

# LG

**MULTI V** 

Heat Pump 220-240V + 220V  
R410A(50Hz/60Hz)  
0CVM0-01F(Replaces 0CVM0-01E)

# TOTAL HVAC SOLUTION PROVIDER

ENGINEERING PRODUCT DATA BOOK





## **General Information**

- 1. Model Names**
- 2. External Appearance**
- 3. Nomenclature**

## 1. Model Names

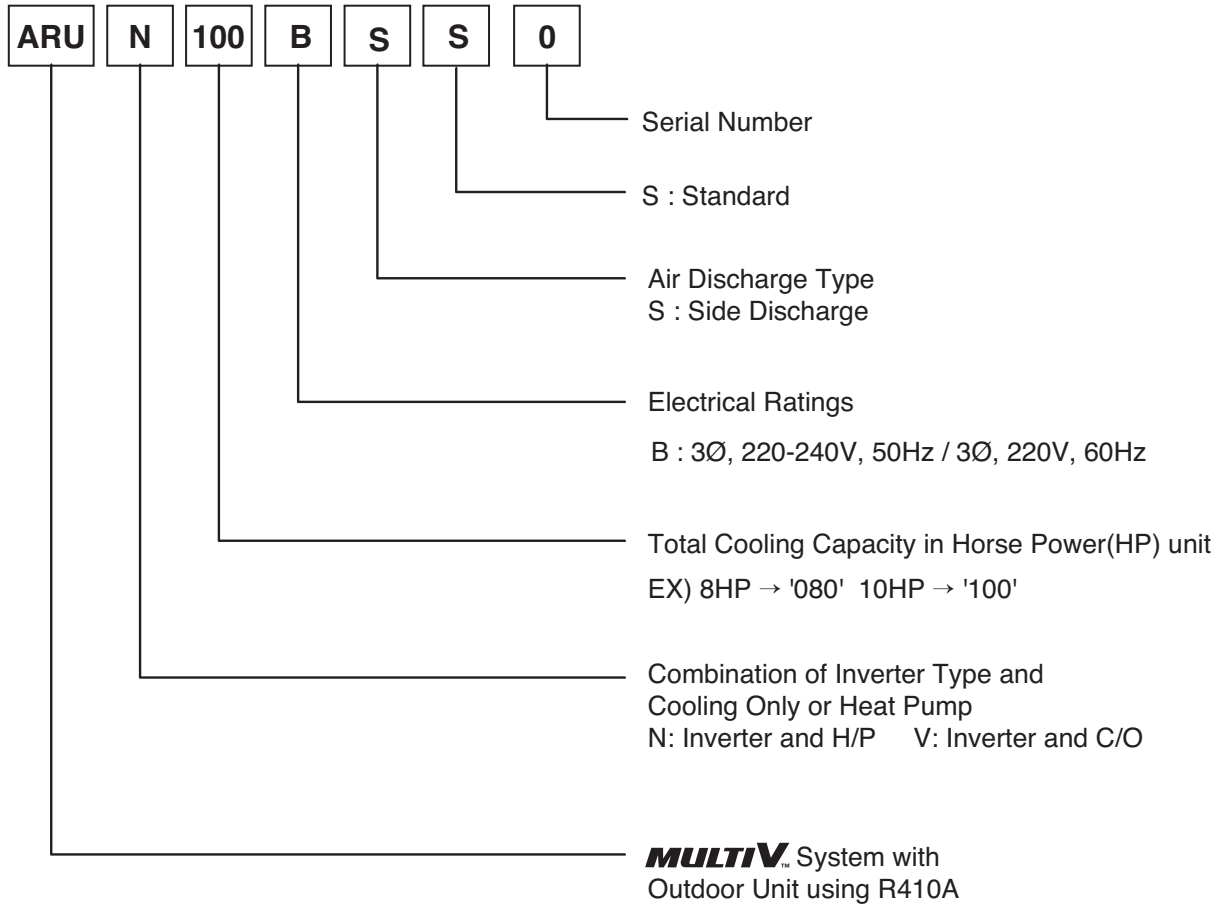
Power Supply	8HP	10HP	12HP
3Ø, 220-240V, 50Hz 3Ø, 220V, 60Hz	ARUN080BSS0	ARUN100BSS0	ARUN120BSS0

Heat Pump	ARUN
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## 2. External Appearance

CHASSIS	Model Name	Model
U3	ARUN080BSS0	
U7	ARUN100BSS0 ARUN120BSS0	

### 3. Nomenclature





## **Outdoor Units**

- 1. Outdoor Unit Function**
- 2. Specifications**
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# 1. Outdoor Unit Function

Category	Functions	Multi V S
Reliability	Defrost / Deicing	O
	High pressure switch	O
	Phase protection	O
	Restart delay (3-minutes)	O
	Self diagnosis	O
	Soft start	O
	Test Run function	O
Convenience	Night Low Noise Operation	O
CAC network function	Network solution(LGAP)	O

**Note :**

O : Applied, X : Not applied

Accessory model name : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

Device		Multi V S
Central Controller	AC Ez (Simple Controller)	PQCSZ250S0
	AC Smart II	PQCSW320A1E
	AC Smart Premium	PQCSW421E0A
	128 Unit Expansion Kit for AC Smart	PQCSE440U0
	Option Kit (SD card type) for AC Smart	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E
	ACP(Advanced Control Platform) Standard	PQCPC22N0
	ACP(Advanced Control Platform) Premium	PQCPC22A0
	AC Manager Plus	PQCSSA21E0
	DO(Digital Output) Kit	PQNFP00T0
PI485	X	
BNU (Building Network Unit)	LONWORKS Gateway (DC 12V Adapter)	PQNFB16A1 / PLNWKB000
	LONWORKS Gateway (AC 24 V)	X
	BACnet Gateway (DC 12V Adapter)	PQNFB17B0 / PQNFB17C0
	BACnet Gateway (AC 24 V)	X
Installation	Refrigerant Charging Kit	O (Logical operation)
PDI(power distribution indicator)		PQNUD1S00
PDI(power distribution indicator) Premium		PQNUD1S40
Cool / Heat Selector		PRDSBM
ODU Dry Contact		PQDSBCDVM0
IO Module (ODU Dry Contact)		PVDSMN000
Low Ambient Kit		X
Cycle Monitoring Device	LG MV	PRCT-FE1
	Mobile LGMV(Bluetooth)	PMVBTQ01
DS(Data Saving) Module		PVADTN000
Internet Bridge		PWFMD000

**Note :**

O : Applied, X : Not applied

Accessory model name : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

## 2. Specifications

### Heat Pump

**50Hz/60Hz**

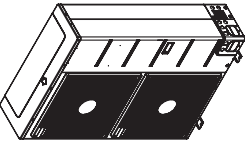
HP			8	10	12
Model Name	Combination Unit		ARUN080BSS0	ARUN100BSS0	ARUN120BSS0
Capacity <sup>1)</sup> (Rated)	Cooling	kW	22.4	28.0	33.6
		kcal/h	19,300	24,100	28,900
		Btu/h	76,400	95,900	114,700
	Heating	kW	25.2	31.5	37.8
		kcal/h	21,700	27,100	32,500
		Btu/h	86,000	107,500	129,000
Input (Rated) <sup>1)</sup>	Cooling	kW	5.89	7.09	9.08
	Heating	kW	6.00	7.41	9.95
Power Factor	Rated	-	0.93	0.93	0.93
Casing Color			Warm Gray	Warm Gray	Warm Gray
Heat Exchanger			Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Piston Displacement	cm <sup>3</sup> /rev	43.8	62.1	62.1
	Number of Revolution	rev/min	3,600	3,600	3,600
	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	6,800 x 1
	Starting Method		Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge		1,200	1,400	1,400
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W	124 x 2	250 x 2	250 x 2
	Air Flow Rate(High)	m <sup>3</sup> /min	140	190	190
		ft <sup>3</sup> /min	4,944	6,710	6,710
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
Discharge		Side / Top	Side	Side	
Piping Connections	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)	12.7(1/2)
	Gas	mm(inch)	19.05(3/4)	22.2(7/8)	28.58(9/8)
Dimensions(W x H x D)	mm		(950x1,380x330) x 1	(1,090 x 1,625 x 380) x 1	(1,090 x 1,625 x 380) x 1
	mm		(37-13/32 x 54-11/32 x 13) x 1	(42-29/32 x 63-31/32 x 14-31/32) x 1	(42-29/32 x 63-31/32 x 14-31/32) x 1
Net Weight	kg		115 x 1	144 x 1	157 x 1
	lbs		254 x 1	317 x 1	346 x 1
Sound Pressure Level	Cooling	dB(A)	57	58	60
	Heating	dB(A)	57	58	60
Sound Power Level	dB(A)		69	70	71
Protection Devices	High pressure protection	-	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch
	Compressor/ Fan	-	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector
	Inverter	-	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection
Communication Cable	No.xmm <sup>2</sup> (VCTF-SB)		2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
Refrigerant	Refrigerant name		R410A	R410A	R410A
	Precharged Amount	kg	3.5	4.5	6
		lbs	7.7	9.9	13.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	V, Ø, Hz		220-240, 3, 50	220-240, 3, 50	220-240, 3, 50
	V, Ø, Hz		220, 3, 60	220, 3, 60	220, 3, 60
Number of maximum connectable indoor units <sup>2)</sup>			13	16	20

**Notes:**

- Capacities are based on the following conditions:
  - Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB  
Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB
  - Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB  
Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
  - Piping Length : Interconnected Pipe Length = 7.5m
  - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- The maximum combination ratio is 160%.
- Wiring cable size must comply with the applicable local and national codes.
- Due to our policy of innovation some specifications may be changed without notification.
- Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- Power factor could vary less than ±1% according to the operating conditions.

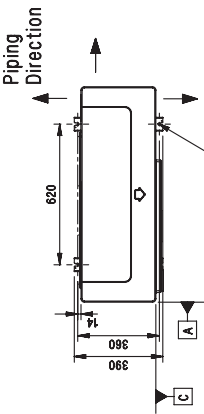
# 3. Dimensions

## 3.1 Dimensional Drawings

U3 Chassis ARUN080BSS0	 <p>3D View</p>
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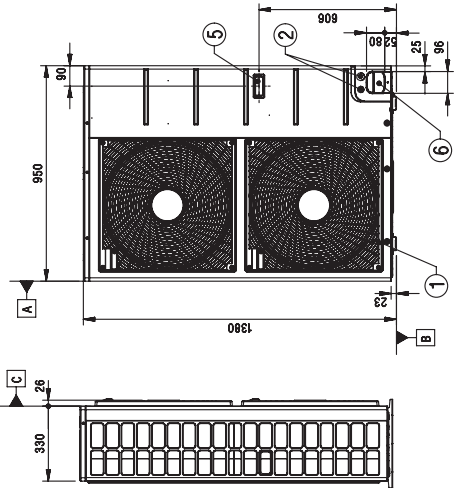
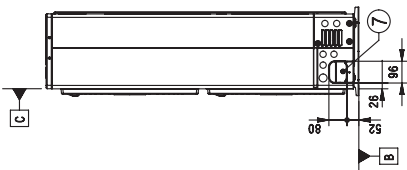
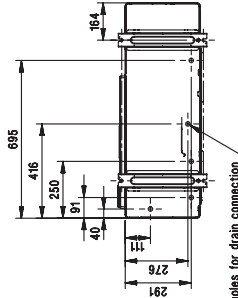
  

[Unit: mm]



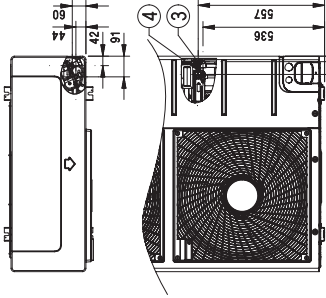
Piping Direction

4 holes for Anchor Bolts (M10)

5-1ø. ∅50 holes for drain connection



Piping connection port

No.	Part Name	Description
8	Pipe routing hole (back)	-
7	Pipe routing hole (side)	-
6	Pipe routing hole (front)	-
5	Handle	-
4	Liquid Pipe Connection	Welding joint
3	Gas Pipe Connection	Welding joint
2	Power and communication cable Hole	-
1	Air Outlet	-

**Note**

- Unit should be installed in compliance with the installation manual in the product box.
- Unit should be grounded in accordance with the local regulations or applicable national codes.
- All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.
- Electrical characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

**Symbols**

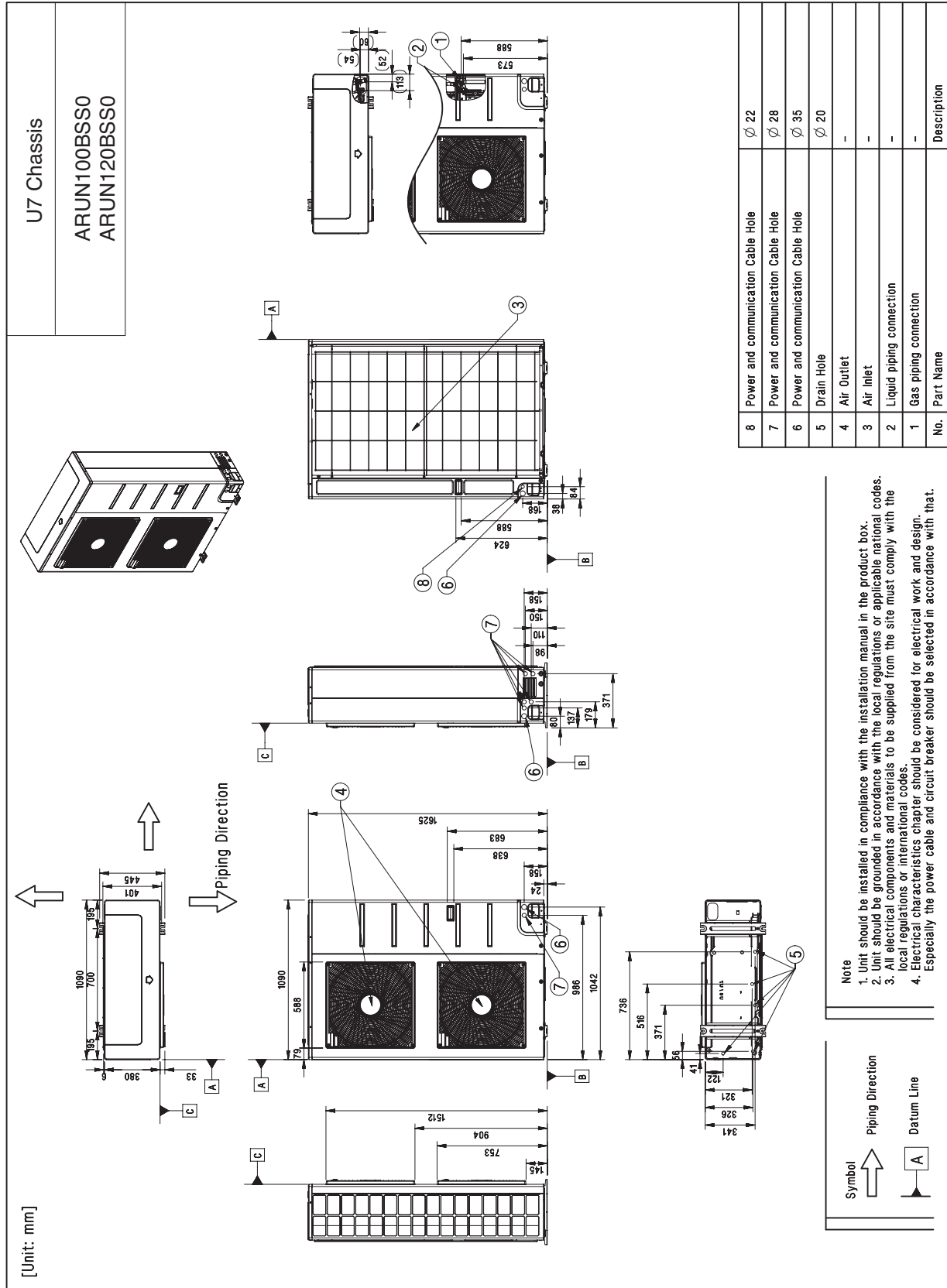
→ Piping Direction

▲ Datum line



# MULTI V<sub>TS</sub>

## 3. Dimensions



### 3. Dimensions

#### 3.2 Center of Gravity

**ARUN080BSS0** [Unit : mm]

Model Name	X	Y	Z
ARUN080BSS0	440	657	233

The drawing shows the ARUN080BSS0 outdoor unit. The front view on the left shows two fans stacked vertically. Dimension 'Y' is the total height, and 'X' is the width. The side view on the right shows the depth of the unit, labeled as 'Z'.

