]	1.9	1.7	2.3	1.9	2.6	2.0	2.8	2.0	3.0	2.1	3.0	2.0	3.1	1.8
12 [3.6]	2.4	2.2	2.9	2.4	3.4	2.6	3.6	2.7	3.8	2.7	3.9	2.6	4.0	2.4
15 [4.5]	3.0	2.7	3.6	3.0	4.2	3.2	4.5	3.3	4.8	3.4	4.9	3.2	4.9	3.0
18 [5.6]	3.8	3.3	4.5	3.7	5.2	4.0	5.6	4.0	6.0	4.2	6.0	3.9	6.2	3.6
24 [7.1]	4.8	4.1	5.7	4.6	6.6	5.0	7.1	5.0	7.6	5.2	7.7	4.9	7.8	4.5

Note

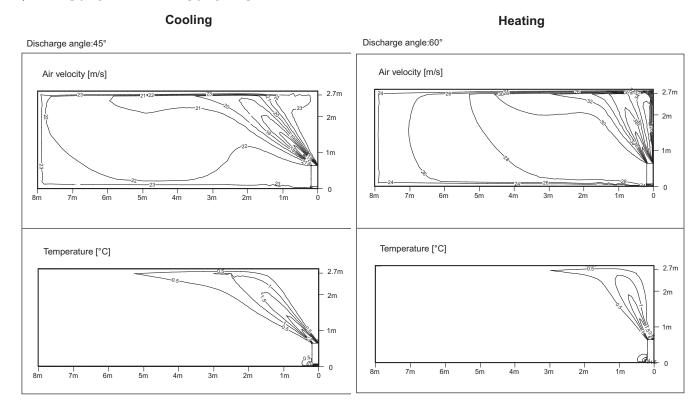
- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

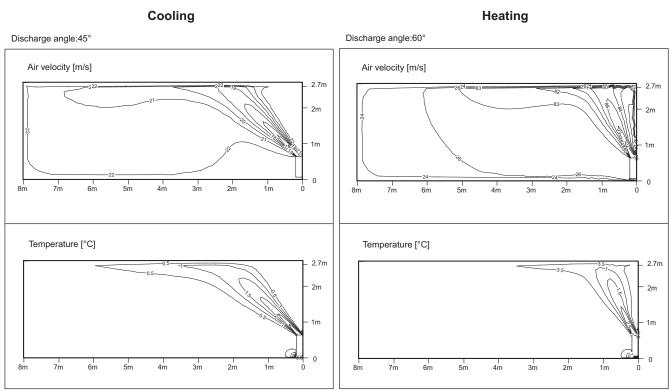
Nominal Capacity (kBtu/h)	Indoor air temp. (DB, °C)								
(kBtu/h)	16	18	20	21	22	24			
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC			
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2			
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8			
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5			
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4			
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5			
24 [7.1]	9.0	8.5	8.0	7.7	7.5	7.0			

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

♦ ARNU07GCEA4 /ARNU07GCEU4

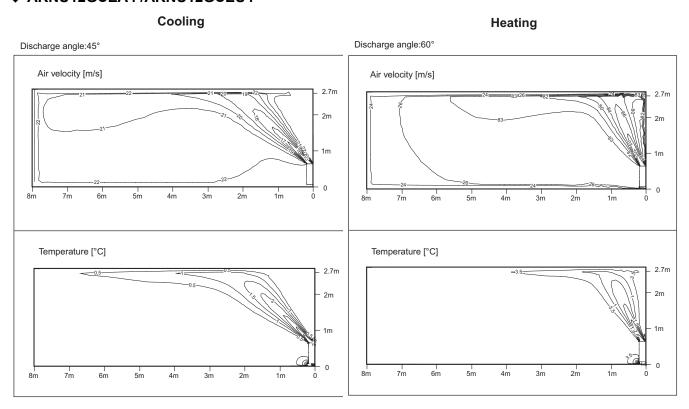


◆ ARNU09GCEA4 /ARNU09GCEU4

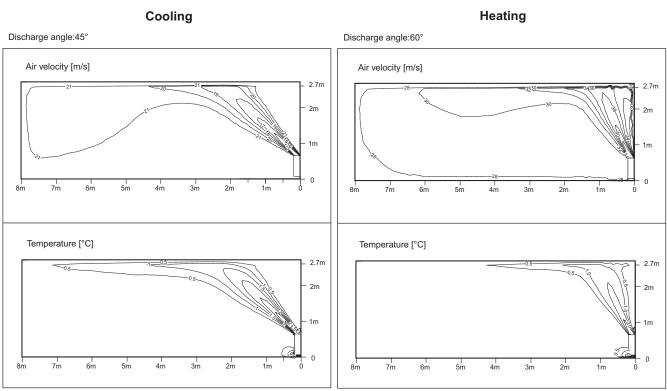


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

♦ ARNU12GCEA4 /ARNU12GCEU4

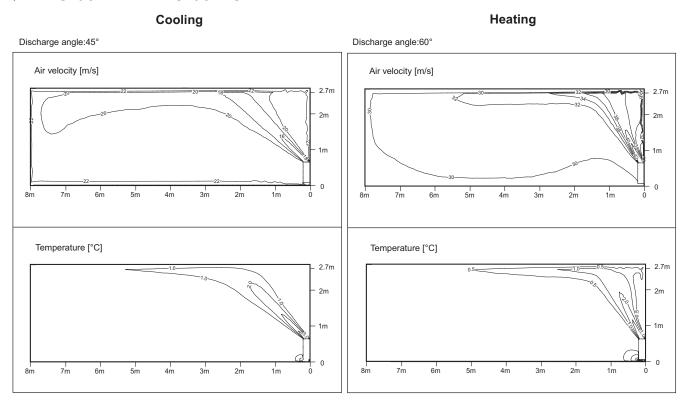


◆ ARNU15GCEA4 /ARNU15GCEU4

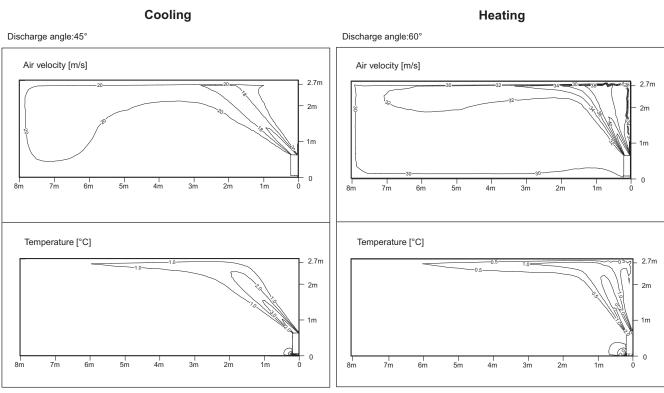


- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

♦ ARNU18GCFA4 /ARNU18GCFU4



◆ ARNU24GCFA4/ARNU24GCFU4



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. External Static Pressure (E.S.P) & Air Flow

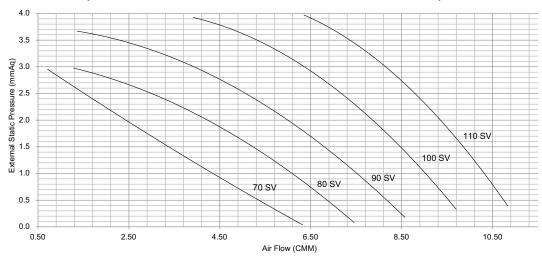
◆ ARNU07/09/12/15GCEA4, ARNU07/09/12/15GCEU4

	Static Pressure(mmAq(Pa))									
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)					
		Air Flow Rate (m³/min)								
60	5.19	2.53	0.83	-	-					
65	5.75	3.74	1.44	-	-					
70	6.32	4.54	2.24	0.71	-					
75	6.88	5.18	2.88	0.82	-					
80	7.45	6.33	4.03	1.28	-					
85	8.01	7.04	5.74	1.45	0.84					
90	8.57	7.66	6.36	2.38	1.36					
95	9.14	8.52	7.22	4.56	2.61					
100	9.70	9.35	8.05	5.96	3.91					
105	10.27	9.99	8.69	7.12	5.12					
110	10.83	10.68	9.38	8.03	6.35					
115	11.49	11.02	10.02	9.14	7.23					

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

♦ Fan Performance (ARNU07/09/12/15GCEA4, ARNU07/09/12/15GCEU4)



8. External Static Pressure (E.S.P) & Air Flow

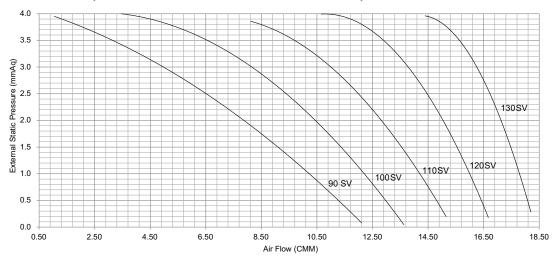
♦ ARNU18/24GCFA4, ARNU18/24GCFU4

	Static Pressure(mmAq(Pa))								
Setting Value	0 (0)	1 (10)	2 (20)	3 (29)	4 (39)				
			Air Flow Rate (m³/min)						
75	9.83	7.51	3.35	-	-				
80	10.59	8.48	4.51	1.18	-				
85	11.35	9.44	6.75	1.96	-				
90	12.11	10.41	8.06	4.53	1.05				
95	12.87	11.38	9.73	6.54	2.53				
100	13.63	12.35	10.31	8.21	3.45				
105	14.39	13.32	12.11	9.63	6.01				
110	15.15	14.29	13.29	10.19	8.12				
115	15.91	15.26	14.28	12.57	9.72				
120	16.67	16.22	14.95	13.78	10.65				
125	17.44	17.19	15.92	14.93	12.77				
130	18.20	17.96	17.21	16.08	14.39				

Note

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

◆ Fan Performance (ARNU18/24GCFA4, ARNU18/24GCFU4)



8. External Static Pressure (E.S.P) & Air Flow

♦ RNU07/09/12/15GCEA4, ARNU07/09/12/15GCEU4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
	Otavaland	HI	92		8.5			
7k	Standard (factory set)	Mid	80	0 (0)	7.5] -	4(39)	
	(lactory scr)	Low	70		6.5			
	0, , ,	HI	100		9.5			
9k	Standard (factory set)	Mid	92	0 (0)	8.5] -	4(39)	
		Low	80		7.5			
		HI	107	0 (0)	10.5			
12k	Standard (factory set)	Mid	100		9.5] -	4(39)	
	(lactory set)	Low	92		8.5			
		HI	115		11.5			
15k	Standard (factory set)	Mid	106	0 (0)	10.0	_	4(39)	
	(lactory set)	Low	98		9.5			

Note

1. The above table shows the available E.S.P. range.

◆ ARNU18/24GCFA4, ARNU18/24GCFU4

Capacity	Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))
	Ot a said a said	HI	113		16.0		
18k	Standard (factory set) Mid Low	Mid	103	0 (0)	14.0	-	4(39)
		Low	90		12.0		
	0, 1, 1	HI	130		18.0		
24k	Standard (factory set)	Mid	113	0 (0)	16.0	-	4(39)
	(lactory set)	Low	103		14.0		

Note

1. The above table shows the available E.S.P. range.

9. Electric Characteristics

	Unit	S			Power Supply	IF	М	F	PI
Model	Туре	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU07GCEA4	CE				1.00	0.024	0.76	85	85
ARNU07GCEU4	7 6				1.00	0.024	0.76	85	85
ARNU09GCEA4	CE	1			1.00	0.024	0.76	85	85
ARNU09GCEU4					1.00	0.024	0.76	85	85
ARNU12GCEA4	CE	Ī			1.00	0.024	0.76	85	85
ARNU12GCEU4			220-240	MAX.264	1.00	0.024	0.76	85	85
ARNU15GCEA4	CE	50	220-240	MIN.198	1.00	0.024	0.76	85	85
ARNU15GCEU4					1.00	0.024	0.76	85	85
ARNU18GCFA4	CF				1.20	0.038	0.97	115	115
ARNU18GCFU4					1.20	0.038	0.97	115	115
ARNU24GCFA4	CF				1.20	0.038	0.97	115	115
ARNU24GCFU4					1.20	0.038	0.97	115	115
ARNU07GCEA4	CE				1.00	0.024	0.76	85	85
ARNU07GCEU4	7 6				1.00	0.024	0.76	85	85
ARNU09GCEA4	CE				1.00	0.024	0.76	85	85
ARNU09GCEU4	7 6				1.00	0.024	0.76	85	85
ARNU12GCEA4	CE]			1.00	0.024	0.76	85	85
ARNU12GCEU4	7 6	60	220	MAX.242	1.00	0.024	0.76	85	85
ARNU15GCEA4	CE	1 60	220	MIN.198	1.00	0.024	0.76	85	85
ARNU15GCEU4					1.00	0.024	0.76	85	85
ARNU18GCFA4	CF				1.20	0.038	0.97	115	115
ARNU18GCFU4					1.20	0.038	0.97	115	115
ARNU24GCFA4	CF				1.20	0.038	0.97	115	115
ARNU24GCFU4	_ CF				1.20	0.038	0.97	115	115

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

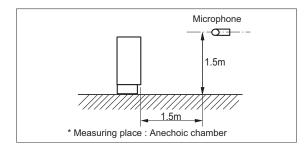
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

10.1 Sound Pressure Levels

Overall



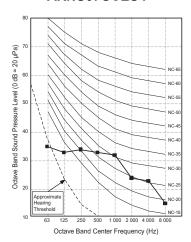
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition. Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

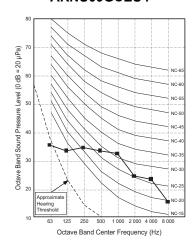
 Therefore, these values can be increased owing to ambient conditions during operation.

M	odel	Sound Pressure Levels [dB(A)]			
IVI	odei	Н	M	L	
ARNU07GCEA4	ARNU07GCEA4	35	33	31	
ARNU09GCEA4	ARNU09GCEA4	36	34	32	
ARNU12GCEA4	ARNU12GCEA4	37	35	33	
ARNU15GCEA4	ARNU15GCEA4	38	37	35	
ARNU18GCFA4	ARNU18GCFA4	40	37	34	
ARNU24GCFA4	ARNU24GCFA4	43	40	37	

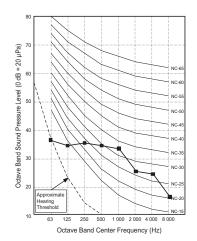




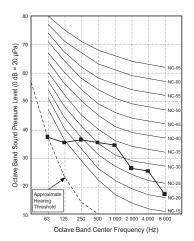
ARNU09GCEA4 ARNU09GCEU4



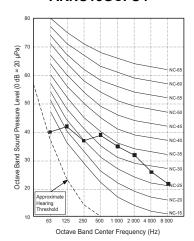
ARNU12GCEA4 ARNU12GCEU4



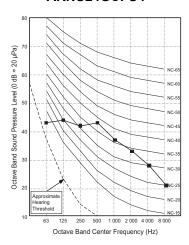
ARNU15GCEA4 ARNU15GCEU4



ARNU18GCFA4 ARNU18GCFU4



ARNU24GCFA4 ARNU24GCFU4



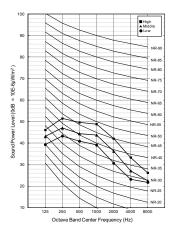
10.2 Sound Power Levels

Note

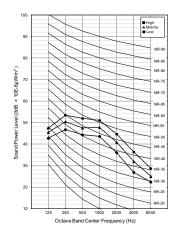
- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- · Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

M	odel	Sound Power Levels [dB(A)]			
IVI	Н	М	L		
ARNU07GCEA4	ARNU07GCEA4	52	47	43	
ARNU09GCEA4	ARNU09GCEA4	54	51	47	
ARNU12GCEA4	ARNU12GCEA4	54	51	50	
ARNU15GCEA4	ARNU15GCEA4	55	54	51	
ARNU18GCFA4	ARNU18GCFA4	57	54	50	
ARNU24GCFA4	ARNU24GCFA4	61	57	54	

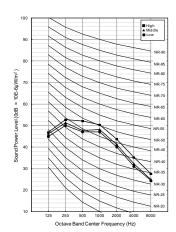
ARNU07GCEA4 ARNU07GCEU4



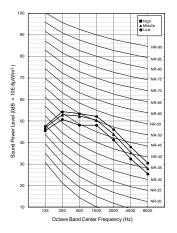
ARNU09GCEA4 ARNU09GCEU4



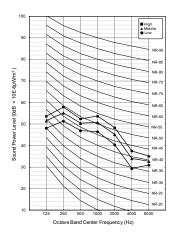
ARNU12GCEA4 ARNU12GCEU4



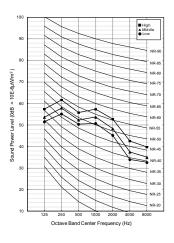
ARNU15GCEA4 ARNU15GCEU4



ARNU18GCFA4 ARNU18GCFU4



ARNU24GCFA4 ARNU24GCFU4

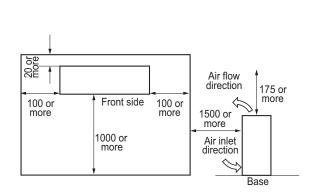


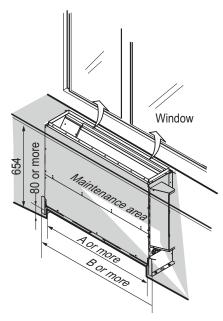
- Please read the instruction sheets completely before installing the product.
- · When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

11.1 Selection of the best location

- The place shall easily bear a load exceeding four times the indoor unit's weight.
- Sufficient space should be available to inspect the unit as in the figure shown on the right.
- · The place where the unit is installed shall be leveled
- The place shall be suitable for easy connection of the indoor unit with the outdoor unit.
- The place where the unit is installed should not be affected by electrical noise.
- · The place where air circulation in the room will be good.
- · There should not be any heat source or steam near the unit

♦ Service space





- CEU Type: A = 788mm, B =1,830mm
- CFU Type: A=1,066mm, B=1,358mm

Important

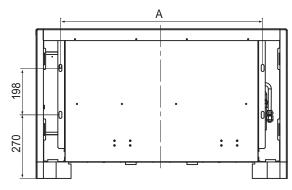
Leave sufficient clearance for air inlet and maintenance.

Select an installation site where the following conditions are satisfied and that meets your customer's approval.

- · Where the floor is strong enough to bear the indoor unit weight.
- · Where the floor is not significantly inclined.
- Where nothing blocks the air passage.
- · Where condensate can be properly drained.
- Where sufficient clearance for installation and maintenance can be ensured.
- · Where there is no possibility of flammable gas leakage.
- · Where optimum air distribution can be ensured.
- Where piping between indoor and outdoor units is possible within the allowable limit (Refer to the installation manual of the outdoor unit.)
- Keep the indoor and outdoor unit, power cable and transmission wiring, at least 1m from TVs and radios, to
 prevent distorted pictures and static.(Depending on the type and source of the electrical waves, static may be
 heard even when more than 1 m away.)

◆ Bolt pitch

- · Positioning of holes for fastening to the wall
- 1.Use the Installation mount for installation. Check whether the wall is strong enough to bear the weight of the unit or not. if there is a risk, reinforce he wall before installing the unit.
- 2. The unit requires a minimum 100 mm clearance below the unit for air intake. Also, ensure the unit is leveled when installed so that drainage flows smoothly. If inclined, water can leak.
- 3. Depending upon the shape and nature of the wall surface, operating sound may become bigger.



CEA/CEU Type: A = 858mmCFA/CFU Type: A = 1,136mm

How to open/close front panel

- 1. Open the lid of control panel (Both left and right)
- 2.Remove screws(Both left and right)
- 3.Lift the front panel of the unit
 - To close, perform the procedure in opposite order.

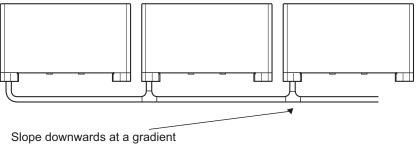
Notice

For more details, refer to the product or panel installation manual.

11.2 Drain piping work

Important

- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- All connections should be secure. (Special care is needed with PVC pipe)
- Drain piping must have downward slope(1/50 to 1/100): be sure not to provide up-and-down slope to prevent reverse flow.
- During drain piping connection, be careful not to exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection to the indoor unit is 21 mm (13/16 inch).
 - Piping material: Polyvinyl chloride pipe 25mm and pipe fittings
- Be sure to install heat insulation on the drain piping
 - Heat insulation material: Polyethylene foam with thickness more than 10 mm (13/32 inch).
- If converging multiple drain pipes, install according to the procedure shown below.



- of at least 1/100
- After piping work is finished, check for drainage.
- Be sure to insulate all indoor units.



11.3 Connecting Cables

11.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

11.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

11.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

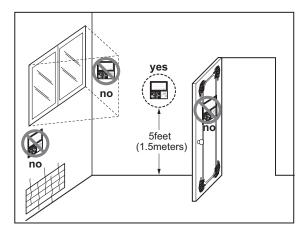
WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

11.3.4 WIRED REMOTE CONTROLLER INSTALLATION

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



Fresh Air Intake Unit

- 1.List of functions
- 2. Specifications
- 3. Dimensions & Gravity Point
- **4. Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. External Static Pressrue(E.S.P) & Air Flow
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU76GB8Z4, ARNU96GB8Z4
	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
A: 0	Auto swing(up & down)	•
Air flow	Airflow steps(fan/cool/heat)	2/2/2
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	-
	Deodorizing filter	Х
Air purifying	Plasma air purifier	Х
, , ,	Prefilter(washable)	0
	Drain pump	0
	E.S.P. control*	0
Installation	Electric heater(operation)	X
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
,	Soft dry operation	0
	Auto changeover	-
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	- -
Convenience	Group control*	0
	Sleep mode	X
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	X
	External On/Off	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Simple wired remote controller	PQRCVCL0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control*	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	-
	CTIE	-
	Electro thermostat	<u>-</u>
	Remote temperature sensor	PQRSTA0
Special function kit	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
	Refrigerant Leakage Detector	PRLDNVS0
Note		

Note
1. O : Applied, X : Not Applied
Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

4. *: These functions need to connect the wired remote controller.

2. Specifications

	Type		Fresh Air	Intake Unit
	Model	Unit	ARNU76GB8Z4	ARNU96GB8Z4
		kW	22.4	28
Cooling Capacity		kcal/h	19,300	24,100
• • •		Btu/h	76,400	95,900
		kW	21.4	26.7
Heating Capacity		kcal/h	18,410	23,000
0 , ,		Btu/h	73,080	91,360
Power Input (H / M /	L)	W	230 / 200 / 200	360 / 230 / 230
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions	nensions Body		1,562 x 460 x 688	1,562 x 460 x 688
(WxHxD)	Body	inch	61-1/2 x 18-1/8 x 27-3/32	61-1/2 x 18-1/8 x 27-3/32
Coil	Rows x Columns x FPI		3 x 20 x 19	3 x 20 x 19
Coll	Face Area	m²	0.59	0.59
	Туре		Sirocco Fan	Sirocco Fan
Fan	Motor Output x Number	W	375 x 1	375 x 1
	Air Flow Rate(H/M/L)	m³/min	23.7 / 13.2 / 13.2	35.7 / 23.7 / 23.7
	(High static Mode-factory set)	ft³/min	837 / 446 / 446	1,261 / 837 / 837
	External Static Pressure	mmAq(Pa)	22	22
	Drive	. ,	Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene
Air Filter			Long Life Filter	Long Life Filter
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inchí)	Ø19.05(3/4)	Ø22.2(7/8)
·	Drain Pipe(Internal Dia.)	mm	25	25
Net Weight	, , ,	kg(lbs)	73(161)	73(161)
Sound Pressure Leve		dB(A)	45 / 43 / 43	47 / 45 / 45
Sound Power Levels	(H / M / L)	dB(A)	70 / 67 / 67	72 / 70 / 70
Power Supply	,	Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	Α	1.31 - 1.25 - 1.20	2.05 - 1.96 - 1.88
Maximum Running C	urrent	Α	2.15	2.15
	Type	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	1.00 / 0.83	1.00 / 0.83
	Control	-	EEV	EEV
Transmission cable		mm²	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note

- Capacities are based on the following conditions :
 Cooling
 - Outdoor temp. 33°C[91.4°F]DB/ 28°C[82.4°F]WB
 - Interconnecting Piping Length 7.5m / Level Difference of Zero

Heating

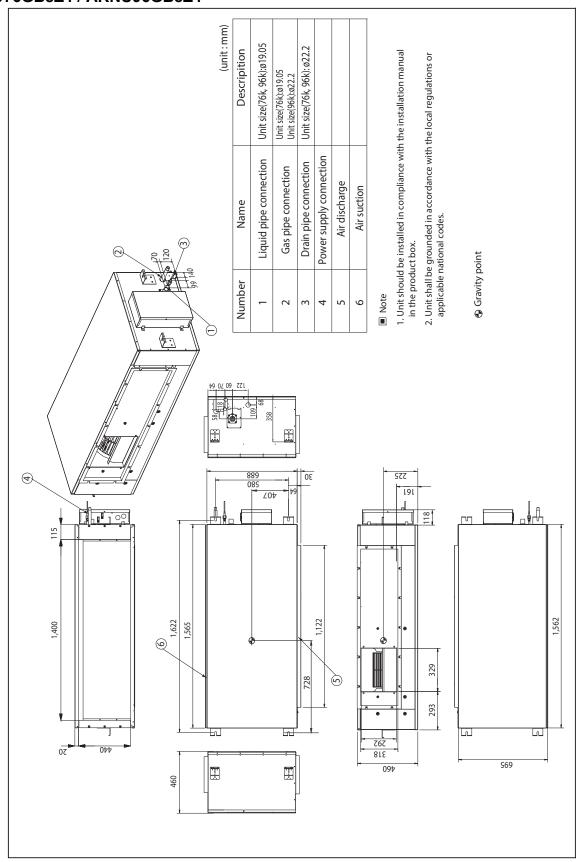
- Outdoor temp. 0°C[32°F]DB/ -2.9°C[26.78°F]WB
- Interconnecting Piping Length 7.5m / Level Difference of Zero
- 2. Capacities are Net Capacities
- 3. Due to our policy of innovation some specifications may be changed without prior notification .
- 4. To be added for more available Models
- 5. Indoor Unit Connection

No	Connection Condition	Combination
1	Fresh Air Intake Units only are connected with outdoor units	1) The total capacity of Fresh Air Intake Unit should be 50~100% of outdoor unit. 2) The max quantity of Fresh Air Intake unit is 4 Units.
2	Mixture connection with general Indoor unit and Fresh Intake Unit	1) The total capacity of indoor units (standard Indoor Unit + Fresh Air Intake Unit) should be 50~100% of out-door unit. 2) The total capacity of Fresh Air Intake Unit should be less than 30% of the total capacity of indoor units.

- 6. Sound Level is Standard Mode (for actual High Mode(factory set) condition, Sound Level may exceed the standard level by 1.5dBA)
- 7. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 8. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

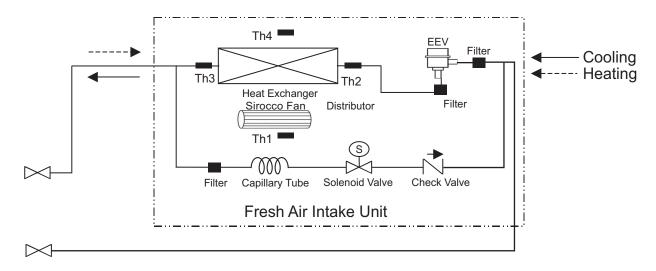
3. Dimensions & Gravity point

ARNU76GB8Z4 / ARNU96GB8Z4



MULTI V Indoor Unit

4. Piping Diagrams



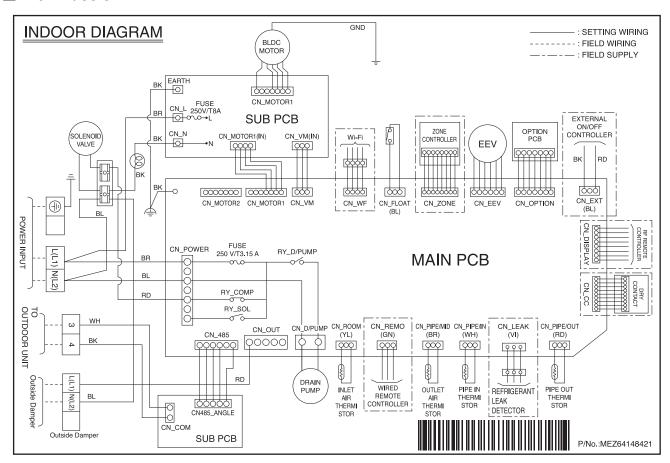
◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU76GB8Z4	Ø19.05(6/8)	Ø9.52(3/8)
ARNU96GB8Z4	Ø22.2(7/8)	Ø9.52(3/8)

LOC.	Description
Th1	Inlet Air Thermistor
Th2	Pipe In Thermistor
Th3	Pipe Out Thermistor
Th4	Outlet Air Thermistor

5. Wiring Diagrams

■ B8 Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-MOTOR2	Fan motor output	Motor output of BLDC
CN-D_PUMP	Drain pump output	AC output for drain pump
CN-COM	Communication	Connection between indoor and outdoor
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE/IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE/OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-ZONE	Zontroller	Zone control line
CN-DISPLAY	RF Remote controller	RF Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN_WF	Wi-Fi Controller	Wifi control line

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off

5. Wiring Diagrams



A CAUTION

For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

6. Capacity tables

■ ARNU76GB8Z4

Cooling

Outdo	or air	59°F	WB	63°F	WB	69°F	WB	73°F	WB	79°F	WB	82°F	WB	86°F	WB	90°F	WB	95°F	WB	100°	FWB
tempe	erature	15℃	CWB	17℃	WB	20℃	:WB	23℃	WB	26℃	WB	28℃	:WB	30℃	WB	32℃	:WB	35℃	WB	38℃	WB
°FDB	°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
70	21	8.0	5.2	9.5	5.2	12.6	5.3	-	-	-	-	-	-	•	-	-	-	-	-	-	-
73	23	7.9	6.1	9.0	6.1	12.4	5.7	-	1	-		-		1	-	-		-	-	-	-
77	25	7.8	7.0	8.7	7.0	12.0	6.7	16.0	6.4	-		-		1	-	-		-	-	-	-
81	27	7.7	7.2	8.8	7.9	11.8	7.5	15.7	6.9	19.6	6.9	-		1	-	-		-	-	-	-
84	29	7.6	7.4	8.6	8.0	11.5	8.4	15.3	7.7	19.4	7.3	23.5	7.2	1	-	-		-	-	-	-
88	31	7.5	7.5	8.5	8.1	11.4	9.4	15.0	8.6	19.2	8.2	23.0	7.7	24.2	7.2	-		-	-	-	-
91	33	7.5	7.5	8.4	8.3	11.1	9.7	14.7	9.5	18.9	9.1	22.4	8.5	23.8	7.6	27.0	7.5		-	-	-
96	35	7.4	7.4	8.4	8.4	10.9	10.1	14.4	10.4	18.7	9.9	21.5	9.3	23.1	8.3	26.7	8.1		-	-	-
99	37	7.4	7.4	8.3	8.3	10.5	10.4	14.0	11.0	18.4	10.8	20.9	10.1	22.9	9.2	26.4	8.7	31.9	8.7	-	-
104	40	7.3	7.3	8.3	8.3	10.5	10.5	13.5	12.1	17.6	12.0	20.8	11.5	22.5	10.5	26.2	10.1	31.2	9.3	34.4	7.2
109	43	-	-	8.1	8.1	10.4	10.4	12.9	12.8	17.0	12.9	20.1	11.9	22.4	11.5	25.2	11.0	30.0	10.3	33.5*	8.7*
113	45	-	-	7.7	7.7	10.1	10.1	12.5	12.5	16.2	13.7	19.5	12.8	21.6	12.1	24.3	11.9	25.2*	9.9*	30.3*	8.9*
118	48	-	-	-	-	9.5	9.5	12.1	12.1	15.7	14.2	18.7	13.4	20.9	12.9	23.6	12.5	21.3*	10.4*	25.3*	9.1*

Heating

Outdoor oir	temperature	19°FWB	23°FWB	27°FWB	32°FWB	36°FWB	39°FWB	43°FWB	50°FWB	57°FWB
Outdoor all	temperature	-7℃WB	-5℃WB	-2.9℃WB	0°CWB	2°CWB	4°CWB	6℃WB	10℃WB	14℃WB
°FDB	°CDB	TC	TC	TC	TC	TC	TC	TC	TC	TC
23	-5	23.8	-	-	-	-	-	-	-	-
27	-3	22.4	22.6	-	-	-	-	-	-	-
32	0	-	21.2	21.4	-	-	-	-	-	-
37	3	-	-	17.9	18.1	18.2	-	-	-	-
45	7	-	-	-	16.1	16.3	16.5	16.7	-	-
52	11	-	-	-	-	14.3	14.5	14.7	14.9	-
59	15	-	-	-	-	1	12.6	12.8	13.0	13.2
64	18	-	-	-	-	ı	-	11.4	11.6	11.8
68	20	-	-	-	-	-	-	10.7	10.9	11.1

Note

- TC: Total Capacity (kW), SHC: Sensible Heat Capacity (kW)WB: Wet Bulb, DB: Dry Bulb
- 1. The data shown in the table illustrates the supported operating ranges under the following conditions:

 - Indoor and Outdoor Unit
 Effective piping length: 7.5 m
 Height differential: 0 m
- 2. The actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- 3. The system will not operate in fan mode when the outdoor air temperature is -5°C or below.
- 4. *: Tropical region only.