**ARUN100BSS0**  
**ARUN120BSS0** [Unit : mm]

Model Name	X	Y	Z
ARUN100BSS0	522	750	256
ARUN120BSS0			

The drawing shows the ARUN100BSS0 and ARUN120BSS0 outdoor units. The front view on the left shows two fans stacked vertically. Dimension 'Y' is the total height, and 'X' is the width. The side view on the right shows the depth of the unit, labeled as 'Z'.

## 4. Electric Characteristics

### ◆ Wiring of Main Power Supply and Equipment Capacity

1. Use a separate power supply for the Outdoor Unit and Indoor Unit.
2. Bear in mind ambient conditions (ambient temperature, direct sunlight, rain liquid, etc.) when proceeding with the wiring and connections.
3. The wire size is the minimum value for metal conduit wiring. The power cord size should be 1 rank thicker taking into account the line voltage drops. Make sure the power-supply voltage does not drop more than 10%.
4. Specific wiring requirements should adhere to the wiring regulations of the region.
5. Power supply cords of parts of appliances for outdoor use should not be lighter than polychloroprene sheathed flexible cord.
6. Don't install an individual switch or electrical outlet to disconnect each of indoor unit separately from the power supply.

#### **⚠ WARNING**

- Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations and guidance of each electric power company.
- Make sure to use specified wires for connections so that no external force is imparted to terminal connections. If connections are not fixed firmly, it may cause heating or fire.
- Make sure to use the appropriate type of overcurrent protection switch. Note that generated overcurrent may include some amount of direct current.

#### **⚠ CAUTION**

- All Installation site must require attachment of an earth leakage breaker. If no earth leakage breaker is installed, it may cause an electric shock.
- Do not use anything other than breaker and fuse with correct capacity. Using fuse and wire or copper wire with too large capacity may cause a malfunction of unit or fire.

## 4. Electric Characteristics

### ◆ 50Hz

Model	Unit			Power Supply			COMP			OFM	
	Hz	Volts	Voltage-range	MCA	TOCA	MFA	MSC	RLA(Cooling)	RLA(Heating)	kW	FLA
8 HP	50	220-240	Min.:198, Max.:264	32.5	-	40	-	18.4	21.0	0.35	1.00
10 HP				42.0	-	50	-	25.3	27.4	0.50	2.80
12 HP				46.3	-	50	-	28.4	30.9	0.50	2.80

### ◆ 60Hz

Model	Unit			Power Supply			COMP			OFM	
	Hz	Volts	Voltage-range	MCA	TOCA	MFA	MSC	RLA(Cooling)	RLA(Heating)	kW	FLA
8 HP	60	220	Min.:198, Max.:242	32.5	-	40	-	18.4	21.0	0.35	1.00
10 HP				42.0	-	50	-	25.3	27.4	0.50	2.80
12 HP				46.3	-	50	-	28.4	30.9	0.50	2.80

#### Notes:

- Voltage range  
Voltage supplied to the unit terminals should be within the minimum and maximum range
- Maximum allowable voltage unbalance between phase is 2%
- OFM is measured as the outdoor unit test condition.
- Select wire spec. based on the larger value of MCA or TOCA.
- TOCA means the total over current value of each outdoor unit.
- MSC means the Max. current during the starting of compressor.
- All installation site must require attachment of an earth leakage breaker. [circuit breaker type is ELCB(Earth Leakage Circuit Breaker)]
- MFA is used to select the circuit breaker and ground fault circuit interrupter (earth leakage circuit breaker)

MCA : Minimum Circuit Amperes (A)  
 MSC : Maximum Starting Current  
 RLA : Rated Load Amperes (A)  
 OFM : Outdoor Fan Motor  
 kW : Fan Motor rated output (kW)  
 FLA : Full Load Amperes (A)  
 MFA: Maximum Fuse Amperes(A)  
 TOCA: Total Over Current Amperes(A)

## 5. Indoor Unit and Outdoor Unit Capacity Index

### 5.1 Outdoor Unit Selection

See the indoor unit capacity tables for given Indoor and Outdoor temperature.  
Select the unit whose capacity is the nearest to or greater than given load.

**Note:**

Individual Indoor Unit capacity is subject to change by combination. Actual capacity has to be calculated according to the combination by using Outdoor unit capacity table.

### 5.2 Outdoor Unit Selection

Allowable combinations are indicated below. In general, outdoor unit can be selected depending on the location of the unit, zoning and usage of the rooms.

The indoor and outdoor unit combination is determined by comparing the sum of indoor unit capacity index with each Outdoor Unit. It is recommended to be the nearest to 100% combination ratio or to be smaller than that. Refer the table below. To manage cooling/heating load properly, it's better to be selected the bigger capacity outdoor unit rather than the nearest, if the installation space is large enough.

#### Allowable Total Capacity Index Table of Combined Indoor Units

Outdoor Unit Capacity(HP)	Indoor Unit Combination Ratio									
	50%	60%	70%	80%	90%	100%	110%	120%	130%	160%
8	11.2	13.4	15.7	17.9	20.2	22.4	24.6	26.9	29.1	35.8
10	14.0	16.8	19.6	22.4	25.2	28.0	30.8	33.6	36.4	44.8
12	16.8	20.2	23.5	26.9	30.2	33.6	37.0	40.3	43.7	53.8

\* Capacity Index is same as the capacity(kW).

#### INDOOR UNIT CAPACITY INDEX

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

\* Capacity Index is same as the capacity(kW).

\* 6HP or less outdoor units can be connected to indoor units below 60kBtu/h.

#### **⚠ CAUTION**

**■ Combination Ratio(50~160%)**

**Notes :**

- 1) We can guarantee the operation only within 130% combination ratio. If you want to connect more than 130% combination ratio, please contact us and discuss the requirement.
- 2) In case that operating indoor units ratio to rated capacity of outdoor unit is more than 130%, the airflow should be operated as low step in the all indoor units.
- 3) This combination ratio is applied only for outdoor units which are produced after Jan. 1st, 2015.

# 6. Capacity Tables

## 6.1 Cooling capacity

ARUN080BSS0

Cooling Capacity(8HP)

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
130	10	20.5	2.50	24.4	3.05	28.3	3.54	29.4	3.61	29.7	3.65	30.5	3.67	31.2	3.69
	12	20.5	2.56	24.4	3.16	28.3	3.69	29.0	3.71	29.5	3.78	30.1	3.82	30.8	3.84
	14	20.5	2.65	24.4	3.28	28.2	3.83	28.6	3.85	29.0	3.92	29.7	3.96	30.5	3.99
	16	20.5	2.74	24.4	3.39	27.9	4.00	28.2	4.04	28.6	4.06	29.3	4.10	30.1	4.14
	18	20.5	2.86	24.4	3.59	27.5	4.21	27.8	4.25	28.2	4.27	29.0	4.29	29.7	4.32
	20	20.5	2.98	24.4	3.82	27.1	4.41	27.5	4.45	27.8	4.48	28.6	4.50	29.3	4.53
	21	20.5	3.06	24.4	3.96	26.9	4.52	27.3	4.56	27.6	4.59	28.4	4.61	29.1	4.64
	23	20.5	3.29	24.4	4.25	26.6	4.71	26.9	4.76	27.3	4.79	28.0	4.82	28.7	4.85
	25	20.5	3.51	24.4	4.54	26.1	4.92	26.6	4.97	26.9	5.00	27.6	5.03	28.4	5.06
	27	20.5	3.76	24.4	4.85	25.8	5.13	26.1	5.17	26.6	5.21	27.3	5.24	28.0	5.27
	29	20.5	4.00	24.4	5.19	25.4	5.34	25.8	5.38	26.1	5.42	26.9	5.45	27.6	5.48
	31	20.5	4.27	24.3	5.46	25.0	5.56	25.4	5.59	25.8	5.63	26.5	5.66	27.2	5.69
	33	20.5	4.55	23.9	5.67	24.6	5.77	25.0	5.81	25.4	5.84	26.1	5.86	26.8	5.90
	35	20.5	4.85	23.5	5.88	24.2	5.98	24.6	6.02	25.0	6.04	25.7	6.07	26.5	6.11
	37	20.5	5.02	23.1	5.99	23.9	6.10	24.2	6.15	24.6	6.17	25.3	6.19	26.1	6.24
	39	20.5	5.19	22.7	6.11	23.5	6.22	23.9	6.27	24.2	6.29	25.0	6.31	25.7	6.35
41	19.8	5.87	21.6	6.82	22.3	6.94	22.6	6.99	23.1	7.01	23.8	7.04	24.4	7.09	
43	19.5	6.22	20.9	7.14	21.6	7.27	21.9	7.32	22.4	7.34	23.1	7.36	23.7	7.42	
46	18.2	6.63	19.0	7.47	19.7	7.61	20.0	7.65	20.5	7.67	21.1	7.69	21.7	7.75	
120	10	18.9	2.25	22.5	2.76	26.2	3.27	28.0	3.54	29.4	3.60	30.0	3.61	30.7	3.62
	12	18.9	2.31	22.5	2.85	26.2	3.41	28.0	3.61	29.0	3.73	29.6	3.77	30.3	3.79
	14	18.9	2.39	22.5	2.95	26.2	3.54	28.0	3.75	28.5	3.87	29.3	3.92	30.0	3.96
	16	18.9	2.47	22.5	3.07	26.2	3.68	27.9	3.95	28.2	4.04	28.9	4.06	29.5	4.11
	18	18.9	2.57	22.5	3.20	26.2	3.90	27.5	4.17	27.8	4.25	28.5	4.27	29.2	4.29
	20	18.9	2.67	22.5	3.40	26.2	4.16	27.1	4.41	27.5	4.46	28.1	4.48	28.8	4.49
	21	18.9	2.75	22.5	3.52	26.2	4.31	26.9	4.52	27.2	4.56	28.0	4.58	28.6	4.60
	23	18.9	2.94	22.5	3.77	26.2	4.59	26.5	4.72	26.9	4.77	27.5	4.79	28.2	4.81
	25	18.9	3.14	22.5	4.03	25.8	4.84	26.1	4.93	26.4	4.98	27.2	5.00	27.9	5.02
	27	18.9	3.35	22.5	4.31	25.4	5.09	25.8	5.13	26.1	5.18	26.8	5.21	27.5	5.23
	29	18.9	3.58	22.5	4.60	25.0	5.30	25.4	5.34	25.7	5.39	26.4	5.41	27.1	5.43
	31	18.9	3.81	22.5	4.92	24.6	5.52	25.0	5.54	25.4	5.60	26.0	5.62	26.7	5.64
	33	18.9	4.06	22.5	5.24	24.3	5.72	24.6	5.76	24.9	5.81	25.6	5.83	26.3	5.85
	35	18.9	4.31	22.5	5.59	23.9	5.95	24.2	5.97	24.6	6.01	25.3	6.04	25.9	6.06
	37	18.9	4.51	22.5	5.73	23.5	6.05	23.9	6.09	24.2	6.11	24.9	6.15	25.5	6.16
	39	18.9	4.70	22.4	5.86	23.1	6.15	23.4	6.20	23.8	6.21	24.5	6.25	25.2	6.27
41	18.3	5.35	21.2	6.57	22.0	6.85	22.3	6.90	22.6	6.92	23.3	6.96	23.9	6.98	
43	18.0	5.71	20.6	6.90	21.3	7.16	21.6	7.21	21.9	7.22	22.5	7.27	23.2	7.29	
46	16.9	6.14	18.7	7.26	19.4	7.47	19.7	7.53	20.0	7.56	20.6	7.58	21.2	7.60	
110	10	17.3	2.02	20.7	2.46	24.0	2.93	25.7	3.17	27.3	3.41	29.4	3.55	30.1	3.56
	12	17.3	2.09	20.7	2.55	24.0	3.05	25.7	3.26	27.3	3.54	29.1	3.69	29.7	3.74
	14	17.3	2.15	20.7	2.66	24.0	3.19	25.7	3.42	27.3	3.72	28.7	3.82	29.3	3.90
	16	17.3	2.23	20.7	2.76	24.0	3.32	25.7	3.57	27.3	3.94	28.3	4.04	28.9	4.06
	18	17.3	2.31	20.7	2.87	24.0	3.51	25.7	3.80	27.3	4.17	27.9	4.24	28.6	4.26
	20	17.3	2.39	20.7	3.02	24.0	3.72	25.7	4.05	26.9	4.40	27.6	4.45	28.2	4.47
	21	17.3	2.44	20.7	3.11	24.0	3.86	25.7	4.20	26.7	4.50	27.3	4.55	28.0	4.57
	23	17.3	2.60	20.7	3.33	24.0	4.14	25.7	4.45	26.3	4.72	27.0	4.76	27.6	4.78
	25	17.3	2.78	20.7	3.55	24.0	4.43	25.7	4.72	26.0	4.92	26.6	4.97	27.2	4.99
	27	17.3	2.97	20.7	3.80	24.0	4.74	25.2	4.98	25.6	5.15	26.2	5.17	26.8	5.19
	29	17.3	3.17	20.7	4.06	24.0	5.05	24.9	5.19	25.2	5.36	25.8	5.38	26.5	5.40
	31	17.3	3.38	20.7	4.33	24.0	5.40	24.5	5.42	24.8	5.56	25.5	5.59	26.1	5.61
	33	17.3	3.60	20.7	4.60	23.8	5.70	24.2	5.66	24.5	5.77	25.1	5.79	25.7	5.82
	35	17.3	3.82	20.7	4.92	23.4	5.90	23.7	5.92	24.1	5.98	24.7	6.00	25.3	6.03
	37	17.3	3.97	20.7	5.07	23.1	6.01	23.4	6.01	23.7	6.07	24.3	6.10	24.9	6.12
	39	17.3	4.12	20.7	5.22	22.7	6.10	23.0	6.11	23.3	6.16	23.9	6.20	24.6	6.21
41	16.7	4.68	19.9	5.87	21.5	6.78	21.8	6.80	22.1	6.85	22.7	6.89	23.3	6.91	
43	16.5	4.98	19.6	6.20	20.8	7.08	21.1	7.09	21.4	7.14	22.0	7.18	22.6	7.20	
46	15.4	5.34	18.4	6.57	19.0	7.37	19.3	7.39	19.5	7.43	20.1	7.47	20.7	7.49	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Cooling Capacity(8HP)**

Outdoor Units

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
100	10	15.1	1.82	18.0	2.21	21.0	2.63	22.4	2.84	23.8	3.05	26.8	3.39	29.4	3.42
	12	15.1	1.88	18.0	2.30	21.0	2.71	22.4	2.91	23.8	3.15	26.8	3.58	29.0	3.61
	14	15.1	1.94	18.0	2.40	21.0	2.83	22.4	3.04	23.8	3.28	26.8	3.78	28.7	3.81
	16	15.1	2.00	18.0	2.47	21.0	2.95	22.4	3.18	23.8	3.46	26.8	3.96	28.3	4.01
	18	15.1	2.06	18.0	2.57	21.0	3.06	22.4	3.34	23.8	3.67	26.8	4.18	27.9	4.21
	20	15.1	2.13	18.0	2.66	21.0	3.24	22.4	3.58	23.8	3.92	26.8	4.38	27.5	4.42
	21	15.1	2.17	18.0	2.73	21.0	3.35	22.4	3.70	23.8	4.07	26.8	4.48	27.4	4.52
	23	15.1	2.30	18.0	2.92	21.0	3.60	22.4	3.97	23.8	4.36	26.4	4.69	27.0	4.73
	25	15.1	2.45	18.0	3.11	21.0	3.84	22.4	4.25	23.8	4.66	26.0	4.89	26.6	4.93
	27	15.1	2.62	18.0	3.32	21.0	4.11	22.4	4.54	23.8	4.96	25.7	5.12	26.2	5.16
	29	15.1	2.78	18.0	3.54	21.0	4.39	22.4	4.85	23.8	5.24	25.3	5.33	25.8	5.37
	31	15.1	2.97	18.0	3.78	21.0	4.68	22.4	5.17	23.8	5.51	24.9	5.54	25.4	5.58
	33	15.1	3.15	18.0	4.02	21.0	5.00	22.4	5.52	23.8	5.72	24.5	5.74	25.0	5.79
	35	15.1	3.35	18.0	4.28	21.0	5.32	22.4	5.89	23.5	5.93	24.1	5.95	24.6	6.00
	37	15.1	3.49	18.0	4.46	21.0	5.47	22.4	5.99	23.1	6.02	23.8	6.04	24.3	6.10
	39	15.1	3.62	18.0	4.64	21.0	5.62	22.4	6.09	22.7	6.12	23.4	6.14	23.9	6.20
41	14.6	4.11	17.4	5.27	20.2	6.31	21.3	6.77	21.5	6.80	21.6	6.82	22.8	6.89	
43	14.4	4.37	17.1	5.62	19.9	6.64	20.6	7.07	20.8	7.09	21.5	7.12	22.1	7.18	
46	13.5	4.68	16.0	6.03	18.7	7.01	18.8	7.36	19.0	7.38	19.6	7.41	20.2	7.48	
90	10	13.6	1.60	16.2	1.93	18.9	2.27	20.2	2.45	21.4	2.63	24.1	2.95	26.7	3.28
	12	13.6	1.62	16.2	1.95	18.9	2.31	20.2	2.49	21.4	2.69	24.1	3.00	26.7	3.33
	14	13.6	1.65	16.2	1.99	18.9	2.36	20.2	2.54	21.4	2.74	24.1	3.06	26.7	3.40
	16	13.6	1.68	16.2	2.03	18.9	2.41	20.2	2.59	21.4	2.79	24.1	3.12	26.7	3.46
	18	13.6	1.71	16.2	2.07	18.9	2.45	20.2	2.65	21.4	2.85	24.1	3.19	26.7	3.63
	20	13.6	1.74	16.2	2.11	18.9	2.49	20.2	2.70	21.4	2.96	24.1	3.41	26.7	3.81
	21	13.6	1.76	16.2	2.13	18.9	2.54	20.2	2.79	21.4	3.06	24.1	3.54	26.7	3.90
	23	13.6	1.80	16.2	2.22	18.9	2.72	20.2	3.00	21.4	3.28	24.1	3.79	26.4	4.08
	25	13.6	1.89	16.2	2.37	18.9	2.91	20.2	3.20	21.4	3.51	24.1	4.05	26.0	4.25
	27	13.6	2.01	16.2	2.52	18.9	3.10	20.2	3.42	21.4	3.75	24.1	4.31	25.6	4.45
	29	13.6	2.13	16.2	2.69	18.9	3.32	20.2	3.65	21.4	4.01	24.1	4.61	25.2	4.63
	31	13.6	2.27	16.2	2.87	18.9	3.54	20.2	3.89	21.4	4.27	24.1	4.79	24.8	4.81
	33	13.6	2.42	16.2	3.05	18.9	3.77	20.2	4.14	21.4	4.53	24.1	4.97	24.4	4.99
	35	13.6	2.56	16.2	3.24	18.9	4.01	20.2	4.42	21.4	4.81	23.7	5.16	24.1	5.17
	37	13.6	2.72	16.2	3.45	18.9	4.27	20.2	4.70	21.4	5.07	23.3	5.34	23.7	5.35
	39	13.6	2.88	16.2	3.67	18.9	4.52	20.2	4.95	21.4	5.33	22.9	5.52	23.3	5.53
41	13.1	3.32	15.7	4.23	18.2	5.22	19.4	5.69	20.7	6.06	21.7	6.24	22.1	6.25	
43	12.9	3.59	15.4	4.58	17.9	5.65	19.2	6.13	20.4	6.43	21.0	6.61	21.4	6.62	
46	12.1	3.92	14.5	5.00	16.8	6.18	18.0	6.67	18.5	6.86	19.2	7.04	19.6	7.05	
80	10	12.1	1.51	14.4	1.81	16.7	2.13	17.9	2.29	19.1	2.46	21.4	2.81	23.8	3.05
	12	12.1	1.54	14.4	1.83	16.7	2.17	17.9	2.34	19.1	2.50	21.4	2.86	23.8	3.11
	14	12.1	1.56	14.4	1.87	16.7	2.20	17.9	2.38	19.1	2.55	21.4	2.91	23.8	3.17
	16	12.1	1.58	14.4	1.91	16.7	2.24	17.9	2.42	19.1	2.60	21.4	2.97	23.8	3.23
	18	12.1	1.61	14.4	1.94	16.7	2.28	17.9	2.46	19.1	2.65	21.4	3.03	23.8	3.30
	20	12.1	1.64	14.4	1.98	16.7	2.34	17.9	2.51	19.1	2.70	21.4	3.14	23.8	3.53
	21	12.1	1.65	14.4	2.00	16.7	2.36	17.9	2.55	19.1	2.77	21.4	3.24	23.8	3.66
	23	12.1	1.69	14.4	2.03	16.7	2.46	17.9	2.70	19.1	2.95	21.4	3.42	23.8	3.92
	25	12.1	1.75	14.4	2.17	16.7	2.64	17.9	2.89	19.1	3.16	21.4	3.66	23.8	4.19
	27	12.1	1.85	14.4	2.30	16.7	2.82	17.9	3.09	19.1	3.37	21.4	3.89	23.8	4.45
	29	12.1	1.97	14.4	2.46	16.7	3.00	17.9	3.29	19.1	3.60	21.4	4.17	23.8	4.63
	31	12.1	2.09	14.4	2.61	16.7	3.19	17.9	3.51	19.1	3.83	21.4	4.42	23.8	4.81
	33	12.1	2.22	14.4	2.79	16.7	3.40	17.9	3.74	19.1	4.08	21.4	4.66	23.8	4.99
	35	12.1	2.36	14.4	2.95	16.7	3.62	17.9	3.98	19.1	4.36	21.4	4.94	23.5	5.17
	37	12.1	2.49	14.4	3.14	16.7	3.84	17.9	4.23	19.1	4.63	21.4	5.22	23.1	5.35
	39	12.1	2.63	14.4	3.32	16.7	4.07	17.9	4.46	19.1	4.93	21.4	5.46	22.7	5.53
41	11.7	3.04	13.9	3.83	16.1	4.70	17.3	5.14	18.4	5.69	20.7	6.24	21.6	6.25	
43	11.5	3.27	13.7	4.14	15.9	5.08	17.0	5.55	18.2	6.16	20.4	6.61	20.9	6.62	
46	10.8	3.57	12.8	4.52	14.9	5.55	16.0	6.05	17.0	6.74	18.6	7.04	19.1	7.05	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Cooling Capacity(8HP)**

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
70	10	10.6	1.35	12.6	1.60	14.6	1.86	15.7	2.00	16.7	2.14	18.7	2.44	20.8	2.73
	12	10.6	1.37	12.6	1.62	14.6	1.90	15.7	2.04	16.7	2.19	18.7	2.48	20.8	2.78
	14	10.6	1.39	12.6	1.64	14.6	1.93	15.7	2.07	16.7	2.22	18.7	2.54	20.8	2.83
	16	10.6	1.41	12.6	1.68	14.6	1.96	15.7	2.11	16.7	2.26	18.7	2.58	20.8	2.89
	18	10.6	1.43	12.6	1.71	14.6	2.00	15.7	2.15	16.7	2.30	18.7	2.62	20.8	2.94
	20	10.6	1.45	12.6	1.74	14.6	2.04	15.7	2.20	16.7	2.36	18.7	2.68	20.8	3.06
	21	10.6	1.47	12.6	1.75	14.6	2.06	15.7	2.22	16.7	2.38	18.7	2.73	20.8	3.15
	23	10.6	1.50	12.6	1.79	14.6	2.10	15.7	2.29	16.7	2.49	18.7	2.92	20.8	3.33
	25	10.6	1.52	12.6	1.86	14.6	2.24	15.7	2.45	16.7	2.66	18.7	3.12	20.8	3.56
	27	10.6	1.60	12.6	1.98	14.6	2.39	15.7	2.60	16.7	2.84	18.7	3.33	20.8	3.78
	29	10.6	1.71	12.6	2.10	14.6	2.54	15.7	2.77	16.7	3.02	18.7	3.55	20.8	4.05
	31	10.6	1.81	12.6	2.24	14.6	2.71	15.7	2.96	16.7	3.22	18.7	3.79	20.8	4.30
	33	10.6	1.92	12.6	2.37	14.6	2.87	15.7	3.14	16.7	3.43	18.7	4.03	20.8	4.53
	35	10.6	2.03	12.6	2.53	14.6	3.06	15.7	3.34	16.7	3.65	18.7	4.30	20.8	4.81
	37	10.6	2.15	12.6	2.67	14.6	3.25	15.7	3.55	16.7	3.88	18.7	4.57	20.8	5.07
	39	10.6	2.26	12.6	2.82	14.6	3.44	15.7	3.75	16.7	4.11	18.7	4.84	20.8	5.31
41	10.2	2.61	12.2	3.25	14.1	3.97	15.1	4.32	16.1	4.75	18.1	5.60	20.1	6.09	
43	10.0	2.81	12.0	3.51	13.9	4.28	14.9	4.67	15.9	5.13	17.8	6.05	19.8	6.51	
46	9.4	3.06	11.3	3.83	13.0	4.68	14.0	5.09	14.9	5.61	16.7	6.62	18.5	6.97	
60	10	9.0	1.18	10.8	1.39	12.6	1.61	13.4	1.73	14.3	1.84	16.1	2.08	17.8	2.33
	12	9.0	1.20	10.8	1.41	12.6	1.63	13.4	1.75	14.3	1.87	16.1	2.12	17.8	2.37
	14	9.0	1.21	10.8	1.43	12.6	1.67	13.4	1.78	14.3	1.90	16.1	2.16	17.8	2.42
	16	9.0	1.24	10.8	1.46	12.6	1.69	13.4	1.82	14.3	1.94	16.1	2.20	17.8	2.46
	18	9.0	1.26	10.8	1.48	12.6	1.72	13.4	1.85	14.3	1.98	16.1	2.23	17.8	2.51
	20	9.0	1.28	10.8	1.50	12.6	1.75	13.4	1.88	14.3	2.01	16.1	2.28	17.8	2.57
	21	9.0	1.29	10.8	1.51	12.6	1.77	13.4	1.90	14.3	2.03	16.1	2.31	17.8	2.59
	23	9.0	1.31	10.8	1.55	12.6	1.79	13.4	1.93	14.3	2.07	16.1	2.40	17.8	2.75
	25	9.0	1.33	10.8	1.58	12.6	1.87	13.4	2.03	14.3	2.20	16.1	2.56	17.8	2.94
	27	9.0	1.38	10.8	1.67	12.6	1.99	13.4	2.16	14.3	2.34	16.1	2.72	17.8	3.14
	29	9.0	1.46	10.8	1.77	12.6	2.12	13.4	2.30	14.3	2.49	16.1	2.90	17.8	3.35
	31	9.0	1.55	10.8	1.88	12.6	2.25	13.4	2.45	14.3	2.65	16.1	3.09	17.8	3.57
	33	9.0	1.63	10.8	1.99	12.6	2.38	13.4	2.60	14.3	2.83	16.1	3.29	17.8	3.80
	35	9.0	1.73	10.8	2.12	12.6	2.54	13.4	2.76	14.3	3.00	16.1	3.50	17.8	4.04
	37	9.0	1.83	10.8	2.23	12.6	2.69	13.4	2.93	14.3	3.18	16.1	3.72	17.8	4.30
	39	9.0	1.92	10.8	2.35	12.6	2.84	13.4	3.12	14.3	3.36	16.1	3.95	17.8	4.56
41	8.7	2.19	10.4	2.71	12.1	3.28	13.0	3.58	13.8	3.87	15.5	4.56	17.2	5.27	
43	8.6	2.36	10.3	2.92	11.9	3.54	12.8	3.86	13.6	4.18	15.3	4.92	17.0	5.69	
46	8.1	2.56	9.6	3.18	11.2	3.86	12.0	4.21	12.8	4.56	14.3	5.38	15.9	6.23	
50	10	7.6	1.03	9.0	1.20	10.5	1.36	11.2	1.46	11.9	1.54	13.4	1.74	14.9	1.94
	12	7.6	1.04	9.0	1.21	10.5	1.38	11.2	1.48	11.9	1.58	13.4	1.77	14.9	1.97
	14	7.6	1.06	9.0	1.23	10.5	1.40	11.2	1.50	11.9	1.60	13.4	1.79	14.9	2.00
	16	7.6	1.08	9.0	1.25	10.5	1.42	11.2	1.53	11.9	1.62	13.4	1.83	14.9	2.03
	18	7.6	1.09	9.0	1.26	10.5	1.45	11.2	1.56	11.9	1.65	13.4	1.86	14.9	2.08
	20	7.6	1.10	9.0	1.28	10.5	1.48	11.2	1.58	11.9	1.69	13.4	1.89	14.9	2.12
	21	7.6	1.11	9.0	1.29	10.5	1.49	11.2	1.60	11.9	1.70	13.4	1.91	14.9	2.14
	23	7.6	1.13	9.0	1.32	10.5	1.51	11.2	1.62	11.9	1.73	13.4	1.95	14.9	2.19
	25	7.6	1.14	9.0	1.34	10.5	1.54	11.2	1.65	11.9	1.78	13.4	2.05	14.9	2.34
	27	7.6	1.16	9.0	1.38	10.5	1.63	11.2	1.76	11.9	1.89	13.4	2.19	14.9	2.49
	29	7.6	1.23	9.0	1.47	10.5	1.73	11.2	1.87	11.9	2.01	13.4	2.32	14.9	2.64
	31	7.6	1.29	9.0	1.56	10.5	1.84	11.2	1.98	11.9	2.14	13.4	2.47	14.9	2.82
	33	7.6	1.37	9.0	1.64	10.5	1.95	11.2	2.10	11.9	2.27	13.4	2.62	14.9	3.00
	35	7.6	1.45	9.0	1.74	10.5	2.06	11.2	2.23	11.9	2.40	13.4	2.77	14.9	3.19
	37	7.6	1.53	9.0	1.84	10.5	2.18	11.2	2.36	11.9	2.55	13.4	2.96	14.9	3.38
	39	7.6	1.60	9.0	1.93	10.5	2.31	11.2	2.49	11.9	2.68	13.4	3.12	14.9	3.58
41	7.3	1.84	8.7	2.22	10.1	2.66	10.8	2.87	11.5	3.08	12.9	3.60	14.4	4.13	
43	7.2	1.98	8.6	2.39	10.0	2.86	10.6	3.09	11.3	3.32	12.7	3.88	14.1	4.46	
46	6.7	2.15	8.1	2.60	9.3	3.11	10.0	3.36	10.6	3.62	11.9	4.24	13.3	4.87	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.