6. Capacity tables

■ ARNU96GB8Z4

◆ Cooling

Outdo	oor air	59°F	WB	63°F	WB	69°F	WB	73°F	WB	79°F	WB	82°F	WB	86°F	WB	90°F	WB	95°F	WB	100°	FWB
tempe	erature	15℃	WB	17℃	WB	20℃	WB	23℃	WB	26℃	WB	28℃	WB	30℃	WB	32℃	WB	35℃	WB	38℃	WB
°FDB	℃DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
70	21	10.2	6.9	13.2	6.9	17.1	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	23	10.0	8.3	12.8	8.0	16.7	7.8	-	-	-		-		-	-	-		-	-	-	-
77	25	9.8	9.0	12.1	9.0	16.1	9.2	22.3	9.0	-		-		-	-	-		-	-	-	-
81	27	9.7	9.2	11.4	10.3	15.6	10.5	21.5	9.5	27.4	9.7	-	-	ı	1	ı	-	-	ı	-	-
84	29	9.5	9.3	11.2	10.6	15.2	11.8	20.9	10.8	26.9	10.1	30.2	9.3	ı	1	ı	-	-	ı	-	-
88	31	9.4	9.4	11.1	10.7	15.2	13.3	20.4	12.1	26.6	11.5	29.8	10.0	33.8	10.1	ı	-	-	ı	-	-
91	33	9.4	9.4	11.0	10.8	14.8	13.7	20.0	13.5	26.1	12.8	28.0	10.6	33.2	10.6	38.0	11.2	-	ı	-	-
96	35	9.3	9.3	11.0	11.0	14.6	14.1	19.5	14.8	25.8	14.1	27.6	11.9	32.1	11.7	37.6	11.7	-	ı	1	-
99	37	9.3	9.3	10.9	10.9	14.5	14.3	19.0	15.7	25.4	15.4	26.6	13.1	31.8	13.0	37.0	12.2	44.2	12.9	-	-
104	40	9.2	9.2	10.9	10.9	14.4	14.4	18.7	17.2	24.2	16.8	25.8	15.2	31.2	15.0	36.6	14.3	43.9	13.2	52.3	12.4
109	43	-	-	10.8	10.8	14.3	14.3	18.5	18.0	23.8	17.4	25.0	16.4	29.7	16.0	34.4	15.6	42.4	14.7	50.5*	13.1*
113	45	-	-	10.3	10.3	13.9	13.9	18.0	18.0	22.9	18.2	24.2	17.2	28.8	16.7	33.4	16.2	37.9*	14.9*	45.6*	13.4*
118	48	-	-	-	-	13.4	13.4	17.2	17.2	22.0	19.0	23.4	18.0	27.9	17.8	32.7	17.2	32.3*	15.6*	38.0*	13.7*

Heating

Outdoor oir	temperature	19°FWB	23°FWB	27°FWB	32°FWB	36°FWB	39°FWB	43°FWB	50°FWB	57°FWB
Outdoor all	temperature	-7℃WB	-5℃WB	-2.9℃WB	0°CWB	2°CWB	4℃WB	6℃WB	10℃WB	14℃WB
°FDB	°CDB	TC	TC	TC	TC	TC	TC	TC	TC	TC
23	-5	28.6	-	-	-	-	-	-	-	-
27	-3	28.2	28.4	-	-	-	-	-	-	-
32	0	-	26.5	26.7	-	-	-	-	-	-
37	3	-	-	25.8	26.0	27.7	-	-	-	-
45	7	-	-	-	25.1	25.3	25.0	24.4	-	-
52	11	-	-	-	-	21.7	21.9	22.1	22.5	-
59	15	-	-	-	-	-	19.4	19.6	19.8	19.6
64	18	-	-	-	-	-	-	17.4	17.6	17.9
68	20	-	-	-	-	-	-	16.0	16.2	16.4

TC: Total Capacity (kW), SHC: Sensible Heat Capacity (kW)WB: Wet Bulb, DB: Dry Bulb

- 1. The data shown in the table illustrates the supported operating ranges under the following conditions:

 - Indoor and Outdoor Unit
 Effective piping length: 7.5 m
 - Height differential: 0 m
- 2. The actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- 3. The system will not operate in fan mode when the outdoor air temperature is -5°C or below.
- 4. *: Tropical region only.

7. External Static Pressure(E.S.P) & Air Flow

■ ARNU76GB8Z4, ARNU96GB8Z4

Setting					ESP (mmAq)				
Setting Value	6	9	12	15	18	20	22	23	25
55	25.39	-	-	-	-	-	-	-	-
60	33.65	-	-	-	-	-	-	-	-
65	40.01	30.29	-	-	-	-	-	-	-
70	46.43	35.81	17.31	-	-	-	-	-	-
75	50.93	45.35	35.57	-	-	-	-	-	-
80	55.77	51.91	42.86	26.57	-	-	-	-	-
85	-	54.22	49.74	42.67	20.90	-	-	-	-
88	-	-	52.72	46.44	33.72	-	-	-	-
90	-	-	52.54	48.82	40.09	23.07	-	-	-
92	-	-	-	50.91	44.30	23.46	-	-	-
94	-	-	-	50.90	46.73	39.65	13.87	-	-
96	-	-	-	-	49.84	44.04	24.17	23.63	-
98	-	-	-	-	49.66	48.09	39.72	25.28	14.49
100	-	-	-	-	-	48.23	42.56	40.34	15.47
102	-	-	-	-	-	-	46.41	45.92	38.60
105	-	-	-	-	-	-	-	46.51	45.44

Note

Setting Value : ESP value

- 1. The above table shows the correlation between the air rates and E.S.P.
- 2. The above table shows the available E.S.P. range.
- 3. If the E.S.P. of the installed indoor is less than the lowest value(as mention in the table), indoor components can be failed.

♦ ARNU76GB8Z4, ARNU96GB8Z4

Capacity (Btu/h)	/h) Mode		Set value	Standard ESP (mmAq(Pa))	СММ	Lower Limit of External Static Pressure(mmAq(Pa))	Upper Limit of External Static Pressure(mmAq(Pa))	
76k	High	High	95	22	23.7	12(118)	25(245)	
70K	(factory set)	Mid	93	22	13.2	12(110)	23(243)	
96k	High	High	97	22	35.7	12(118)	25(245)	
90K	(factory set)	Mid	95		23.7	12(110)	23(243)	

Note

The above table shows the available E.S.P. range.

8. Electric Characteristics

	Units						М	PI		
Model	Type	Hz	volts	VoltageRange	MCA	kW	FLA	Cooling	Heating	
ARNU76GB8Z4	B8	50	220-240	Max: 264 Min: 198	2.7	0.38	2.15	230	230	
ARNU96GB8Z4	B8	30	220-240		3.7	0.38	2.15	360	360	
ARNU76GB8Z4	B8	60	220	Max: 242	2.7	0.38	2.15	230	230	
ARNU96GB8Z4	B8	00	220	Min: 198	3.7	0.38	2.15	360	360	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

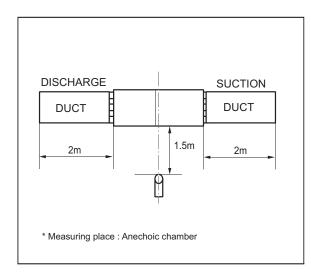
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall



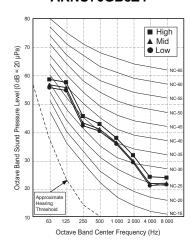
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6.Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

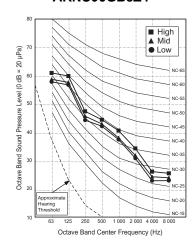
 Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]								
lviodei	Н	M	L						
ARNU76GB8Z4	45	43	43						
ARNU96GB8Z4	47	45	45						

ARNU76GB8Z4



ARNU96GB8Z4



9.2 Sound Power Levels

Note

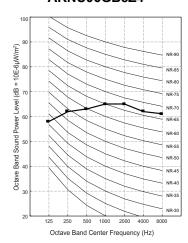
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]
Wiodei	High Fan Speed
ARNU76GB8Z4	70
ARNU96GB8Z4	72

ARNU76GB8Z4

100 90 NR-90 NR-90

ARNU96GB8Z4

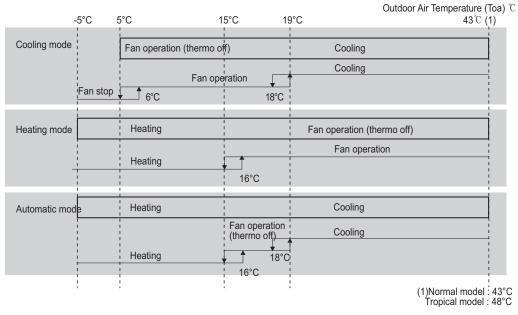


10. Operation Details

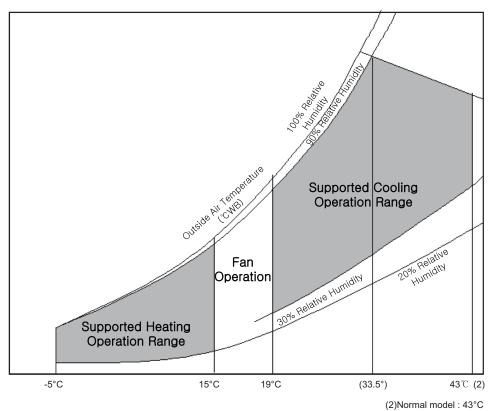
♦ Operation range

FAU will operate in the below range. Hot outdoor temperature (over 43 °C) or cold outdoor temperature (under -5 °C) will make customer feel uncomfortable because FAU outlet discharge temperature might be not enough controlled in that region.

* FAU: Fresh Air Intake Unit



◆ Usage Limitations



- Please read the instruction sheets completely before installing the product.
- · When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

11.1 Installation Limit

Read completely, then follow step by step.

1. Fresh Air Intake Unit Combination

No	Connection Condition	Combination
1	Only Fresh Air Intake Unit	1. The total capacity of Fresh Air Intake Unit should be 50~100% of outdoor unit.
	mstanation	2.The max quantity of Fresh Air Intake unit is 4 Units.
2	Mixture Installation with standard	1.The total capacity of indoor units (standard Indoor Unit + Fresh Air Intake Unit) should be 50~100% of outdoor unit.
2	indoor units and Fresh Intake Units	2.The total capacity of Fresh Air Intake Units should be less than 30% the total capacity of indoor units.

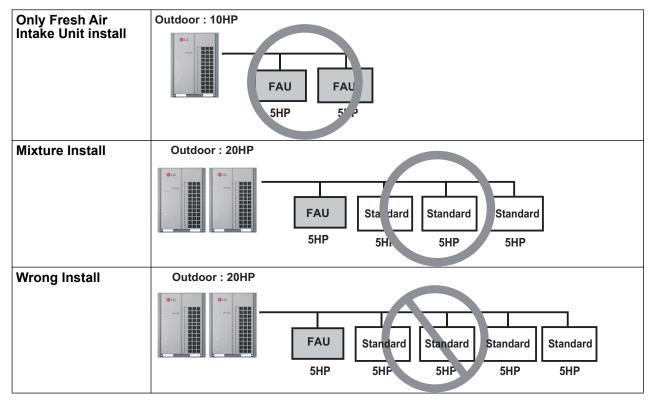


CAUTION

Failure to comply with the above connection conditions for installation, it can cause cooling & heating capacity down.

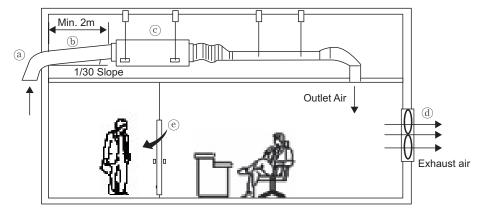
2. Connection of the Outdoor Unit

The total capacity of indoor units could not exceed 100% of outdoor unit.



^{*} FAU: Fresh Air Intake Unit, Standard: Standard Indoor Unit

3. Installation of intake air duct



(a) Inlet Hood

Inlet Hood should be installed such that no water enter inside the unit

(b) Intake Air Duct

The Intake Air Duct must have down-slope about 1/30.

The length of Intake Air Duct should be longer than 2m.

© Fresh Air Intake Unit

If wired remote controller is not connected, it will display strange value to the room temperature

d Exhaust Fan

Fresh Air Intake Unit will make room the positive pressure.

Exhaust fan should be installed to maintain the room pressure.

(e) Door

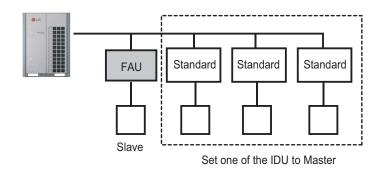
It would be possible to raise in the room air pressure because of Fresh Air Intake Unit.

In that case, the door could hurt someone in front of door.

So be careful of the positive pressure to design the door.

4. The Control System

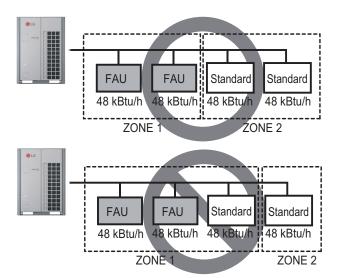
In case of connecting with Standard indoor units, Standard indoor unit should be a master unit.
 Separate Fresh Air Intake Unit with Standard indoor units
 Set only one Standard indoor units to Master,



* FAU : Fresh Air Intake Unit Standard: Standard Indoor Unit

2) In case of using central remote controller, mixture of indoor units and Fresh Air Intake Unit in same zone is not possible.

Separate Fresh Air Intake Unit zone with Standard indoor units zone.

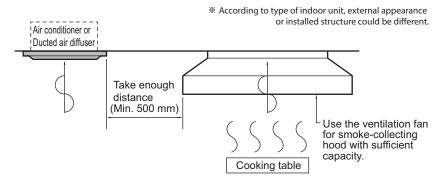


5. Cycle check and SVC

• For Fresh Intake Unit cycle check and SVC, LG MV 5.8 or later version should be used.

11.2 Selection of the best location

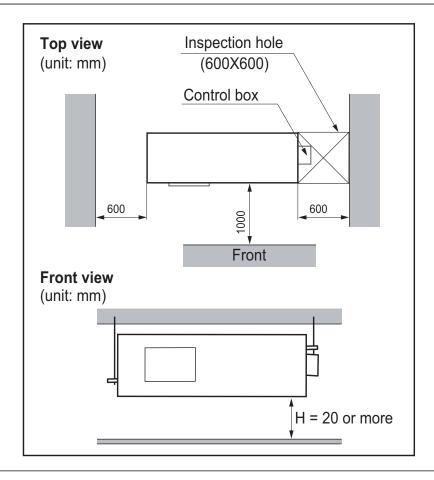
- · The unit must be installed indoor area.
- Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- · The place where the indoor unit can be connected with outdoor unit easily.
- The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient. (The servicing inspection hole of the ceiling should be larger than the indoor unit.)
- The selection of the servicing inspection hole should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
 - 1. Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated. These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function. In these cases, take the following actions;
 - Make sure that ventilation fan is enough to cover all noxious gases from this place.
 - Ensure enough distance from the cooking room to install the air conditioner in such a place where it may not suck oily steam.



- 2. Avoid installing air conditioner in such places where cooking oil or iron powder is generated.
- 3. Avoid places where inflammable gas is generated.
- 4. Avoid place where noxious gas is generated.
- 5. Avoid places near high frequency generators.

A CAUTION

- If the temperature rise above 30 ℃ or the humidity rise above RH 80%, the dew-protective kit should be equipped
 or use additional insulation to the indoor unit body.
 - "Dew Protective kit" is sold separately.
 - Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.





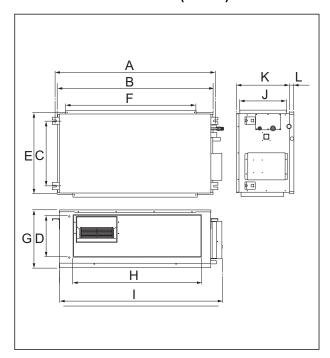
In case that the unit is installed near the sea, the installation parts may be corroded by salt, The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

11.3 Ceiling dimension and hanging bolt location

■ Installation of Unit

Install the unit above the ceiling correctly.

B8 Chassis (76/96k)

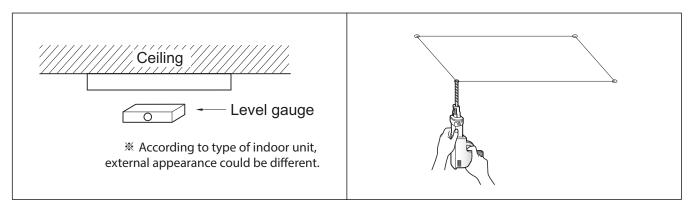


Capacity(Btu/h)					D	imensi	on (mr	n)				
Capacity(Btu/II)	Α	В	С	D	Е	F	G	Н	ı	J	K	L
B8 Chassis(76/96k)	1622	1565	580	292	695	1400	460	1122	1680	390	445	15

11.3.1 Indoor Unit Installation

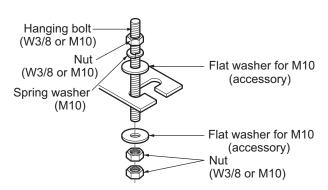
A CAUTION

- During the installation, care should be taken not to damage electric wires.
- In case of using a drain pump, install the unit horizontally using a level gauge.



- 1. The dimensions of the paper model for installation are the same as those of the ceiling opening dimensions.
- 2. Select and mark the position for fixing bolts and piping hole.
- 3. Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.

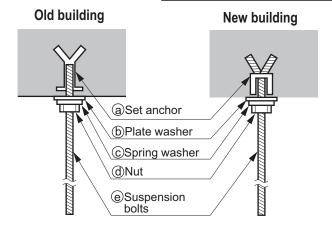
- 4. Drill the hole for anchor bolt on the wall or ceiling.
 - · Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
 - · Mount the suspension bolts to the set anchor firmly.
 - Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring
 washers.
- 5. In case of ducted type unit, apply a joint-canvas between the unit and duct to absorb unnecessary vibration.



- The following parts are local purchasing.
 - 1. Hanging bolt W 3/8 or M10
 - 2.Nut W 3/8 or M10
 - 3. Spring washer M10
 - 4.Plate washer M10

A CAUTION

- Tighten the nut and bolt to prevent the unit from falling.
- When mechanical connectors are reused indoors, sealing parts shall be renewed. (for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated. (for R32)



11.4 Wiring Connection

11.4.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

11.4.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

11.4.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

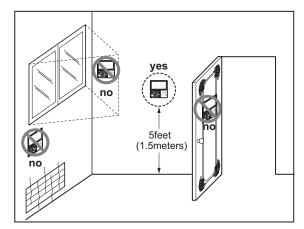
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

11.4.4 WIRED REMOTE CONTROLLER INSTALLATION

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

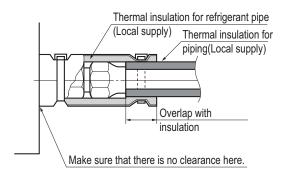
11.5 Connecting the refrigerant piping

Refrigerant piping work

To detail information for connecting the refrigerant pipes, please refer to the installation manual included withproduct.

■ Piping insulation work

- Perform heat insulation work completely on both gas and the liquid pipe. Because improper insulation will result condensate formation over pipe.
- Use the heat insulation material for the refrigerant piping which has an excellent heat resistance (over 120°C (248°F)).
- · Precautions in high humidity circumstance
 - This air conditioner has been tested according to the "KS Conditions" and confirmed.
 - If it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C(73°F)),
 water drops are liable to fall. In this case, add heat insulation material according to the following procedure.



- Heat insulation material: Adiabatic glass wool with thickness of 10~20mm(13/32 ~13/16 inch).
- Stick glass wool on all air conditioners that are located in ceiling atmosphere.

A CAUTION

Make sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping
may cause condensation or burns if touched.

11.6 Indoor Unit Drain Piping

Important

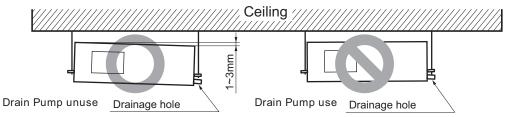
- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- · All connections should be secure. (Special care is needed with PVC pipe)

A CAUTION

- 1. **Install declination** of the indoor unit is very **important for the drain** of the duct type air conditioner.
- 2. Minimum thickness of the insulation for the connecting pipe shall be 5mm.

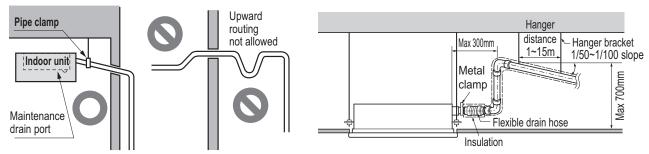
Front of view

• The unit must be horizontal or declined to the drain hose connected when finished installation.



11.6.1 Drain piping of indoor unit with drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32 mm (1-1/4 inch).
 - Piping material: Use the Polyvinyl chloride pipe, 25 mm (1 inch) pipe fittings.



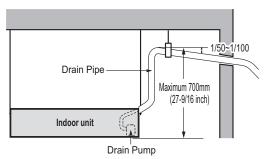
According to type of indoor unit, external appearance could be different.

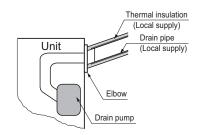
According to type of indoor unit, external appearance could be different.

11. Installation

 Possible drain head height is upto 700 mm (27-6/19 inch). So the drain head should be installed below 700 mm (27-6/19 inch).

- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).

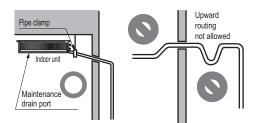




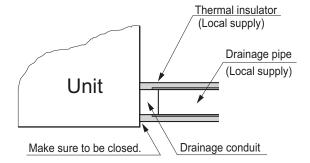
* According to type of indoor unit, external appearance could be different.

11.6.2 Drain pipe connection without drain pump

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
 - Piping material: Use the Polyvinyl chloride pipe.
- · Be sure to install heat insulation on the drain piping.
 - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).



₩ U-trap is not required for low static model in which the external static pressure is below 50 pa(5mm Aq)



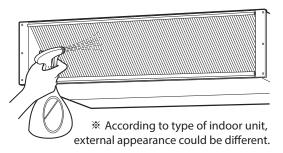
11. Installation

11.6.3 Method of Drainage test

Drainage test of indoor unit

Use the following procedure to test the drainage.

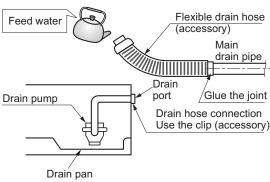
- 1.In case that there are air filter, remove the air filter first.
- 2. Spray one or two glasses of water on the evaporator.
- Check the drainage. Ensure that water flows through drain hose of indoor unit without any leakage.



Drainage test of indoor unit with drain pump

Use the following procedure to test the drain pump operation.

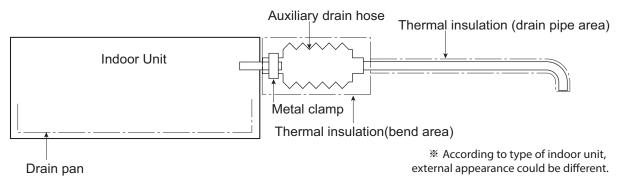
- 1. Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- 3.Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- 4. When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.



* According to type of indoor unit, external appearance could be different.

11.6.4 Connection of an auxiliary(flexible) drain hose

• To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.



A

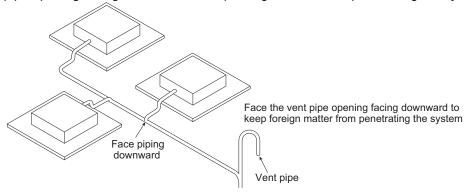
CAUTION

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.

11. Installation

11.6.5 Ground drain piping

- It is standard work practice to make connections to the main pipe from above. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- · Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.





Wall Mounted Unit (Standard)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- 4. Piping Diagrams
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

■ List of functions

* Model Name (N, C: Ionizer)

Category	Function	ARNU05GSJ*4, ARNU07GSJ*4, ARNU09GSJ*4, ARNU12GSJ*4, ARNU15GSJ*4, ARNU18GSK*4, ARNU24GSK*4
	Air supply outlet	1
	Airflow direction control(left & right)	Manual
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
Air flow	Auto swing(up & down)	Auto
	Airflow steps(fan/cool/heat)	3 / 4 / 3
	Chaos wind(auto wind)	X
	Jet cool(Power wind)	0
	Swirl wind*	-
	Triple filter	X
ir nurifidad	Plasma air purifier	X
ir purifying	Ionizer	0
	Prefilter(washable)	0
	Drain pump	-
4 - 11 - 42	E.S.P. control*	-
nstallation	Electric heater(operation)	-
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	0
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	0
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wi-Fi	0

Note

1. O : Applied, X : Not Applied

Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.

Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

1. List of functions

■ List of functions

ARNU30GSVA4, ARNU36GSVA4
1
Manual
Auto
-
Auto
3/4/3
0
-
-
-
0
X
0
-
-
-
-
0
0
0
O(Heat recovery / Heat pump)
0
O(Cooling only)
-
0
0
0
0
0
0
0
0
O (Accessory)

Note

O : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

1. List of functions

■ Accessory Compatibility List

Category Wireless Remote Controller				Compatibility		
		Product Remark		ARNU-GSJ(K)N4 ARNU-GSJ(K)C4	ARNU-GSVA4	
		PQWRH(C)Q0FDB	-	0	0	
	Cimarala	PQRCVCL0Q(W)	Simple	0	0	
	Simple	PQRCHCA0Q(W)	for Hotel	0	0	
Wired		PREMTB001	Standard (White)	0	0	
Remote	Standard	PREMTBB01	Standard (Black)	0	0	
Controller	Standard	PREMTB100	New Standard (White)	0	0	
		PREMTBB10	New Standard (Black)	0	0	
	Premium	PREMTA000(A/B)	Premium	O*	O*	
	Simple Contact	PDRYCB000	Simple Dry Contact	0	0	
Dry contact		PDRYCB400	Points Dry Contact (For Setback)	0	0	
	Communication type	PDRYCB300	-	0	0	
		PDRYCB500	Dry Contact For Modbus	0	0	
Cataway	IDLI DIAGE	PHNFP14A0	Connected with the Indoor Units	-	-	
Gateway IDU PI485	PSNFP14A0	Connected with the Indoor Units	-	-		
	Remote temperature sensor	PQRSTA0	-	-	-	
	Zone controller	ABZCA	-	-	-	
	Electronic thermostat	AQETC	-	-	-	
	CTI (Communication transfer interface)	PKFC0	-	-	-	
	CO2 Sensor	PES-C0RV0	-	-	-	
ETC	Group control wire	PZCWRCG3	0.25m	0	0	
	2-Remo Control Wire	PZCWRC2	0.25m	0	0	
	Extension Wire	PZCWRC1	10m	0	0	
	Wi-Fi Controller*	PWFMDD200	-	-	0	
	Independent Power Module	PRIP0	-	0	0	
	Refrigerant Leakage Detector	PRLDNVS0	-	0	0	

O: Possible, X: Impossible, - : Not applicable, Embedded : Included with product.
 *: Some advanced functions controlled by individual controller cannot be operated.

^{3. **:} It could not be operated some functions.

If you need more detail, please refer to the *BECON* PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

* Model Name (N, C: Ionizer)

Туре		Wall Mounted Unit		
Model		Unit	ARNU05GSJ*4	ARNU07GSJ*4
		kW	1.6	2.2
Cooling Capacity		kcal/h	1,400	1,900
		Btu/h	5,500	7,500
		kW	1.8	2.5
Heating Capacity		kcal/h	1,500	2,200
		Btu/h	6,100	8,500
Power Input (H / M /	L)	W	11 / 10 / 9	12 / 11 / 9
		mm	818 × 316 × 189	818 × 316 × 189
Dimensions	Body	inch	32-7/32 x 12-7/16 x 7-7/16	32-7/32 x 12-7/16 x 7-7/16
(W×H×D)	mm mm	892 × 381 × 249	892 × 381 × 249	
	Shipping	inch	35-1/8 × 15 × 9-13/16	35-1/8 × 15 × 9-13/16
0 "	Rows × Columns × FPI Face Area		2 × 15 × 19	2 × 15 × 19
Coil	Face Area	m²	0.19	0.19
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output × Number	W	30 × 1	30 × 1
_		m³/min	6.8 / 6.5 / 5.9	7.2 / 6.8 / 5.9
Fan	Air Flow Rate(H / M / L)	ft³/min	240 / 230 / 208	254 / 240 / 208
	Drive		Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm (inch)	Ø 6.35 (1/4)	Ø 6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
•	Drain Pipe(ID)	kW kcal/h Btu/h kW kcal/h Btu/h W mm inch mm inch ft³/min mm (inch)	16 (5/8)	16 (5/8)
10/-:	Body	kg (lbs)	8.4 (18.5)	8.4 (18.5)
Weight	KW	11.3 (24.9)	11.3 (24.9)	
Sound Pressure Lev	els (H / M / L)		30 / 29 / 28	32 / 30 / 28
Sound Power Levels	(H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated		0.10 - 0.09 - 0.09	0.10 - 0.10 - 0.10
Maximum Running C	Current	А	0.25	0.25
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20
	Control	-	EEV	EEV
Transmission cable	•	mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Color		'	White	White

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- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. ARNU-N4 models may look different depending on the time of production.

* Model Name (N, C: Ionizer)

Туре		Wall Mounted Unit		
	Model	Unit	ARNU09GSJ*4	ARNU12GSJ*4
		kW	2.8	3.6
Cooling Capacity		kcal/h	2,400	3,100
		Btu/h	9,600	12,300
		kW	3.2	4.0
Heating Capacity		kcal/h	2,800	3,400
		Btu/h	10,900	13,600
Power Input (H / M / L)	W	13 / 12 / 9	15 / 13 / 11
	Body	mm	818 × 316 × 189	818 × 316 × 189
Dimensions	Body	inch	32-7/32 x 12-7/16 x 7-7/16	32-7/32 x 12-7/16 x 7-7/16
(W×H×D)	Chinaina	mm	892 × 381 × 249	892 × 381 × 249
	Shipping	inch	35-1/8 × 15 × 9-13/16	35-1/8 × 15 × 9-13/16
Coil	Rows × Columns × FPI		2 × 15 × 19	2 × 15 × 19
COII	Face Area	m²	0.19	0.19
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output × Number	W	30 × 1	30 × 1
Γ	Air Flanc Data (II / M / I)	m³/min	7.8 / 7.2 / 5.9	8.5 / 7.8 / 6.8
Fan	Air Flow Rate(H / M / L)	ft³/min	275 / 254 / 208	300 / 254 / 240
	Drive		Direct	Direct
Motor type			BLDC	BLDC
Temperature Control	•		Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm (inch)	Ø 6.35 (1/4)	Ø 6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
	Drain Pipe(ID)	mm (inch)	16 (5/8)	16 (5/8)
Weight	Body	kg (lbs)	8.4 (18.5)	8.4 (18.5)
vveigni	Shipping	kg (lbs)	11.3 (24.9)	11.3 (24.9)
Sound Pressure Level	s (H / M / L)	dB(A)	34 / 32 / 28	37 / 34 / 30
Sound Power Levels (H / M / L)	dB(A)	55 / 54 / 52	55 / 54 / 53
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.11 - 0.11 - 0.10	0.13 - 0.13 - 0.12
Maximum Running Cu	rrent	Α	0.25	0.25
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20
	Control	-	EEV	EEV
Transmission cable	•	mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Color		•	White	White

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- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. ARNU-N4 models may look different depending on the time of production.

* Model Name (N, C: Ionizer)

Туре			Wall Mounted Unit	
Model		Unit	ARNU15GSJ*4	
		kW	4.5	
Cooling Capacity		kcal/h	3,900	
		Btu/h	15,400	
		kW	5.0	
Heating Capacity		kcal/h	4,300	
		Btu/h	17,100	
Power Input (H / M / I	L)	W	23 / 18 / 11	
	D. t.	mm	818 × 316 × 189	
Dimensions	Body	inch	32-7/32 x 12-7/16 x 7-7/16	
(W×H×D)	Ob in a in a	mm	892 × 381 × 249	
	Shipping		35-1/8 × 15 × 9-13/16	
0 - 11	Rows × Columns × FPI		2 × 15 × 19	
Coil	Face Area	m²	0.19	
	Туре	·	Cross Flow Fan	
	Motor Output × Number	W	30 × 1	
_	A: EL B ((L) (A) (L)	m³/min	10.5 / 9.5 / 6.8	
Fan	Air Flow Rate(H / M / L)	ft³/min	371 / 336 / 240	
	Drive		Direct	
Motor type			BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating	
Sound Absorbing Thermal Insulation Material			Foamed polystrene	
Air Filter			Resin Net(washable)	
Safety Device			Fuse	
	Liquid Side	mm (inch)	Ø 6.35 (1/4)	
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)	
	Drain Pipe(ID)	mm (inch)	16 (5/8)	
\\/_:_b	Body	kg (lbs)	8.4 (18.5)	
Weight	Shipping	kg (lbs)	11.3 (24.9)	
Sound Pressure Leve	els (H / M / L)	dB(A)	42 / 39 / 32	
Sound Power Levels	(H / M / L)	dB(A)	58 / 56 / 54	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.20 - 0.19 - 0.18	
Maximum Running C	urrent	Α	0.25	
	Туре	-	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	
	Control	-	EEV	
Transmission cable	·	mm²	1.0 ~ 1.5 × 2C	
Color			White	

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. ARNU-N4 models may look different depending on the time of production.

* Model Name (N, C: Ionizer)

Туре		Wall Mounted Unit		
Model		Unit	ARNU18GSK*4	ARNU24GSK*4
		kW	5.6	7.1
Cooling Capacity		kcal/h	4,800	6,100
		Btu/h	19,100	24,200
		kW	6.3	7.5
Heating Capacity		kcal/h	5,400	6,400
		Btu/h	21,500	25,600
Power Input (H / M / L	.)	W	32 / 26 / 16	39 / 26 / 16
	Dody	mm	975 x 354 x 209	975 x 354 x 209
Dimensions	Body	inch	38-3/8 x 13-15/16 x 8-7/32	38-3/8 x 13-15/16 x 8-7/32
(W×H×D)	Chinarina	Obligación a mm	1,063 × 420 × 274	1,063 × 420 × 274
	Shipping	inch	41-27/32 × 16-17/32 × 10-25/32	41-27/32 × 16-17/32 × 10-25/32
O-il	Rows × Columns × FPI		Note Name	2 × 16 × 20
Coil	Face Area	m²	0.25	0.25
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output × Number	W	58 × 1	58 × 1
Г	Air Flow Date (II / M / I)	m³/min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5
Fan	Air Flow Rate(H / M / L)	ft³/min	494 / 424 / 371	537 / 449 / 371
	Drive	•	Direct	Direct
	Motor type		BLDC	BLDC
Temperature Control			Microprocessor, Thermos	tat for cooling and heating
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88(5/8)
	Drain Pipe(ID)	mm (inch)	16 (5/8)	16 (5/8)
Majaht	Body	mm inch m² W m³/min ft³/min mm (inch) mm (inch) mm (inch) kg (lbs) kg (lbs) dB(A) dB(A) dB(A) A A -	12.2 (26.9)	12.2 (26.9)
Weight	Shipping	kg (lbs)	16.0 (35.3)	16.0 (35.3)
Sound Pressure Leve	ls (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34
Sound Power Levels	(H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	А	0.33 - 0.31 - 0.30	0.40 - 0.38 - 0.37
Maximum Running Cu	urrent	Α	0.52	0.52
	Туре	-	R410A / R32	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.28 / 0.23	0.28 / 0.23
	Control	-	EEV	EEV
Transmission cable	•	mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Color		1	White	White
Note				I.

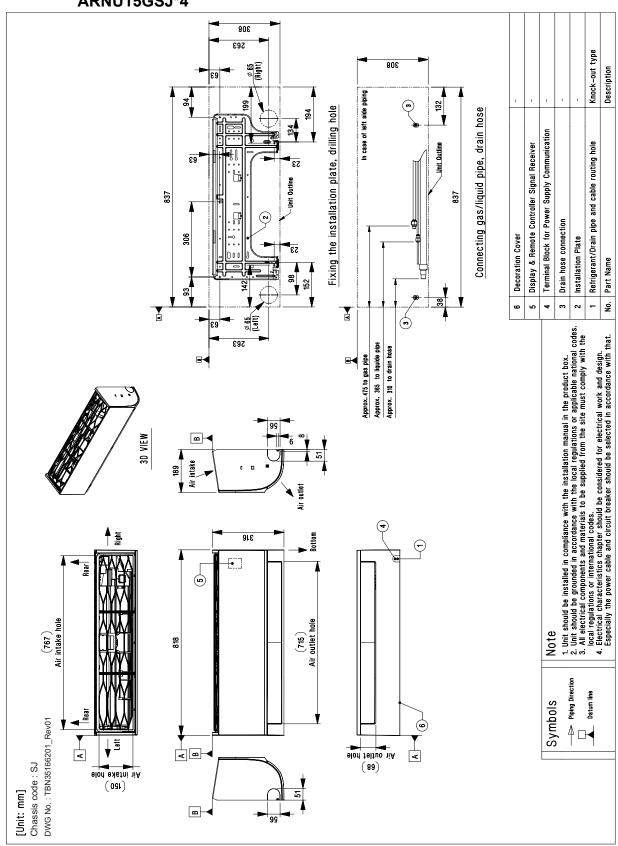
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- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
 - Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.
- 6. ARNU-N4 models may look different depending on the time of production.

Туре		Wall Mounted Unit			
Model		Unit	ARNU30GSVA4	VA4 ARNU36GSVA4	
		kW	8.8	10.4	
Cooling Capacity		kcal/h	7,500	9,000	
		Btu/h	30,000	35,500	
		kW	9.4	10.8	
Heating Capacity		kcal/h	8,100	9,300	
		Btu/h	32,000	37,000	
Power Input (H / M / L))	W	54 / 43 / 31	85 / 51 / 36	
Dimensions (MALIAD)	Dadu	mm	1,190 × 346 × 265	1,190 × 346 × 265	
Dimensions(WxHxD)	Body	inch	46-27/32 × 13-5/8 × 10-7/16	46-27/32 × 13-5/8 × 10-7/16	
O-il	Rows × Columns × FPI	kW kcal/h Btu/h kW kcal/h Btu/h W mm inch 46 m² W m³/min ft³/min mm (inch) mm (inch) mm (inch) kg (lbs) dB(A) dB(A) Ø, V, Hz A A A -	2 × 18 × 19 + 1 × 6 × 19	2 × 18 × 19 + 1 × 6 × 19	
Coil	Face Area	m²	0.34	0.34	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output × Number	W	113 × 1	113 × 1	
Гоп	Air Flow Pote(II / M / I)	m³/min	23.0 / 20.0 / 17.0	26.0 / 23.0 / 19.0	
Fan	Air Flow Rate(H / M / L)	ft³/min	812 / 706 / 600	918 / 812 / 671	
	Drive		Direct	Direct	
Motor type			BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene	
Air Filter			Resin Net(washable)	Resin Net(washable)	
Safety Device			Fuse	Fuse	
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	
	Drain Pipe(ID)	kcal/h Btu/h W mm inch M² W m³/min ft³/min mm (inch) mm (inch) mm (inch) kg (lbs) dB(A) dB(A) Ø, V, Hz A A	16 (5/8)	16 (5/8)	
Net Weight		kg (lbs)	16.6 (35.6)	16.6 (35.6)	
Sound Pressure Level	s (H / M / L)	dB(A)	49 / 44 / 42	52 / 47 / 43	
Sound Power Levels (I	H / M / L)	dB(A)	61 / 58 / 55	63 / 60 / 57	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	Α	0.45 - 0.43 - 0.41	0.70 - 0.67 - 0.64	
Maximum Running Cu	rrent	Α	0.51	0.81	
<u> </u>	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.46 / 0.38	0.46 / 0.38	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	
Color			White	White	

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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

3. Dimensions

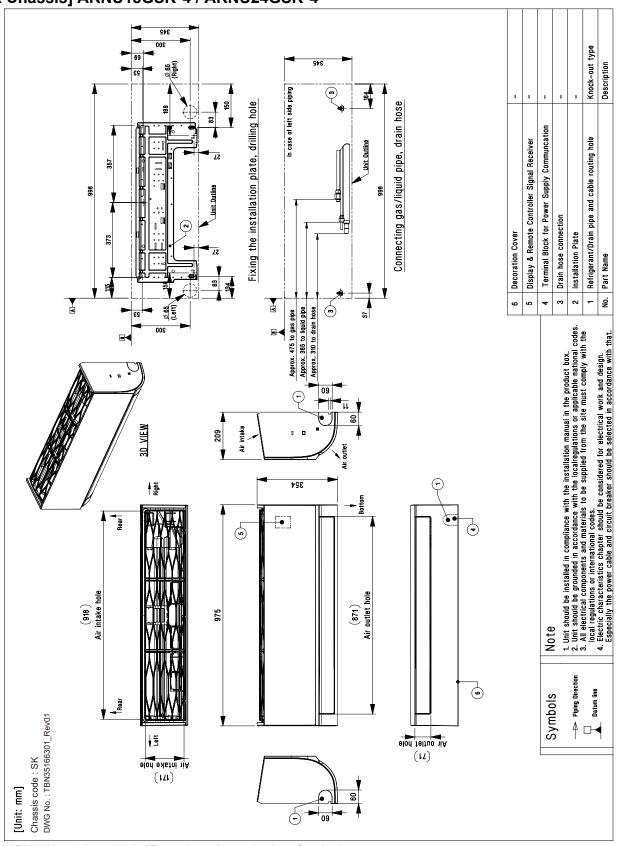
[SJ Chassis] ARNU05GSJ*4 / ARNU07GSJ*4 / ARNU09GSJ*4 / ARNU12GSJ*4 ARNU15GSJ*4



^{*} ARNU-N4 models may look different depending on the time of production.

3. Dimensions

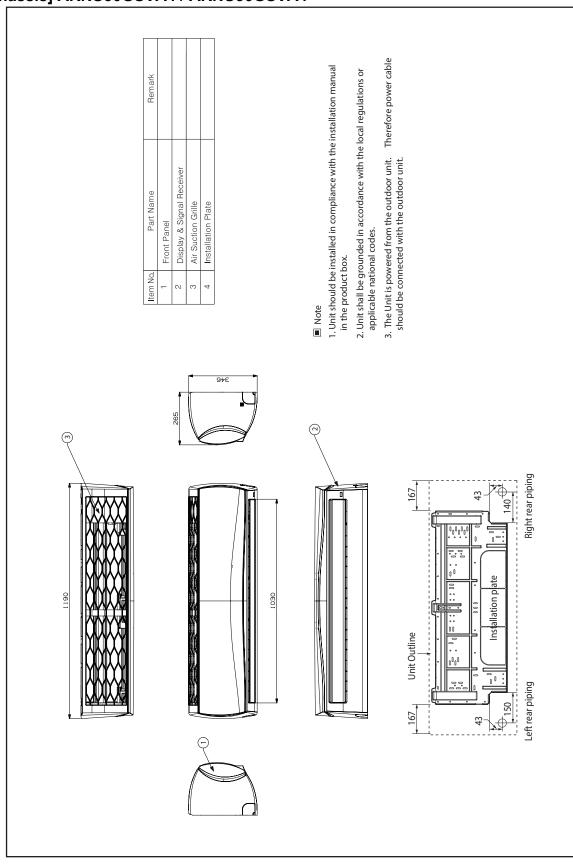
[SK Chassis] ARNU18GSK*4 / ARNU24GSK*4



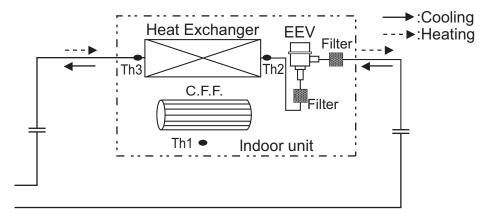
^{*} ARNU-N4 models may look different depending on the time of production.

3. Dimensions

[SV Chassis] ARNU30GSVA4 / ARNU36GSVA4



4. Piping Diagrams



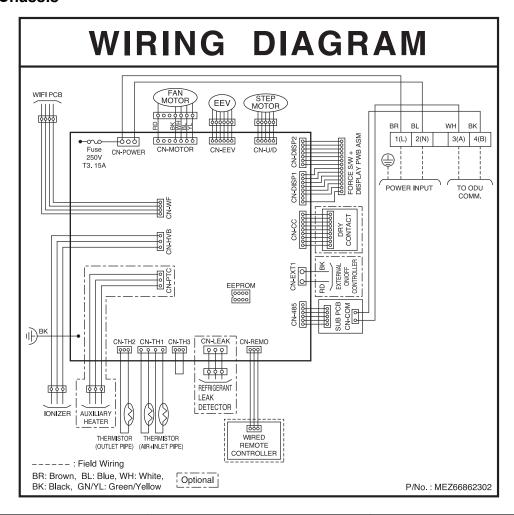
♦ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU05GSJ*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GSJ*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GSJ*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GSJ*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GSJ*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GSK*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU24GSK*4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU30GSVA4	Ø15.88(5/8)	Ø9.52(3/8)
ARNU36GSVA4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

5. Wiring Diagrams

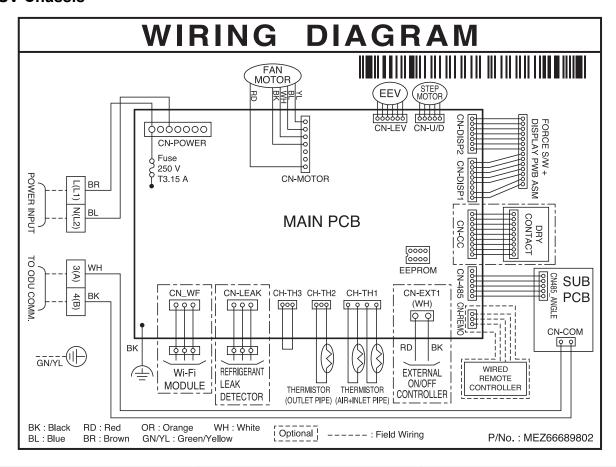
■ SJ/SK Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor
CN-MOTOR	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-U/D	Step motor	Step motor output
CN-TH1	Room/inlet pipe sensor	Room and inlet pipe thermistor
CN-TH2	Outlet pipe sensor	Outlet pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT1	External On/Off	External On/Off signal input
CN-PTC	Auxiliary heater	Auxiliary heater line
CN-WF	WIFI module	WIFI module connection line
CN-HVB	Ionizer module	Ionizer connection line

5. Wiring Diagrams

■ SV Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor
CN-MOTOR	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-LEV	EEV output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-U/D	Step motor	Step motor output
CN-TH1	Room/inlet pipe sensor	Room and inlet pipe thermistor
CN-TH2	Outlet pipe sensor	Outlet pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT	External On/Off	External On/Off signal input
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-WF	WIFI module	WIFI module connection line

6. Capacity Tables

■ Cooling Capacity

Nominal Capacity (kBtu/h) [Capacity Index (kW)]	Indoor air temp. (DB/WB, °C)													
	20		23		26		27		28		30		32	
	14		16		18		19		20		22		24	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
5 [1.6]	1.1	1.1	1.3	1.3	1.5	1.4	1.6	1.4	1.7	1.5	1.7	1.4	1.8	1.3
7 [2.2]	1.5	1.5	1.8	1.6	2.0	1.8	2.2	1.8	2.4	1.9	2.4	1.8	2.4	1.6
9 [2.8]	1.9	1.7	2.2	1.9	2.6	2.1	2.8	2.1	3.0	2.2	3.0	2.1	3.1	1.9
12 [3.6]	2.4	2.1	2.9	2.3	3.3	2.5	3.6	2.6	3.9	2.7	3.9	2.5	4.0	2.3
15 [4.5]	3.0	2.7	3.6	2.9	4.2	3.2	4.5	3.2	4.8	3.4	4.9	3.2	4.9	2.9
18 [5.6]	3.8	3.3	4.5	3.6	5.2	3.9	5.6	4.0	6.0	4.1	6.1	3.9	6.2	3.6
24 [7.1]	4.8	4.1	5.7	4.5	6.6	4.9	7.1	5.0	7.6	5.2	7.7	4.9	7.8	4.5
30 [9.0]	5.9	5.2	7.1	5.7	8.2	6.2	8.8	6.3	9.4	6.6	9.5	6.2	9.7	5.7
36 [10.6]	7.0	6.0	8.3	6.6	9.7	7.1	10.4	7.3	11.1	7.6	11.3	7.1	11.4	6.6

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)									
(kBtu/h)	16	18	20	21	22	24				
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC				
5 [1.6]	2.0	1.9	1.8	1.7	1.7	1.6				
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2				
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8				
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5				
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4				
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5				
24 [7.1]	8.5	8.0	7.5	7.3	7.0	6.5				
30 [9.0]	10.6	10.0	9.4	9.1	8.8	8.2				
36 [10.6]	12.2	11.5	10.8	10.5	10.1	9.4				

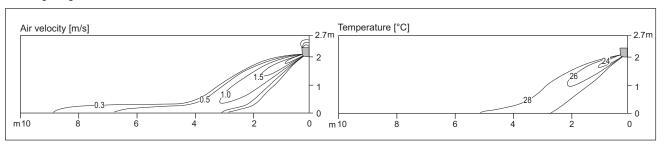
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ ARNU05GSJ*4

♦ Cooling

Side View

Discharge angle: 35°



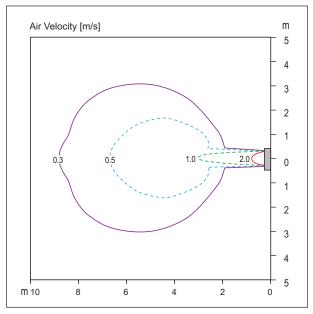
· Vertical Louver : Center

· Vertial Louver angle : 0°

· Fan speed : High

Top View

Discharge angle: 35°

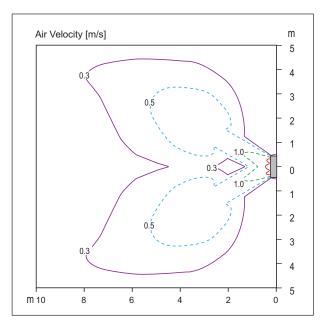


· Vertical Louver : Center

· Vertial Louver angle : 0°

· Air speed 0.3m/s Range: 8.9m

Fan speed : High



· Vertical Louver : Left & Right

· Vertial Louver angle : 50°

· Air speed 0.3m/s Range : 8m

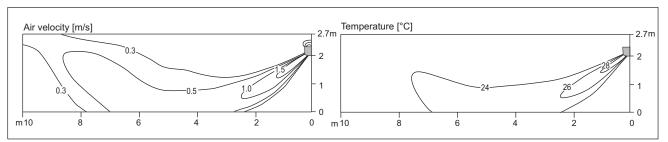
• Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

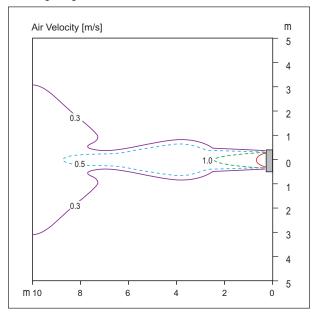
Discharge angle: 55°



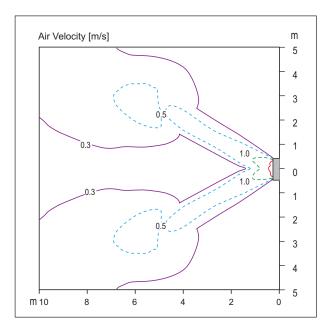
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed : High

Top View

Discharge angle: 55°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.9m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 12.6m
- Fan speed : High

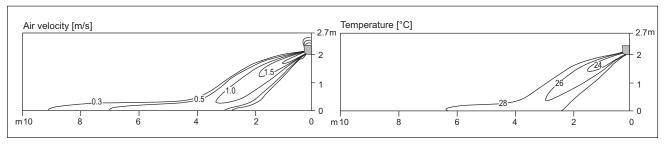
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU07GSJ*4

Cooling

Side View

Discharge angle: 35°

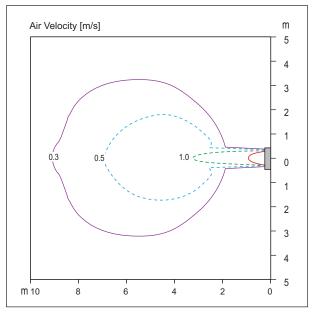


· Vertical Louver : Center · Vertial Louver angle : 0°

· Fan speed : High

Top View

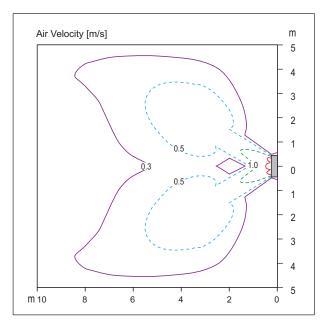
Discharge angle: 35°



· Vertical Louver : Center · Vertial Louver angle : 0°

· Air speed 0.3m/s Range: 9.2m

Fan speed : High



· Vertical Louver : Left & Right

· Vertial Louver angle : 50°

 \cdot Air speed 0.3m/s Range : 8.4m

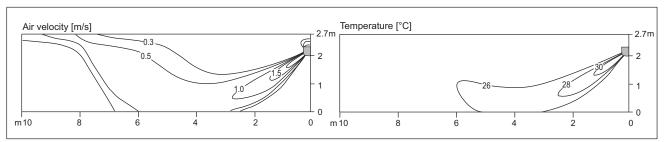
• Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

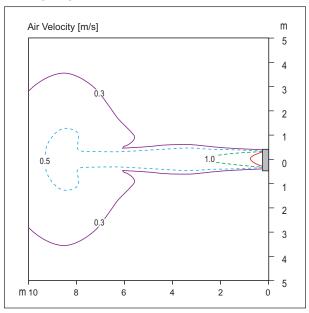
Discharge angle: 55°



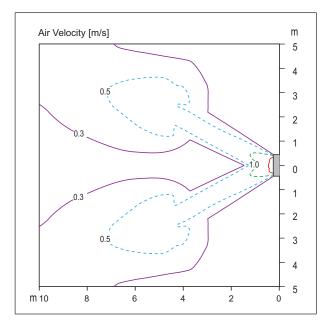
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- · Vertical Louver : Center
 · Vertial Louver angle : 0°
 · Air speed 0.3m/s Range : 11m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 13.2m
- · Fan speed : High

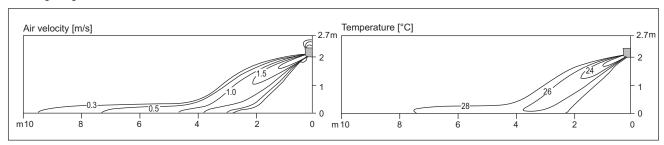
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU09GSJ*4

Cooling

Side View

Discharge angle: 35°



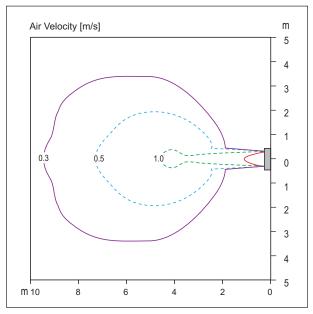
· Vertical Louver : Center

· Vertial Louver angle : 0°

· Fan speed: High

Top View

Discharge angle: 35°

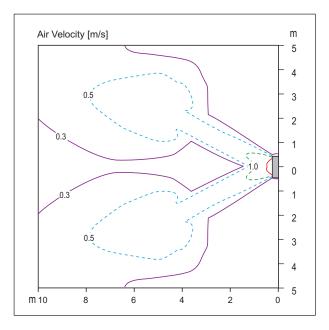


· Vertical Louver : Center

· Vertial Louver angle : 0°

· Air speed 0.3m/s Range : 9.6m

Fan speed : High



· Vertical Louver : Left & Right

· Vertial Louver angle : 50°

· Air speed 0.3m/s Range : 14m

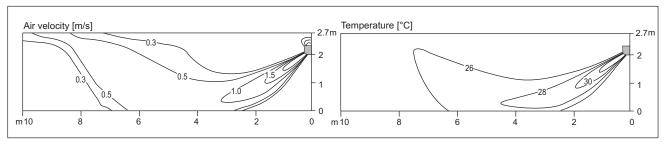
• Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

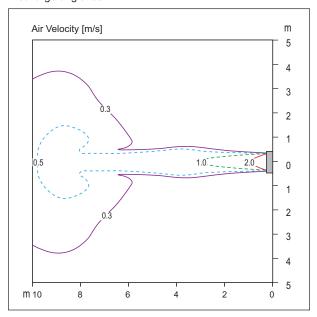
Discharge angle: 55°



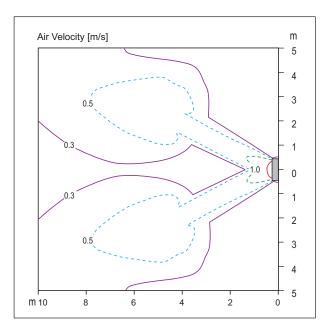
- · Vertical Louver : Center
- · Vertial Louver angle: 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.8m
- All speed 0.5m/s Range . 11.6m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14m
- · Fan speed : High

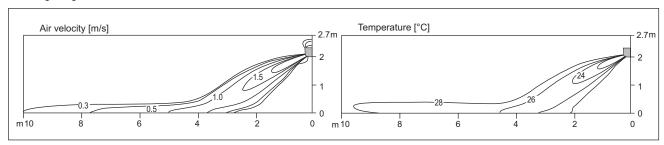
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU12GSJ*4

♦ Cooling

Side View

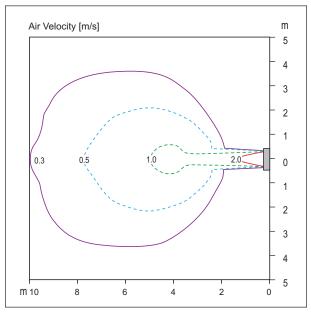
Discharge angle: 35°



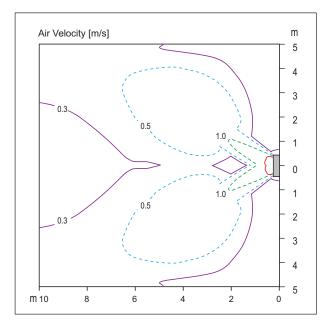
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 35°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 10m
- Fan speed : High



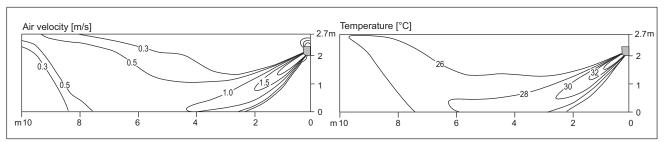
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14.3m
- Fan speed : High

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

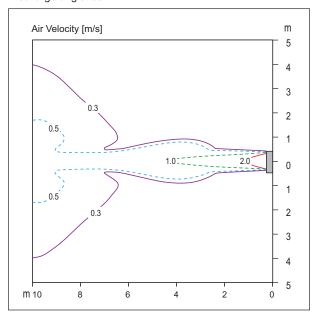
Discharge angle: 55°



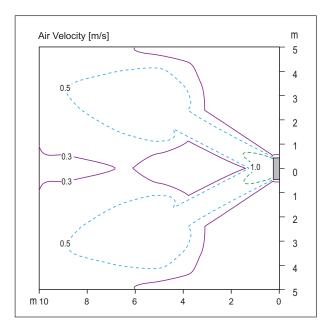
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- Vertical Louver : CenterVertial Louver angle : 0°
- · Air speed 0.3m/s Range : 13m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14.3m
- · Fan speed : High

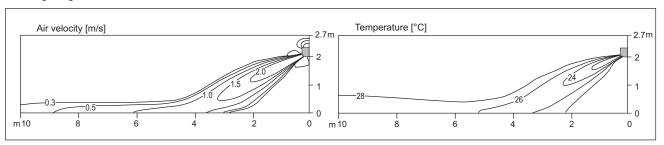
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU15GSJ*4

♦ Cooling

Side View

Discharge angle: 35°



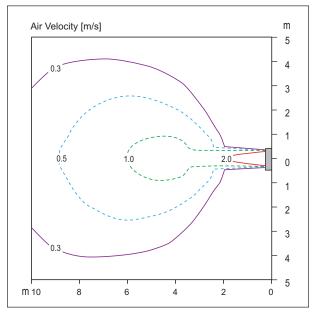
· Vertical Louver : Center

· Vertial Louver angle: 0°

· Fan speed: High

Top View

Discharge angle: 35°

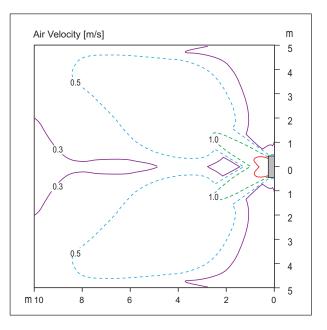


· Vertical Louver : Center

· Vertial Louver angle : 0°

· Air speed 0.3m/s Range : 11.5m

Fan speed : High



· Vertical Louver : Left & Right

· Vertial Louver angle : 50°

 \cdot Air speed 0.3m/s Range : 16.7m

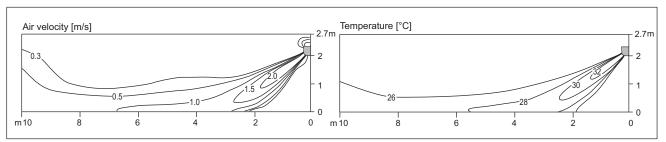
• Fan speed : High

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

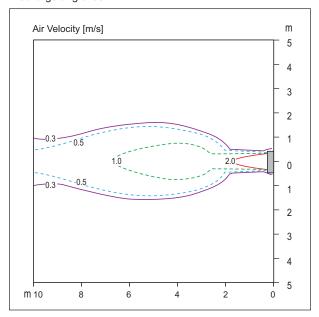
Discharge angle: 55°



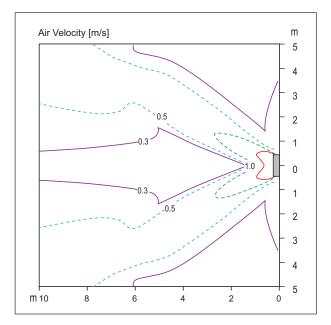
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- · Vertical Louver : Center
 · Vertial Louver angle : 0°
 · Air speed 0.3m/s Range : 18m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 18.8m
- Fan speed : High

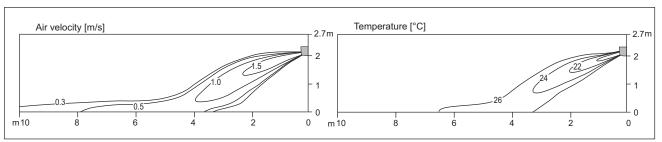
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU18GSK*4