# 6. Capacity Tables

## ARUN100BSS0

### Cooling Capacity(10HP)

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	16	18	18	19	19	20	20	22	22	24	24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	10	25.6	3.01	30.5	3.68	35.4	4.26	36.7	4.35	37.2	4.40	38.1	4.42	39.0	4.45
	12	25.6	3.08	30.5	3.81	35.4	4.44	36.2	4.47	36.8	4.55	37.6	4.60	38.5	4.62
	14	25.6	3.19	30.5	3.95	35.3	4.61	35.8	4.64	36.2	4.72	37.2	4.76	38.1	4.80
	16	25.6	3.30	30.5	4.08	34.9	4.81	35.3	4.86	35.7	4.89	36.6	4.94	37.6	4.98
	18	25.6	3.44	30.5	4.32	34.3	5.07	34.8	5.11	35.3	5.14	36.2	5.17	37.2	5.20
	20	25.6	3.59	30.5	4.60	33.8	5.31	34.4	5.36	34.8	5.39	35.7	5.42	36.6	5.45
	21	25.6	3.69	30.5	4.76	33.6	5.44	34.1	5.49	34.6	5.52	35.5	5.55	36.4	5.58
	23	25.6	3.96	30.5	5.11	33.2	5.67	33.6	5.72	34.1	5.77	35.0	5.80	35.9	5.83
	25	25.6	4.22	30.5	5.46	32.7	5.92	33.2	5.98	33.6	6.02	34.6	6.05	35.5	6.09
	27	25.6	4.52	30.5	5.84	32.3	6.18	32.7	6.22	33.2	6.27	34.1	6.30	35.0	6.34
	29	25.6	4.82	30.5	6.24	31.7	6.43	32.2	6.48	32.7	6.52	33.6	6.56	34.6	6.59
	31	25.6	5.14	30.4	6.58	31.2	6.69	31.7	6.73	32.2	6.77	33.1	6.81	34.0	6.85
	33	25.6	5.48	29.9	6.83	30.8	6.94	31.3	6.99	31.7	7.02	32.7	7.06	33.5	7.10
	35	25.6	5.84	29.3	7.08	30.3	7.20	30.8	7.25	31.3	7.28	32.2	7.31	33.1	7.36
	37	25.6	6.04	28.9	7.21	29.9	7.34	30.3	7.40	30.8	7.43	31.6	7.45	32.6	7.51
	39	25.6	6.25	28.4	7.35	29.3	7.49	29.9	7.54	30.3	7.57	31.2	7.59	32.2	7.65
41	24.7	7.07	27.0	8.21	27.9	8.36	28.3	8.42	28.8	8.44	29.7	8.47	30.5	8.53	
43	24.3	7.49	26.1	8.59	27.0	8.75	27.4	8.81	28.0	8.83	28.8	8.86	29.6	8.93	
46	22.8	7.98	23.8	8.99	24.7	9.16	25.1	9.21	25.6	9.23	26.4	9.26	27.1	9.33	
120	10	23.7	2.71	28.2	3.32	32.7	3.94	35.0	4.26	36.7	4.33	37.5	4.35	38.4	4.36
	12	23.7	2.78	28.2	3.43	32.7	4.10	35.0	4.35	36.2	4.49	37.0	4.54	37.9	4.56
	14	23.7	2.87	28.2	3.55	32.7	4.27	35.0	4.52	35.7	4.65	36.6	4.72	37.4	4.76
	16	23.7	2.98	28.2	3.69	32.7	4.43	34.8	4.76	35.3	4.87	36.1	4.89	36.9	4.94
	18	23.7	3.09	28.2	3.86	32.7	4.70	34.3	5.02	34.7	5.12	35.6	5.14	36.5	5.16
	20	23.7	3.21	28.2	4.09	32.7	5.01	33.9	5.31	34.3	5.37	35.1	5.39	36.0	5.41
	21	23.7	3.31	28.2	4.24	32.7	5.19	33.6	5.44	34.0	5.49	34.9	5.51	35.8	5.54
	23	23.7	3.54	28.2	4.53	32.7	5.53	33.2	5.68	33.6	5.74	34.4	5.76	35.3	5.79
	25	23.7	3.78	28.2	4.86	32.2	5.83	32.6	5.93	33.1	5.99	34.0	6.01	34.8	6.04
	27	23.7	4.04	28.2	5.19	31.8	6.13	32.2	6.18	32.6	6.24	33.5	6.27	34.3	6.29
	29	23.7	4.31	28.2	5.54	31.3	6.38	31.7	6.43	32.1	6.49	33.0	6.52	33.9	6.54
	31	23.7	4.59	28.2	5.92	30.8	6.65	31.3	6.67	31.7	6.74	32.5	6.77	33.4	6.79
	33	23.7	4.88	28.2	6.31	30.4	6.89	30.8	6.93	31.2	6.99	32.0	7.02	32.9	7.05
	35	23.7	5.19	28.2	6.73	29.8	7.16	30.2	7.18	30.8	7.24	31.6	7.27	32.4	7.30
	37	23.7	5.42	28.2	6.89	29.4	7.28	29.8	7.33	30.2	7.35	31.1	7.40	31.9	7.42
	39	23.7	5.65	28.1	7.06	28.9	7.41	29.3	7.46	29.7	7.48	30.7	7.53	31.5	7.55
41	22.8	6.44	26.6	7.91	27.5	8.25	27.8	8.31	28.3	8.33	29.1	8.38	29.9	8.40	
43	22.5	6.87	25.7	8.31	26.6	8.62	27.0	8.68	27.4	8.70	28.2	8.75	29.0	8.78	
46	21.1	7.39	23.4	8.74	24.3	8.99	24.6	9.07	25.0	9.10	25.8	9.13	26.5	9.15	
110	10	21.7	2.43	25.8	2.97	30.0	3.52	32.1	3.81	34.2	4.10	36.8	4.27	37.6	4.29
	12	21.7	2.51	25.8	3.07	30.0	3.67	32.1	3.92	34.2	4.26	36.4	4.44	37.1	4.50
	14	21.7	2.59	25.8	3.20	30.0	3.84	32.1	4.12	34.2	4.47	35.8	4.60	36.7	4.70
	16	21.7	2.68	25.8	3.32	30.0	3.99	32.1	4.30	34.2	4.75	35.4	4.86	36.1	4.89
	18	21.7	2.78	25.8	3.46	30.0	4.22	32.1	4.58	34.2	5.02	34.9	5.11	35.7	5.13
	20	21.7	2.88	25.8	3.63	30.0	4.48	32.1	4.88	33.6	5.30	34.5	5.36	35.2	5.38
	21	21.7	2.94	25.8	3.74	30.0	4.64	32.1	5.05	33.4	5.42	34.2	5.48	35.0	5.50
	23	21.7	3.13	25.8	4.01	30.0	4.98	32.1	5.36	32.9	5.68	33.7	5.73	34.5	5.75
	25	21.7	3.35	25.8	4.28	30.0	5.33	32.1	5.68	32.5	5.92	33.2	5.98	34.1	6.00
	27	21.7	3.58	25.8	4.57	30.0	5.70	31.6	5.99	32.0	6.20	32.8	6.23	33.5	6.25
	29	21.7	3.82	25.8	4.88	30.0	6.08	31.1	6.25	31.6	6.45	32.3	6.48	33.1	6.50
	31	21.7	4.06	25.8	5.21	30.0	6.50	30.6	6.53	31.0	6.70	31.9	6.73	32.6	6.75
	33	21.7	4.33	25.8	5.54	29.8	6.86	30.2	6.82	30.6	6.95	31.4	6.98	32.2	7.00
	35	21.7	4.60	25.8	5.92	29.3	7.10	29.7	7.13	30.1	7.20	30.8	7.22	31.7	7.25
	37	21.7	4.78	25.8	6.10	28.9	7.23	29.3	7.24	29.6	7.30	30.4	7.35	31.1	7.37
	39	21.7	4.97	25.8	6.28	28.3	7.34	28.7	7.36	29.2	7.42	29.9	7.46	30.7	7.48
41	20.9	5.64	24.9	7.07	26.8	8.17	27.3	8.18	27.6	8.24	28.4	8.29	29.1	8.31	
43	20.6	6.00	24.5	7.46	26.0	8.52	26.4	8.54	26.8	8.60	27.5	8.64	28.2	8.67	
46	19.3	6.42	23.0	7.90	23.7	8.87	24.1	8.89	24.4	8.94	25.2	8.99	25.8	9.02	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Cooling Capacity(10HP)**

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
100	10	18.9	2.19	22.5	2.66	26.2	3.16	28.0	3.41	29.8	3.67	33.5	4.08	36.8	4.12
	12	18.9	2.26	22.5	2.77	26.2	3.27	28.0	3.51	29.8	3.79	33.5	4.30	36.3	4.35
	14	18.9	2.33	22.5	2.88	26.2	3.40	28.0	3.66	29.8	3.95	33.5	4.54	35.9	4.59
	16	18.9	2.40	22.5	2.98	26.2	3.55	28.0	3.83	29.8	4.16	33.5	4.76	35.4	4.83
	18	18.9	2.47	22.5	3.09	26.2	3.69	28.0	4.02	29.8	4.41	33.5	5.03	34.9	5.07
	20	18.9	2.56	22.5	3.21	26.2	3.90	28.0	4.31	29.8	4.72	33.5	5.27	34.4	5.32
	21	18.9	2.62	22.5	3.28	26.2	4.04	28.0	4.45	29.8	4.90	33.5	5.39	34.2	5.44
	23	18.9	2.77	22.5	3.51	26.2	4.33	28.0	4.78	29.8	5.25	33.0	5.65	33.8	5.69
	25	18.9	2.95	22.5	3.74	26.2	4.63	28.0	5.11	29.8	5.61	32.6	5.89	33.2	5.94
	27	18.9	3.15	22.5	4.00	26.2	4.95	28.0	5.46	29.8	5.96	32.1	6.17	32.8	6.22
	29	18.9	3.35	22.5	4.26	26.2	5.29	28.0	5.84	29.8	6.31	31.6	6.42	32.3	6.47
	31	18.9	3.58	22.5	4.55	26.2	5.64	28.0	6.23	29.8	6.63	31.1	6.66	31.8	6.72
	33	18.9	3.79	22.5	4.84	26.2	6.01	28.0	6.65	29.8	6.88	30.6	6.91	31.3	6.97
	35	18.9	4.04	22.5	5.15	26.2	6.40	28.0	7.09	29.3	7.13	30.2	7.16	30.8	7.22
	37	18.9	4.20	22.5	5.37	26.2	6.59	28.0	7.21	28.9	7.25	29.7	7.28	30.4	7.34
	39	18.9	4.36	22.5	5.58	26.2	6.76	28.0	7.33	28.4	7.36	29.2	7.39	29.9	7.46
41	18.2	4.95	21.7	6.35	25.3	7.59	26.6	8.15	26.9	8.19	27.0	8.21	28.4	8.29	
43	18.0	5.26	21.4	6.76	24.9	8.00	25.8	8.51	26.1	8.54	26.9	8.57	27.6	8.65	
46	16.8	5.63	20.0	7.25	23.3	8.44	23.5	8.86	23.8	8.89	24.5	8.91	25.2	9.00	
90	10	17.0	2.14	20.3	2.57	23.6	3.03	25.2	3.26	26.8	3.51	30.1	3.93	33.4	4.12
	12	17.0	2.16	20.3	2.61	23.6	3.08	25.2	3.33	26.8	3.59	30.1	4.01	33.4	4.35
	14	17.0	2.20	20.3	2.66	23.6	3.15	25.2	3.40	26.8	3.66	30.1	4.09	33.4	4.54
	16	17.0	2.24	20.3	2.71	23.6	3.21	25.2	3.46	26.8	3.72	30.1	4.17	33.4	4.62
	18	17.0	2.28	20.3	2.77	23.6	3.26	25.2	3.54	26.8	3.80	30.1	4.26	33.4	4.85
	20	17.0	2.32	20.3	2.82	23.6	3.33	25.2	3.61	26.8	3.95	30.1	4.56	33.4	5.08
	21	17.0	2.35	20.3	2.84	23.6	3.40	25.2	3.72	26.8	4.09	30.1	4.72	33.4	5.20
	23	17.0	2.40	20.3	2.96	23.6	3.63	25.2	4.00	26.8	4.38	30.1	5.06	32.9	5.44
	25	17.0	2.52	20.3	3.16	23.6	3.88	25.2	4.27	26.8	4.68	30.1	5.41	32.5	5.68
	27	17.0	2.69	20.3	3.37	23.6	4.14	25.2	4.56	26.8	5.01	30.1	5.75	32.0	5.94
	29	17.0	2.84	20.3	3.59	23.6	4.43	25.2	4.88	26.8	5.35	30.1	6.16	31.5	6.18
	31	17.0	3.03	20.3	3.83	23.6	4.72	25.2	5.19	26.8	5.70	30.1	6.40	31.0	6.42
	33	17.0	3.23	20.3	4.08	23.6	5.03	25.2	5.53	26.8	6.05	30.1	6.64	30.6	6.66
	35	17.0	3.42	20.3	4.33	23.6	5.35	25.2	5.90	26.8	6.41	29.6	6.88	30.1	6.90
	37	17.0	3.63	20.3	4.60	23.6	5.70	25.2	6.27	26.8	6.77	29.1	7.12	29.6	7.14
	39	17.0	3.84	20.3	4.89	23.6	6.04	25.2	6.60	26.8	7.12	28.6	7.36	29.1	7.38
41	16.4	4.44	19.6	5.65	22.8	6.97	24.3	7.60	25.9	8.09	27.2	8.21	27.6	8.29	
43	16.2	4.79	19.3	6.11	22.4	7.54	23.9	8.18	25.5	8.54	26.3	8.57	26.8	8.65	
46	15.1	5.23	18.1	6.68	21.0	8.25	22.4	8.86	23.1	8.89	24.0	8.91	24.5	9.00	
80	10	15.1	2.02	18.0	2.43	20.9	2.85	22.4	3.07	23.9	3.30	26.8	3.76	29.7	4.08
	12	15.1	2.06	18.0	2.45	20.9	2.90	22.4	3.13	23.9	3.35	26.8	3.83	29.7	4.16
	14	15.1	2.09	18.0	2.51	20.9	2.94	22.4	3.18	23.9	3.41	26.8	3.90	29.7	4.24
	16	15.1	2.12	18.0	2.55	20.9	3.00	22.4	3.24	23.9	3.48	26.8	3.98	29.7	4.32
	18	15.1	2.16	18.0	2.59	20.9	3.06	22.4	3.30	23.9	3.55	26.8	4.05	29.7	4.42
	20	15.1	2.20	18.0	2.65	20.9	3.13	22.4	3.37	23.9	3.62	26.8	4.21	29.7	4.73
	21	15.1	2.22	18.0	2.68	20.9	3.16	22.4	3.41	23.9	3.70	26.8	4.34	29.7	4.90
	23	15.1	2.26	18.0	2.72	20.9	3.30	22.4	3.62	23.9	3.95	26.8	4.58	29.7	5.25
	25	15.1	2.34	18.0	2.90	20.9	3.53	22.4	3.87	23.9	4.23	26.8	4.90	29.7	5.62
	27	15.1	2.48	18.0	3.08	20.9	3.77	22.4	4.14	23.9	4.52	26.8	5.21	29.7	5.94
	29	15.1	2.64	18.0	3.30	20.9	4.01	22.4	4.40	23.9	4.82	26.8	5.58	29.7	6.18
	31	15.1	2.80	18.0	3.49	20.9	4.28	22.4	4.70	23.9	5.13	26.8	5.92	29.7	6.42
	33	15.1	2.97	18.0	3.73	20.9	4.56	22.4	5.01	23.9	5.47	26.8	6.24	29.7	6.66
	35	15.1	3.16	18.0	3.95	20.9	4.85	22.4	5.33	23.9	5.83	26.8	6.62	29.4	6.90
	37	15.1	3.34	18.0	4.20	20.9	5.15	22.4	5.66	23.9	6.20	26.8	6.98	28.9	7.14
	39	15.1	3.53	18.0	4.44	20.9	5.45	22.4	5.97	23.9	6.59	26.8	7.31	28.4	7.38
41	14.6	4.06	17.4	5.13	20.2	6.29	21.6	6.88	23.1	7.62	25.9	8.21	27.0	8.29	
43	14.3	4.38	17.1	5.54	19.9	6.80	21.3	7.42	22.7	8.25	25.5	8.57	26.1	8.65	
46	13.4	4.78	16.0	6.05	18.6	7.43	19.9	8.10	21.3	8.89	23.3	8.91	23.8	9.00	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