♦ Cooling

Side View

Discharge angle: 25°



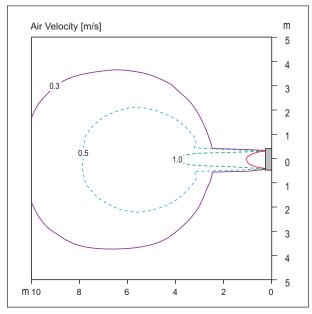
· Vertical Louver : Center

· Vertial Louver angle: 0°

· Fan speed: High

Top View

Discharge angle: 25°

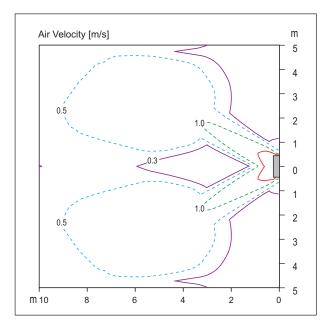


· Vertical Louver : Center

· Vertial Louver angle : 0°

· Air speed 0.3m/s Range: 10.4m

Fan speed : High



· Vertical Louver : Left & Right

· Vertial Louver angle : 50°

· Air speed 0.3m/s Range : 15.2m

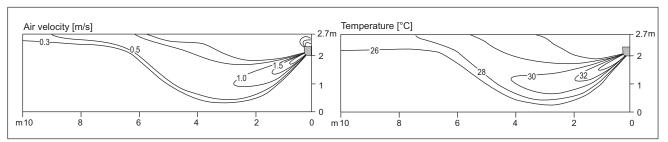
• Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

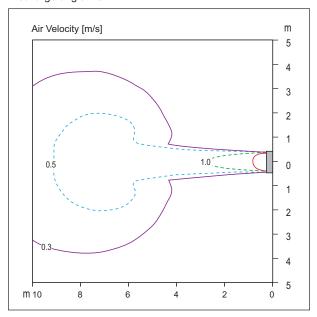
Discharge angle: 45°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

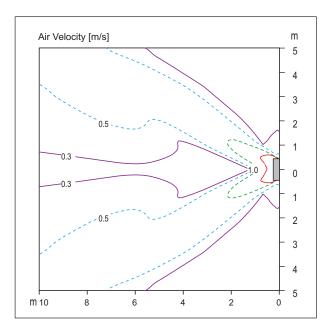
Top View

Discharge angle: 45°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.6m

• Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 18.2m
- · Fan speed : High

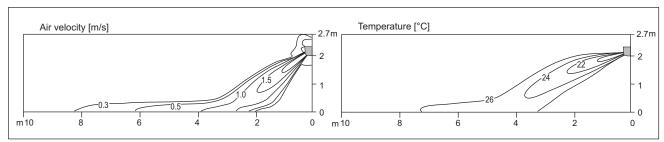
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU24GSK*4

Cooling

Side View

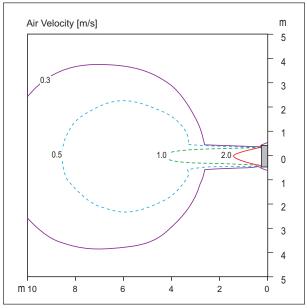
Discharge angle: 25°



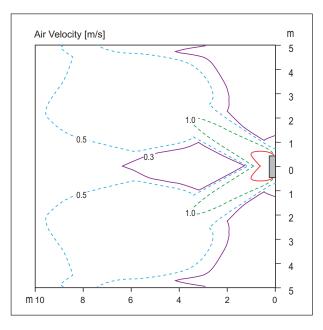
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 25°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.2m
- Fan speed : High



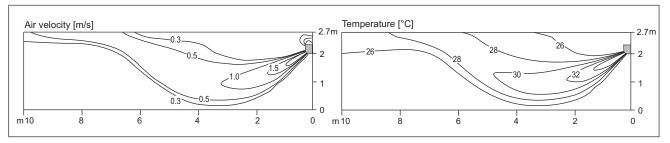
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 16.5m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

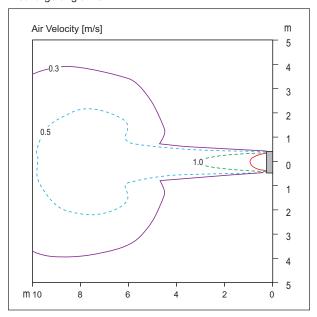
Discharge angle: 45°



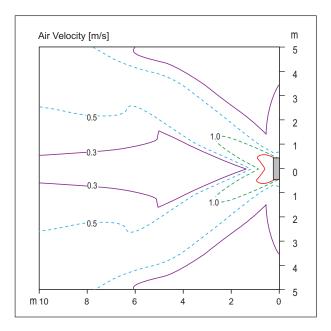
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 45°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 12.1m
- Fan speed : High



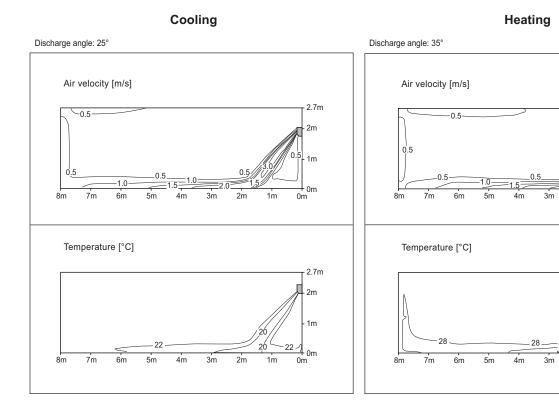
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 15.2m
- · Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

2m

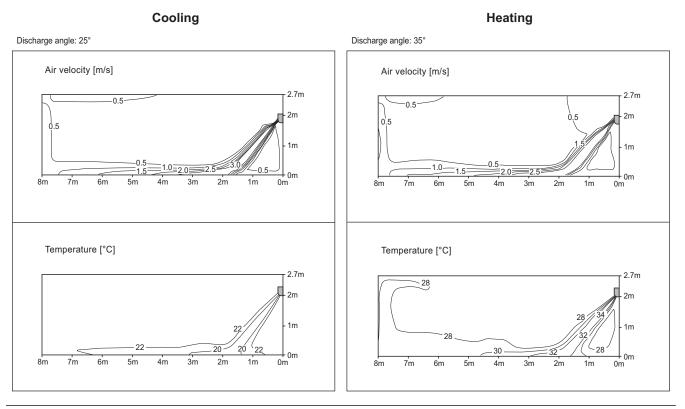
7. Air Velocity and Temperature Distribution

■ ARNU30GSVA4



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU36GSVA4



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units					Power supply	IFM		PI	
Model	Type	Hz	Volts	Voltage range	MCA	kW	FLA	Cooling	Heating
ARNU05GSJ*4	SJ		220-240	Max: 264 Min:198	0.31	0.030	0.25	30.0	30.0
ARNU07GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU09GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU12GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU15GSJ*4	SJ	50			0.31	0.030	0.25	30.0	30.0
ARNU18GSK*4	SK				0.65	0.058	0.52	53.0	53.0
ARNU24GSK*4	SK				0.65	0.058	0.52	53.0	53.0
ARNU30GSVA4	SV				0.64	0.113	0.51	88.0	88.0
ARNU36GSVA4	SV				1.01	0.113	0.81	105.0	105.0
ARNU05GSJ*4	SJ	60	220	Max: 242 Min:198	0.31	0.030	0.25	30.0	30.0
ARNU07GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU09GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU12GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU15GSJ*4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU18GSK*4	SK				0.65	0.058	0.52	53.0	53.0
ARNU24GSK*4	SK				0.65	0.058	0.52	53.0	53.0
ARNU30GSVA4	SV				0.64	0.113	0.51	67.0	67.0
ARNU36GSVA4	SV				1.01	0.113	0.81	104.0	104.0

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

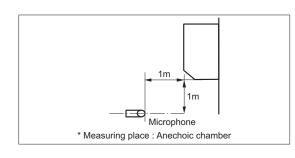
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall

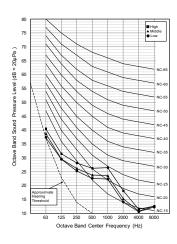


Note

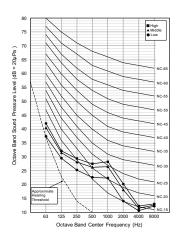
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]						
Woder	High	Middle	Low				
ARNU05GSJ*4	30	29	28				
ARNU07GSJ*4	32	30	28				
ARNU09GSJ*4	34	32	28				
ARNU12GSJ*4	37	34	30				
ARNU15GSJ*4	42	39	32				
ARNU18GSK*4	43	39	34				
ARNU24GSK*4	46	41	34				
ARNU30GSVA4	49	44	42				
ARNU36GSVA4	52	47	43				

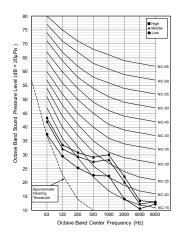
ARNU05GSJ*4



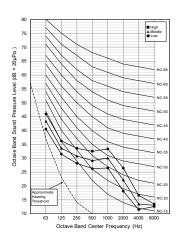
ARNU07GSJ*4



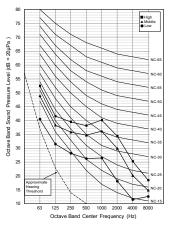
ARNU09GSJ*4



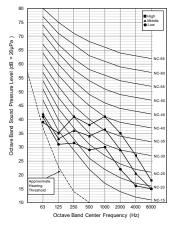
ARNU12GSJ*4



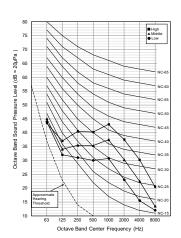
ARNU15GSJ*4



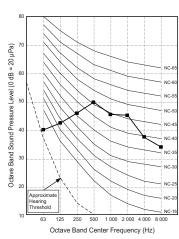
ARNU18GSK*4



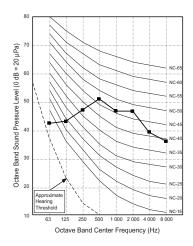
ARNU24GSK*4



ARNU30GSVA4



ARNU36GSVA4



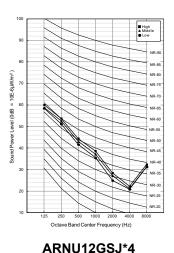
9.2 Sound Power Levels

Note

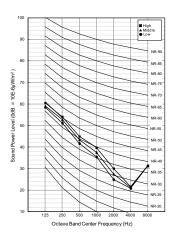
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]						
Modei	High	Middle	Low				
ARNU05GSJ*4	54	53	52				
ARNU07GSJ*4	54	53	52				
ARNU09GSJ*4	55	54	52				
ARNU12GSJ*4	55	54	53				
ARNU15GSJ*4	58	56	54				
ARNU18GSK*4	63	57	54				
ARNU24GSK*4	65	60	54				
ARNU30GSVA4	61	58	55				
ARNU36GSVA4	63	60	57				

ARNU05GSJ*4

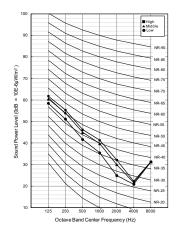


ARNU07GSJ*4

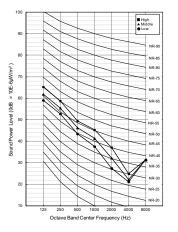


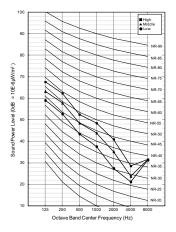
ARNU15GSJ*4

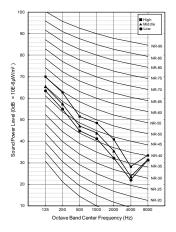
ARNU09GSJ*4



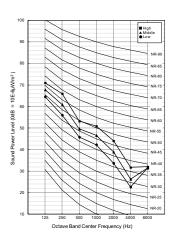
ARNU18GSK*4



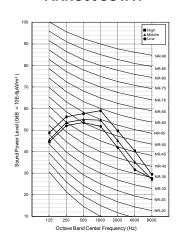




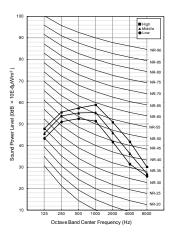








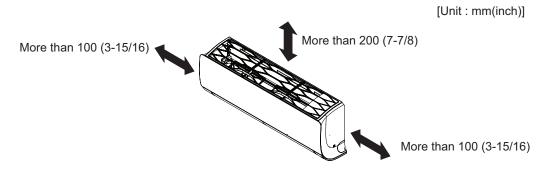
ARNU36GSVA4



- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

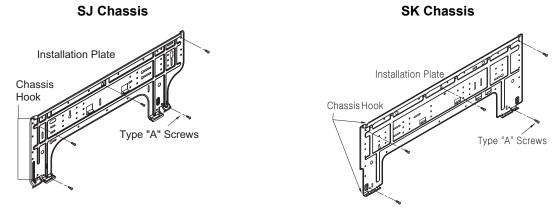
10.1 Selection of the best location

- · The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient.
- · There should not be any heat source or steam near the unit.

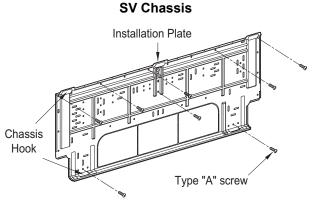


■ Fixing Installation Plate

- The wall you select should be strong and solid enough to prevent vibration.
 - 1. Mount the installation plate on the wall with type "A" screws which are provided with product. (Refer to the Installation manual.) If mounting the unit on a concrete wall, use anchor bolts.
 - Mount the installation plate horizontally by aligning the centerline using Horizontal meter.
 - 2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

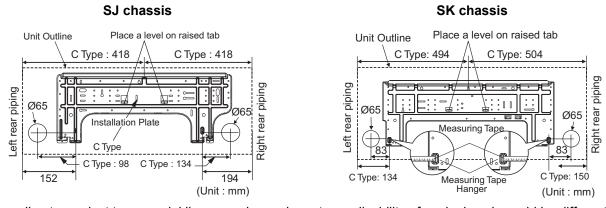


* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



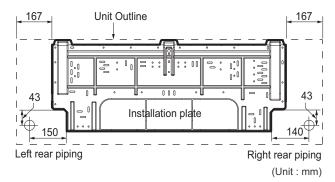
* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

■ The lower left and the right side piping of Installation Plate



^{*} According to product type, model line up, sales region..etc, applicability of each chassis could be different.

SV chassis



* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



A CAUTION

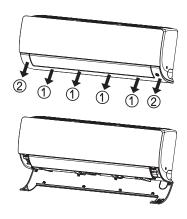
In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

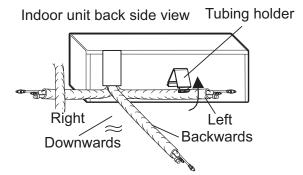
10.2 Connection of pipes and cables

10.2.1 Preparing work for installation

■ SJ/SK chassis

- 1. Pull the cover at the bottom of the indoor unit. Pull the cover $\bigcirc \rightarrow \bigcirc$.
- 2. Remove the chassis cover from the unit.
- 3. Pull back the tubing holder.
- 4. Remove pipe port cover and positioning the tubing.



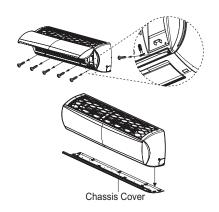


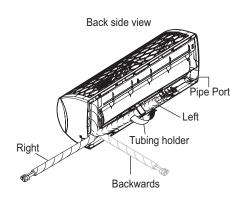
X The feature can be changed according to type of model.

- * The feature can be changed according to type of model.
- * According to product type, model line up, sales region..etc, applicability of each chassis could be different.

■ SV chassis

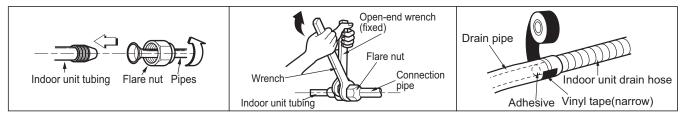
- 1. Open the panel of the indoor unit.
- 2. Remove the chassis cover from the unit by loosing 5 screws.
- 3. Pull back the tubing holder.
- 4. Remove pipe port cover and position the piping.





- * The feature can be changed according to type of model.
- * According to product type, model line up, sales region..etc, applicability of each chassis could be different.

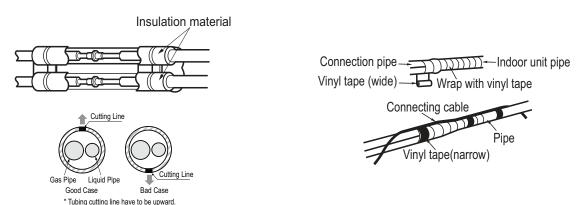
Connecting the installation pipe and drain hose



- 1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
- 2. Tighten the flare nut with a wrench.
- 3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

■ Wrap the insulation material around the connecting portion.

- 1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
- 2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl tape.
- 3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.



A CAUTION

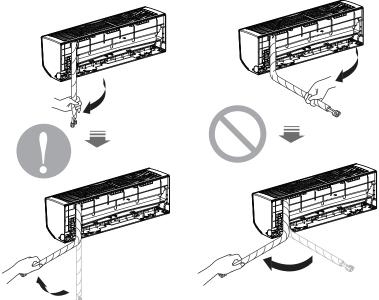
If the drain hose is routed inside the room insulate the hose with an insulation material* so that dripping from sweating condensation) will not damage furniture or floors.

* Foamed polyethylene or equivalent is recommended.

Λ

CAUTION

- Press on the tubing cover and unfold the tubing to downward slowly. And then bend to the left side slowly.
- Following bending case from right to left directly may cause damage to the tubing.



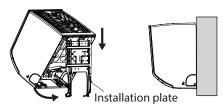
X The feature can be changed according to type

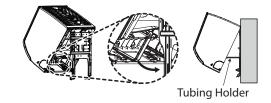
Installation Information. For right piping. Follow the instruction above.

10.2.2 Installation of Indoor Unit

■ Seat the indoor unit on the installation plate

- 1. Hook the indoor unit onto the upper portion of the installation plate.(engage the three hooks at the top of the indoor unit with the upper edge of the installation plate) Ensure that the hooks are properly seated on the installation plate by moving it left and right
- 2. Unlock the tubing holder from the chassis and mount between the chassis and installation plate in order to separate the bottom side of the indoor unit from the wall.

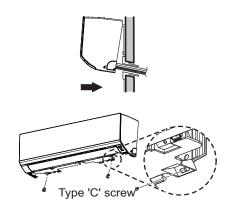




^{*} The feature can be changed according to type of model.

10.2.3 Finishing the indoor unit installation

- 1. Mount the tubing holder in the original positon.
- 2.Ensure that the hooks are properly seated on the installation plate by moving it left and right.
- 3.Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).
- 4.Finish the assembly by screwing the unit to the installation plate by using two pieces of type "C" screws. And assemble a chassis cover. (SJ/SK chassis) Recovery the chassis cover in Original place. (SV chassis)



* The feature can be changed according to type of model.



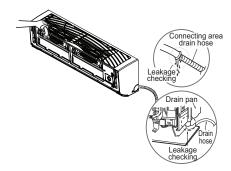
CAUTION

- The indoor unit can be dropped from the wall, the indoor unit is not screwed correct position on the install plate.
- To avoid the gap between the indoor unit and wall, screw the indoor unit to the install plate correctly.

10.2.4 Checking the Drainage

◆ To check the drainage.

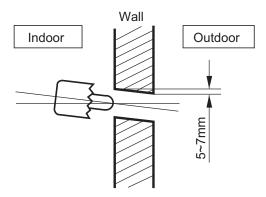
- 1. Pour a glass of water on the evaporator.
- 2.Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.



* The feature can be changed according to type of model.

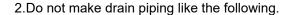
◆ Drill a Hole in the wall

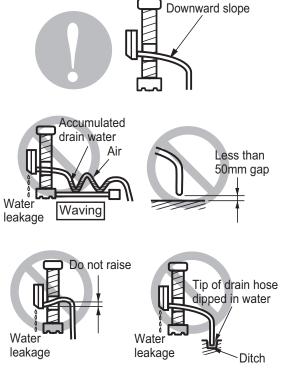
1.Drill the piping hole with a Ø 70mm hole core drill. Drill the piping hole at either the right or the left with the holes slightly slanted to the outdoor side.



♦ Drain Piping

1.The drain hose should point downward for easy drain flow





^{*} The feature can be changed according to type of model.

10.3 Wiring the cable to the indoor units

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

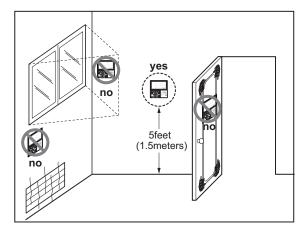
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



ARTCOOL (Mirror)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

■ List of functions

Category	Function	ARNU05GSJR4, ARNU07GSJR4, ARNU09GSJR4, ARNU12GSJR4, ARNU15GSJR4, ARNU18GSKR4, ARNU24GSKR4
	Air supply outlet	1
	Airflow direction control(left & right)	Manual
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
Air flow	Auto swing(up & down)	Auto
	Airflow steps(fan/cool/heat)	3/4/3
	Chaos wind(auto wind)	X
	Jet cool(Power wind)	0
	Swirl wind*	-
	Triple filter	X
A ! !E .!	Plasma air purifier	X
Air purifying	Ionizer	0
	Prefilter(washable)	0
	Drain pump	-
	E.S.P. control*	-
Installation	Electric heater(operation)	-
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	0
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
	Forced operation	0
Convenience	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	External On/Off	0
	Wi-Fi	0

O : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.
 Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

1. List of functions

■ Accessory Compatibility List

	0-4	D d d	Down out	Compatibility
	Category	Product	Remark —	ARNU-GSJ(K)R4
Wireless R	emote Controller	PQWRH(C)Q0FDB	-	0
	Cimple	PQRCVCL0Q(W)	Simple	0
	Simple	PQRCHCA0Q(W)	for Hotel	0
Wired		PREMTB001	Standard (White)	0
Remote	Standard	PREMTBB01	Standard (Black)	0
Controller	Standard	PREMTB100	New Standard (White)	0
		PREMTBB10	New Standard (Black)	0
	Premium	PREMTA000(A/B)	Premium	O*
	Simple Contact	PDRYCB000	Simple Dry Contact	0
Dry		PDRYCB400	Points Dry Contact (For Setback)	0
contact	Communication type	PDRYCB300	-	0
		PDRYCB500	Dry Contact For Modbus	0
Gateway	IDU PI485	PHNFP14A0	Connected with the Indoor Units	-
Galeway	100 F1483	PSNFP14A0	Connected with the Indoor Units	-
	Remote temperature sensor	PQRSTA0	-	-
	Zone controller	ABZCA	-	-
	Electronic thermostat	AQETC	-	-
	CTI (Communication transfer interface)	PKFC0	-	-
	CO2 Sensor	PES-C0RV0	-	-
ETC	Group control wire	PZCWRCG3	0.25m	0
	2-Remo Control Wire	PZCWRC2	0.25m	0
	Extension Wire	PZCWRC1	10m	0
	Wi-Fi Controller*	PWFMDD200	-	-
	Independent Power Module	PRIP0	-	0
	Refrigerant Leakage Detector	PRLDNVS0	-	0

- 1. O: Possible, X: Impossible, -: Not applicable, Embedded: Included with product.
- 2. *: Some advanced functions controlled by individual controller cannot be operated.
- 3. **: It could not be operated some functions.
- 4. If you need more detail, please refer to the **BECON** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))

Type			ARTCO	OL Mirror		
	Model	Unit	ARNU05GSJR4	ARNU07GSJR4		
		kW	1.6	2.2		
Cooling Capacity		kcal/h	1,400	1,900		
		Btu/h	5,500	7,500		
		kW	1.8	2.5		
Heating Capacity	Model Ing Capacity Ing Capac	kcal/h	1,500	2,200		
Heating Capacity		Btu/h	6,100	8,500		
Power Input (H / M	/ L)	W	11 / 10 / 9	12 / 11 / 9		
	D. de	mm	837 × 308 × 192	837 × 308 × 192		
Dimensions	Body	inch	32-15/16 × 12-1/8 × 7-9/16	32-15/16 × 12-1/8 × 7-9/16		
(W×H×D)	01:	mm	909 × 383 × 256	909 × 383 × 256		
	Shipping	inch	35-25/32 × 15-3/32 × 10-3/32	35-25/32 × 15-3/32 × 10-3/32		
0 "	Rows × Columns × FPI	l	2 × 15 × 19	2 × 15 × 19		
Coll	Face Area	m²	0.19	0.19		
	Туре		Cross Flow Fan	Cross Flow Fan		
	Motor Output × Number	W	30 × 1	30 × 1		
_		m³/min	6.8 / 6.5 / 5.9	7.2 / 6.8 / 5.9		
Fan	Air Flow Rate(H / M / L)	ft³/min	240 / 230 / 208	254 / 240 / 208		
	ver Input (H / M / L) Body Shipping Rows × Columns × FPI Face Area Type Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type Inperature Control Ind Absorbing Thermal Insulation Material Filter Ety Device Connections Expression Liquid Side Gas Side Drain Pipe(ID) Body Shipping Ind Pressure Levels (H / M / L) Ver Supply Ining Current Rotol	!	Direct	Direct		
	Motor type		BLDC	BLDC		
Temperature Contro	ol .		Microprocessor, Thermos	tat for cooling and heating		
Sound Absorbing Th	hermal Insulation Material		Foamed polystrene	Foamed polystrene		
Air Filter			Resin Net(washable)	Resin Net(washable)		
Safety Device			Fuse	Fuse		
	Liquid Side	mm (inch)	Ø 6.35 (1/4)	Ø 6.35 (1/4)		
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)		
	Drain Pipe(ID)	mm (inch)	16 (5/8)	16 (5/8)		
\\/ = : = -4	Body	kg (lbs)	9.2(20.2)	9.2(20.2)		
vveigni	Shipping	kg (lbs)	12.6(27.7)	12.6(27.7)		
Sound Pressure Lev	vels (H / M / L)	dB(A)	30 / 29 / 28	32 / 30 / 28		
Sound Power Level	s (H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52		
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60		
Running Current by voltage	Rated	А	0.10 - 0.09 - 0.09	0.10 - 0.10 - 0.10		
Maximum Running	Current	Α	0.25	0.25		
Heating Capacity Power Input (H / M / L) Dimensions (W×H×D) Coil Fan Temperature Control Sound Absorbing Therr Air Filter Safety Device Pipe Connections Weight Sound Pressure Levels (Feower Supply Running Current by voltage Maximum Running Cur Refrigerant Transmission cable	1 71	-	R410A / R32	R410A / R32		
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20		
	Control	-	EEV	EEV		
Transmission cable	·	mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C		
Color		•	Mirror	Mirror		

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- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

Туре			ARTCOOL Mirror				
	Model	Unit	ARNU09GSJR4	ARNU12GSJR4			
		kW	2.8	3.6			
Cooling Capacity		kcal/h	2,400	3,100			
		Btu/h	9,600	12,300			
		kW	3.2	4.0			
Heating Capacity		kcal/h	2,800 3,400				
Heating Capacity		Btu/h	10,900	13,600			
Power Input (H / M /	L)	W	13 / 12 / 9	15 / 13 / 11			
	D. de	mm	837 × 308 × 192	837 × 308 × 192			
Dimensions	Body	inch	32-15/16 × 12-1/8 × 7-9/16	32-15/16 × 12-1/8 × 7-9/16			
(W×H×D)	01:	mm	909 × 383 × 256	909 × 383 × 256			
	Shipping	inch	35-25/32 × 15-3/32 × 10-3/32	35-25/32 × 15-3/32 × 10-3/32			
0 "	Rows × Columns × FPI		2 × 15 × 19	2 × 15 × 19			
Coll	Face Area	m²	0.19	0.19			
	Туре	ı	Cross Flow Fan	Cross Flow Fan			
	Model g Capacity g Capacity Input (H / M / L) sions (D) Shipping Rows × Columns × FPI Face Area Type Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type reture Control Absorbing Thermal Insulation Material er Device Gas Side Drain Pipe(ID) t Body Shipping Pressure Levels (H / M / L) Power Levels (H / M / L) Supply ng Current age um Running Current Type Additional Charging Amount (CF Value of IDU) Control	W	30 × 1	30 × 1			
_		m³/min	7.8 / 7.2 / 5.9	8.5 / 7.8 / 6.8			
Fan	Air Flow Rate(H / M / L)	ft³/min	275 / 254 / 208	300 / 254 / 240			
	ing Capacity er Input (H / M / L) ensions H×D) Body Shipping Rows × Columns × FPI Face Area Type Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type Decrature Control and Absorbing Thermal Insulation Material iliter ty Device Connections Liquid Side Gas Side Drain Pipe(ID) Body Shipping and Pressure Levels (H / M / L) and Power Levels (H / M / L) er Supply ning Current oltage mum Running Current Type Additional Charging Amoun (CF Value of IDU) Control	ļ.	Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control			Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing Th	ermal Insulation Material		Foamed polystrene	Foamed polystrene			
Air Filter			Resin Net(washable)	Resin Net(washable)			
Safety Device			Fuse	Fuse			
	Liquid Side	mm (inch)	Ø 6.35 (1/4)	Ø 6.35 (1/4)			
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)			
	Drain Pipe(ID)	mm (inch)	16 (5/8)	16 (5/8)			
\\/ = : = l= 4	Body	kg (lbs)	9.2(20.2)	9.2(20.2)			
vveigni	Shipping	kg (lbs)	12.6(27.7)	12.6(27.7)			
Sound Pressure Lev	els (H / M / L)	dB(A)	34 / 32 / 28	37 / 34 / 30			
Sound Power Levels	s (H / M / L)	dB(A)	55 / 54 / 52	55 / 54 / 53			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	А	0.11 - 0.11 - 0.10	0.13 - 0.13 - 0.12			
Maximum Running C	Current	Α	0.25	0.25			
	Туре	-	R410A / R32	R410A / R32			
Power Input (H / M / L) Dimensions W×H×D) Coil Coil Comperature Control Cound Absorbing There our Filter Cafety Device Pipe Connections Veight Cound Pressure Levels Cound Power Levels (I) Cower Supply Running Current by voltage Maximum Running Current Cafrigerant Cafrigerant Carnsmission cable	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20	0.24 / 0.20			
	Control	-	EEV	EEV			
Transmission cable		mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C			
Color			Mirror	Mirror			

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- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Туре		ARTCOOL Mirror
	Model	Unit	ARNU15GSJR4
		kW	4.5
Cooling Capacity		kcal/h	3,900
	l	Btu/h	15,400
		kW	5.0
Heating Capacity	J. Company of the com	kçal/h	4,300
Trouming Capacity	J	Btu/h	17,100
Power Input (H / M / I	11	W	23 / 18 / 11
1 over impaction, in		mm	837 × 308 × 192
Dimensions W×H×D)	Body	inch	32-15/16 × 12-1/8 × 7-9/16
		mm	909 × 383 × 256
(**************************************	Shipping		35-25/32 × 15-3/32 × 10-3/32
	Davis is California v EDI	inch	35-25/32 × 15-3/32 × 10-3/32 2 × 15 × 19
Coil	Rows × Columns × FPI	3	
	Face Area	m²	0.19
	Туре		Cross Flow Fan
	Motor Output × Number	W	30 × 1
Fan Temperature Control	Air Flow Rate(H / M / I)	m³/min	10.5 / 9.5 / 6.8
	/ III / Iou	ft³/min	371 / 336 / 240
	Air Flow Rate(H / M / L) Drive Motor type perature Control and Absorbing Thermal Insulation Material		Direct
	Motor type		BLDC
Temperature Control			Microprocessor, Thermostat for cooling and heating
Sound Absorbing The	ermal Insulation Material		Foamed polystrene
Air Filter			Resin Net(washable)
Safety Device			Fuse
	Liquid Side	mm (inch)	Ø 6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø 12.7 (1/2)
	Drain Pipe(ID)	mm (inch)	16 (5/8)
	Body	kg (lbs)	9.2(20.2)
Weight	Shipping	kg (lbs)	12.6(27.7)
Sound Pressure Leve		dB(A)	42 / 39 / 32
Sound Power Levels	,	dB(A)	58 / 56 / 54
Power Supply	(,, _,	Ø, V, Hz	1, 220 - 230 - 240, 50/60
Running Current by voltage	Rated	Α Α	0.20 - 0.19 - 0.18
Maximum Running C	Gurrent	A	0.25
<u> </u>	Туре	-	R410A / R32
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.24 / 0.20
			EEV
	Control	-	LL V
Transmission cable	Control	mm²	1.0 ~ 1.5 × 2C
Transmission cable	Control	mm²	

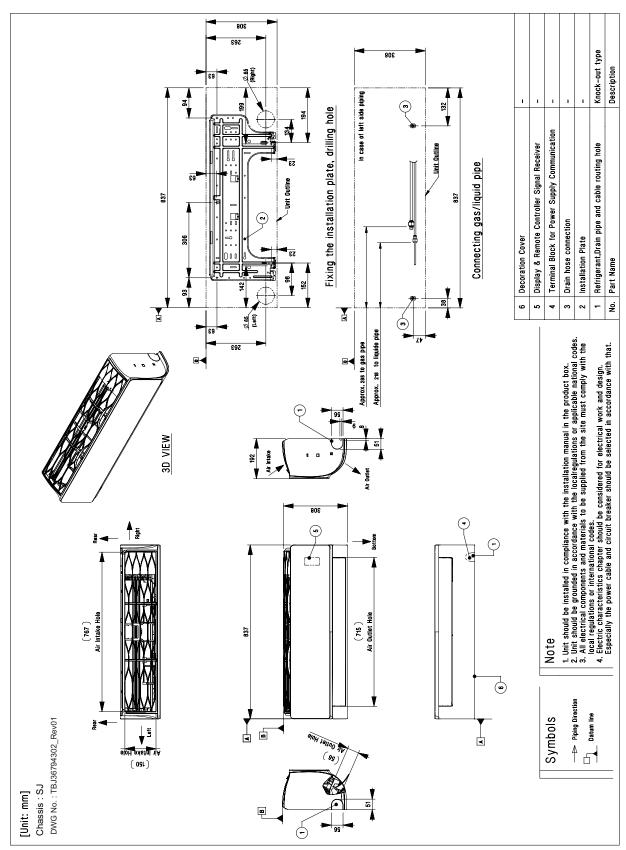
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- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

	Туре		ARTCOOL Mirror		
	Model	Unit	ARNU18GSKR4	ARNU24GSKR4	
		kW	5.6	7.1	
Cooling Capacity	ing Capacity are Input (H / M / L) bensions H×D) Body Shipping Rows × Columns × FPI Face Area Type Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type berature Control and Absorbing Thermal Insulation Material silter ty Device Connections Liquid Side Gas Side Drain Pipe(ID) Body Shipping and Pressure Levels (H / M / L) and Power Levels (H / M / L) and	kcal/h	4,800	6,100	
Cooling Capacity		Btu/h	19,100	24,200	
		kW	6.3	7.5	
Heating Capacity		kcal/h	5,400	6,400	
		Btu/h	21,500	25,600	
Power Input (H / M / I	L)	W	32 / 26 / 16	39 / 26 / 16	
	Dodu	mm	998 × 345 × 212	998 × 345 × 212	
Dimensions	Model Ing Capacity Ing Capacity Input (H / M / L) Insions XD) Shipping Rows × Columns × FPI Face Area Type Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type Input (H / M / L) Drive Motor Output × Number Air Flow Rate(H / M / L) Drive Motor type Input (H / M / L) Drive Motor type Input (H / M / L) Drive Motor type Input (H / M / L)	inch	39-9/32 × 13-19/32 × 8-11/32	39-9/32 × 13-19/32 × 8-11/32	
(W×H×D)	01:	mm	1,080 × 422 × 281	1,080 × 422 × 281	
	Shipping	inch	42-17/32 × 16-5/8 × 11-1/16	42-17/32 × 16-5/8 × 11-1/16	
0-11	Rows × Columns × FPI		2 × 16 × 20	2 × 16 × 20	
Coll	Face Area	m²	0.25	0.25	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Model pacity pacity Control	W	58 × 1	58 × 1	
_		m³/min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5	
Fan	Air Flow Rate(H / M / L)		494 / 424 / 371	537 / 449 / 371	
	Drive	I.	Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermos	tat for cooling and heating	
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene	
Air Filter			Resin Net(washable)	Resin Net(washable)	
Safety Device			Fuse	Fuse	
-	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88(5/8)	
	Drain Pipe(ID)	mm (inch)	16 (5/8)	16 (5/8)	
NA/- :I-4	Body	kg (lbs)	13.4(29.5)	13.4(29.5)	
vveignt	Shipping	kg (lbs)	17.6(38.8)	17.6(38.8)	
Sound Pressure Leve	els (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34	
Sound Power Levels	(H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54	
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.33 - 0.31 - 0.30	0.40 - 0.38 - 0.37	
Maximum Running C	urrent	Α	0.52	0.52	
Maximum raming our	Type	-	R410A / R32	R410A / R32	
Heating Capacity Power Input (H / M / L) Dimensions W×H×D) Coil Fan Femperature Control Gound Absorbing Therr Air Filter Safety Device Pipe Connections Weight Sound Pressure Levels (Feower Supply Running Current by voltage Maximum Running Cur Refrigerant Fransmission cable Color		kg(each)	0.28 / 0.23	0.28 / 0.23	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	
Color		•	Mirror	Mirror	
Note				•	

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- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
- Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

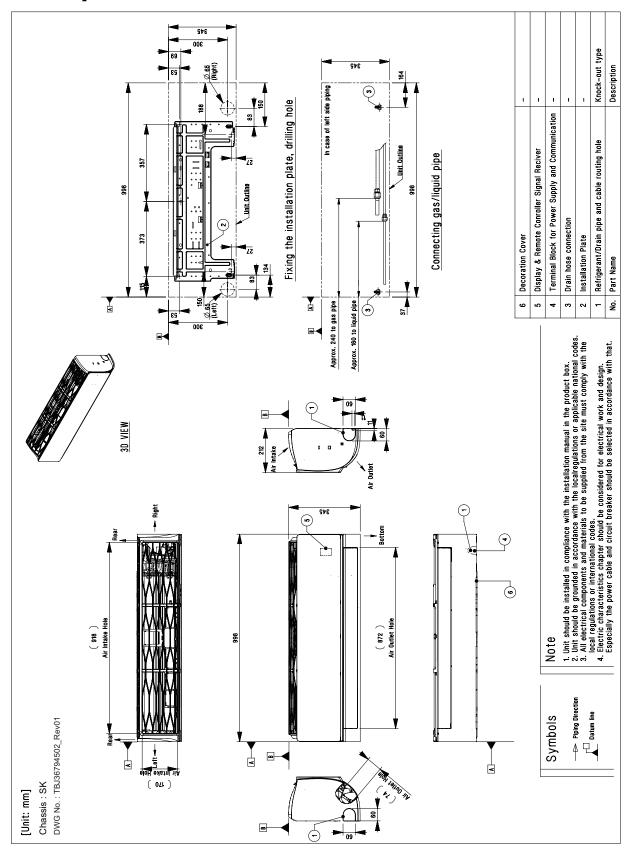
3. Dimensions

[SJ Chassis] ARNU05GSJR4 / ARNU07GSJR4 / ARNU09GSJR4 / ARNU12GSJR4 ARNU15GSJR4



3. Dimensions

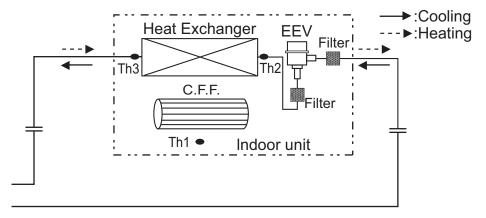
[SK Chassis] ARNU18GSKR4 / ARNU24GSKR4



MULTI V Indoor Unit

ARTCOOL (Mirror)

4. Piping Diagrams



♦ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU05GSJR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU07GSJR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GSJR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GSJR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GSJR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU18GSKR4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU24GSKR4	Ø15.88(5/8)	Ø9.52(3/8)

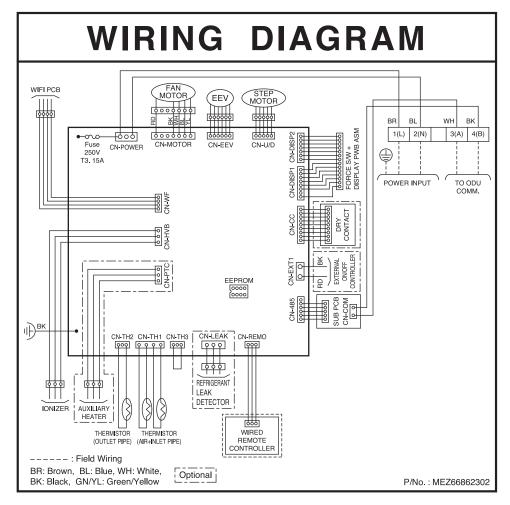
LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

MULTI V Indoor Unit

ARTCOOL (Mirror)

5. Wiring Diagrams

■ SJ/SK Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor
CN-MOTOR	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-EEV	EEV output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-U/D	Step motor	Step motor output
CN-TH1	Room/inlet pipe sensor	Room and inlet pipe thermistor
CN-TH2	Outlet pipe sensor	Outlet pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-EXT1	External On/Off	External On/Off signal input
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-PTC	Auxiliary heater	Auxiliary heater line
CN-WF	WIFI module	WIFI module connection line
CN-HVB	Ionizer module	Ionizer connection line



■ Cooling Capacity

Naminal Canacity	Indoor air temp. (DB/WB, °C)													
Nominal Capacity (kBtu/h)	2	20	2	:3	2	26	2	27	2	:8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	2	2	4
[Capacity mack (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
5 [1.6]	1.1	1.1	1.3	1.3	1.5	1.4	1.6	1.4	1.7	1.5	1.7	1.4	1.8	1.3
7 [2.2]	1.5	1.5	1.8	1.6	2.0	1.8	2.2	1.8	2.4	1.9	2.4	1.8	2.4	1.6
9 [2.8]	1.9	1.7	2.2	1.9	2.6	2.1	2.8	2.1	3.0	2.2	3.0	2.1	3.1	1.9
12 [3.6]	2.4	2.1	2.9	2.3	3.3	2.5	3.6	2.6	3.9	2.7	3.9	2.5	4.0	2.3
15 [4.5]	3.0	2.7	3.6	2.9	4.2	3.2	4.5	3.2	4.8	3.4	4.9	3.2	4.9	2.9
18 [5.6]	3.8	3.3	4.5	3.6	5.2	3.9	5.6	4.0	6.0	4.1	6.1	3.9	6.2	3.6
24 [7.1]	4.8	4.1	5.7	4.5	6.6	4.9	7.1	5.0	7.6	5.2	7.7	4.9	7.8	4.5

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity (kBtu/h)	Indoor air temp. (DB, °C)					
	16	18	20	21	22	24
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC
5 [1.6]	2.0	1.9	1.8	1.7	1.7	1.6
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4
18 [5.6]	7.1	6.7	6.3	6.1	5.9	5.5
24 [7.1]	8.5	8.0	7.5	7.3	7.0	6.5

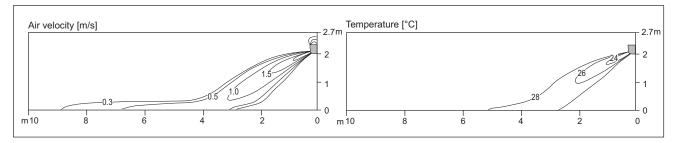
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ ARNU05GSJR4

♦ Cooling

Side View

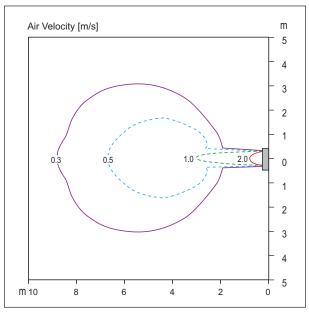
Discharge angle: 35°



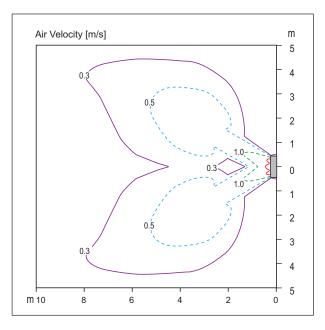
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed : High

Top View

Discharge angle: 35°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range: 8.9m
- Fan speed : High



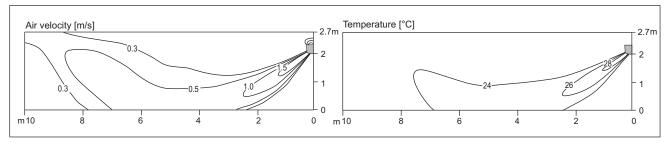
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 8m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

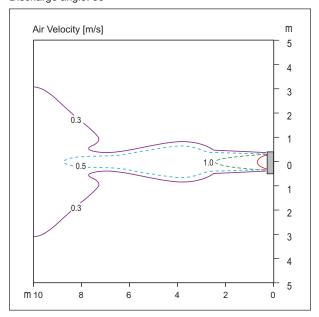
Discharge angle: 55°



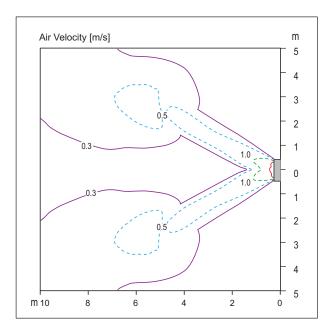
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed : High

Top View

Discharge angle: 55°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.9m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 12.6m
- · Fan speed : High

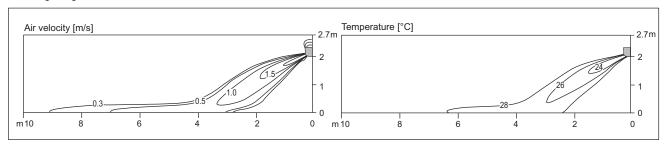
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

ARNU07GSJR4

Cooling

Side View

Discharge angle: 35°

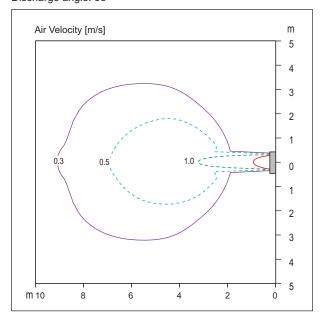


· Vertical Louver : Center · Vertial Louver angle: 0°

· Fan speed : High

Top View

Discharge angle: 35°

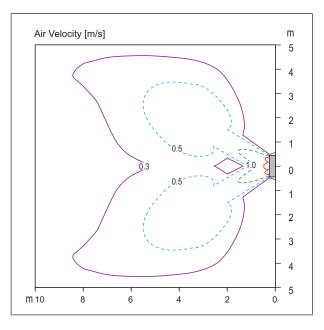


· Vertical Louver : Center

· Vertial Louver angle: 0°

· Air speed 0.3m/s Range: 9.2m

· Fan speed: High



· Vertical Louver : Left & Right

· Vertial Louver angle: 50°

· Air speed 0.3m/s Range: 8.4m

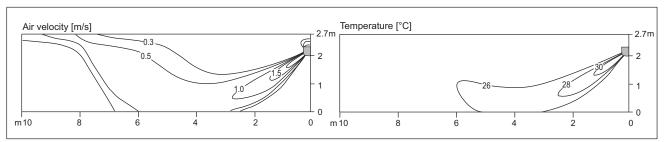
· Fan speed: High

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

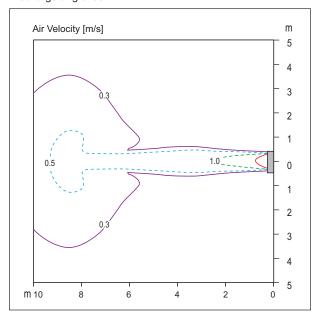
Discharge angle: 55°



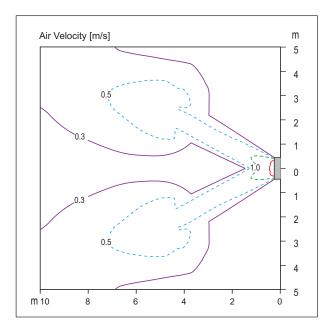
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- Vertical Louver : Center
 Vertial Louver angle : 0°
 Air speed 0.3m/s Range : 11m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 13.2m
- · Fan speed : High

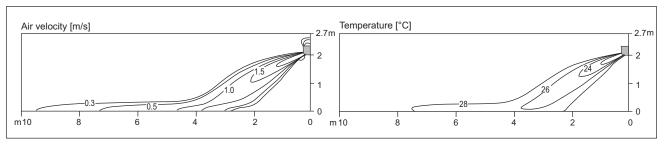
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU09GSJR4

Cooling

Side View

Discharge angle: 35°

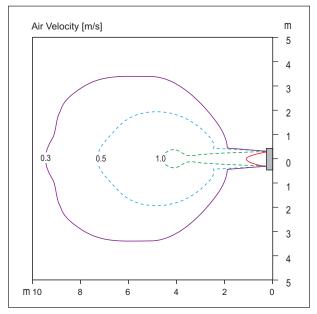


Vertical Louver : Center
 Vertial Louver angle : 0°

· Fan speed : High

Top View

Discharge angle: 35°

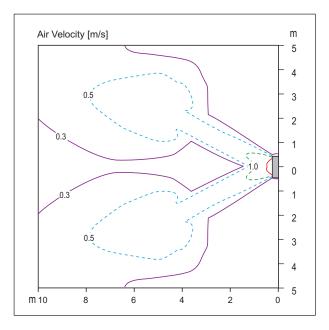




· Vertial Louver angle : 0°

· Air speed 0.3m/s Range: 9.6m

Fan speed : High



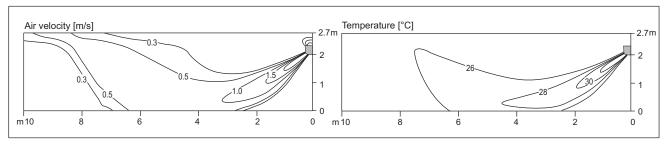
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

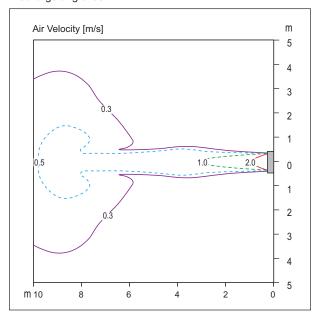
Discharge angle: 55°



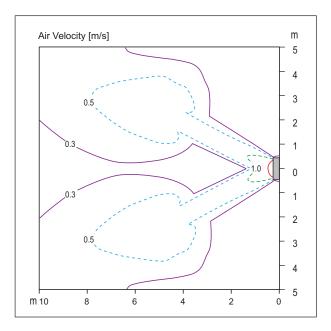
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.8m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14m
- · Fan speed : High

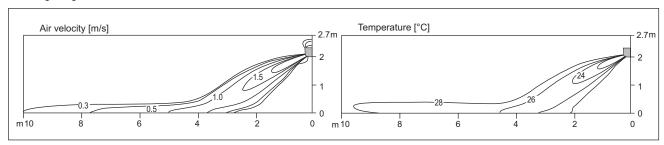
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU12GSJR4

♦ Cooling

Side View

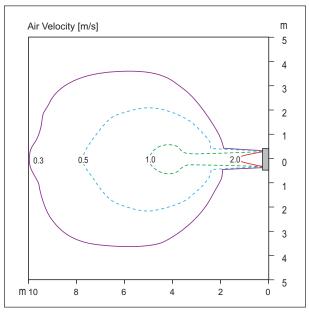
Discharge angle: 35°



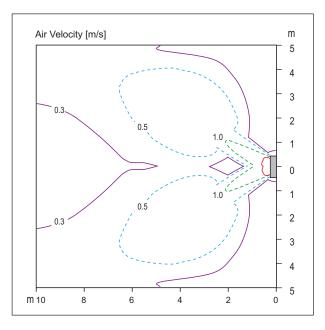
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 35°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- \cdot Air speed 0.3m/s Range : 10m $\,$
- Fan speed : High



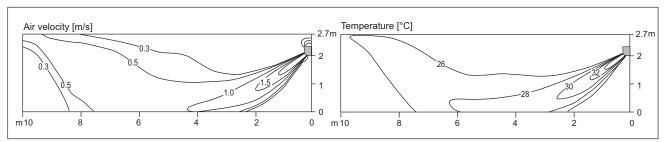
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14.3m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

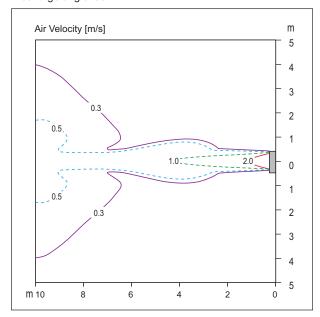
Discharge angle: 55°



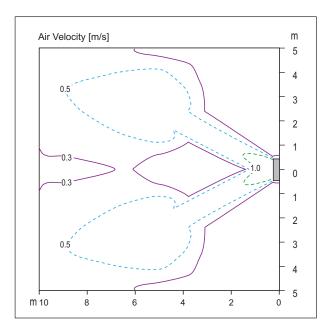
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 13m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 14.3m
- · Fan speed : High

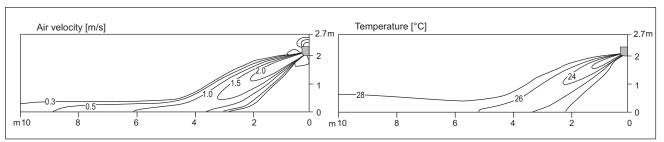
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU15GSJR4

♦ Cooling

Side View

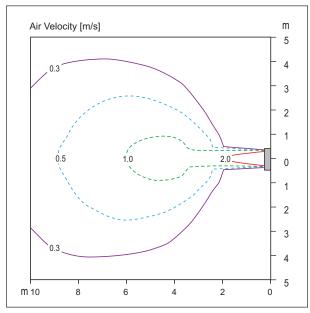
Discharge angle: 35°



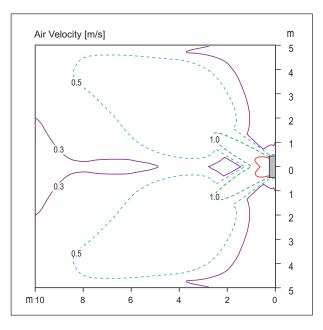
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 35°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.5m
- Fan speed : High



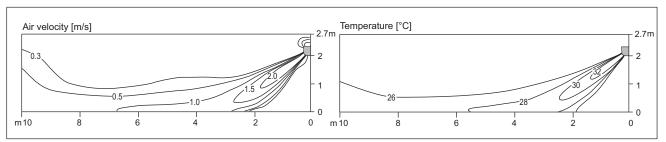
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- \cdot Air speed 0.3m/s Range : 16.7m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

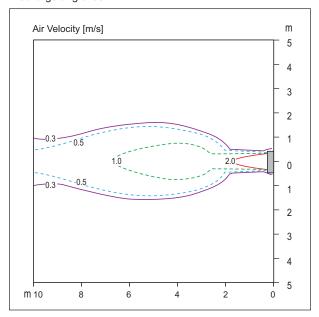
Discharge angle: 55°



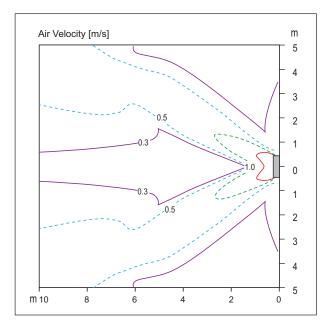
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 55°



- Vertical Louver : Center
 Vertial Louver angle : 0°
 Air speed 0.3m/s Range : 18m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 18.8m
- · Fan speed : High

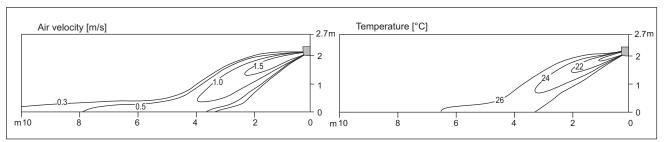
- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU18GSKR4

Cooling

Side View

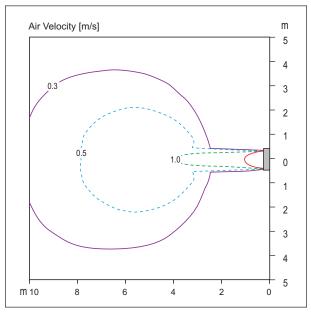
Discharge angle: 25°



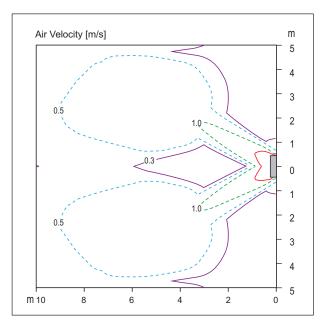
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed : High

Top View

Discharge angle: 25°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range: 10.4m
- Fan speed : High



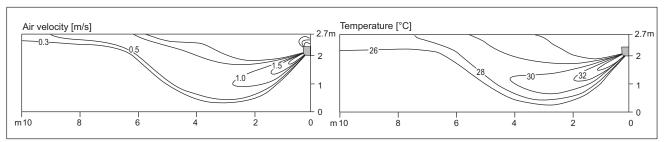
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 15.2m
- Fan speed : High

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

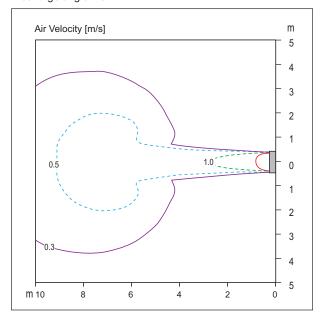
Discharge angle: 45°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

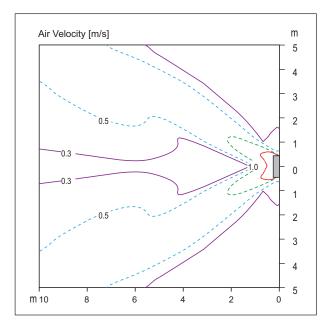
Top View

Discharge angle: 45°



- Vertical Louver : Center
 Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.6m

• Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 18.2m
- Fan speed : High

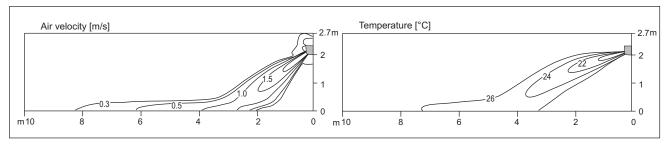
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

■ ARNU24GSKR4

♦ Cooling

Side View

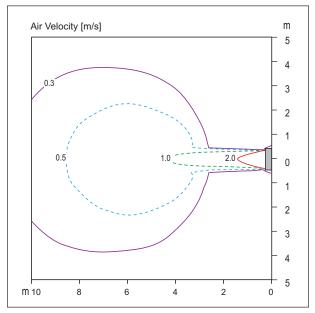
Discharge angle: 25°



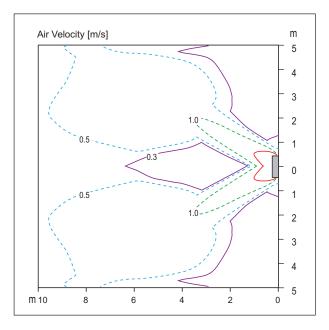
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed : High

Top View

Discharge angle: 25°



- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 11.2m
- Fan speed : High



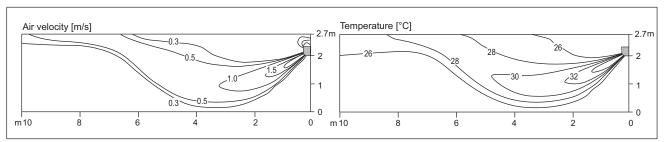
- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 16.5m
- Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

Heating

Side View

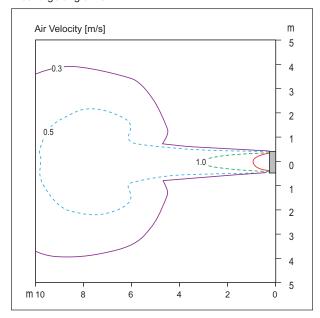
Discharge angle: 45°



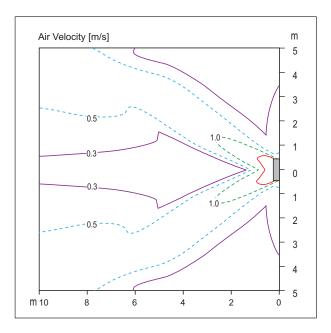
- · Vertical Louver : Center
- · Vertial Louver angle : 0°
- · Fan speed: High

Top View

Discharge angle: 45°



- · Vertical Louver : Center · Vertial Louver angle : 0°
- · Air speed 0.3m/s Range : 12.1m
- Fan speed : High



- · Vertical Louver : Left & Right
- · Vertial Louver angle : 50°
- · Air speed 0.3m/s Range : 15.2m
- · Fan speed : High

- These figures are accordance with normal certain condition and environment.
 (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units					Power supply	IFM		PI	
Model	Type	Hz	Volts	Voltage range	MCA	kW	FLA	Cooling	Heating
ARNU05GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU07GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU09GSJR4	SJ			240 Max: 264 Min:198	0.31	0.030	0.25	30.0	30.0
ARNU12GSJR4	SJ	50	220-240		0.31	0.030	0.25	30.0	30.0
ARNU15GSJR4	SJ			I IVIIII	0.31	0.030	0.25	30.0	30.0
ARNU18GSKR4	SK				0.65	0.058	0.52	53.0	53.0
ARNU24GSKR4	SK				0.65	0.058	0.52	53.0	53.0
ARNU05GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU07GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU09GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU12GSJR4	SJ	60	220	Max: 242 Min:198	0.31	0.030	0.25	30.0	30.0
ARNU15GSJR4	SJ				0.31	0.030	0.25	30.0	30.0
ARNU18GSKR4	SK				0.65	0.058	0.52	53.0	53.0
ARNU24GSKR4	SK				0.65	0.058	0.52	53.0	53.0

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

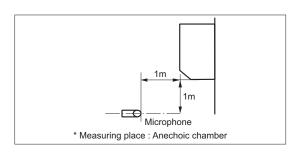
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall

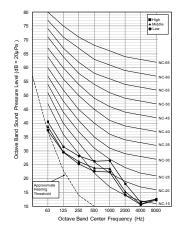


Note

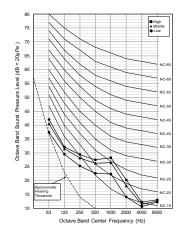
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Pressure Levels [dB(A)]						
Model	High	Middle	Low				
ARNU05GSJR4	30	29	28				
ARNU07GSJR4	32	30	28				
ARNU09GSJR4	34	32	28				
ARNU12GSJR4	37	34	30				
ARNU15GSJR4	42	39	32				
ARNU18GSKR4	43	39	34				
ARNU24GSKR4	46	41	34				

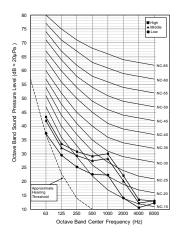
ARNU05GSJR4



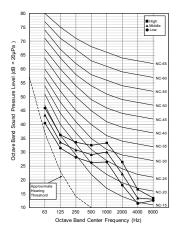
ARNU07GSJR4



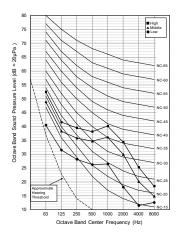
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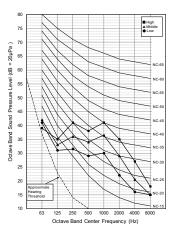
ARNU12GSJR4



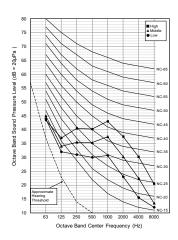
ARNU15GSJR4



ARNU18GSKR4



ARNU24GSKR4



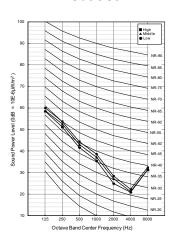
9.2 Sound Power Levels

Note

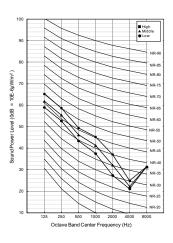
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]						
Wodei	High	Middle	Low				
ARNU05GSJR4	54	53	52				
ARNU07GSJR4	54	53	52				
ARNU09GSJR4	55	54	52				
ARNU12GSJR4	55	54	53				
ARNU15GSJR4	58	56	54				
ARNU18GSKR4	63	57	54				
ARNU24GSKR4	65	60	54				

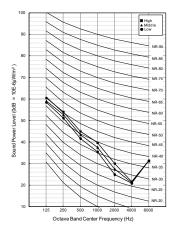
ARNU05GSJR4



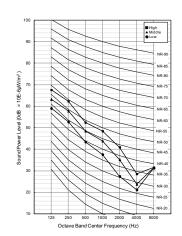
ARNU12GSJR4



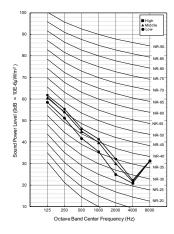
ARNU07GSJR4



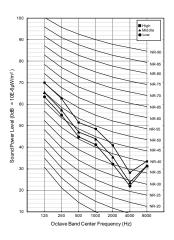
ARNU15GSJR4



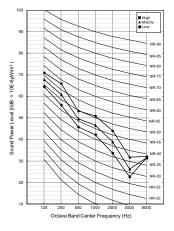
ARNU09GSJR4



ARNU18GSKR4



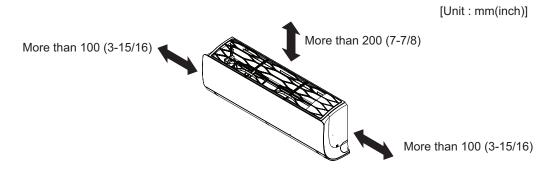
ARNU24GSKR4



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

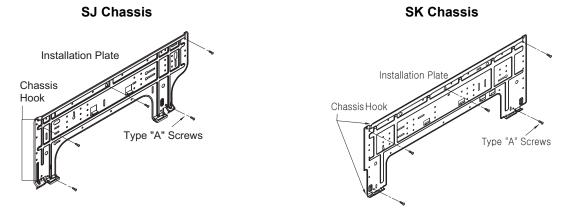
10.1 Selection of the best location

- · The unit must be installed indoor area.
- · Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- · The place where the unit is leveled.
- The place shall allow easy water drainage.
- · The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- · The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient.
- · There should not be any heat source or steam near the unit.