Outdoor Units

# 6. Capacity Tables

**Cooling Capacity(10HP)**

Outdoor Units

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
70	10	13.2	1.81	15.8	2.15	18.3	2.49	19.6	2.69	20.9	2.88	23.4	3.28	26.0	3.66
	12	13.2	1.84	15.8	2.18	18.3	2.55	19.6	2.73	20.9	2.93	23.4	3.33	26.0	3.73
	14	13.2	1.87	15.8	2.21	18.3	2.59	19.6	2.78	20.9	2.98	23.4	3.40	26.0	3.80
	16	13.2	1.89	15.8	2.25	18.3	2.64	19.6	2.83	20.9	3.03	23.4	3.46	26.0	3.88
	18	13.2	1.92	15.8	2.29	18.3	2.69	19.6	2.89	20.9	3.09	23.4	3.52	26.0	3.95
	20	13.2	1.95	15.8	2.34	18.3	2.73	19.6	2.95	20.9	3.16	23.4	3.60	26.0	4.10
	21	13.2	1.98	15.8	2.35	18.3	2.76	19.6	2.98	20.9	3.19	23.4	3.66	26.0	4.23
	23	13.2	2.01	15.8	2.41	18.3	2.82	19.6	3.08	20.9	3.35	23.4	3.92	26.0	4.47
	25	13.2	2.04	15.8	2.49	18.3	3.01	19.6	3.29	20.9	3.58	23.4	4.19	26.0	4.78
	27	13.2	2.15	15.8	2.66	18.3	3.20	19.6	3.49	20.9	3.82	23.4	4.47	26.0	5.08
	29	13.2	2.29	15.8	2.82	18.3	3.40	19.6	3.72	20.9	4.06	23.4	4.77	26.0	5.44
	31	13.2	2.44	15.8	3.01	18.3	3.63	19.6	3.97	20.9	4.33	23.4	5.09	26.0	5.78
	33	13.2	2.58	15.8	3.18	18.3	3.86	19.6	4.22	20.9	4.60	23.4	5.41	26.0	6.09
	35	13.2	2.72	15.8	3.39	18.3	4.10	19.6	4.49	20.9	4.90	23.4	5.77	26.0	6.45
	37	13.2	2.89	15.8	3.59	18.3	4.36	19.6	4.77	20.9	5.21	23.4	6.14	26.0	6.81
	39	13.2	3.04	15.8	3.79	18.3	4.61	19.6	5.03	20.9	5.52	23.4	6.51	26.0	7.13
41	12.7	3.50	15.2	4.37	17.7	5.33	18.9	5.81	20.2	6.38	22.6	7.52	25.1	8.17	
43	12.5	3.77	15.0	4.71	17.4	5.75	18.6	6.27	19.9	6.89	22.2	8.13	24.7	8.65	
46	11.8	4.11	14.1	5.14	16.3	6.28	17.5	6.84	18.6	7.54	20.8	8.89	23.2	9.00	
60	10	11.3	1.59	13.5	1.87	15.7	2.17	16.8	2.33	17.9	2.47	20.1	2.81	22.3	3.14
	12	11.3	1.62	13.5	1.90	15.7	2.20	16.8	2.36	17.9	2.52	20.1	2.85	22.3	3.20
	14	11.3	1.63	13.5	1.92	15.7	2.24	16.8	2.40	17.9	2.56	20.1	2.91	22.3	3.25
	16	11.3	1.66	13.5	1.97	15.7	2.27	16.8	2.44	17.9	2.62	20.1	2.97	22.3	3.31
	18	11.3	1.69	13.5	2.00	15.7	2.31	16.8	2.49	17.9	2.66	20.1	3.01	22.3	3.39
	20	11.3	1.72	13.5	2.03	15.7	2.36	16.8	2.53	17.9	2.71	20.1	3.07	22.3	3.46
	21	11.3	1.74	13.5	2.04	15.7	2.39	16.8	2.56	17.9	2.73	20.1	3.11	22.3	3.49
	23	11.3	1.76	13.5	2.08	15.7	2.42	16.8	2.60	17.9	2.79	20.1	3.23	22.3	3.70
	25	11.3	1.79	13.5	2.13	15.7	2.52	16.8	2.73	17.9	2.97	20.1	3.44	22.3	3.96
	27	11.3	1.85	13.5	2.24	15.7	2.68	16.8	2.91	17.9	3.15	20.1	3.66	22.3	4.22
	29	11.3	1.97	13.5	2.39	15.7	2.85	16.8	3.10	17.9	3.36	20.1	3.91	22.3	4.51
	31	11.3	2.08	13.5	2.53	15.7	3.02	16.8	3.30	17.9	3.57	20.1	4.17	22.3	4.80
	33	11.3	2.20	13.5	2.68	15.7	3.21	16.8	3.50	17.9	3.80	20.1	4.43	22.3	5.12
	35	11.3	2.33	13.5	2.85	15.7	3.41	16.8	3.72	17.9	4.04	20.1	4.72	22.3	5.44
	37	11.3	2.46	13.5	3.01	15.7	3.62	16.8	3.95	17.9	4.28	20.1	5.01	22.3	5.79
	39	11.3	2.59	13.5	3.17	15.7	3.83	16.8	4.20	17.9	4.52	20.1	5.31	22.3	6.14
41	10.9	2.95	13.0	3.65	15.1	4.42	16.2	4.82	17.3	5.21	19.4	6.14	21.5	7.09	
43	10.7	3.18	12.8	3.93	14.9	4.76	16.0	5.20	17.0	5.62	19.1	6.63	21.2	7.67	
46	10.1	3.45	12.0	4.28	14.0	5.20	15.0	5.67	15.9	6.14	17.9	7.24	19.9	8.39	
50	10	9.5	1.40	11.3	1.62	13.1	1.84	14.0	1.97	14.9	2.09	16.7	2.35	18.6	2.61
	12	9.5	1.41	11.3	1.63	13.1	1.87	14.0	2.00	14.9	2.13	16.7	2.39	18.6	2.66
	14	9.5	1.42	11.3	1.66	13.1	1.89	14.0	2.03	14.9	2.16	16.7	2.42	18.6	2.70
	16	9.5	1.45	11.3	1.69	13.1	1.92	14.0	2.07	14.9	2.19	16.7	2.47	18.6	2.75
	18	9.5	1.47	11.3	1.70	13.1	1.95	14.0	2.10	14.9	2.23	16.7	2.51	18.6	2.81
	20	9.5	1.48	11.3	1.73	13.1	2.00	14.0	2.13	14.9	2.28	16.7	2.56	18.6	2.86
	21	9.5	1.50	11.3	1.75	13.1	2.01	14.0	2.16	14.9	2.29	16.7	2.59	18.6	2.89
	23	9.5	1.53	11.3	1.78	13.1	2.04	14.0	2.19	14.9	2.34	16.7	2.63	18.6	2.95
	25	9.5	1.54	11.3	1.81	13.1	2.09	14.0	2.23	14.9	2.41	16.7	2.76	18.6	3.16
	27	9.5	1.57	11.3	1.87	13.1	2.20	14.0	2.38	14.9	2.56	16.7	2.95	18.6	3.36
	29	9.5	1.66	11.3	1.98	13.1	2.34	14.0	2.53	14.9	2.72	16.7	3.13	18.6	3.57
	31	9.5	1.75	11.3	2.10	13.1	2.48	14.0	2.67	14.9	2.89	16.7	3.33	18.6	3.80
	33	9.5	1.85	11.3	2.22	13.1	2.63	14.0	2.83	14.9	3.07	16.7	3.54	18.6	4.05
	35	9.5	1.95	11.3	2.35	13.1	2.78	14.0	3.01	14.9	3.25	16.7	3.75	18.6	4.30
	37	9.5	2.07	11.3	2.48	13.1	2.94	14.0	3.19	14.9	3.44	16.7	4.00	18.6	4.57
	39	9.5	2.17	11.3	2.61	13.1	3.12	14.0	3.36	14.9	3.62	16.7	4.21	18.6	4.84
41	9.1	2.49	10.9	3.00	12.6	3.59	13.5	3.87	14.4	4.16	16.1	4.86	17.9	5.58	
43	9.0	2.68	10.7	3.23	12.4	3.86	13.3	4.17	14.2	4.48	15.9	5.24	17.7	6.03	
46	8.4	2.91	10.1	3.51	11.7	4.20	12.5	4.54	13.3	4.88	14.9	5.72	16.6	6.58	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

## ARUN120BSS0

### Cooling Capacity(12HP)

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14		16		18		19		20		22		24	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	10	30.7	3.85	36.6	4.71	42.5	5.46	44.1	5.57	44.6	5.63	45.7	5.66	46.8	5.69
	12	30.7	3.95	36.6	4.88	42.5	5.69	43.5	5.72	44.2	5.83	45.1	5.89	46.2	5.92
	14	30.7	4.08	36.6	5.05	42.3	5.90	43.0	5.94	43.5	6.04	44.6	6.10	45.7	6.15
	16	30.7	4.23	36.6	5.23	41.8	6.16	42.3	6.22	42.8	6.27	44.0	6.32	45.1	6.38
	18	30.7	4.41	36.6	5.53	41.2	6.50	41.7	6.55	42.3	6.59	43.5	6.62	44.6	6.66
	20	30.7	4.60	36.6	5.89	40.6	6.81	41.3	6.87	41.7	6.91	42.8	6.94	44.0	6.98
	21	30.7	4.72	36.6	6.10	40.3	6.96	41.0	7.03	41.5	7.07	42.6	7.10	43.7	7.15
	23	30.7	5.07	36.6	6.55	39.8	7.26	40.3	7.33	40.9	7.39	42.0	7.43	43.1	7.47
	25	30.7	5.41	36.6	7.00	39.2	7.59	39.9	7.66	40.3	7.71	41.5	7.75	42.6	7.80
	27	30.7	5.79	36.6	7.48	38.7	7.91	39.2	7.97	39.9	8.03	40.9	8.07	42.0	8.12
	29	30.7	6.17	36.6	7.99	38.1	8.24	38.6	8.30	39.2	8.35	40.3	8.40	41.5	8.45
	31	30.7	6.58	36.5	8.42	37.5	8.57	38.1	8.62	38.6	8.67	39.7	8.72	40.8	8.77
	33	30.7	7.01	35.8	8.74	37.0	8.89	37.6	8.95	38.1	9.00	39.2	9.04	40.2	9.10
	35	30.7	7.48	35.2	9.06	36.3	9.22	37.0	9.28	37.6	9.32	38.6	9.36	39.7	9.42
	37	30.7	7.74	34.7	9.23	35.8	9.40	36.3	9.48	37.0	9.51	38.0	9.54	39.1	9.61
	39	30.7	8.00	34.1	9.42	35.2	9.59	35.8	9.66	36.3	9.69	37.5	9.72	38.6	9.80
	41	29.6	9.05	32.4	10.51	33.4	10.71	33.9	10.78	34.6	10.81	35.7	10.85	36.6	10.93
43	29.2	9.60	31.3	11.01	32.4	11.21	32.9	11.28	33.6	11.31	34.6	11.35	35.5	11.43	
46	27.4	10.22	28.6	11.52	29.6	11.73	30.1	11.79	30.7	11.83	31.7	11.86	32.5	11.95	
120	10	28.4	3.47	33.8	4.25	39.3	5.05	42.0	5.46	44.0	5.54	45.0	5.56	46.1	5.59
	12	28.4	3.56	33.8	4.39	39.3	5.25	42.0	5.57	43.4	5.75	44.4	5.82	45.4	5.84
	14	28.4	3.68	33.8	4.54	39.3	5.46	42.0	5.78	42.8	5.96	43.9	6.05	44.9	6.10
	16	28.4	3.81	33.8	4.73	39.3	5.68	41.8	6.09	42.3	6.23	43.3	6.26	44.3	6.33
	18	28.4	3.96	33.8	4.94	39.3	6.02	41.2	6.43	41.7	6.55	42.7	6.58	43.8	6.61
	20	28.4	4.11	33.8	5.24	39.3	6.41	40.7	6.81	41.2	6.87	42.2	6.90	43.2	6.93
	21	28.4	4.24	33.8	5.43	39.3	6.64	40.3	6.96	40.8	7.03	41.9	7.06	42.9	7.09
	23	28.4	4.53	33.8	5.81	39.3	7.08	39.8	7.27	40.3	7.35	41.3	7.38	42.3	7.41
	25	28.4	4.84	33.8	6.22	38.7	7.46	39.2	7.60	39.7	7.67	40.8	7.70	41.8	7.73
	27	28.4	5.17	33.8	6.65	38.2	7.85	38.7	7.91	39.2	7.99	40.2	8.02	41.2	8.06
	29	28.4	5.51	33.8	7.10	37.5	8.17	38.0	8.24	38.5	8.31	39.5	8.35	40.7	8.38
	31	28.4	5.88	33.8	7.58	36.9	8.51	37.5	8.55	38.0	8.63	39.0	8.67	40.0	8.70
	33	28.4	6.25	33.8	8.08	36.4	8.82	36.9	8.87	37.4	8.95	38.4	8.99	39.4	9.02
	35	28.4	6.65	33.8	8.61	35.8	9.17	36.3	9.20	36.9	9.27	37.9	9.31	38.9	9.34
	37	28.4	6.95	33.8	8.83	35.3	9.32	35.8	9.38	36.3	9.42	37.3	9.48	38.3	9.50
	39	28.4	7.24	33.7	9.04	34.7	9.48	35.2	9.55	35.7	9.58	36.8	9.64	37.8	9.67
	41	27.4	8.25	31.9	10.12	32.9	10.56	33.4	10.64	33.9	10.66	34.9	10.73	35.9	10.76
43	27.0	8.80	30.8	10.64	31.9	11.03	32.4	11.12	32.9	11.14	33.8	11.21	34.8	11.24	
46	25.3	9.47	28.1	11.19	29.1	11.51	29.6	11.61	30.0	11.66	30.9	11.69	31.8	11.72	
110	10	26.0	3.12	31.0	3.80	36.0	4.51	38.5	4.88	41.0	5.26	44.1	5.47	45.1	5.49
	12	26.0	3.21	31.0	3.93	36.0	4.70	38.5	5.02	41.0	5.45	43.6	5.68	44.5	5.76
	14	26.0	3.31	31.0	4.10	36.0	4.91	38.5	5.27	41.0	5.73	43.0	5.89	44.0	6.02
	16	26.0	3.43	31.0	4.25	36.0	5.12	38.5	5.50	41.0	6.08	42.5	6.22	43.4	6.26
	18	26.0	3.56	31.0	4.43	36.0	5.41	38.5	5.87	41.0	6.43	41.9	6.54	42.9	6.57
	20	26.0	3.69	31.0	4.65	36.0	5.74	38.5	6.25	40.4	6.79	41.4	6.86	42.2	6.89
	21	26.0	3.77	31.0	4.79	36.0	5.94	38.5	6.47	40.1	6.94	41.0	7.02	42.0	7.05
	23	26.0	4.01	31.0	5.13	36.0	6.37	38.5	6.87	39.5	7.27	40.5	7.34	41.4	7.37
	25	26.0	4.29	31.0	5.48	36.0	6.82	38.5	7.27	39.0	7.58	39.9	7.66	40.9	7.69
	27	26.0	4.58	31.0	5.86	36.0	7.31	37.9	7.68	38.4	7.94	39.4	7.98	40.2	8.01
	29	26.0	4.89	31.0	6.25	36.0	7.79	37.4	8.00	37.9	8.26	38.7	8.30	39.7	8.33
	31	26.0	5.20	31.0	6.67	36.0	8.32	36.7	8.36	37.2	8.58	38.2	8.61	39.1	8.65
	33	26.0	5.55	31.0	7.10	35.7	8.79	36.2	8.73	36.7	8.90	37.6	8.93	38.6	8.97
	35	26.0	5.89	31.0	7.58	35.1	9.10	35.6	9.13	36.1	9.22	37.0	9.25	38.0	9.29
	37	26.0	6.12	31.0	7.81	34.6	9.26	35.1	9.27	35.5	9.35	36.5	9.41	37.4	9.43
	39	26.0	6.36	31.0	8.04	34.0	9.41	34.5	9.42	35.0	9.50	35.9	9.55	36.9	9.58
	41	25.1	7.22	29.9	9.05	32.2	10.46	32.7	10.48	33.1	10.56	34.1	10.62	35.0	10.65
43	24.7	7.68	29.5	9.56	31.2	10.91	31.7	10.94	32.1	11.01	33.1	11.07	33.9	11.10	
46	23.2	8.23	27.6	10.12	28.4	11.36	28.9	11.39	29.3	11.45	30.2	11.52	31.0	11.55	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Cooling Capacity(12HP)**