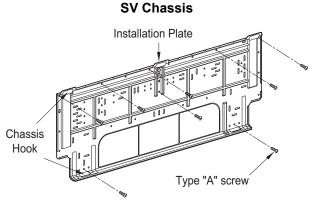


■ Fixing Installation Plate

- The wall you select should be strong and solid enough to prevent vibration.
 - 1. Mount the installation plate on the wall with type "A" screws which are provided with product. (Refer to the Installation manual.) If mounting the unit on a concrete wall, use anchor bolts.
 - Mount the installation plate horizontally by aligning the centerline using Horizontal meter.
 - 2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

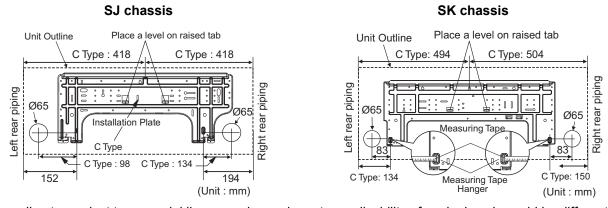


* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



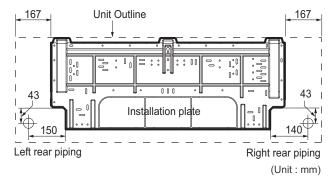
* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

■ The lower left and the right side piping of Installation Plate



^{*} According to product type, model line up, sales region..etc, applicability of each chassis could be different.

SV chassis



* According to product type, model line up, sales region..etc, applicability of each chassis could be different.



A CAUTION

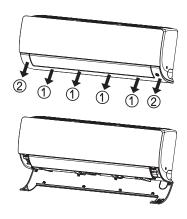
In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

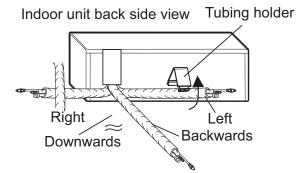
10.2 Connection of pipes and cables

10.2.1 Preparing work for installation

■ SJ/SK chassis

- 1. Pull the cover at the bottom of the indoor unit. Pull the cover $\bigcirc \rightarrow \bigcirc$.
- 2. Remove the chassis cover from the unit.
- 3. Pull back the tubing holder.
- 4. Remove pipe port cover and positioning the tubing.



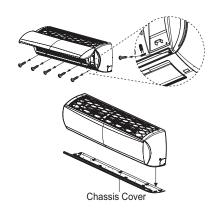


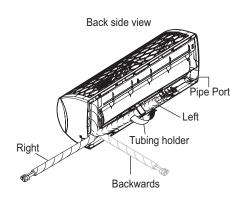
X The feature can be changed according to type of model.

- * The feature can be changed according to type of model.
- * According to product type, model line up, sales region..etc, applicability of each chassis could be different.

■ SV chassis

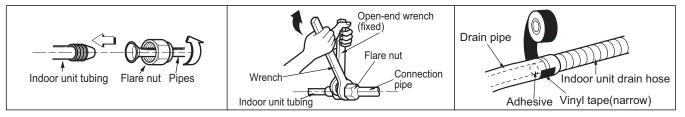
- 1. Open the panel of the indoor unit.
- 2. Remove the chassis cover from the unit by loosing 5 screws.
- 3. Pull back the tubing holder.
- 4. Remove pipe port cover and position the piping.





- * The feature can be changed according to type of model.
- * According to product type, model line up, sales region..etc, applicability of each chassis could be different.

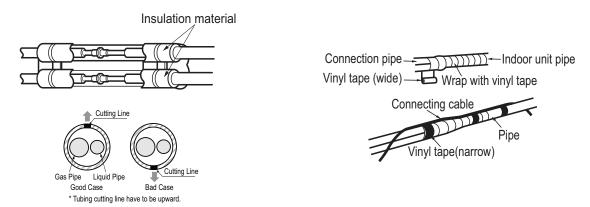
Connecting the installation pipe and drain hose



- 1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
- 2. Tighten the flare nut with a wrench.
- 3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

■ Wrap the insulation material around the connecting portion.

- 1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
- 2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl
- 3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.





CAUTION

If the drain hose is routed inside the room insulate the hose with an insulation material* so that dripping from sweating condensation) will not damage furniture or floors.

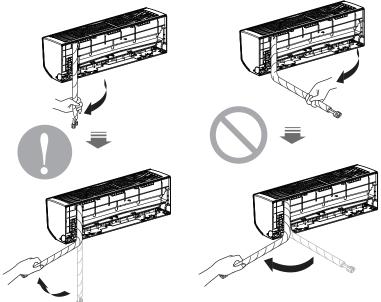
* Foamed polyethylene or equivalent is recommended.

Λ c

CAUTION

 Press on the tubing cover and unfold the tubing to downward slowly. And then bend to the left side slowly.

· Following bending case from right to left directly may cause damage to the tubing.



X The feature can be changed according to type

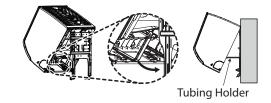
Installation Information. For right piping. Follow the instruction above.

10.2.2 Installation of Indoor Unit

■ Seat the indoor unit on the installation plate

- 1. Hook the indoor unit onto the upper portion of the installation plate.(engage the three hooks at the top of the indoor unit with the upper edge of the installation plate) Ensure that the hooks are properly seated on the installation plate by moving it left and right
- 2. Unlock the tubing holder from the chassis and mount between the chassis and installation plate in order to separate the bottom side of the indoor unit from the wall.

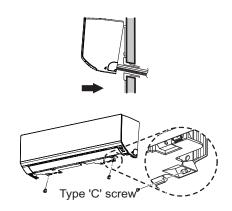




^{*} The feature can be changed according to type of model.

10.2.3 Finishing the indoor unit installation

- 1. Mount the tubing holder in the original positon.
- 2.Ensure that the hooks are properly seated on the installation plate by moving it left and right.
- 3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).
- 4.Finish the assembly by screwing the unit to the installation plate by using two pieces of type "C" screws. And assemble a chassis cover. (SJ/SK chassis) Recovery the chassis cover in Original place. (SV chassis)



* The feature can be changed according to type of model.



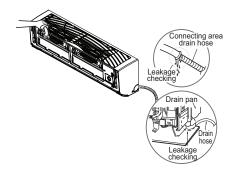
CAUTION

- The indoor unit can be dropped from the wall, the indoor unit is not screwed correct position on the install plate.
- To avoid the gap between the indoor unit and wall, screw the indoor unit to the install plate correctly.

10.2.4 Checking the Drainage

◆ To check the drainage.

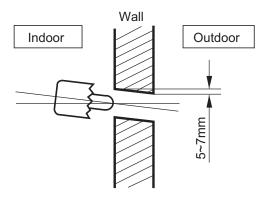
- 1. Pour a glass of water on the evaporator.
- 2.Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.



* The feature can be changed according to type of model.

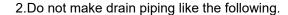
◆ Drill a Hole in the wall

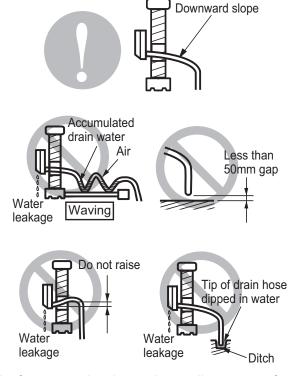
1.Drill the piping hole with a Ø 70mm hole core drill. Drill the piping hole at either the right or the left with the holes slightly slanted to the outdoor side.



♦ Drain Piping

1.The drain hose should point downward for easy drain flow





^{*} The feature can be changed according to type of model.

10.3 Wiring the cable to the indoor units

10.3.1 General instructions

- · All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.3.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

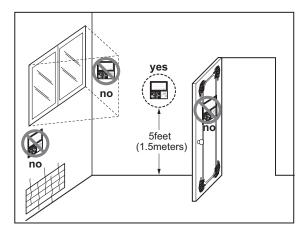
M WARNING

- · Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping
 material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly
 by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts
 box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent
 damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

10.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



• Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



ARTCOOL (Gallery)

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GSF14, ARNU09GSF14, ARNU12GSF14
	Air supply outlet	3
	Airflow direction control(left & right)	X
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
A: G	Auto swing(up & down)	0
Air flow	Airflow steps(fan/cool/heat)	3 / 4 / 3
	Chaos swing	X
	Chaos wind(auto wind)	0
	Jet cool(Power wind)	0
	Swirl wind	-
	Deodorizing filter	X
Air purifying		0
, , ,		0
		-
	E.S.P. control*	-
Installation	Electric heater(operation)	-
	High ceiling operation*	-
	Hot start	0
Reliability	Self diagnosis	0
·		0
		O(Heat recovery / Heat pump)
	9	0
		O(Cooling only)
		0
	Child lock*	0
Convenience	Forced operation	0
		0
	-	0
	•	0
		0
	Two thermistor control*	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Air supply outlet Airflow direction control(left & right) Airflow direction control(up & down) Auto swing(left & right) Chaos wing Chaos wind(auto wind) Jet cool(Power wind) Swirl wind Deodorizing filter Plasma air purifier Prefilter(washable) Drain pump E.S.P. control* Electric heater(operation) High ceiling operation* Hot start Self diagnosis Soft dry operation Auto changeover Auto cleaning Auto operation(artificial intelligence) Auto restart operation Child lock* Forced operation Group control* Sleep mode Timer(on/off) Timer(weekly)* Two thermistor control* Wide wired remote controller (RS2 Plus) Wide wired remote controller (RS3) Premium wired remote controller Simple wired remote controller Wired remote controller Wired remote controller Wired remote controller Zone control CTIE Electro thermostat Remote temperature sensor Group control wire	PQRCVCL0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control	PQWRH(C)Q0FDB
		PWFMDD200
		-
	CTIE	-
		-
	Remote temperature sensor	-
	Group control wire	PZCWRCG3
	•	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	-	
	Independent Power Module	PRIP0

Note

1. O : Applied, X : Not Applied
Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

4. *: These functions need to connect the wired remote controller.

2. Specifications

	Туре		ARTCOOL Gallery					
	Model	Unit	ARNU07GSF14	ARNU09GSF14				
		kW	2.2	2.8				
Cooling Capacity		kcal/h	1,900	2,400				
		Btu/h	7,500	9,600				
		kW	2.5	3.2				
Heating Capacity		kcal/h	2,200	2,800				
		Btu/h	8,500	10,900				
Power Input (H / M / I	ower Input (H / M / L)		28 / 16 / 10	28 / 16 / 10				
Dimensions	Body	mm	600 x 600 x 146	600 x 600 x 146				
(W x H x D)	Body	inch	23-5/8 x 23-5/8 x 5-25/32	23-5/8 x 23-5/8 x 5-25/32				
Cail	Rows x Columns x FPI	•	2x20x21	2x20x21				
Coil	Face Area	m²	0.18	0.18				
	Туре		Turbo Fan	Turbo Fan				
	Motor Output x Number	W	30	30				
Fan	Air Flow Rate	m³/min	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2				
ran 	(H / M / L)	ft³/min	286 / 222 / 148	286 / 222 / 148				
	Drive		Direct	Direct				
	Motor type		BLDC	BLDC				
Temperature Control			Microprocessor, Thermos	tat for cooling and heating				
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene				
Air Filter			Resin Net(washable)	Resin Net(washable)				
Safety Device			Fuse	Fuse				
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)				
	Drain Pipe(Internal Dia.)	mm (inch)	12.2 (15/32)	12.2 (15/32)				
Net Weight		kg (lbs)	15 (33.1)	15 (33.1)				
Sound Pressure Leve	,	dB(A)	38 / 32 / 27	38 / 32 / 27				
Sound Power Level (H / M / L)	dB(A)	48 / 46 / 41	48 / 46 / 41				
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60				
Running Current by voltage	Rated	А	0.23 - 0.22 - 0.21	0.23 - 0.22 - 0.21				
Maximum Running C	urrent	А	0.30	0.30				
Refrigerant	Туре	-	R410A / R32	R410A / R32				
	Additional Charging Amount (CF Value of IDU)	kg(each)	0.10 / 0.08	0.10 / 0.08				
	Control	-	EEV	EEV				
Transmission Cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C				
Front Panel Color			1: Kiss (Photo changeable)					

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

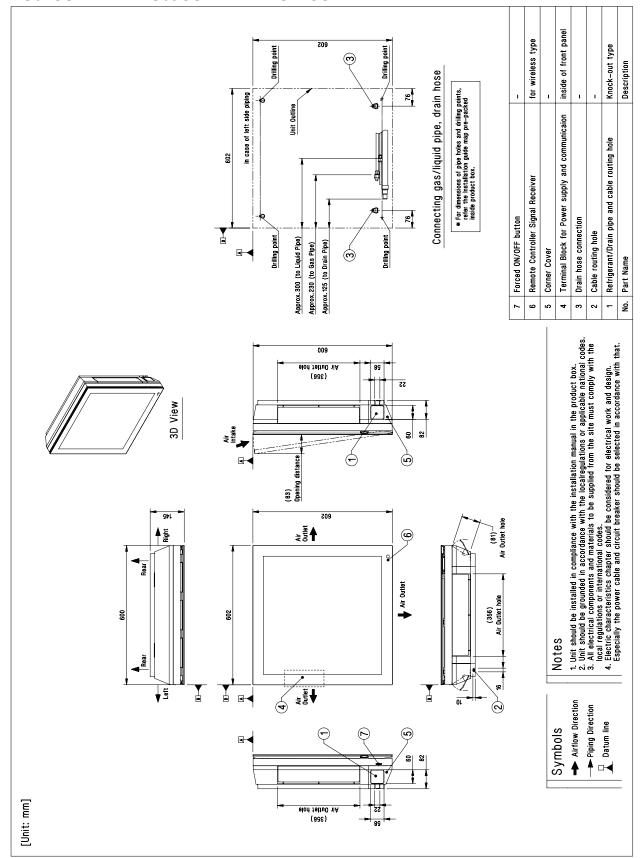
2. Specifications

Туре			ARTCOOL Gallery	
	Model	Unit	ARNU12GSF14	
		kW	3.6	
Cooling Capacity	ing Capacity are Input (H / M / L) ansions H x D) Body Rows x Columns x FPI Face Area Type Motor Output x Number Air Flow Rate (H / M / L) Drive Motor type Decrature Control and Absorbing Thermal Insulation Material illter ty Device Connections Model Body Rows x Columns x FPI Face Area Type Motor Output x Number Air Flow Rate (H / M / L) Drive Motor type Decrature Control and Absorbing Thermal Insulation Material illter Type Connections Liquid Side Gas Side Drain Pipe(Internal Dia.)	kcal/h	3,100	
		Btu/h	12,300	
		kW	4.0	
Heating Capacity	Model Ing Capacity Ing Capac	kcal/h	3,400	
		Btu/h	13,600	
Power Input (H / M / L)	W	32 / 20 / 12	
Dimensions	mensions Rody		600 x 600 x 146	
(W x H x D)	Body	inch	23-5/8 x 23-5/8 x 5-25/32	
Coil	Rows x Columns x FPI		2x20x21	
Coil	Face Area	m²	0.18	
	Туре		Turbo Fan	
	Motor Output x Number	W	30	
Ton.	Air Flow Rate	m³/min	9.3 / 7.7 / 6.0	
-an	(H / M / L)	ft³/min	328 / 272 / 212	
	Drive		Direct	
	Motor type		Direct BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating	
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	
Air Filter			Resin Net(washable)	
Safety Device			Fuse	
	Liquid Side	mm (inch)	Ø6.35(1/4)	
Pipe Connections	Gas Side	mm (inch)	Ø12.7(1/2)	
	Drain Pipe(Internal Dia.)	Unit RRNU12GSF14 kW 3.6 kcal/h 3,100 Btu/h 12,300 kW 4.0 kcal/h 3,400 Btu/h 13,600 W 32 / 20 / 12 mm 600 x 600 x 146 inch 23-5/8 x 23-5/8 x 5-25/32 x2x20x21 m² 0.18 Turbo Fan W 30 m³/min 9.3 / 7.7 / 6.0 ft³/min 328 / 272 / 212 Direct BLDC Microprocessor, Thermostat for cooling and heating Foamed polystrene Resin Net(washable) Fuse mm (inch) Ø6.35(1/4) mm (inch) Ø12.7(1/2) mm (inch) Ø12.7(1/2) kg (lbs) 15(33.1) dB(A) 44 / 38 / 32 dB(A) 54 / 48 / 42 Ø, V, Hz 1, 220 - 230 - 240, 50/60 A 0.30 R410A / R32		
Net Weight		kg (lbs)	15(33.1)	
Sound Pressure Leve	(H / M / L)	dB(A)	44 / 38 / 32	
Sound Power Level (F	1 / M / L)	dB(A)	54 / 48 / 42	
Power Supply	·	Ø, V, Hz	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	А	0.26 - 0.25 - 0.24	
Maximum Running Cu	ırrent	Α	0.30	
	Туре	-	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.10 / 0.08	
Refrigerant	(Or value of IDO)			
Refrigerant	Control	-	EEV	
Refrigerant Transmission Cable		- mm²		

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

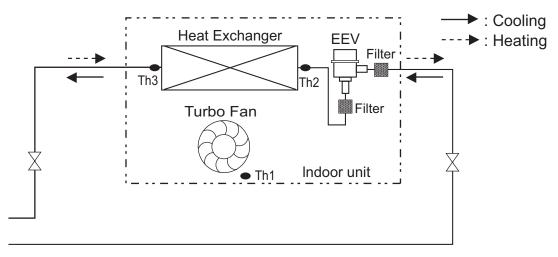
3. Dimensions

ARNU07GSF14 / ARNU09GSF14 / ARNU12GSF14



MULTI V Indoor Unit ARTCOOL (Gallery)

4. Piping Diagrams



◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU07GSF14	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GSF14	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GSF14	Ø12.7(1/2)	Ø6.35(1/4)

^{*}Panel color :E(Red), V(Silver), G(Gold), 1(Kiss (Photo changeable))

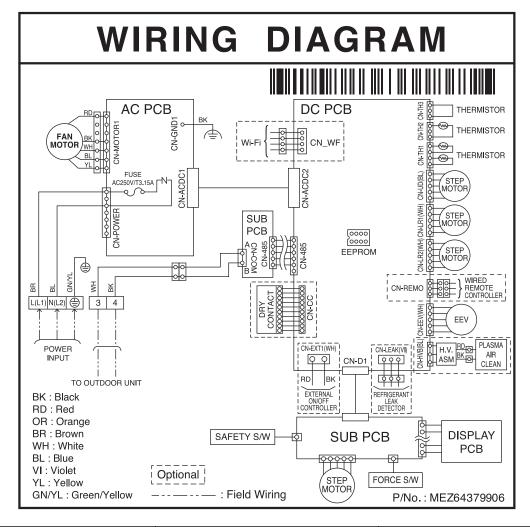
LOC.	Description	PCB Connector
Th1	Thermistor for inlet air temperature	CN-TH1
Th2	Thermistor for EVA. in temperature	CIN-THT
Th3	Thermistor for EVA. out temperature	CN-TH2

MULTI V Indoor Unit

ARTCOOL (Gallery)

5. Wiring Diagrams

■ SF Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor
CN-MOTOR	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor
CN-DISP1	Display	Display of indoor status
CN-DISP2	Display	Display of indoor status
CN-LEV	EEV output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-U/D	Step motor	Step motor output
CN-TH1	Room/inlet pipe sensor	Room and inlet pipe thermistor
CN-TH2	Outlet pipe sensor	Outlet pipe thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-HVB	Air clean	Air clean control
CN-EXT	External On/Off	External On/Off signal input
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN_WF	Wi-Fi Controller	Wifi control line

6. Capacity Tables

■ Cooling Capacity

Nominal Capacity (kBtu/h) [Capacity Index (kW)]						Indoor	air tem	p. (DB/V	VB, °C)					
	2	20	2	:3	2	:6	2	7	2	8	3	0	3	2
	1	4	1	6	1	8	1	9	2	0	2	2	2	4
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7 [2.2]	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.6	2.3	1.6	2.4	1.5	2.4	1.4
9 [2.8]	1.9	1.6	2.3	1.8	2.6	2.0	2.8	2.0	3.0	2.0	3.0	1.9	3.1	1.8
12 [3.6]	2.4	2.1	2.9	2.4	3.4	2.6	3.6	2.6	3.8	2.7	3.9	2.5	4.0	2.3

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

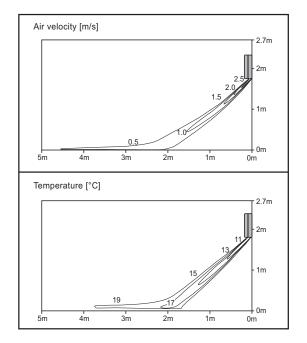
Nominal Capacity		Indoor air temp. (DB, °C)										
(kBtu/h)	16	18	20	21	22	24						
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC						
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2						
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8						
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5						

- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

♦ ARNU07GSF14, ARNU09GSF14

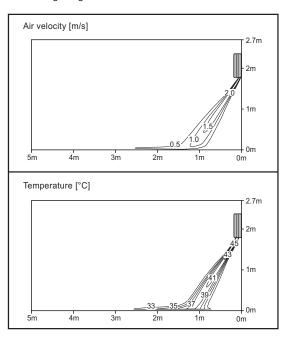
Cooling

Discharge angle:40°



Heating

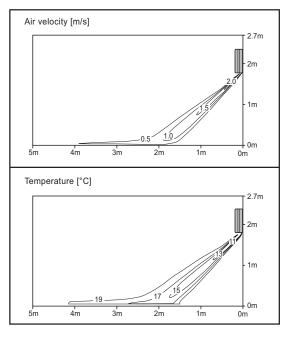
Discharge angle:50°



♦ ARNU12GSF14

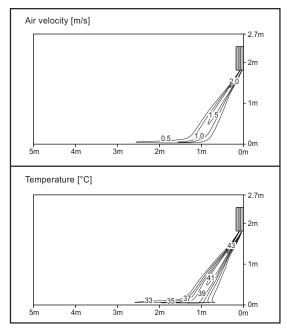
Cooling

Discharge angle:40°



Heating

Discharge angle:50°



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

Units					Power Supply	IF	М	PI		
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating	
ARNU07GSF14	SF		220-240	Max:264 Min:198	0.23	0.024	0.30	28	28	
ARNU09GSF14	SF	50			0.23	0.024	0.30	28	28	
ARNU12GSF14	SF				0.23	0.024	0.30	32	32	
ARNU07GSF14	SF				0.23	0.024	0.30	28	28	
ARNU09GSF14	SF	60	220	Max:242 Min:198	0.23	0.024	0.30	28	28	
ARNU12GSF14	SF			141111.100	0.23	0.024	0.30	32	32	

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

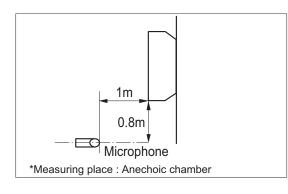
MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9.1 Sound Pressure Levels

Overall

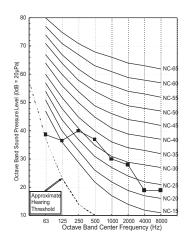


Note

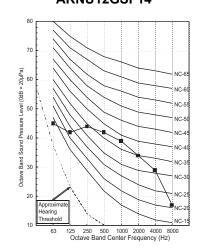
- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure $0dB = 20\mu Pa$.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Soun	Sound Pressure Levels [dB(A)]		
Wiodei	Н	M	L	
ARNU07GSF14	38	32	27	
ARNU09GSF14	38	32	27	
ARNU12GSF14	44	38	32	

ARNU07GSF14 ARNU09GSF14



ARNU12GSF14



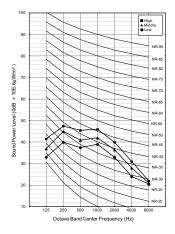
9.2 Sound Power Levels

Note

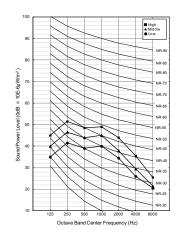
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]		
	Н	M	L
ARNU07GSF14	48	46	41
ARNU09GSF14	48	46	41
ARNU12GSF14	54	48	42

ARNU07GSF14 ARNU09GSF14



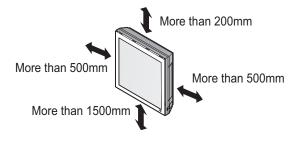
ARNU12GSF14



- · Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.

10.1 Selection of the best location

- · Do not have any heat or steam near the unit.
- Select a place where there are no obstacles in front of the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the interval between a wall and the left (or right) of the unit is more than 500mm. The unit should be installed as high as possible on the wall, allowing a minimum of 200mm from ceiling.
- · Use a stud finder to locate studs to prevent unnecessary damage to the wall.
- The mounting wall should be strong and solid enough to protect it from the vibration.



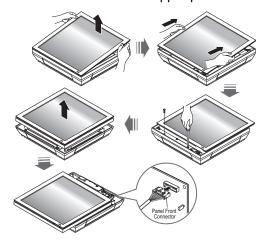


Install the indoor unit on the wall where the height from the floors is more than 1.5 meters.

10.2 Preparing work for installation

1. Open front panel

- 1) Pull the upper part of the front panel
- 2) Lift up the panel
- 3) To detach the front panel, remove the two screws at the lower part
- 4) Detach the front panel from the body
- 5) To detach the panel, disconnect the connector at the upper part



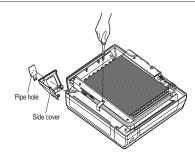
2. Removing pipe cover and side cover

- 1) Remove the screw of the center tuning cover.
- 2) Pull up the side cover of desired connecting direction, then cover side is separated.
- 3) Pick the pipe hole of the side cover



CAUTION

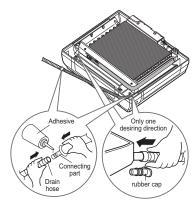
· After removing the pipe hole, cut the burr for safety.



When connecting pipe path through rear wall, don't remove the hole.

3. Drain hose junction

- 1) Remove the rubber stopped in the desired drain direction.
- 2) Insert drain hose into the handle of drain pan, and join drain hose and connecting hose according to the figure by.

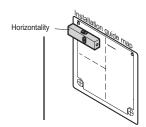


4. Sticking the installation guide map and fixing indoor unit

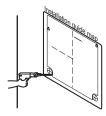
1) Put up the installation guide map on the desired surface.



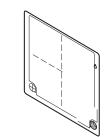
2) Check the level by horizontal mete and fix lightly the map by adhesive tape.



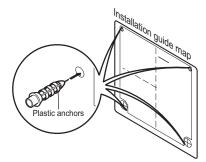
3) Make a hole with diameter of 6mm and depth of 30-35mm when piercing a screw point.



4) Drill the piercing part for connecting pipe as diameter 50mm. (In case of piercing rear surface)



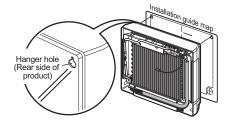
5) Drive the four plastic anchors into drilled points.



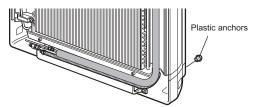
6) First, drive the two points of the upper parts by screws. (Leave 10mm for hanging product)



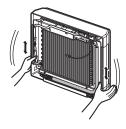
7) Hang the hole of product at the upper screws. (at this time, remove the map) (Make sure the product do not fall down)



8) Drive the lower parts after facing the hole of product with plastic anchors, and fix completely the upper screws.



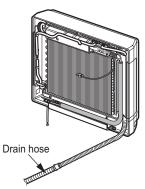
9) Check if the product is fixed properly by slightly moving the product.



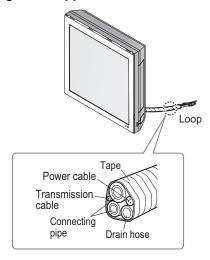
10) If nothing is wrong till now then connect the pipe and the wire. (Refer to the installation manual reference)

10.3 Connection of piping

- · Preparing the indoor unit's piping and drain hose for installation through the wall.
- 1. Route the indoor tubing and the drain hose in the direction of rear left or right



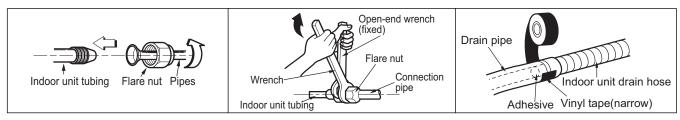
2. Tape the tubing, drain hose and the connecting cable. Make sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.



Note

- If the drain hose is routed inside the room, insulate the hose with an insulation material* so that dripping from condensation will not damage furniture or floors.
- · Foamed polyethylene or equivalent is recommended.

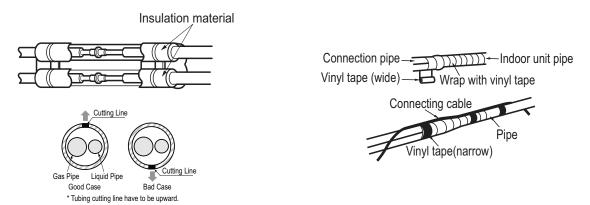
■ Connecting the installation pipe and drain hose



- 1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
- 2. Tighten the flare nut with a wrench.
- 3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

■ Wrap the insulation material around the connecting portion.

- 1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
- 2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl
- 3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.





CAUTION

If the drain hose is routed inside the room insulate the hose with an insulation material* so that dripping from sweating condensation) will not damage furniture or floors.

* Foamed polyethylene or equivalent is recommended.



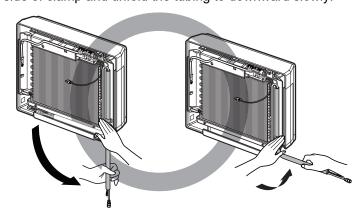
WARNING

Installation Information (For right piping)

Correct method

For right piping, follow the instruction given below.

1. Press on the upper side of clamp and unfold the tubing to downward slowly.



2. Bend the tubing to the right side of chassis.

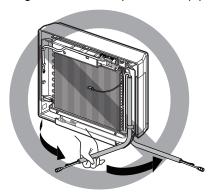


ARTCOOL (Gallery)

10. Installation

Wrong method

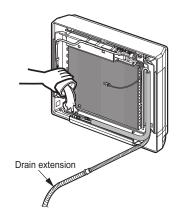
1. Following bending type from left to right could cause problem of pipe damage.



10.4 Checking the drainage

◆ To check the drainage.