Outdoor Units

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24	TC	PI	TC	PI	TC	PI	
100	10	22.7	2.81	27.0	3.41	31.4	4.05	33.6	4.37	35.8	4.70	40.2	5.23	44.2	5.27
	12	22.7	2.90	27.0	3.55	31.4	4.18	33.6	4.49	35.8	4.85	40.2	5.51	43.6	5.57
	14	22.7	2.99	27.0	3.69	31.4	4.36	33.6	4.69	35.8	5.06	40.2	5.82	43.1	5.87
	16	22.7	3.08	27.0	3.81	31.4	4.55	33.6	4.91	35.8	5.33	40.2	6.10	42.5	6.19
	18	22.7	3.17	27.0	3.96	31.4	4.72	33.6	5.15	35.8	5.65	40.2	6.45	41.9	6.50
	20	22.7	3.28	27.0	4.11	31.4	5.00	33.6	5.51	35.8	6.05	40.2	6.75	41.3	6.81
	21	22.7	3.35	27.0	4.20	31.4	5.17	33.6	5.70	35.8	6.27	40.2	6.91	41.0	6.96
	23	22.7	3.55	27.0	4.50	31.4	5.55	33.6	6.12	35.8	6.72	39.6	7.23	40.5	7.29
	25	22.7	3.77	27.0	4.79	31.4	5.93	33.6	6.55	35.8	7.18	39.1	7.54	39.8	7.60
	27	22.7	4.03	27.0	5.12	31.4	6.34	33.6	7.00	35.8	7.64	38.5	7.90	39.4	7.96
	29	22.7	4.29	27.0	5.46	31.4	6.77	33.6	7.48	35.8	8.08	37.9	8.22	38.8	8.28
	31	22.7	4.58	27.0	5.82	31.4	7.22	33.6	7.98	35.8	8.50	37.3	8.53	38.2	8.60
	33	22.7	4.86	27.0	6.20	31.4	7.70	33.6	8.51	35.8	8.81	36.8	8.85	37.6	8.92
	35	22.7	5.17	27.0	6.60	31.4	8.20	33.6	9.08	35.2	9.13	36.2	9.17	37.0	9.24
	37	22.7	5.37	27.0	6.87	31.4	8.43	33.6	9.24	34.6	9.28	35.6	9.32	36.5	9.40
	39	22.7	5.58	27.0	7.15	31.4	8.66	33.6	9.39	34.1	9.43	35.1	9.46	35.9	9.55
41	21.9	6.33	26.0	8.13	30.3	9.72	31.9	10.44	32.3	10.48	32.4	10.52	34.1	10.62	
43	21.6	6.74	25.7	8.66	29.9	10.24	30.9	10.90	31.3	10.93	32.2	10.97	33.1	11.07	
46	20.2	7.21	24.0	9.29	28.0	10.81	28.2	11.35	28.5	11.38	29.4	11.42	30.2	11.52	
90	10	20.4	2.74	24.4	3.29	28.3	3.88	30.2	4.18	32.2	4.50	36.1	5.04	40.1	5.27
	12	20.4	2.77	24.4	3.34	28.3	3.95	30.2	4.26	32.2	4.60	36.1	5.14	40.1	5.57
	14	20.4	2.82	24.4	3.41	28.3	4.03	30.2	4.35	32.2	4.68	36.1	5.24	40.1	5.82
	16	20.4	2.87	24.4	3.48	28.3	4.11	30.2	4.43	32.2	4.77	36.1	5.34	40.1	5.91
	18	20.4	2.92	24.4	3.54	28.3	4.18	30.2	4.53	32.2	4.87	36.1	5.45	40.1	6.21
	20	20.4	2.97	24.4	3.61	28.3	4.26	30.2	4.62	32.2	5.05	36.1	5.83	40.1	6.51
	21	20.4	3.01	24.4	3.64	28.3	4.35	30.2	4.77	32.2	5.24	36.1	6.05	40.1	6.66
	23	20.4	3.07	24.4	3.79	28.3	4.65	30.2	5.12	32.2	5.61	36.1	6.48	39.5	6.97
	25	20.4	3.22	24.4	4.05	28.3	4.97	30.2	5.47	32.2	5.99	36.1	6.93	39.0	7.27
	27	20.4	3.44	24.4	4.32	28.3	5.31	30.2	5.84	32.2	6.41	36.1	7.37	38.4	7.61
	29	20.4	3.64	24.4	4.60	28.3	5.68	30.2	6.25	32.2	6.85	36.1	7.89	37.8	7.92
	31	20.4	3.88	24.4	4.90	28.3	6.04	30.2	6.65	32.2	7.30	36.1	8.20	37.2	8.22
	33	20.4	4.13	24.4	5.22	28.3	6.45	30.2	7.09	32.2	7.75	36.1	8.50	36.7	8.53
	35	20.4	4.38	24.4	5.54	28.3	6.85	30.2	7.56	32.2	8.21	35.5	8.81	36.1	8.84
	37	20.4	4.65	24.4	5.89	28.3	7.30	30.2	8.03	32.2	8.67	34.9	9.12	35.5	9.14
	39	20.4	4.92	24.4	6.27	28.3	7.73	30.2	8.46	32.2	9.12	34.4	9.43	35.0	9.45
41	19.7	5.68	23.5	7.24	27.3	8.93	29.2	9.73	31.0	10.36	32.6	10.52	33.2	10.62	
43	19.4	6.13	23.1	7.82	26.9	9.65	28.7	10.48	30.6	10.93	31.6	10.97	32.1	11.07	
46	18.2	6.69	21.7	8.55	25.2	10.56	26.9	11.35	27.8	11.38	28.8	11.42	29.4	11.52	
80	10	18.1	2.59	21.6	3.11	25.1	3.65	26.9	3.93	28.7	4.22	32.2	4.81	35.6	5.23
	12	18.1	2.64	21.6	3.14	25.1	3.72	26.9	4.00	28.7	4.29	32.2	4.90	35.6	5.33
	14	18.1	2.68	21.6	3.21	25.1	3.77	26.9	4.08	28.7	4.36	32.2	4.99	35.6	5.43
	16	18.1	2.71	21.6	3.27	25.1	3.84	26.9	4.15	28.7	4.45	32.2	5.10	35.6	5.54
	18	18.1	2.77	21.6	3.32	25.1	3.91	26.9	4.22	28.7	4.54	32.2	5.19	35.6	5.66
	20	18.1	2.82	21.6	3.39	25.1	4.00	26.9	4.31	28.7	4.63	32.2	5.39	35.6	6.05
	21	18.1	2.84	21.6	3.43	25.1	4.04	26.9	4.36	28.7	4.74	32.2	5.56	35.6	6.28
	23	18.1	2.89	21.6	3.48	25.1	4.22	26.9	4.63	28.7	5.06	32.2	5.87	35.6	6.73
	25	18.1	3.00	21.6	3.72	25.1	4.53	26.9	4.96	28.7	5.42	32.2	6.28	35.6	7.19
	27	18.1	3.18	21.6	3.95	25.1	4.83	26.9	5.30	28.7	5.78	32.2	6.67	35.6	7.61
	29	18.1	3.38	21.6	4.22	25.1	5.14	26.9	5.64	28.7	6.18	32.2	7.15	35.6	7.92
	31	18.1	3.59	21.6	4.47	25.1	5.48	26.9	6.02	28.7	6.57	32.2	7.59	35.6	8.22
	33	18.1	3.81	21.6	4.78	25.1	5.84	26.9	6.41	28.7	7.00	32.2	7.99	35.6	8.53
	35	18.1	4.04	21.6	5.06	25.1	6.21	26.9	6.82	28.7	7.47	32.2	8.48	35.3	8.84
	37	18.1	4.27	21.6	5.38	25.1	6.59	26.9	7.26	28.7	7.94	32.2	8.95	34.7	9.14
	39	18.1	4.52	21.6	5.69	25.1	6.98	26.9	7.65	28.7	8.45	32.2	9.36	34.1	9.45
41	17.5	5.20	20.8	6.57	24.2	8.06	25.9	8.81	27.7	9.76	31.0	10.52	32.4	10.62	
43	17.2	5.61	20.5	7.10	23.8	8.71	25.5	9.51	27.3	10.56	30.6	10.97	31.3	11.07	
46	16.1	6.12	19.2	7.75	22.3	9.52	23.9	10.37	25.5	11.38	27.9	11.42	28.6	11.52	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Cooling Capacity(12HP)**

Combination (%)	Outdoor air temp °C DB	Indoor air temp. (DB/WB, °C)													
		20		23		26		27		28		30		32	
		14	16	18	19	20	22	24							
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70	10	15.8	2.32	19.0	2.75	22.0	3.19	23.5	3.45	25.1	3.68	28.1	4.20	31.2	4.69
	12	15.8	2.35	19.0	2.79	22.0	3.27	23.5	3.50	25.1	3.76	28.1	4.27	31.2	4.78
	14	15.8	2.39	19.0	2.83	22.0	3.32	23.5	3.56	25.1	3.81	28.1	4.36	31.2	4.87
	16	15.8	2.43	19.0	2.88	22.0	3.37	23.5	3.63	25.1	3.89	28.1	4.43	31.2	4.97
	18	15.8	2.46	19.0	2.94	22.0	3.45	23.5	3.70	25.1	3.96	28.1	4.51	31.2	5.06
	20	15.8	2.50	19.0	2.99	22.0	3.50	23.5	3.78	25.1	4.05	28.1	4.62	31.2	5.25
	21	15.8	2.54	19.0	3.01	22.0	3.54	23.5	3.81	25.1	4.09	28.1	4.69	31.2	5.42
	23	15.8	2.57	19.0	3.08	22.0	3.61	23.5	3.94	25.1	4.29	28.1	5.02	31.2	5.72
	25	15.8	2.61	19.0	3.19	22.0	3.85	23.5	4.21	25.1	4.58	28.1	5.36	31.2	6.12
	27	15.8	2.75	19.0	3.41	22.0	4.10	23.5	4.47	25.1	4.89	28.1	5.73	31.2	6.51
	29	15.8	2.94	19.0	3.61	22.0	4.36	23.5	4.76	25.1	5.20	28.1	6.11	31.2	6.97
	31	15.8	3.12	19.0	3.85	22.0	4.65	23.5	5.09	25.1	5.55	28.1	6.51	31.2	7.40
	33	15.8	3.30	19.0	4.07	22.0	4.94	23.5	5.40	25.1	5.89	28.1	6.93	31.2	7.80
	35	15.8	3.48	19.0	4.34	22.0	5.25	23.5	5.75	25.1	6.28	28.1	7.39	31.2	8.27
	37	15.8	3.70	19.0	4.60	22.0	5.58	23.5	6.11	25.1	6.68	28.1	7.86	31.2	8.72
	39	15.8	3.89	19.0	4.85	22.0	5.91	23.5	6.45	25.1	7.07	28.1	8.33	31.2	9.12
	41	15.3	4.48	18.3	5.60	21.2	6.82	22.7	7.43	24.2	8.17	27.1	9.63	30.1	10.47
43	15.1	4.83	18.0	6.04	20.9	7.36	22.4	8.02	23.8	8.83	26.7	10.41	29.6	11.07	
46	14.1	5.26	16.9	6.58	19.6	8.04	20.9	8.76	22.3	9.65	25.0	11.39	27.8	11.52	
60	10	13.6	2.04	16.2	2.39	18.8	2.78	20.2	2.98	21.5	3.17	24.1	3.59	26.8	4.02
	12	13.6	2.07	16.2	2.43	18.8	2.82	20.2	3.02	21.5	3.22	24.1	3.65	26.8	4.09
	14	13.6	2.09	16.2	2.46	18.8	2.87	20.2	3.08	21.5	3.28	24.1	3.72	26.8	4.17
	16	13.6	2.13	16.2	2.52	18.8	2.91	20.2	3.13	21.5	3.35	24.1	3.80	26.8	4.24
	18	13.6	2.17	16.2	2.56	18.8	2.96	20.2	3.19	21.5	3.41	24.1	3.85	26.8	4.34
	20	13.6	2.20	16.2	2.59	18.8	3.02	20.2	3.24	21.5	3.46	24.1	3.93	26.8	4.43
	21	13.6	2.22	16.2	2.61	18.8	3.06	20.2	3.28	21.5	3.50	24.1	3.98	26.8	4.46
	23	13.6	2.26	16.2	2.67	18.8	3.09	20.2	3.33	21.5	3.58	24.1	4.13	26.8	4.74
	25	13.6	2.30	16.2	2.72	18.8	3.22	20.2	3.50	21.5	3.80	24.1	4.41	26.8	5.08
	27	13.6	2.37	16.2	2.87	18.8	3.43	20.2	3.72	21.5	4.04	24.1	4.69	26.8	5.41
	29	13.6	2.52	16.2	3.06	18.8	3.65	20.2	3.96	21.5	4.30	24.1	5.00	26.8	5.78
	31	13.6	2.67	16.2	3.24	18.8	3.87	20.2	4.22	21.5	4.58	24.1	5.34	26.8	6.15
	33	13.6	2.82	16.2	3.43	18.8	4.11	20.2	4.48	21.5	4.87	24.1	5.67	26.8	6.56
	35	13.6	2.98	16.2	3.65	18.8	4.37	20.2	4.76	21.5	5.17	24.1	6.04	26.8	6.97
	37	13.6	3.15	16.2	3.85	18.8	4.63	20.2	5.06	21.5	5.48	24.1	6.41	26.8	7.41
	39	13.6	3.32	16.2	4.06	18.8	4.90	20.2	5.37	21.5	5.79	24.1	6.81	26.8	7.86
	41	13.1	3.78	15.6	4.67	18.2	5.66	19.4	6.17	20.7	6.67	23.3	7.86	25.8	9.08
43	12.9	4.07	15.4	5.04	17.9	6.10	19.2	6.66	20.4	7.20	22.9	8.49	25.4	9.82	
46	12.1	4.42	14.4	5.49	16.8	6.66	18.0	7.26	19.1	7.86	21.5	9.28	23.8	10.74	
50	10	11.3	1.79	13.6	2.07	15.7	2.35	16.8	2.52	17.9	2.67	20.0	3.01	22.3	3.35
	12	11.3	1.81	13.6	2.09	15.7	2.39	16.8	2.56	17.9	2.73	20.0	3.07	22.3	3.40
	14	11.3	1.82	13.6	2.13	15.7	2.43	16.8	2.60	17.9	2.77	20.0	3.10	22.3	3.46
	16	11.3	1.86	13.6	2.16	15.7	2.46	16.8	2.65	17.9	2.80	20.0	3.16	22.3	3.52
	18	11.3	1.88	13.6	2.18	15.7	2.50	16.8	2.69	17.9	2.86	20.0	3.22	22.3	3.59
	20	11.3	1.90	13.6	2.22	15.7	2.56	16.8	2.73	17.9	2.92	20.0	3.27	22.3	3.67
	21	11.3	1.92	13.6	2.24	15.7	2.58	16.8	2.77	17.9	2.93	20.0	3.31	22.3	3.71
	23	11.3	1.96	13.6	2.28	15.7	2.61	16.8	2.80	17.9	2.99	20.0	3.37	22.3	3.78
	25	11.3	1.98	13.6	2.31	15.7	2.67	16.8	2.86	17.9	3.08	20.0	3.54	22.3	4.04
	27	11.3	2.01	13.6	2.39	15.7	2.82	16.8	3.05	17.9	3.27	20.0	3.78	22.3	4.31
	29	11.3	2.13	13.6	2.54	15.7	2.99	16.8	3.24	17.9	3.48	20.0	4.01	22.3	4.57
	31	11.3	2.24	13.6	2.69	15.7	3.18	16.8	3.42	17.9	3.71	20.0	4.27	22.3	4.87
	33	11.3	2.37	13.6	2.84	15.7	3.37	16.8	3.63	17.9	3.93	20.0	4.53	22.3	5.19
	35	11.3	2.50	13.6	3.01	15.7	3.56	16.8	3.86	17.9	4.16	20.0	4.80	22.3	5.51
	37	11.3	2.65	13.6	3.18	15.7	3.76	16.8	4.08	17.9	4.40	20.0	5.12	22.3	5.85
	39	11.3	2.77	13.6	3.34	15.7	3.99	16.8	4.31	17.9	4.63	20.0	5.40	22.3	6.19
	41	10.9	3.19	13.1	3.84	15.2	4.59	16.2	4.96	17.2	5.33	19.3	6.22	21.5	7.15
43	10.8	3.43	12.9	4.14	14.9	4.94	16.0	5.34	17.0	5.74	19.0	6.72	21.2	7.72	
46	10.1	3.72	12.1	4.50	14.0	5.38	15.0	5.82	15.9	6.25	17.8	7.33	19.9	8.43	

**Notes:**

1. TC: Total Capacity(kW)      PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

## 6.2 Heating Capacity

ARUN080BSS0

Heating Capacity(8HP)

Outdoor Units

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	-19.8	-20	20.1	8.25	20.1	8.53	19.9	8.77	19.9	9.15	19.9	9.50	19.5	10.06
	-18.8	-19	20.5	8.44	20.5	8.72	20.4	8.96	20.4	9.33	20.4	9.69	20.0	10.25
	-16.7	-17	21.5	8.83	21.5	9.11	21.4	9.35	21.4	9.73	21.4	10.08	21.0	10.64
	-13.7	-15	22.9	9.39	22.9	9.67	22.8	9.91	22.8	10.29	22.8	10.64	22.3	10.11
	-11.8	-13	23.7	9.75	23.7	10.03	23.5	10.27	23.5	10.64	23.5	10.27	23.2	9.77
	-9.8	-11	24.5	10.12	24.5	10.40	24.3	10.64	24.3	10.24	24.3	9.88	24.1	9.41
	-9.5	-10	24.6	10.18	24.6	10.46	24.5	10.58	24.5	10.18	24.4	9.83	24.3	9.36
	-8.5	-9.1	25.1	10.36	25.1	10.64	24.9	10.36	24.9	9.97	24.8	9.63	24.7	9.18
	-7.0	-7.6	25.8	10.64	25.8	10.31	25.6	10.04	25.6	9.67	25.6	9.34	25.4	8.91
	-5.0	-5.6	26.7	10.19	26.7	9.87	26.5	9.61	26.5	9.26	26.5	8.95	26.3	8.56
	-3.0	-3.7	27.6	9.74	27.6	9.43	27.5	9.18	27.5	8.85	27.5	8.56	27.3	8.20
	0.0	-0.7	29.0	9.06	29.0	8.77	28.9	8.53	28.9	8.24	28.9	7.98	28.4	7.66
	3.0	2.2	30.4	8.38	30.4	8.11	30.2	7.88	30.2	7.63	30.2	7.39	28.4	7.13
	5.0	4.1	31.4	7.92	31.4	7.67	31.2	7.45	31.2	7.22	30.6	7.00	28.4	6.77
	7.0	6.0	32.3	7.47	32.3	7.23	32.1	7.02	31.7	6.82	30.6	6.61	28.4	6.41
	9.0	7.9	32.6	7.37	32.6	7.13	32.5	6.92	31.7	6.72	30.6	6.52	28.4	6.33
	11.0	9.8	32.6	7.27	32.6	7.03	32.5	6.83	31.7	6.63	30.6	6.43	28.4	6.24
13.0	11.8	32.6	7.17	32.6	6.93	32.5	6.73	31.7	6.54	30.6	6.34	28.4	6.15	
15.0	13.7	32.6	7.06	32.6	6.84	32.5	6.64	31.7	6.44	30.6	6.25	28.4	6.06	
120	-19.8	-20	19.9	8.53	19.9	8.77	19.8	9.15	19.8	9.50	19.8	10.06	19.4	10.46
	-18.8	-19	20.4	8.72	20.4	8.96	20.3	9.33	20.3	9.69	20.3	10.25	19.9	10.64
	-16.7	-17	21.4	9.11	21.4	9.35	21.2	9.73	21.2	10.08	21.2	10.64	20.8	10.30
	-13.7	-15	22.8	9.67	22.8	9.91	22.6	10.29	22.6	10.64	22.6	10.12	22.2	9.81
	-11.8	-13	23.5	10.03	23.5	10.27	23.4	10.64	23.4	10.27	23.4	9.79	23.1	9.50
	-9.8	-11	24.3	10.40	24.3	10.64	24.2	10.23	24.2	9.88	24.2	9.45	24.0	9.17
	-9.5	-10	24.4	10.46	24.4	10.58	24.3	10.16	24.3	9.82	24.3	9.39	24.1	9.12
	-8.5	-9.1	24.9	10.64	24.9	10.35	24.8	9.96	24.8	9.63	24.8	9.22	24.6	8.96
	-7.0	-7.6	25.6	10.30	25.6	10.01	25.4	9.64	25.4	9.33	25.4	8.96	25.2	8.71
	-5.0	-5.6	26.5	9.83	26.5	9.56	26.4	9.22	26.4	8.94	26.4	8.61	26.2	8.38
	-3.0	-3.7	27.5	9.37	27.5	9.11	27.3	8.81	27.3	8.55	27.3	8.27	26.7	8.05
	0.0	-0.7	28.8	8.67	28.8	8.43	28.7	8.18	28.7	7.96	28.7	7.74	26.7	7.56
	3.0	2.2	30.2	7.97	30.2	7.76	30.0	7.55	29.7	7.37	28.8	7.22	26.7	7.07
	5.0	4.1	31.1	7.51	31.1	7.31	30.7	7.14	29.7	6.98	28.8	6.88	26.7	6.74
	7.0	6.0	32.1	7.05	32.0	6.86	30.7	6.72	29.7	6.59	28.8	6.53	26.7	6.41
	9.0	7.9	32.3	6.86	32.0	6.67	30.7	6.54	29.7	6.41	28.8	6.35	26.7	6.24
	11.0	9.8	32.3	6.67	32.0	6.49	30.7	6.36	29.7	6.24	28.8	6.18	26.7	6.07
13.0	11.8	32.3	6.48	32.0	6.30	30.7	6.18	29.7	6.06	28.8	6.00	26.7	5.89	
15.0	13.7	32.3	6.29	32.0	6.12	30.7	6.00	29.7	5.88	28.8	5.83	26.7	5.72	
110	-19.8	-20	19.8	8.77	19.8	9.15	19.7	9.50	19.7	10.06	19.7	10.46	19.3	10.64
	-18.8	-19	20.3	8.96	20.3	9.33	20.2	9.69	20.2	10.25	20.2	10.64	19.7	10.47
	-16.7	-17	21.3	9.35	21.3	9.73	21.1	10.08	21.1	10.64	21.1	10.28	20.7	10.11
	-13.7	-15	22.7	9.91	22.7	10.29	22.5	10.64	22.5	10.09	22.5	9.76	22.5	9.59
	-11.8	-13	23.4	10.27	23.4	10.64	23.3	10.25	23.3	9.74	23.3	9.43	23.3	9.26
	-9.8	-11	24.2	10.64	24.2	10.19	24.0	9.83	24.0	9.37	24.0	9.09	24.0	8.91
	-9.5	-10	24.3	10.57	24.3	10.13	24.2	9.77	24.2	9.31	24.2	9.04	24.0	8.86
	-8.5	-9.1	24.8	10.32	24.8	9.90	24.6	9.56	24.6	9.13	24.6	8.86	24.0	8.68
	-7.0	-7.6	25.5	9.96	25.5	9.56	25.3	9.25	25.3	8.85	25.3	8.60	24.0	8.42
	-5.0	-5.6	26.4	9.46	26.4	9.11	26.2	8.84	26.2	8.48	25.8	8.26	24.0	8.08
	-3.0	-3.7	27.3	8.97	27.3	8.66	27.1	8.42	26.7	8.11	25.8	7.91	24.0	7.73
	0.0	-0.7	28.7	8.23	28.7	7.99	27.6	7.80	26.7	7.56	25.8	7.39	24.0	7.21
	3.0	2.2	30.1	7.50	29.4	7.31	27.6	7.17	26.7	7.00	25.8	6.88	24.0	6.69
	5.0	4.1	31.0	7.00	29.4	6.86	27.6	6.76	26.7	6.63	25.8	6.53	24.0	6.34
	7.0	6.0	31.1	6.51	29.4	6.41	27.6	6.34	26.7	6.26	25.8	6.18	24.0	5.99
	9.0	7.9	31.1	6.25	29.4	6.15	27.6	6.08	26.7	6.01	25.8	5.93	24.0	5.75
	11.0	9.8	31.1	5.98	29.4	5.89	27.6	5.82	26.7	5.75	25.8	5.68	24.0	5.50
13.0	11.8	31.1	5.71	29.4	5.63	27.6	5.56	26.7	5.50	25.8	5.43	24.0	5.26	
15.0	13.7	31.1	5.45	29.4	5.36	27.6	5.30	26.7	5.24	25.8	5.17	24.0	5.01	

**Notes:**

1. TC: Total Capacity(kW)    PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Heating Capacity(8HP)**

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100	-19.8	-20	19.7	9.15	19.7	9.50	19.6	10.06	19.6	10.46	19.6	10.64	19.2	10.27
	-18.8	-19	20.2	9.33	20.1	9.69	20.1	10.25	20.1	10.64	20.1	10.64	19.7	10.09
	-16.7	-17	21.0	9.73	21.0	10.08	21.0	10.64	20.9	10.25	20.9	10.23	20.5	9.69
	-13.7	-15	22.6	10.29	22.6	10.64	22.4	9.92	22.4	9.68	22.4	9.63	22.0	9.14
	-11.8	-13	23.3	10.64	23.2	10.23	23.2	9.45	23.2	9.31	23.2	9.25	22.0	8.78
	-9.8	-11	24.0	10.18	24.0	9.79	23.9	9.09	23.9	8.93	23.6	8.85	22.0	8.41
	-9.5	-10	24.2	10.11	24.2	9.72	24.1	9.03	24.1	8.88	23.6	8.79	22.0	8.35
	-8.5	-9.1	24.6	9.88	24.6	9.50	24.5	8.85	24.4	8.69	23.6	8.59	22.0	8.17
	-7.0	-7.6	25.8	9.54	25.6	9.18	25.2	8.57	24.4	8.40	23.6	8.29	22.0	7.89
	-5.0	-5.6	26.9	9.07	26.6	8.74	25.2	8.20	24.4	8.02	23.6	7.89	22.0	7.52
	-3.0	-3.7	27.7	8.61	26.8	8.30	25.2	7.84	24.4	7.64	23.6	7.49	22.0	7.14
	0.0	-0.7	28.4	7.92	26.8	7.64	25.2	7.29	24.4	7.07	23.6	6.89	22.0	6.59
	3.0	2.2	28.4	7.23	26.8	6.98	25.2	6.73	24.4	6.50	23.6	6.29	22.0	6.03
	5.0	4.1	28.4	6.77	26.8	6.54	25.2	6.37	24.4	6.12	23.6	5.89	22.0	5.65
	7.0	6.0	28.4	6.30	26.8	6.11	25.2	6.00	24.4	5.74	23.6	5.49	22.0	5.28
	9.0	7.9	28.4	5.98	26.8	5.79	25.2	5.69	24.4	5.44	23.6	5.21	22.0	5.01
	11.0	9.8	28.4	5.70	26.8	5.52	25.2	5.42	24.4	5.19	23.6	4.96	22.0	4.77
13.0	11.8	28.4	5.40	26.8	5.23	25.2	5.14	24.4	4.92	23.6	4.71	22.0	4.53	
15.0	13.7	28.4	5.09	26.8	4.93	25.2	4.85	24.4	4.64	23.6	4.44	22.0	4.27	
90	-19.8	-20	19.7	8.95	19.7	9.51	19.5	9.90	19.5	10.09	19.5	9.74	19.1	9.26
	-18.8	-19	20.2	9.14	20.1	9.70	20.0	10.09	20.0	9.91	20.0	9.57	19.6	9.09
	-16.7	-17	21.0	9.53	21.0	10.09	21.0	9.71	21.0	9.53	21.0	9.21	20.1	8.74
	-13.7	-15	22.6	10.09	22.6	9.52	22.3	9.17	22.3	8.99	21.6	8.69	20.1	8.25
	-11.8	-13	23.3	9.69	23.2	9.16	23.1	8.83	22.3	8.65	21.6	8.36	20.1	7.93
	-9.8	-11	24.0	9.28	24.0	8.78	23.1	8.47	22.3	8.28	21.6	8.01	20.1	7.60
	-9.5	-10	24.2	9.21	24.2	8.72	23.1	8.41	22.3	8.23	21.6	7.96	20.1	7.55
	-8.5	-9.1	24.6	9.00	24.5	8.53	23.1	8.23	22.3	8.05	21.6	7.78	20.1	7.38
	-7.0	-7.6	25.8	8.69	24.5	8.25	23.1	7.96	22.3	7.78	21.6	7.52	20.1	7.13
	-5.0	-5.6	26.0	8.27	24.5	7.87	23.1	7.60	22.3	7.42	21.6	7.18	20.1	6.80
	-3.0	-3.7	26.0	7.85	24.5	7.49	23.1	7.24	22.3	7.06	21.6	6.83	20.1	6.47
	0.0	-0.7	26.0	7.23	24.5	6.92	23.1	6.70	22.3	6.51	21.6	6.31	20.1	5.97
	3.0	2.2	26.0	6.60	24.5	6.34	23.1	6.16	22.3	5.97	21.6	5.79	20.1	5.47
	5.0	4.1	26.0	6.18	24.5	5.96	23.1	5.79	22.3	5.61	21.6	5.44	20.1	5.13
	7.0	6.0	26.0	5.76	24.5	5.58	23.1	5.43	22.3	5.25	21.6	5.09	20.1	4.80
	9.0	7.9	26.0	5.38	24.5	5.21	23.1	5.07	22.3	4.90	21.6	4.75	20.1	4.48
	11.0	9.8	26.0	5.00	24.5	4.84	23.1	4.71	22.3	4.55	21.6	4.42	20.1	4.16
13.0	11.8	26.0	4.61	24.5	4.47	23.1	4.35	22.3	4.20	21.6	4.08	20.1	3.84	
15.0	13.7	26.0	4.23	24.5	4.10	23.1	3.99	22.3	3.85	21.6	3.74	20.1	3.53	
80	-19.8	-20	19.4	7.81	19.4	8.37	19.4	8.95	19.4	8.63	19.3	8.22	17.9	7.81
	-18.8	-19	19.9	7.99	19.9	8.95	19.9	8.79	19.9	8.48	19.3	8.07	17.9	7.68
	-16.7	-17	20.6	8.95	20.6	8.61	20.6	8.45	20.0	8.15	19.3	7.76	17.9	7.38
	-13.7	-15	20.6	8.44	20.6	8.12	20.6	7.96	20.0	7.68	19.3	7.32	17.9	6.97
	-11.8	-13	21.1	8.11	20.6	7.81	20.6	7.66	20.0	7.38	19.3	7.04	17.9	6.70
	-9.8	-11	22.0	7.77	21.4	7.49	20.6	7.33	20.0	7.07	19.3	6.75	17.9	6.43
	-9.5	-10	22.2	7.72	21.6	7.44	20.6	7.29	20.0	7.02	19.3	6.71	17.9	6.38
	-8.5	-9.1	22.6	7.55	22.0	7.28	20.6	7.13	20.0	6.86	19.3	6.56	17.9	6.24
	-7.0	-7.6	23.3	7.29	22.0	7.03	20.6	6.88	20.0	6.63	19.3	6.34	17.9	6.04
	-5.0	-5.6	23.3	6.95	22.0	6.71	20.6	6.56	20.0	6.31	19.3	6.05	17.9	5.76
	-3.0	-3.7	23.3	6.61	22.0	6.39	20.6	6.24	20.0	6.00	19.3	5.75	17.9	5.48
	0.0	-0.7	23.3	6.10	22.0	5.90	20.6	5.75	20.0	5.53	19.3	5.31	17.9	5.06
	3.0	2.2	23.3	5.59	22.0	5.41	20.6	5.27	20.0	5.06	19.3	4.87	17.9	4.65
	5.0	4.1	23.3	5.25	22.0	5.09	20.6	4.95	20.0	4.75	19.3	4.58	17.9	4.37
	7.0	6.0	23.3	4.91	22.0	4.76	20.6	4.62	20.0	4.43	19.3	4.29	17.9	4.09
	9.0	7.9	23.3	4.61	22.0	4.47	20.6	4.34	20.0	4.16	19.3	4.02	17.9	3.84
	11.0	9.8	23.3	4.28	22.0	4.15	20.6	4.03	20.0	3.86	19.3	3.73	17.9	3.57
13.0	11.8	23.3	3.99	22.0	3.88	20.6	3.76	20.0	3.60	19.3	3.49	17.9	3.33	
15.0	13.7	23.3	3.76	22.0	3.65	20.6	3.54	20.0	3.39	19.3	3.28	17.9	3.13	

Outdoor Units

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.