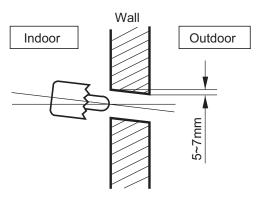
- 1. Pour a glass of water on the evaporator.
- 2.Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.
- 3.Do not use 'Anti freezing solution.



* The feature can be changed according to type of model.

◆ Drill a Hole in the wall

1.Drill the piping hole with a ø 70mm hole core drill. Drill the piping hole at either the right or the left with the holes slightly slanted to the outdoor side.

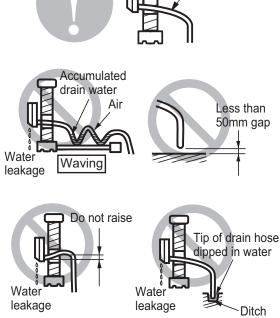


♦ Drain Piping

1.The drain hose should point downward for easy drain flow

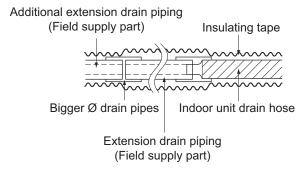


2.Do not make drain piping like the following.

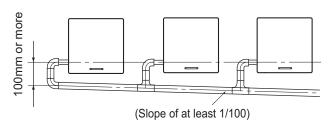


* The feature can be changed according to type of model.

 When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors.



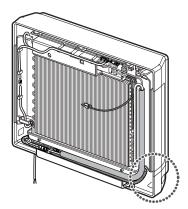
- 4. Make sure the diameter of the extension drain piping is the same as the indoor unit drain hose size or bigger.
- 5. In case of converging multiple drain pipes, install them referring to figure.



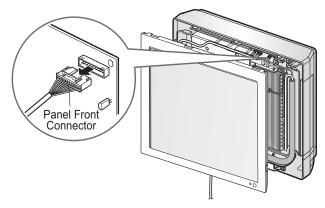
6. Select diameter of drain piping which adapts to the capacity of the unit connected

10.5 Front panel assembly

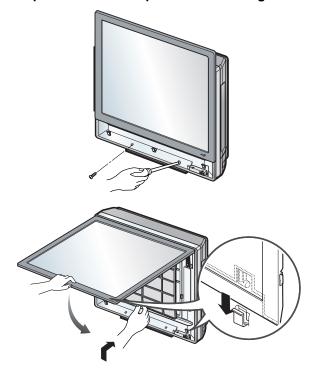
1. First, check the side cover assembly exactly then fix power cord in the bottom groove of cover's left side.



2. Assemble connecting lead wire with controller and first fix the upper part of panel front then match the lower part of panel front



3. Screw up panel front, and suspend the Hook of panel front in the groove



10.6 Connecting the cable

1. Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the outdoor unit connection. (Ensure that the color of the wires of the outdoor unit and the terminal no. are the same as those of the indoor unit.)

The earth wire should be longer than the common wires.

- 2. When installing, refer to the circuit diagram on the control box of indoor unit.
 - · When installing, refer to the wiring diagram on the control cover inside outdoor unit.

A CAUTION

- · The above circuit diagram is subject to change without notice.
- Be sure to connect wires according to the wiring diagram.
- · Connect the wires firmly, so that it cannot be pulled out easily.
- Connect the wires according to color codes by referring to the wiring diagram.

A CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- 1. Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control cover.
- 2. The screw which fasten the wiring in the casing of electrical fittings are liable to become lose due from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could cause burn-out of the wires.)
- 3. Confirm the specification of power source.
- 4. Confirm that electrical capacity is sufficient.
- 5. See to that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- 6. Confirm that the cable thickness is as specified in the power source specification. (Particularly note the relation between cable length and thickness.
- 7. Never fail to equip a leakage breaker where it is wet and moist area.
- 8. The following would be caused by voltage drop.
 - Vibration of a magnetic switch, which will damage the contact point, fuse breaking, disturbance of the normal function of the overload.
- 9. The means for disconnection from a power supply shall be incorporated in the fixed wiring and have an air gap contact separation of at least 3mm in each active(phase) conductors.



Console

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels
- 10.Installation

1. List of functions

Category	Function	ARNU07GQAA4, ARNU09GQAA4, ARNU12GQAA4, ARNU15GQAA4
	Air supply outlet	2
	Airflow direction control(left & right)	Manual
	Airflow direction control(up & down)	Auto
	Auto swing(left & right)	X
	Auto swing(up & down)	0
Air flow	Airflow steps(fan/cool/heat)	4/5/4
	Chaos swing	X
	Chaos wind(auto wind)	0
	Jet cool(Power wind)	0
	Swirl wind	X
	Deodorizing filter	X
Air purifying	Ion Generator	0
	Prefilter(washable)	0
	Drain pump	X
la - 4 - 11 - 4; - 1-	E.S.P. control*	X
Installation	Electric heater(operation)	X
	High ceiling operation*	X
	Hot start	0
Reliability	Self diagnosis	0
·	Soft dry operation	0
	Auto changeover	O(Heat recovery / Heat pump)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(Cooling only)
	Auto restart operation	0
	Child lock*	0
Convenience	Forced operation	0
	Group control*	0
	Sleep mode	0
	Timer(on/off)	0
	Timer(weekly)*	0
	Two thermistor control*	0
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01
	Wide wired remote controller (RS3)	PREMTB100/PREMTBB10
	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B
Individual control	Simple wired remote controller	PQRCHCA0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control	PQWRH(C)Q0FDB
	Wi-Fi Controller	PWFMDD200
	Zone control	-
	CTIE	-
	Electro thermostat	-
Omenial from estimation	Remote temperature sensor	-
Special function kit	Group control wire	PZCWRCG3
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500
	Independent Power Module	PRIP0
	Refrigerant Leakage Detector	PRLDNVS0

1. O: Applied, X: Not Applied
Accessory: Ordered and purchased separately the accessory package referring to the model name provided and install at field.
Accessory line-ups varies by region, so check your local catalogue or local sales material.

^{2.} Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. *:} These functions need to connect the wired remote controller.

2. Specifications

	Туре		Console				
	Model	Unit	ARNU07GQAA4	ARNU09GQAA4			
		kW	2.2	2.8			
Cooling Capacity		kcal/h	1,900	2,400			
		Btu/h	7,500	9,600			
		kW	2.5	3.2			
Heating Capacity		kcal/h	2,200	2,800			
		Btu/h	8,500	10,900			
Power Input (H / M / I	_)	W	15 / 12 / 10	15 / 12 / 10			
Casing			Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions	Deste	mm	700 x 600 x 210	700 x 600 x 210			
(WxHxD)	Body	inch	27-9/16 x 23-5/8 x 8-1/4	27-9/16 x 23-5/8 x 8-1/4			
0-9	Rows x Columns x FPI		19 x 2 x 19	19 x 2 x 19			
Coil	Face Area	m²	-	-			
	Туре		Turbo fan	Turbo fan			
	Motor Output x Number	W	48 x 1	48 x 1			
_	Air Flow Rate	m³/min	6.7 / 5.9 / 4.8	6.7 / 5.9 / 4.8			
Fan	(H / M / L)	ft³/min	236 / 209 / 170	236 / 209 / 170			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control			Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing The	ermal Insulation Material		Foamed polystrene	Foamed polystrene			
Safety Device			Fuse	Fuse			
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)			
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)			
	Drain(OD/ID)	mm	17/12.2	17/12.2			
Net Weight Body		kg(lbs)	14.0(30.9)	14.0(30.9)			
Sound Pressure Leve	els (H / M / L)	dB(A)	37 / 34 / 28	37 / 34 / 28			
Sound Power Levels	(H / M / L)	dB(A)	53 / 50 / 44	53 / 50 / 44			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	А	0.12 - 0.12 - 0.11	0.12 - 0.12 - 0.11			
Maximum Running C	urrent	Α	0.30	0.30			
	Туре	-	R410A / R32	R410A / R32			
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14			
	Control	-	EEV	EEV			
Transmission cable		mm²	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C			

Note

- 1. Due to our policy of innovation some specifications may be changed without notification.
- 2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

Therefore, these values can be increased owing to ambient conditions during operation.

- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - $\bullet \ \ \text{Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m. }$
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit.Adapt after checking the specifications of outdoor unit.

2. Specifications

	Туре		Console				
	Model	Unit	ARNU12GQAA4	ARNU15GQAA4			
		kW	3.6	4.5			
Cooling Capacity		kcal/h	3,100	3,900			
		Btu/h	12,300	15,400			
		kW	4.0	5.0			
Heating Capacity		kcal/h	3,400	4,300			
		Btu/h	13,600	17,100			
Power Input (H / M / L	.)	W	18 / 15 / 13	24 / 19 / 17			
Casing			Galvanized Steel Plate	Galvanized Steel Plate			
Dimensions	Body	mm	700 x 600 x 210	700 x 600 x 210			
(WxHxD)	Body	inch	27-9/16 x 23-5/8 x 8-1/4	27-9/16 x 23-5/8 x 8-1/4			
O-il	Rows x Columns x FPI		19 x 2 x 19	19 x 2 x 19			
Coil	Face Area	m²	-	-			
	Туре		Turbo fan	Turbo fan			
	Motor Output x Number	W	48 x 1	48 x 1			
-	Air Flow Rate	m³/min	7.5 / 5.9 / 4.8	8.7 / 6.7 / 5.9			
Fan	(H / M / L)	ft³/min	265 / 209 / 170	307 / 236 / 209			
	Drive		Direct	Direct			
	Motor type		BLDC	BLDC			
Temperature Control			Microprocessor, Thermos	tat for cooling and heating			
Sound Absorbing The	rmal Insulation Material		Foamed polystrene	Foamed polystrene			
Safety Device			Fuse	Fuse			
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)			
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)			
	Drain(OD/ID)	mm	17/12.2	17/12.2			
Net Weight Body		kg(lbs)	14.0(30.9)	14.0(30.9)			
Sound Pressure Leve	ls (H / M / L)	dB(A)	39 / 34 / 28	42 / 37 / 31			
Sound Power Levels	(H / M / L)	dB(A)	56 / 50 / 44	58 / 53 / 50			
Power Supply		Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60			
Running Current by voltage	Rated	А	0.15 - 0.14 - 0.14	0.20 - 0.19 - 0.18			
Maximum Running Current		А	0.30	0.30			
	Туре	-	R410A / R32	R410A / R32			
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.17 / 0.14	0.17 / 0.14			
	Control	-	EEV	EEV			
Transmission cable	•	mm²	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C			

Note

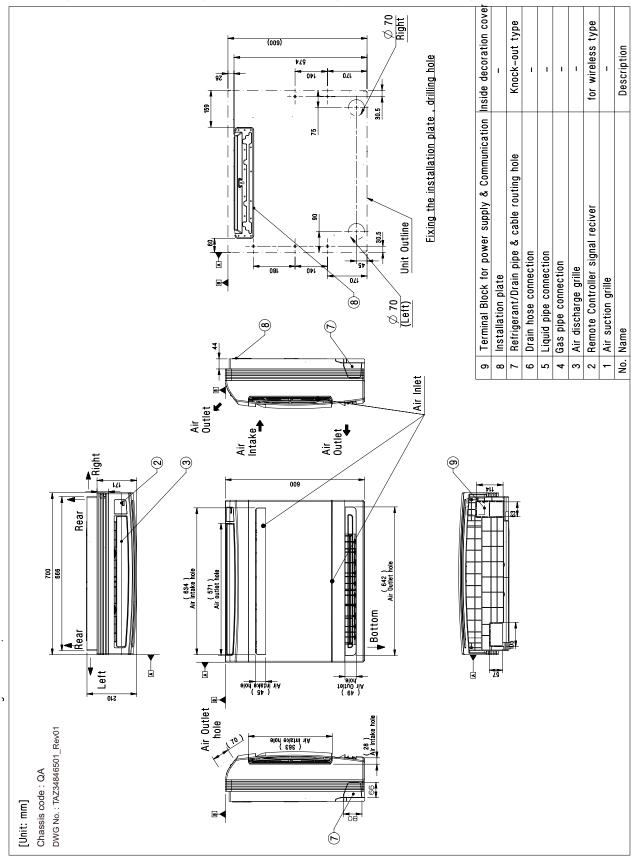
- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.

Therefore, these values can be increased owing to ambient conditions during operation.

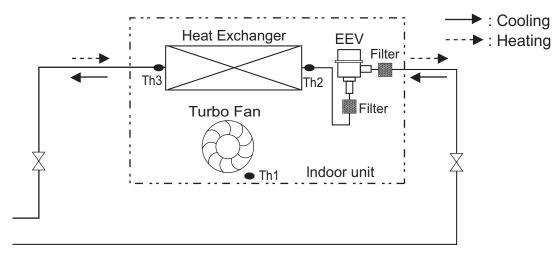
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - $\bullet \ \ \text{Interconnected Pipe is standard length and difference of Elevation (Outdoor \sim Indoor Unit) is 0m. }$
- 5. Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

3. Dimensions

ARNU07GQAA4 / ARNU09GQAA4 / ARNU12GQAA4 / ARNU15GQAA4



4. Piping Diagrams



♦ Refrigerant pipe connection port diameter

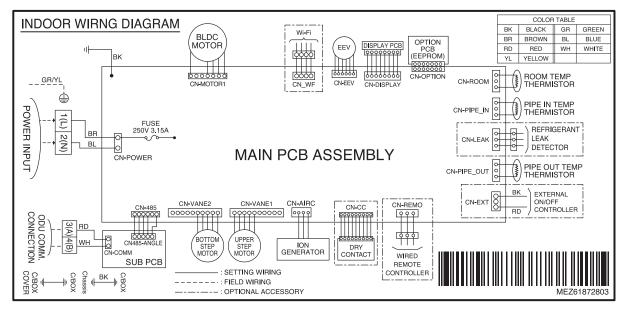
Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU07GQAA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU09GQAA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU12GQAA4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GQAA4	Ø12.7(1/2)	Ø6.35(1/4)

LOC.	Description
Th1	Room thermistor
Th2	Pipe in thermistor
Th3	Pipe out thermistor

MULTI V Indoor Unit Console

5. Wiring Diagrams

QA Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC Power supply	AC Power line input for indoor controller
CN-MOTOR1	Fan motor output	Motor output of BLDC
CN-485	Communication	Connection between indoor and outdoor
CN-DISP	Display	Display of indoor status
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line
CN-VANE2	Step motor	Step motor output
CN-FLOAT	Float switch input	Float switch sensing
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor
CN-ROOM	Room sensor	Room air thermistor
CN-REMO	Remote controller	Remote control line
CN-CC	Dry contact	Dry contact line
CN-AIRC	Air clean	Air cleaner control
CN WF	Wi-Fi Controller	Wifi control line

Dip S	Switch Setting	Off	On	Remarks
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.
SW5	EXTRA 1	Off	On	1. Duct model OFF: Default(not operate continuosly) ON: Fan operate continuosly 2. Cassette Model: No Function 3. Ceiling Suspended Model OFF: Ceiling(default) ON: Floor



A CAUTION

For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF That dip switch is used for the other model.

Console

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity	Indoor air te						air temp. (DB/WB, °C)							
Nominal Capacity (kBtu/h)	2	:0	2	:3	2	:6	2	27	2	:8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	:0	2	2	2	:4
[Capacity mack (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
7 [2.2]	1.5	1.3	1.8	1.4	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.4	2.4	1.4
9 [2.8]	1.9	1.6	2.3	1.8	2.6	2.0	2.8	2.0	2.9	2.0	3.0	1.7	3.1	1.8
12 [3.6]	2.4	2.1	2.9	2.4	3.4	2.6	3.6	2.6	3.7	2.6	3.9	2.2	3.9	2.3
15 [4.5]	3.0	2.7	3.6	2.9	4.2	3.2	4.5	3.2	4.6	3.2	4.8	2.8	4.9	2.9

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

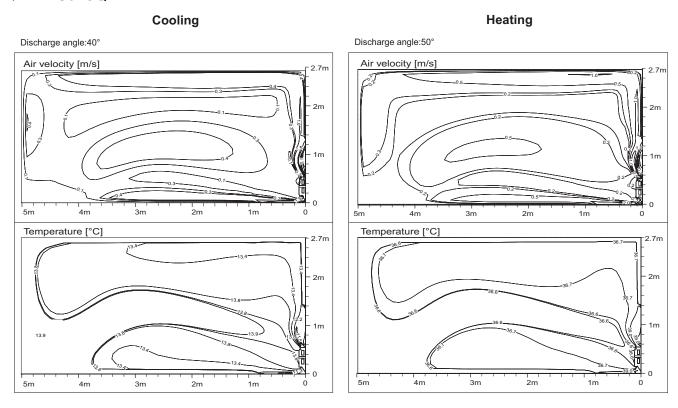
■ Heating Capacity

Nominal Capacity		Indoor air temp. (DB, °C)							
(kBtu/h)	16	18	20	21	22	24			
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC			
7 [2.2]	2.8	2.7	2.5	2.4	2.3	2.2			
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8			
12 [3.6]	4.5	4.3	4.0	3.9	3.7	3.5			
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4			

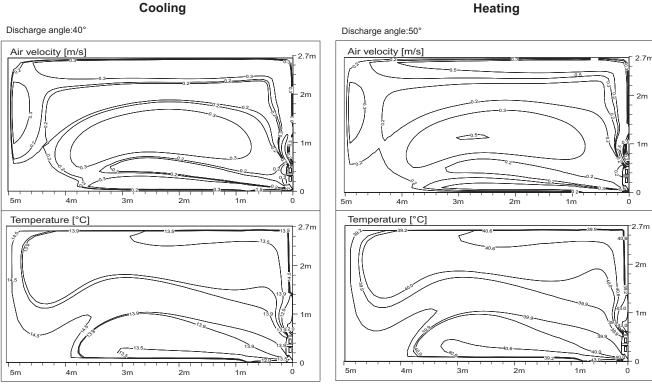
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution

♦ ARNU07GQAA4



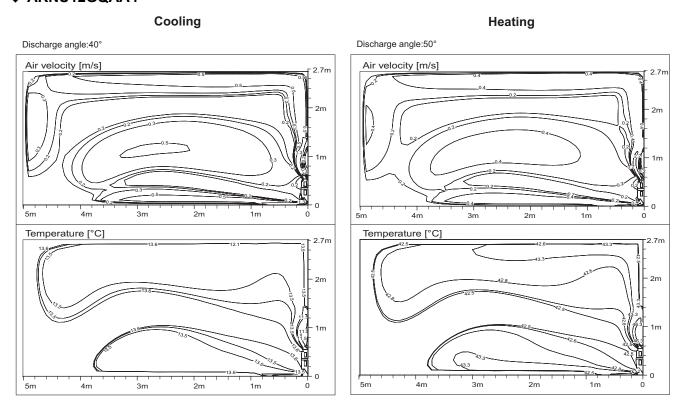
♦ ARNU09GQAA4



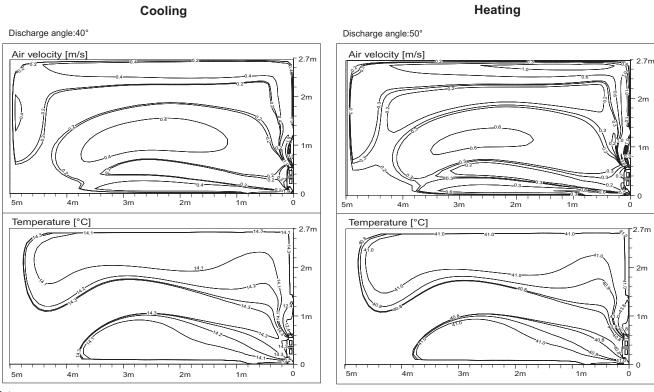
- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

7. Air Velocity and Temperature Distribution

♦ ARNU12GQAA4



♦ ARNU15GQAA4



- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units					IFM		PI	
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU07GQAA4	QA		220-240		0.38	0.048	0.30	15	15
ARNU09GQAA4	QA	50		Min.:198, Max.:264	0.38	0.048	0.30	15	15
ARNU12GQAA4	QA	30		Will 190, Wax204	0.38	0.048	0.30	18	18
ARNU15GQAA4	QA				0.38	0.048	0.30	24	24
ARNU07GQAA4	QA				0.38	0.048	0.30	15	15
ARNU09GQAA4	QA	60	220	Min.:198, Max.:242	0.38	0.048	0.30	15	15
ARNU12GQAA4	QA	00		WIIII 190, Wax242	0.38	0.048	0.30	18	18
ARNU15GQAA4	QA				0.38	0.048	0.30	24	24

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

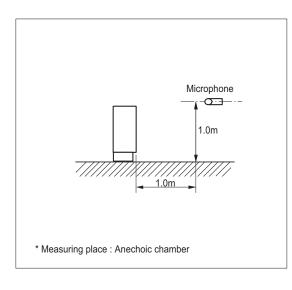
(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

Overall



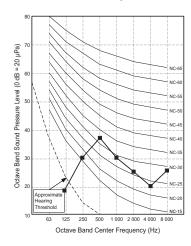
Note

- Sound measured at some distance away from the center of the unit.
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure 0dB = 20µPa.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

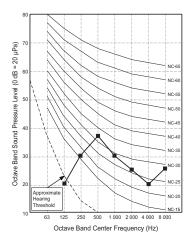
Therefore, these values can be increased owing to ambient conditions during operation.

Model		Sound Levels [dB(A)]					
Wiodei	Н	M	L				
ARNU07GQAA4	37	34	28				
ARNU09GQAA4	37	34	28				
ARNU12GQAA4	39	34	28				
ARNU15GQAA4	42	37	31				

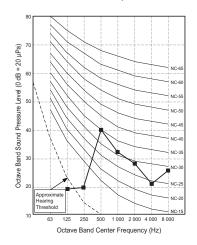
ARNU07GQAA4



ARNU09GQAA4

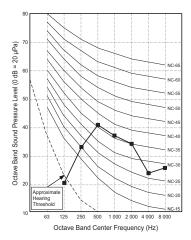


ARNU12GQAA4



9. Sound Levels

ARNU15GQAA4



9. Sound Levels

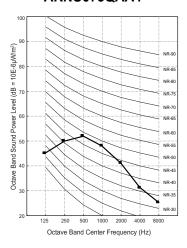
9.2 Sound Power Levels

Note

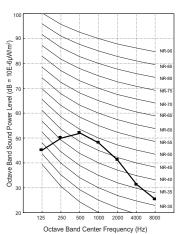
- · Data is valid at diffuse field condition
- · Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]
Wiodei	High Fan Speed
ARNU073QAA4	53.0
ARNU093QAA4	53.0
ARNU123QAA4	56.0
ARNU153QAA4	58.0

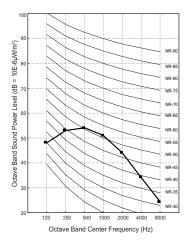
ARNU073QAA4



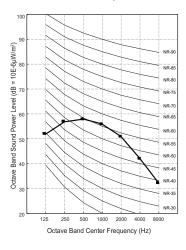
ARNU093QAA4



ARNU123QAA4



ARNU153QAA4



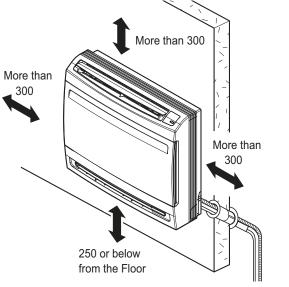
MULTI V Indoor Unit Console

10. Installation

- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

10.1 Selection of the best location

- The place where room air circulation is good.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- There should not be any heat source or steam near the unit.
- Do not install the unit near the door.
- The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The place where the indoor unit can be connected with outdoor unit easily.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.



(Unit: mm)

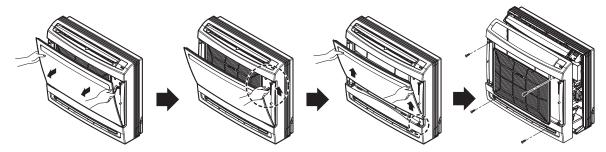
CAUTION

In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

10.2 Indoor unit installation

1. Preparation / Removing front panel

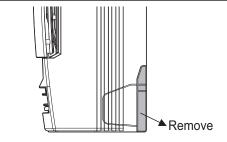
- 1) Open the front grille by pulling forward
- 2) Then pull out the link of grille from groove in front panel.
- 3) Then pull out 2 hinges of grille from grooves in front panel.
- 4) Then remove 4 screws, dismount the front panel while pulling it forward.



2. Preparation / For Moldings, Side Piping, and Concealed Installation

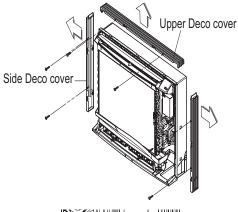
2-1 For Molding

1. Remove the slit portions on the Rear Panel.



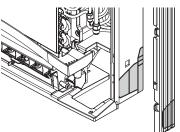
2-2. For Concealed Installation

- 1. Remove the 6 screws.
- Remove the Upper Deco cover.
 Remove the Side Deco covers.



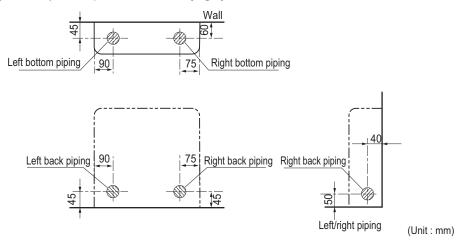
2-3 For Side Piping (Reference 2-2.)

- 1. Remove the Deco Covers.
- 2. Remove the slit portions.3. Assemble the Deco Covers.



3. Refrigerant Piping

- 1) The location of hole is different depending on which side of the pipe is taken out.
- 2) Drill a hole(Ø70mm) in the point indicated by Øsymbol in the illustration as below.



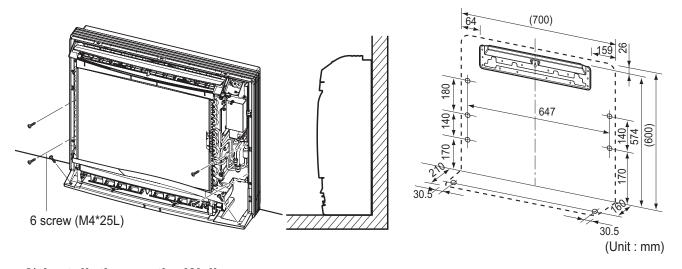
Notice

• The suggested shortest pipe length is 5m,in order to avoid noise from the outdoor unit and vibration.

4. Installing Indoor unit

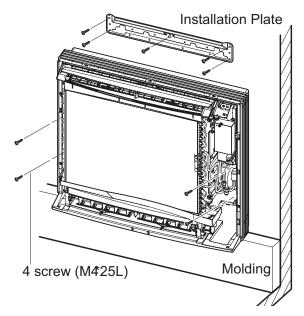
1) Installation on the Floor.

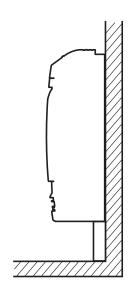
1. Fix up using 6 screws for floor installation.



2) Installation on the Wall

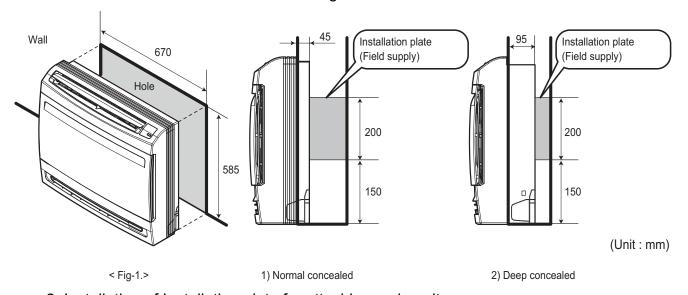
- 1. Fix up the installation plate using 5 screws and the indoor unit using 4 screws.
- 2. The installation plate should be fixed on a wall which can support the weight of the indoor unit.





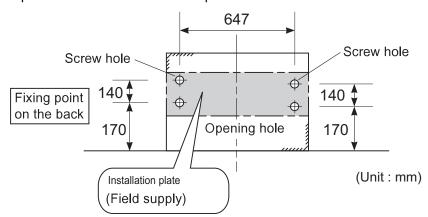
3) Half concealed installation.

1. Make a wall hole of the size shown Fig-1.

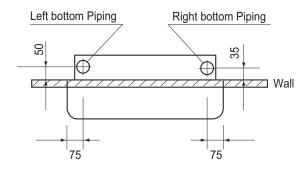


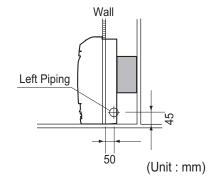
2. Installation of Installation plate for attaching main unit

• The rear of the unit can be fixed with screws at the points shown in the Fig-2.Be sure to install the supplemental plate in accordance with the depth of the inner wall.

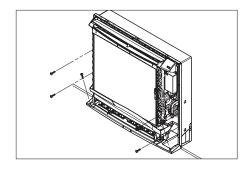


3. Piping Hole



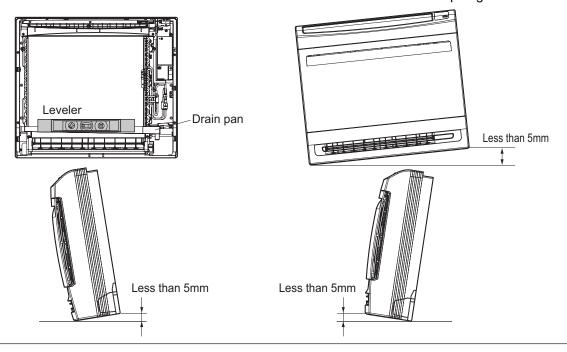


- 4. Remove the Deco Covers and Fixing Indoor Unit
- 1.Remove the Deco Covers.
- 2.Insert the Indoor Unit to the Wall hole.
- 3. Secure using 6 screws. (shown in the illustration)



Notice

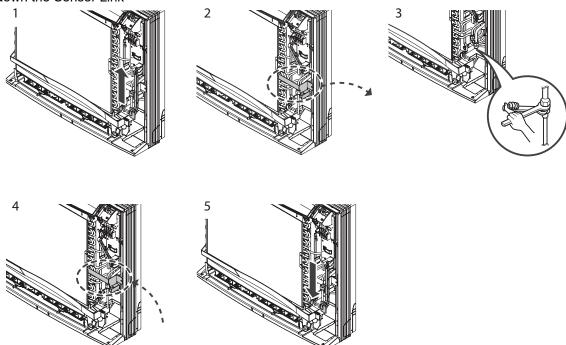
• Check the horizon of Indoor unit with the wall. Please use the Leveler on the drain pan guide.



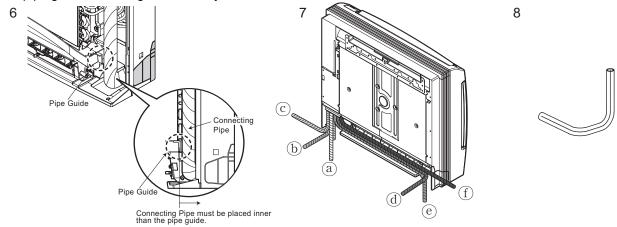
10.3 Connecting the Piping

When you connect the refrigerant pipe, it is easier that you connect the gas pipe first.

- 1. Hold up the Sensor Link.
- 2. Separate the Pipe Bracket (2 screws)
- 3. Connect the refrigerant pipe. (Refer to next page)
- 4. Assemble the Pipe Bracket (2 screws)
- 5. Put down the Sensor Link



- 6. After connecting, check the pipe arrangement as per illustration.
- 7. The piping can be arranged in six ways as shown in the illustration below.



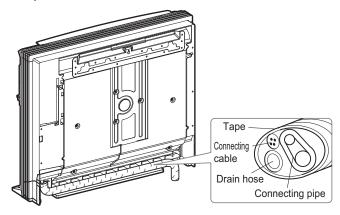


In case of \odot - \odot , The pipe bending can be used in hand-operated bending machine. Make a pipe of the shape shown pic 8.

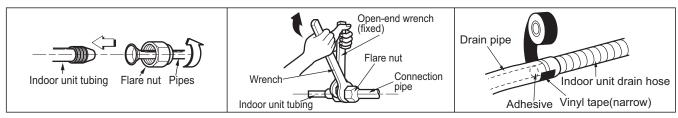


If the drain hose is routed inside the room insulate the hose with an insulation material* sothat dripping from sweating (condensation) willnot damage furniture or floors.

Foamed polyethylene or equivalent is recommended.



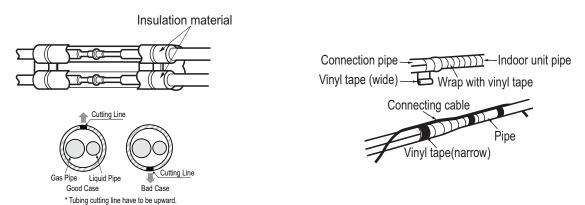
Connecting the installation pipe and drain hose



- 1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
- 2. Tighten the flare nut with a wrench.
- 3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

■ Wrap the insulation material around the connecting portion.

- 1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
- 2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl tape.
- 3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.





CAUTION

If the drain hose is routed inside the room insulate the hose with an insulation material* so that dripping from sweating condensation) will not damage furniture or floors.

Foamed polyethylene or equivalent is recommended.

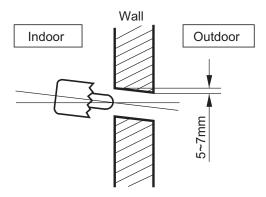
Console

10. Installation

10.4 Drain piping connection

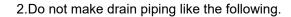
Drill a Hole in the wall

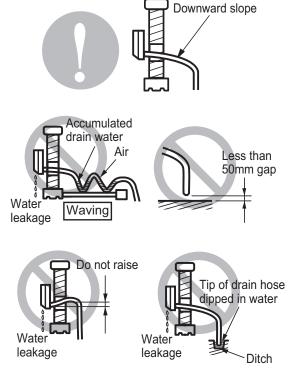
1.Drill the piping hole with a ø 70mm hole core drill. Drill the piping hole at either the right or the left with the holes slightly slanted to the outdoor side.



Drain Piping

 The drain hose should point downward for easy drain flow





^{*} The feature can be changed according to type of model.

10.5 Connecting cables between Indoor Unit and Outdoor Unit

10.5.1 General instructions

- All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the "WIRING DIAGRAM" attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- · All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.



After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
 - (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
 - Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
 - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
 - » Proper starting power is not given to the compressor.

10.5.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

10.5.3 Clamping of cables

- 1. Arrange 2 power cables on the control panel.
- 2. First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

MARNING

- Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to
 which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly
 fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

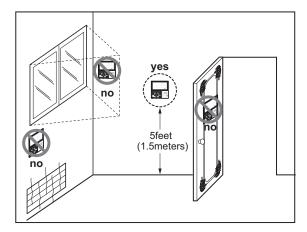
10.5.4 Wired Remote Controller Installation (Optional)

Note

According to the type of model, applicable type of remote controller can be changed. Refer to the accessory list
or installation manual of each model.

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.



• Do not install the remote controller where it can be affected by :

- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the remote controller.
- This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)



Compact Model

- 1.List of functions
- 2. Specifications
- 3. Dimensions
- **4.Piping Diagrams**
- **5.Wiring Diagrams**
- **6. Capacity Tables**
- 7. Air Velocity and Temperature Distribution
- **8. Electric Characteristics**
- 9. Sound Levels

1. List of functions

Category	Function	ARNU09GTR*4, ARNU15GTR*4	
	Air supply outlet	4	
	Airflow direction control(left & right)	-	
	Airflow direction control(up & down)	Auto	
	Auto swing(left & right)	-	
Air flow	Auto swing(up & down)	0	
	Airflow steps(fan/cool/heat)	4/5/4	
	Chaos swing	Х	
	Chaos wind(auto wind)	0	
	Jet cool(Power wind)	0	
	Swirl wind	0	
	Deodorizing filter	X	
Air purifying	Plasma air purifier	O(C4/F4 Model only), Option(A4/E4 Model - PTPKQ0)	
, b) i	Prefilter(washable)	0	
	Drain pump	0	
	E.S.P. control*	X	
Installation	Electric heater(operation)	X	
	High ceiling operation*	0	
	Hot start	0	
Reliability	Self diagnosis	0	
,	Soft dry operation	0	
	Auto changeover	O(Heat recovery / Heat pump)	
	Auto cleaning	X	
	Auto operation(artificial intelligence)	O(Cooling only)	
	Auto restart operation	0	
	Child lock*	0	
	Forced operation	0	
Convenience	Group control*	0	
	Sleep mode	0	
	Timer(on/off)	0	
	Timer(weekly)*	0	
	Two thermistor control*	0	
	Elevation Grille*	Х	
	External On/Off	0	
	Wide wired remote controller (RS2)	PQRCVSL0/PQRCVSL0QW	
	Wide wired remote controller (RS2 Plus)	PREMTB001/PREMTBB01	
la dividual a cataal	Premium wired remote controller	PREMTA000/PREMTA000A/PREMTA000B	
Individual control	Simple wired remote controller	PQRCVCL0Q(W)	
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)	
	Wireless LCD remote control	PQWRH(C)Q0FDB	
	Zone control	-	
	CTIE	-	
	Electro thermostat	-	
On a sight form of the sight	Remote temperature sensor	PQRSTA0	
Special function kit	Group control wire	PZCWRCG3	
	Dry contact	PDRYCB000/PDRYCB300/PDRYCB400/PDRYCB500	
	Independent Power Module	PRIP0	
	Refrigerant Leakage Detector	PRLDNVS0	
Note			

O : Applied, X : Not Applied
 Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
 Accessory line-ups varies by region, so check your local catalogue or local sales material.
 Some functions can be limited by remote controller.

^{3.} In case of ducted type indoor units using the wireless remote controller, it needs to connect to the wired remote controller for received the signal of that.

^{4. * :} These functions need to connect the wired remote controller.

2. Specifications

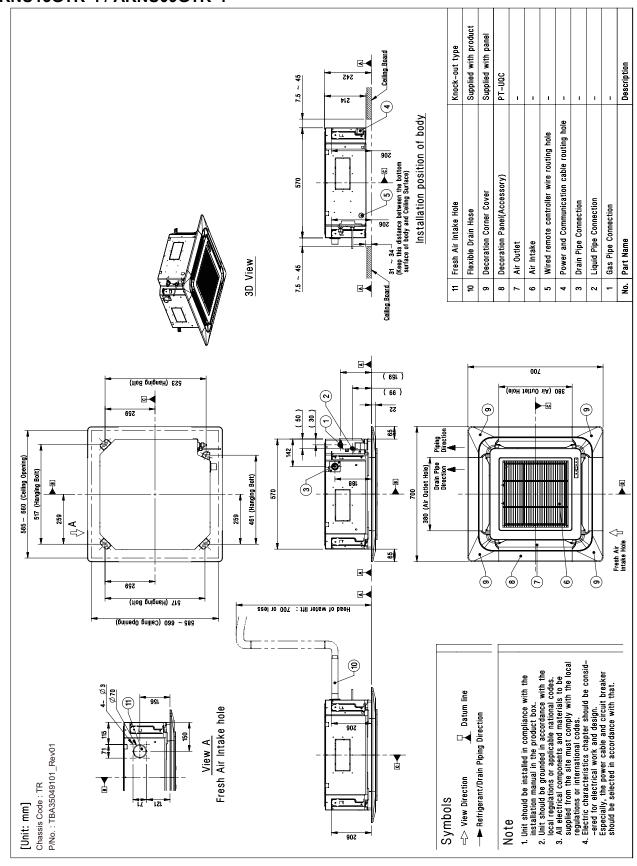
* Model Name E/A:Basic, F/C:Plasma

Туре			4 Way Ceiling Cassette		
	Model	Unit	ARNU09GTR*4	ARNU15GTR*4	
Cooling Capacity		kW	2.8	4.5	
		kcal/h	2,400	3,900	
		Btu/h	9,600	15,400	
		kW	3.2	5.0	
Heating Capacity		kcal/h	2,800	4,300	
		Btu/h	10,900	17,100	
Power Input (H / M / L)		W	14 / 13 / 12	18 / 15 / 14	
Casing			Galvanized Steel Plate	Galvanized Steel Plate	
	Dody	mm	570 x 214 x 570	570 x 214 x 570	
	Body	inch	22-7/16 x 8-7/16 x 22-7/16	22-7/16 x 8-7/16 x 22-7/16	
Dimensions	December Devel #4	mm	700 x 22 x 700	700 x 22 x 700	
(WxHxD)	Decoration Panel #1	inch	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16	
	December Devel 40	mm	620 x 34 x 620	620 x 34 x 620	
	Decoration Panel #2	inch	24-13/32 x 1-11/32 x 24-13/32	24-13/32 x 1-11/32 x 24-13/32	
0 - 11	Rows x Columns x FPI		1 x 8 x 18	2 x 8 x 18	
Coil	Face Area	m²	0.21	0.21	
	Туре		Turbo Fan	Turbo Fan	
	Motor Output x Number	W	43 x 1	43 x 1	
_	Air Flow Rate (H / M / L)	m³/min	8.2 / 7.4 / 6.9	9.2 / 7.5 / 7.0	
Fan		ft³/min	289 / 261 / 244	325 / 265 / 247	
	Drive		Direct	Direct	
	Motor type		BLDC	BLDC	
Temperature Control			Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene	
Safety Device			Fuse	Fuse	
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	
•	Drain Pipe(Internal Dia.)	mm(inch)	25(1)	25(1)	
	Body	kg(lbs)	12.6(27.8)	13.7(30.2)	
Net Weight	Packaged	kg(lbs)	15.3(33.7)	16.4(36.1)	
Sound Pressure Lev		dB(A)	33 / 31 / 28	37 / 33 / 30	
Sound Power Levels		dB(A)	-	-	
Power Supply	,	Ø, V, Hz	1, 220 - 230 - 240, 50/60	1, 220 - 230 - 240, 50/60	
Running Current by voltage	Rated	Α	0.10 - 0.09 - 0.09	0.13 - 0.12 - 0.12	
Maximum Running C	Current	Α	0.20	0.20	
	Туре	-	R410A / R32	R410A / R32	
Refrigerant	Additional Charging Amount (CF Value of IDU)	kg(each)	0.18 / 0.15	0.25 / 0.21	
	Control	-	EEV	EEV	
Transmission cable		mm²	1.0~1.5 x 2C	1.0~1.5 x 2C	
Panel Color			Morning fog	Morning fog	
Panel Name(Accessory)			PT-UQC / PT-QCHW0	PT-UQC / PT-QCHW0	

- 1. Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- 4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
 - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
 - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.
- Refrigerant information (type, additional charging amount, etc.) must be applied by refrigerant type of the combined outdoor unit. Adapt after checking the specifications of outdoor unit.

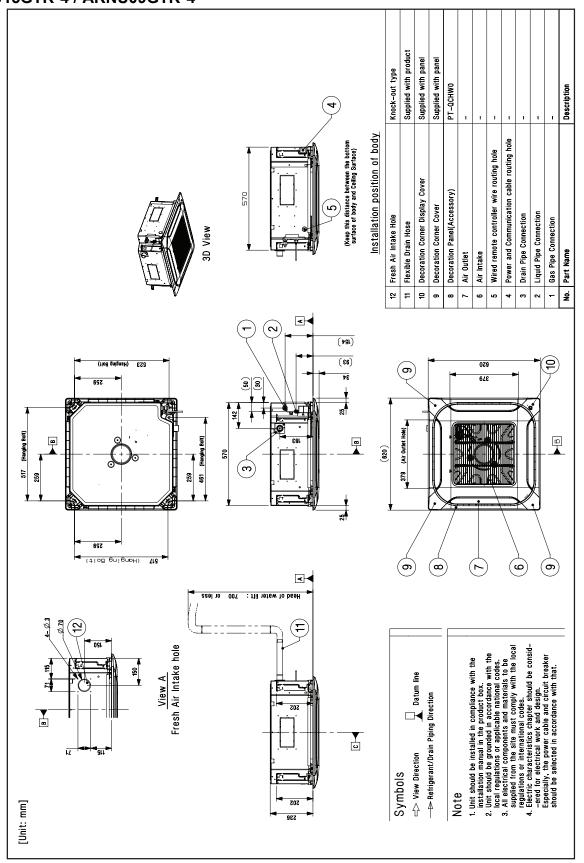
3. Dimensions

ARNU15GTR*4 / ARNU09GTR*4



3. Dimensions

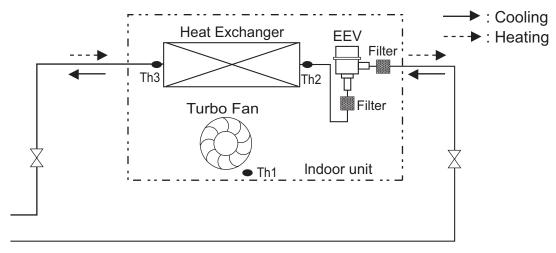
ARNU15GTR*4 / ARNU09GTR*4



MULTI V Indoor Unit

4. Piping Diagrams

■ TR Chassis



Compact Model

◆ Refrigerant pipe connection port diameter

Model	Gas [mm(inch)]	Liquid [mm(inch)]
ARNU09GTR*4	Ø12.7(1/2)	Ø6.35(1/4)
ARNU15GTR*4	Ø12.7(1/2)	Ø6.35(1/4)

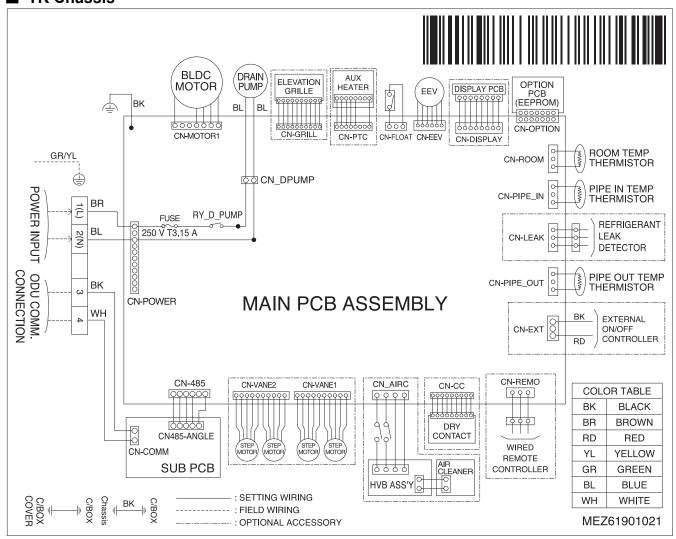
LOC.	Description
Th1	Roomthermistor
Th2	Pipe inthermistor
Th3	Pipe outthermistor

MULTI V Indoor Unit

Compact Model

5. Wiring Diagrams

■ TR Chassis



CONNECTOR NUMBER	LOCATION POINT	FUNCTION	
CN-MOTOR1	Fan motor output	Motor output of BLDC	
CN_DPUMP	Drain pump output	AC output for drain pump	
CN-GRILL	Elevation grill	Elevation grill line	
CN-PTC	Aux heater	Aux heater line	
CN-LEAK	Refrigerant leak detector	Refrigerant leak detector line	
CN-AIRC	Air cleaner	Air cleaner line	
CN-DISPLAY	Display	Display of indoor status	
CN-OPTION	Option pwb.	Communication between main and option	
CN-EEV	EEV Output	EEV Control output : connect to EEV directly or through IPM(Independent Power Module)	
CN-FLOAT	Float switch input	Float switch sensing	
CN-ROOM	Room sensor	Room air thermistor	
CN-PIPE_IN	Suction pipe sensor	Pipe in thermistor	
CN-PIPE_OUT	Discharge pipe sensor	Pipe out thermistor	
CN-REMO	Remote controller	Remote control line	
CN-CC	Dry contact	Dry contact line	
CN-COMM	Communication	Communication between indoor and outdoor	
CN-VANE1	Step motor	Step motor output	
CN-VANE2	Step motor	Step motor output	
CN-485	Communication	Connection between indoor and outdoor	
CN-EXT	External On/Off	External On/Off signal input	

5. Wiring Diagrams

Dip	Dip Switch Setting		On	Remarks		
SW3	GROUP	Master	Slave	Group Control setting using Wired Remote Controller		
SW4	DRY CONTACT	Variable	Auto	Old Dry Contact Mode Setting 1. Variable : Auto/Manual Mode can be chosen by Wide wired remote controller or Wireless remote controller (When shipped from Factory → Manual Mode) 2. Auto : For Dry Contact, it is always Auto mode.		
SW5	EXTRA 1	Off	On	1. Duct model 2. OFF: Default(not operate continuosly) 3. ON: Fan operate continuosly 4. Cassette Model: No Function 5. Ceiling Suspended Model 6. OFF: Ceiling(default) 7. ON: Floor		



A CAUTION

For Multi V Model, Dip Switch 1,2,6,7,8 must be set OFF

Those are used for the other model.

6. Capacity Tables

■ Cooling Capacity

Naminal Canacity	Indoor air temp. (DB/WB, °C)													
Nominal Capacity (kBtu/h)	2	:0	2	3	2	6	2	.7	2	8	3	0	3	2
[Capacity Index (kW)]	1	4	1	6	1	8	1	9	2	0	2	2	2	:4
[Capacity maex (KVV)]	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
9 [2.8]	1.9	1.6	2.2	1.8	2.6	2.0	2.8	2.0	3.0	2.1	3.0	2.0	3.1	1.8
15 [4.5]	3.0	2.6	3.6	2.8	4.2	3.1	4.5	3.1	4.8	3.2	4.9	3.1	4.9	2.8

Note

- 1. TC: Total Capacity(kW), SHC: Sensible Heat Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

■ Heating Capacity

Nominal Capacity	Indoor air temp. (DB, °C)					
(kBtu/h)	16	18	20	21	22	24
[Capacity Index (kW)]	TC	TC	TC	TC	TC	TC
9 [2.8]	3.6	3.4	3.2	3.1	3.0	2.8
15 [4.5]	5.6	5.3	5.0	4.8	4.7	4.4

Note

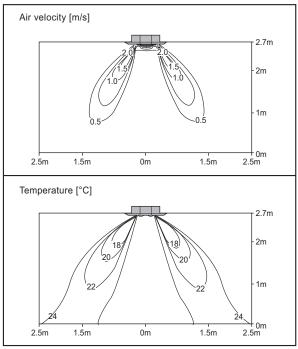
- 1. TC: Total Capacity(kW)
- 2. Capacity tables show the average value of conditions which may occur.
- 3. Refer to Capacity tables and correction factor in the outdoor unit PDB for the actual performance data of each indoor unit and outdoor unit combination.

7. Air Velocity and Temperature Distribution

◆ ARNU09GTR*4

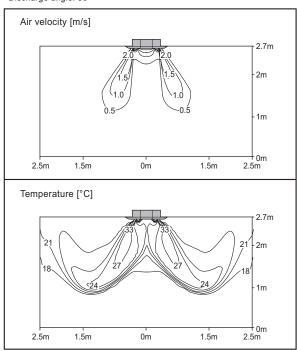
Cooling

Discharge angle: 40°



Heating

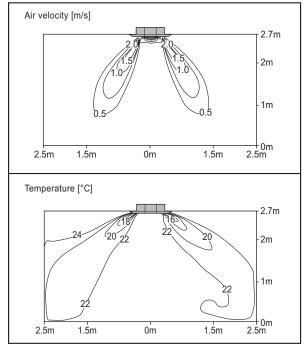
Discharge angle: 50°



◆ ARNU15GTR*4

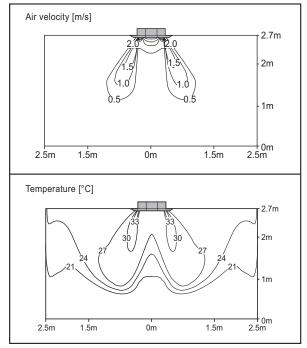
Cooling

Discharge angle: 40°



Heating

Discharge angle: 50°



Note

- These figures are accordance with normal certain condition and environment. (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

8. Electric Characteristics

	Units					IF	М	PI	
Model	Type	Hz	Volts	Voltage Range	MCA	kW	FLA	Cooling	Heating
ARNU09GTR*4	TR	50	220-240	Max:264	0.25	0.043	0.2	30	30
ARNU15GTR*4	TR	50	220-240	Min:198	0.25	0.043	0.2	30	30
ARNU09GTR*4	TR	60	220	Max:242	0.25	0.043	0.2	30	30
ARNU15GTR*4	TR	00	220	Min:198	0.25	0.043	0.2	30	30

Symbols

MCA: Minimum Circuit Amperes (A)MFA: Maximum Fuse Amperes (A)kW: Fan Motor Rated Output (kW)

FLA: Full Load Amperes (A)

IFM: Indoor Fan Motor

PI: Maximum Power Input (W)

Note

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.

- 2. Maximum allowable voltage unbalance between phases is 2%.
- 3. MCA/MFA

MCA=1.25 x FLA

MFA = $1.1 \times MCA$, MFA $\leq 4 \times FLA$

(If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)

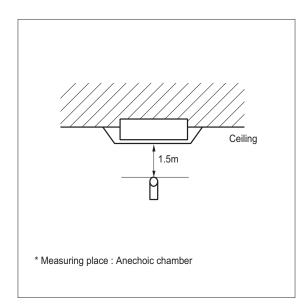
- 4. Select wire size based on the MCA
- 5. Instead of fuse, use Circuit Breaker.

9. Sound Levels

9.1 Sound Pressure Levels

■ Ceiling Cassette 4-way

♦ Overall



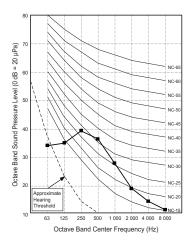
Note

- 1.Sound measured at some distance away from the center of the unit
- 2.Data is valid at free field condition.
- 3.Reference accoustic pressure $0dB = 20\mu Pa$.
- 4.Data is valid at nominal operation condition.
 Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- 5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
- 6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
- 7.Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

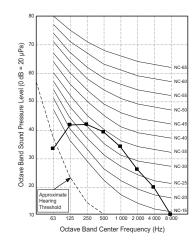
 Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound	Sound Pressure Levels [dB(A)]			
Wiodei	Н	M	L		
ARNU09GTR*4	33	31	28		
ARNU15GTR*4	37	33	30		

ARNU09GTR*4



ARNU15GTR*4



9. Sound Levels

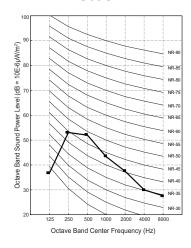
9.2 Sound Power Levels

Note

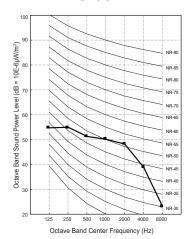
- · Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient)
 of particular room in which the equipment in installed.
- Reference acoustic intensity 0dB = 10E-6µW/m²
- Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

Model	Sound Power Levels [dB(A)]
Wiodei	High Fan Speed
ARNU09GTR*4	51.0
ARNU15GTR*4	55.0

ARNU09GTR*4



ARNU15GTR*4





Dip Switch & Group Control Setting

- 1. Installer Setting
- 2. Group Control Setting
- 3. 2 Remote Control
- 4. Accessories for group control setting



1.1 Dip Switch Setting of Indoor unit PCB

SW No.	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	
SW7	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	Off
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off



A CAUTION

For Multi V Model, Dip Switch 1,2,6,8 must be set OFF

1. Installer Setting

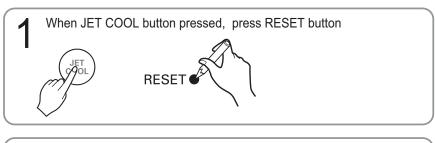
1.2 Installer Setting with wireless remote controller

A CAUTION

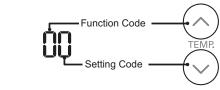
Installer setting mode is to set the detail function of the remote controller.

If the installer setting mode is not set correctly, it can cause problems to the product, user injury or property damage. This must be set by an certificated installer, and any installation or change that is carried out by a non-certificated per- son should be responsible for the results. In this case, free service cannot be provided.





By using the TEMPERATURE SETTING button, set function code and setting value. (Please refer the Installer Setting Code Table.)



Press the ON/OFF button toward the indoor unit 1 time.



Reset the remote controller to use the general operation mode. RESET

1. Installer Setting

◆ Installer Setting Code Table

No.	Function	FunctionCode	SettingValue	Remote ControllerLCD
0	Mode	0	0 : Set to Master	00
0	Override	0	1 : Set to Slave	01
			1 : Standard	11
1	Ceiling Height	4	2 : Low	12
'	Selection	lection	3 : High	13
			4 : Super High	14
			0 : Set to Master	20
	Group Control	2	1 : Set to Slave	21
2			2 : Check Master/Slave	22
2	Auxiliary heater	3 : Set to Auxiliary heater		23
		2	4 : Cancel Auxiliary heater	24
	1100101		2 : Check Auxiliary heater Installation	25

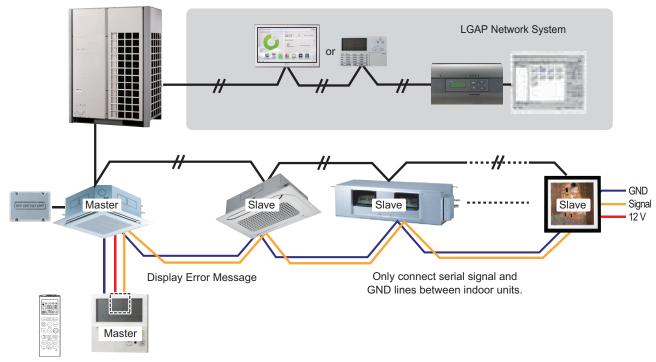
■ Group ControlSetting

- This function is only for group control.
- · Please don't set this function in case of non-group control.
- · This function is the Master or Slave setting function of indoor unit
- · Set only one indoor unit to Master, set the others to slave.
- After setting Group Control of the product, turn off the power then turn it back on after 1 minute.
- · Master checking whether the buzzer sounds, such as indoor rings below.
 - ► Master: "Beep" (Buzzer sound 1 time)
 - ▶ Slave: "Beep, Beep, Beep, Beep, Beep " (Buzzer sounds 5 times)

2. Group Control Setting

■ Group Control 1

♦ Wired remote controller 1 + Standard Indoor Units



Dip Switch in PCB (Cassette and Duct Type indoor units)



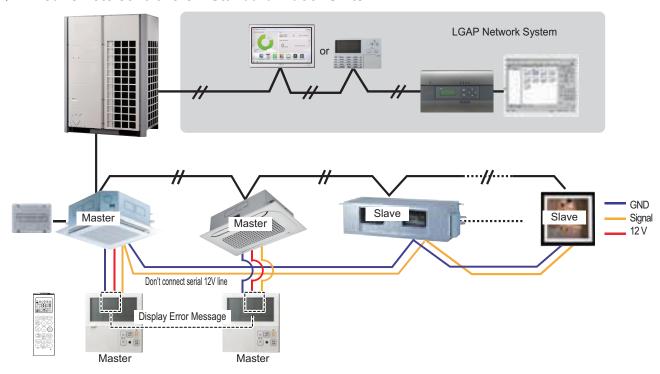
- 1. It is possible to16 indoor units(Max) by one wired remote controller. Set only one indoor unit to Master, set the others to Slave.
- 2. You can connect all the types of 2nd generation indoor units.
- 3. It is possible to use wireless remote controller at the same time.
- 4. It is possible to connect with Dry Contact and Central controller at the same time.
 - The Master indoor unit is possible to recognize Dry Contact and Central Controller only.
 - In case of Central controller and Group controller at the same time, it is possible to connect standard 2series indoor units or later since Feb. 2009.
 - In case of Central controller setting, the Central controller can control indoor units after setting only the address of master indoor unit.
 - · Slave indoor unit will be operated like master indoor unit.
 - Slave indoor unit can not be individually controlled by Central controller.
 - Some remote controller can't perform with Dry Contact and Central controller at the same time. So contact us fur- ther information about it.
- 5. In case that theindoorunithasanabnormalproblemanerrorcodewillbedisplayedonthewiredremote controller. With the exception of the indoor unit with the error, you can control each indoor unit individually.
- 6. In case that the indoor unit has an abnormal problem an error code will be displayed on the wired remote controller.

2. Group Control Setting

- Selection of operation options (operation/stop/mode/set temperature)
- Control of flow rate (High/Middle/Low)
- · It is not possible at some functions.
- Master/Slave setting of indoor units be set possible using a PCB Dip Switch.
- It is possible to connect indoor units since Feb. 2009.
 In the other cases, please contact LGE.
- It can be the cause of malfuctions when there is no setting of master and slave.

■ Group Control 2

♦ Wired remote controllers + Standard Indoor Units



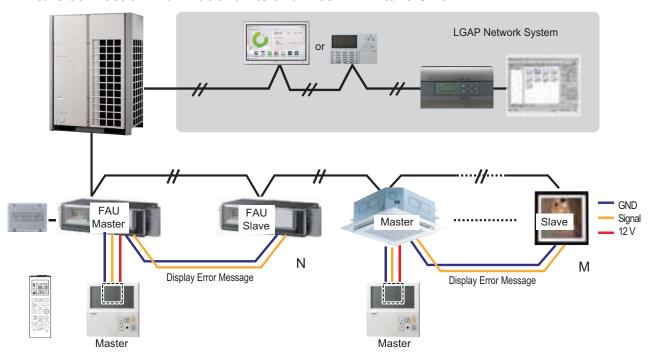
- It is possible to control 16 indoor units(Max.) with the master wired remote control.
- Set only one indoor unit to Master, set the others to Slave.
 Set only one wired remote controller to Master, set the others to Slave.

2. Group Control Setting

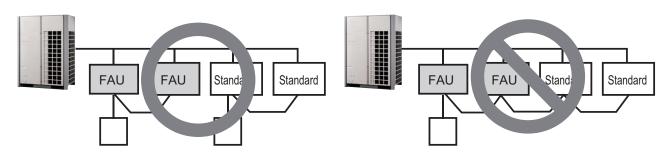
Other than those, it is same with the Group Control 1.

■ Group Control 3

♦ Mixture connection with indoor units and Fresh Air Intake Unit



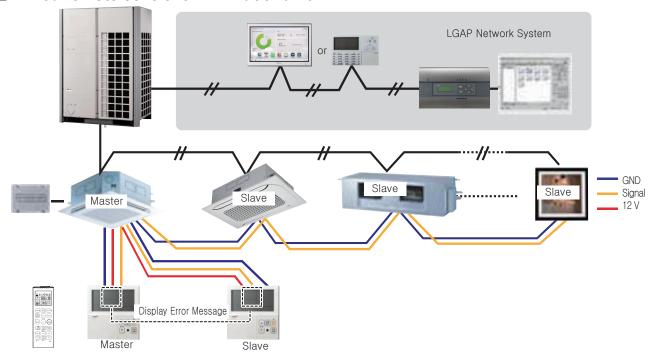
- In the case that you connect standard indoor units and Fresh Air Intake Units together, separate Fresh Air Intake
 Unit with standard units. (N, M < 17) controllers. (Because setting temperature are different.)
- · Other than those, it is same with Group Control 1.



* FAU : Fresh Air Intake Unit Standard: Standard Indoor Unit

3. 2 Remote Control

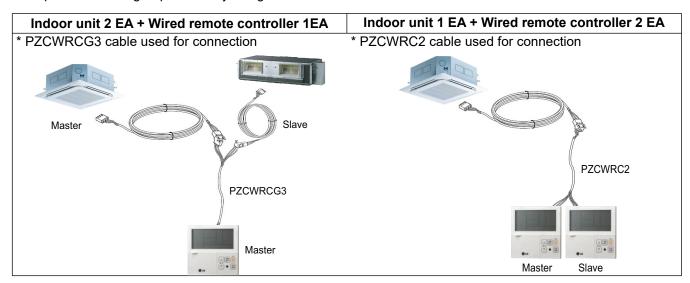
■ Wired remote controller 2 + Indoor unit 1



- 1. It is possible to connect two wired remote controllers(Max.) with one indoor unit.
- 2. Every types of indoor unit is possible to connect two remote controllers.
- 3. It is possible to use wireless remote controller at the same time.
- 4. It is possible to connect with Dry Contact and Central controller at the same time.
- 5. In case that the indoor unit has an abnormal problem an error code will be displayed on the wired remote controller.
 - With the exception of the indoor unit with the error, you can control each indoor unit individually.
- 6. There isn't limits of indoor unit function.

4. Accessories for group control setting

It is possible to set group control by using below accessories.





• Apply totally enclosed noncombustible conduit in case of local building code Requiring plenum cable usage.





Air Solution

LG Electronics Inc, 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Korea (07336) http://partner.lge.com

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