# 6. Capacity Tables

**Heating Capacity(8HP)**

Outdoor Units

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70	-19.8	-20	19.3	8.20	18.7	8.39	17.6	8.08	17.0	7.66	16.5	7.28	15.4	6.90
	-18.8	-19	19.8	8.39	18.7	8.23	17.6	7.93	17.0	7.52	16.5	7.14	15.4	6.78
	-16.7	-17	19.8	8.05	18.7	7.89	17.6	7.60	17.0	7.21	16.5	6.86	15.4	6.50
	-13.7	-15	19.8	7.57	18.7	7.41	17.6	7.14	17.0	6.78	16.5	6.46	15.4	6.12
	-11.8	-13	19.8	7.27	18.7	7.11	17.6	6.85	17.0	6.51	16.5	6.20	15.4	5.87
	-9.8	-11	19.8	6.95	18.7	6.79	17.6	6.54	17.0	6.22	16.5	5.93	15.4	5.62
	-9.5	-10	19.8	6.90	18.7	6.74	17.6	6.50	17.0	6.17	16.5	5.89	15.4	5.58
	-8.5	-9.1	19.8	6.74	18.7	6.58	17.6	6.34	17.0	6.03	16.5	5.76	15.4	5.45
	-7.0	-7.6	19.8	6.51	18.7	6.34	17.6	6.11	17.0	5.81	16.5	5.56	15.4	5.25
	-5.0	-5.6	19.8	6.19	18.7	6.02	17.6	5.81	17.0	5.52	16.5	5.29	15.4	5.00
	-3.0	-3.7	19.8	5.87	18.7	5.70	17.6	5.50	17.0	5.23	16.5	5.02	15.4	4.74
	0.0	-0.7	19.8	5.39	18.7	5.22	17.6	5.04	17.0	4.80	16.5	4.61	15.4	4.35
	3.0	2.2	19.8	4.91	18.7	4.74	17.6	4.58	17.0	4.36	16.5	4.21	15.4	3.97
	5.0	4.1	19.8	4.59	18.7	4.42	17.6	4.27	17.0	4.07	16.5	3.94	15.4	3.71
	7.0	6.0	19.8	4.27	18.7	4.10	17.6	3.96	17.0	3.78	16.5	3.67	15.4	3.45
	9.0	7.9	19.8	3.86	18.7	3.70	17.6	3.58	17.0	3.42	16.5	3.31	15.4	3.12
	11.0	9.8	19.8	3.59	18.7	3.45	17.6	3.33	17.0	3.18	16.5	3.09	15.4	2.90
13.0	11.8	19.8	3.36	18.7	3.23	17.6	3.12	17.0	2.98	16.5	2.89	15.4	2.71	
15.0	13.7	19.8	3.17	18.7	3.04	17.6	2.94	17.0	2.81	16.5	2.72	15.4	2.56	
60	-19.8	-20	17.0	7.83	16.1	7.53	15.1	7.13	14.5	6.75	14.0	6.40	13.1	6.06
	-18.8	-19	17.0	7.67	16.1	7.38	15.1	6.99	14.5	6.62	14.0	6.28	13.1	5.94
	-16.7	-17	17.0	7.36	16.1	7.07	15.1	6.69	14.5	6.35	14.0	6.02	13.1	5.69
	-13.7	-15	17.0	6.91	16.1	6.62	15.1	6.28	14.5	5.96	14.0	5.66	13.1	5.34
	-11.8	-13	17.0	6.62	16.1	6.34	15.1	6.01	14.5	5.71	14.0	5.42	13.1	5.12
	-9.8	-11	17.0	6.32	16.1	6.04	15.1	5.73	14.5	5.45	14.0	5.18	13.1	4.88
	-9.5	-10	17.0	6.27	16.1	6.00	15.1	5.69	14.5	5.41	14.0	5.14	13.1	4.85
	-8.5	-9.1	17.0	6.12	16.1	5.85	15.1	5.55	14.5	5.28	14.0	5.02	13.1	4.73
	-7.0	-7.6	17.0	5.90	16.1	5.63	15.1	5.34	14.5	5.08	14.0	4.83	13.1	4.55
	-5.0	-5.6	17.0	5.60	16.1	5.33	15.1	5.06	14.5	4.82	14.0	4.59	13.1	4.32
	-3.0	-3.7	17.0	5.30	16.1	5.03	15.1	4.78	14.5	4.56	14.0	4.35	13.1	4.08
	0.0	-0.7	17.0	4.84	16.1	4.59	15.1	4.36	14.5	4.17	14.0	3.98	13.1	3.73
	3.0	2.2	17.0	4.39	16.1	4.14	15.1	3.94	14.5	3.78	14.0	3.61	13.1	3.37
	5.0	4.1	17.0	4.09	16.1	3.85	15.1	3.66	14.5	3.51	14.0	3.37	13.1	3.14
	7.0	6.0	17.0	3.79	16.1	3.55	15.1	3.38	14.5	3.25	14.0	3.12	13.1	2.90
	9.0	7.9	17.0	3.38	16.1	3.17	15.1	3.02	14.5	2.90	14.0	2.78	13.1	2.59
	11.0	9.8	17.0	3.16	16.1	2.96	15.1	2.82	14.5	2.71	14.0	2.60	13.1	2.42
13.0	11.8	17.0	2.96	16.1	2.77	15.1	2.64	14.5	2.54	14.0	2.44	13.1	2.26	
15.0	13.7	17.0	2.80	16.1	2.62	15.1	2.50	14.5	2.40	14.0	2.30	13.1	2.14	
50	-19.8	-20	14.1	6.97	13.3	6.57	12.5	6.21	12.1	5.86	11.7	5.54	10.9	5.23
	-18.8	-19	14.1	6.83	13.3	6.43	12.5	6.08	12.1	5.74	11.7	5.43	10.9	5.12
	-16.7	-17	14.1	6.52	13.3	6.14	12.5	5.81	12.1	5.48	11.7	5.19	10.9	4.90
	-13.7	-15	14.1	6.08	13.3	5.73	12.5	5.42	12.1	5.12	11.7	4.86	10.9	4.58
	-11.8	-13	14.1	5.80	13.3	5.46	12.5	5.18	12.1	4.89	11.7	4.64	10.9	4.38
	-9.8	-11	14.1	5.51	13.3	5.19	12.5	4.92	12.1	4.65	11.7	4.42	10.9	4.16
	-9.5	-10	14.1	5.47	13.3	5.15	12.5	4.88	12.1	4.61	11.7	4.39	10.9	4.13
	-8.5	-9.1	14.1	5.32	13.3	5.01	12.5	4.75	12.1	4.49	11.7	4.27	10.9	4.02
	-7.0	-7.6	14.1	5.10	13.3	4.80	12.5	4.56	12.1	4.31	11.7	4.11	10.9	3.86
	-5.0	-5.6	14.1	4.81	13.3	4.52	12.5	4.30	12.1	4.07	11.7	3.88	10.9	3.65
	-3.0	-3.7	14.1	4.52	13.3	4.25	12.5	4.04	12.1	3.83	11.7	3.66	10.9	3.44
	0.0	-0.7	14.1	4.08	13.3	3.83	12.5	3.66	12.1	3.47	11.7	3.32	10.9	3.12
	3.0	2.2	14.1	3.64	13.3	3.42	12.5	3.27	12.1	3.10	11.7	2.99	10.9	2.80
	5.0	4.1	14.1	3.35	13.3	3.14	12.5	3.01	12.1	2.86	11.7	2.76	10.9	2.58
	7.0	6.0	14.1	3.06	13.3	2.86	12.5	2.76	12.1	2.62	11.7	2.54	10.9	2.37
	9.0	7.9	14.1	2.76	13.3	2.59	12.5	2.49	12.1	2.37	11.7	2.29	10.9	2.14
	11.0	9.8	14.1	2.58	13.3	2.42	12.5	2.33	12.1	2.21	11.7	2.14	10.9	2.00
13.0	11.8	14.1	2.43	13.3	2.27	12.5	2.19	12.1	2.08	11.7	2.01	10.9	1.88	
15.0	13.7	14.1	2.30	13.3	2.15	12.5	2.07	12.1	1.97	11.7	1.91	10.9	1.78	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

## ARUN100BSS0

### Heating Capacity(10HP)

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	-19.8	-20	26.1	12.52	26.1	12.64	25.9	12.75	25.9	12.91	25.9	13.06	25.3	13.31
	-18.8	-19	26.6	12.60	26.6	12.72	26.4	12.83	26.4	12.99	26.4	13.15	25.7	13.39
	-16.7	-17	27.5	12.77	27.5	12.89	27.3	13.00	27.3	13.16	27.3	13.32	26.6	13.56
	-13.7	-15	28.8	13.02	28.8	13.14	28.7	13.24	28.7	13.41	28.7	13.56	27.9	12.85
	-11.8	-13	29.7	13.17	29.7	13.29	29.5	13.40	29.5	13.56	29.5	13.07	28.8	12.40
	-9.8	-11	30.5	13.33	30.5	13.46	30.3	13.56	30.3	13.02	30.3	12.55	29.6	11.92
	-9.5	-10	30.7	13.36	30.7	13.48	30.5	13.48	30.5	12.93	30.5	12.47	29.8	11.85
	-8.5	-9.1	31.3	13.44	31.3	13.56	31.1	13.19	31.1	12.66	30.9	12.21	30.2	11.61
	-7.0	-7.6	32.2	13.56	32.2	13.12	32.0	12.75	32.0	12.25	32.0	11.82	30.8	11.25
	-5.0	-5.6	33.4	12.94	33.4	12.52	33.2	12.17	33.2	11.70	33.2	11.30	31.7	10.78
	-3.0	-3.7	34.7	12.32	34.7	11.92	34.4	11.58	34.4	11.15	34.4	10.77	32.6	10.30
	0.0	-0.7	36.5	11.40	36.5	11.02	36.3	10.71	36.3	10.33	36.3	9.99	33.9	9.59
	3.0	2.2	38.3	10.47	38.3	10.13	38.1	9.83	38.1	9.51	38.1	9.21	35.2	8.87
	5.0	4.1	39.5	9.85	39.5	9.53	39.3	9.25	39.3	8.96	38.2	8.69	35.6	8.40
	7.0	6.0	40.7	9.23	40.7	8.93	40.5	8.67	39.6	8.42	38.2	8.17	35.6	7.92
	9.0	7.9	40.7	8.69	40.7	8.41	40.6	8.17	39.6	7.93	38.2	7.69	35.6	7.46
	11.0	9.8	40.7	8.23	40.7	7.96	40.6	7.73	39.6	7.50	38.2	7.28	35.6	7.06
13.0	11.8	40.7	7.73	40.7	7.49	40.6	7.27	39.6	7.06	38.2	6.85	35.6	6.64	
15.0	13.7	40.7	7.22	40.7	6.99	40.6	6.78	39.6	6.59	38.2	6.39	35.6	6.20	
120	-19.8	-20	25.9	12.64	25.9	12.75	25.8	12.91	25.8	13.06	25.8	13.31	25.1	13.48
	-18.8	-19	26.4	12.72	26.4	12.83	26.2	12.99	26.2	13.15	26.2	13.39	25.5	13.56
	-16.7	-17	27.3	12.89	27.3	13.00	27.1	13.16	27.1	13.32	27.1	13.56	26.4	13.10
	-13.7	-15	28.6	13.14	28.6	13.24	28.5	13.41	28.5	13.56	28.5	12.87	27.7	12.45
	-11.8	-13	29.5	13.29	29.5	13.40	29.3	13.56	29.3	13.07	29.3	12.43	28.6	12.03
	-9.8	-11	30.3	13.46	30.3	13.56	30.1	13.00	30.1	12.54	30.1	11.96	29.4	11.59
	-9.5	-10	30.5	13.48	30.5	13.47	30.3	12.92	30.3	12.46	30.3	11.89	29.5	11.53
	-8.5	-9.1	31.1	13.56	31.1	13.17	30.9	12.64	30.9	12.20	30.8	11.66	30.0	11.31
	-7.0	-7.6	32.0	13.09	32.0	12.71	31.8	12.22	31.8	11.81	31.4	11.31	30.6	10.98
	-5.0	-5.6	33.2	12.47	33.2	12.11	33.0	11.66	33.0	11.28	33.0	10.85	31.5	10.54
	-3.0	-3.7	34.4	11.84	34.4	11.50	34.2	11.10	34.2	10.76	34.2	10.38	32.3	10.11
	0.0	-0.7	36.2	10.90	36.2	10.59	36.0	10.26	36.0	9.97	35.8	9.69	33.4	9.45
	3.0	2.2	38.0	9.96	38.0	9.68	37.8	9.42	37.1	9.19	35.8	8.99	33.4	8.79
	5.0	4.1	39.3	9.33	39.3	9.07	38.4	8.86	37.1	8.66	36.0	8.53	33.4	8.36
	7.0	6.0	40.4	8.70	40.0	8.47	38.4	8.30	37.1	8.14	36.0	8.06	33.4	7.92
	9.0	7.9	40.4	8.20	40.0	7.97	38.4	7.82	37.1	7.67	36.0	7.59	33.4	7.46
	11.0	9.8	40.4	7.75	40.0	7.54	38.4	7.39	37.1	7.25	36.0	7.18	33.4	7.06
13.0	11.8	40.4	7.29	40.0	7.09	38.4	6.95	37.1	6.82	36.0	6.75	33.4	6.63	
15.0	13.7	40.4	6.80	40.0	6.61	38.4	6.48	37.1	6.36	36.0	6.30	33.4	6.19	
110	-19.8	-20	25.8	12.75	25.8	12.91	25.6	13.06	25.6	13.31	25.6	13.48	25.0	13.56
	-18.8	-19	26.2	12.83	26.2	12.99	26.1	13.15	26.1	13.39	26.1	13.56	25.4	13.33
	-16.7	-17	27.2	13.00	27.2	13.16	27.0	13.32	27.0	13.56	27.0	13.08	26.3	12.85
	-13.7	-15	28.5	13.24	28.5	13.41	28.3	13.56	28.3	12.83	28.3	12.39	28.3	12.16
	-11.8	-13	29.3	13.40	29.3	13.56	29.1	13.04	29.1	12.36	29.1	11.96	29.1	11.72
	-9.8	-11	30.1	13.56	30.1	12.96	30.0	12.48	30.0	11.87	30.0	11.50	29.4	11.26
	-9.5	-10	30.3	13.47	30.3	12.87	30.1	12.40	30.1	11.79	30.1	11.43	29.8	11.20
	-8.5	-9.1	30.9	13.14	30.9	12.57	30.7	12.12	30.7	11.55	30.7	11.20	30.1	10.97
	-7.0	-7.6	31.8	12.64	31.8	12.12	31.6	11.71	31.6	11.18	31.6	10.85	30.1	10.62
	-5.0	-5.6	33.0	11.99	33.0	11.52	32.8	11.15	32.8	10.69	32.2	10.39	30.1	10.16
	-3.0	-3.7	34.2	11.33	34.2	10.92	34.0	10.60	33.3	10.20	32.2	9.93	30.1	9.70
	0.0	-0.7	36.0	10.34	36.0	10.02	34.4	9.77	33.3	9.46	32.2	9.25	30.1	9.01
	3.0	2.2	37.8	9.36	36.7	9.12	34.4	8.94	33.3	8.72	32.2	8.56	30.1	8.32
	5.0	4.1	38.8	8.70	36.7	8.52	34.4	8.39	33.3	8.23	32.2	8.10	30.1	7.86
	7.0	6.0	38.8	8.04	36.7	7.92	34.4	7.83	33.3	7.74	32.2	7.64	30.1	7.40
	9.0	7.9	38.8	7.55	36.7	7.43	34.4	7.35	33.3	7.26	32.2	7.17	30.1	6.95
	11.0	9.8	38.8	7.11	36.7	7.01	34.4	6.93	33.3	6.84	32.2	6.75	30.1	6.55
13.0	11.8	38.8	6.65	36.7	6.55	34.4	6.48	33.3	6.40	32.2	6.32	30.1	6.12	
15.0	13.7	38.8	6.17	36.7	6.08	34.4	6.01	33.3	5.94	32.2	5.86	30.1	5.68	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Heating Capacity(10HP)**

Outdoor Units

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100	-19.8	-20	25.7	13.09	25.7	13.18	25.5	13.24	25.5	13.42	25.5	13.54	24.9	13.56
	-18.8	-19	26.1	13.14	25.9	13.23	25.9	13.32	25.9	13.46	25.9	13.56	25.3	13.30
	-16.7	-17	26.9	13.24	26.9	13.33	26.9	13.49	26.7	13.56	26.7	13.01	26.0	12.75
	-13.7	-15	28.3	13.38	28.3	13.47	28.2	13.56	28.2	12.74	28.2	12.22	27.5	11.96
	-11.8	-13	29.1	13.47	29.0	13.56	29.0	13.00	29.0	12.23	29.0	11.72	27.5	11.46
	-9.8	-11	30.0	13.56	30.0	12.92	29.8	12.40	29.8	11.68	29.5	11.20	27.5	10.94
	-9.5	-10	30.2	13.46	30.2	12.83	30.0	12.32	30.0	11.60	29.5	11.12	27.5	10.86
	-8.5	-9.1	30.8	13.12	30.8	12.51	30.6	12.02	30.5	11.32	29.5	10.86	27.5	10.60
	-7.0	-7.6	32.2	12.60	32.0	12.03	31.5	11.57	30.5	10.91	29.5	10.46	27.5	10.20
	-5.0	-5.6	33.6	11.91	33.3	11.39	31.5	10.98	30.5	10.37	29.5	9.94	27.5	9.68
	-3.0	-3.7	34.6	11.22	33.5	10.74	31.5	10.38	30.5	9.82	29.5	9.41	27.5	9.15
	0.0	-0.7	35.5	10.19	33.5	9.78	31.5	9.49	30.5	9.00	29.5	8.62	27.5	8.36
	3.0	2.2	35.5	9.16	33.5	8.82	31.5	8.60	30.5	8.18	29.5	7.83	27.5	7.57
	5.0	4.1	35.5	8.47	33.5	8.18	31.5	8.00	30.5	7.64	29.5	7.31	27.5	7.05
	7.0	6.0	35.5	7.79	33.5	7.54	31.5	7.41	30.5	7.09	29.5	6.78	27.5	6.52
	9.0	7.9	35.5	7.12	33.5	6.90	31.5	6.78	30.5	6.48	29.5	6.20	27.5	5.97
	11.0	9.8	35.5	6.50	33.5	6.30	31.5	6.19	30.5	5.92	29.5	5.66	27.5	5.45
	13.0	11.8	35.5	5.85	33.5	5.67	31.5	5.57	30.5	5.33	29.5	5.10	27.5	4.91
15.0	13.7	35.5	5.18	33.5	5.02	31.5	4.93	30.5	4.71	29.5	4.51	27.5	4.34	
90	-19.8	-20	25.6	12.29	25.6	12.54	25.4	12.71	25.4	12.79	25.4	12.34	24.8	11.71
	-18.8	-19	26.1	12.38	25.9	12.62	25.8	12.79	25.8	12.56	25.8	12.12	25.1	11.50
	-16.7	-17	26.9	12.55	26.9	12.79	26.8	12.30	26.8	12.06	26.8	11.64	25.1	11.04
	-13.7	-15	28.3	12.79	28.3	12.05	28.1	11.59	27.9	11.36	27.0	10.96	25.1	10.40
	-11.8	-13	29.1	12.27	29.0	11.57	28.8	11.14	27.9	10.91	27.0	10.53	25.1	9.99
	-9.8	-11	30.0	11.72	30.0	11.08	28.8	10.67	27.9	10.44	27.0	10.08	25.1	9.56
	-9.5	-10	30.2	11.64	30.2	11.00	28.8	10.60	27.9	10.37	27.0	10.02	25.1	9.49
	-8.5	-9.1	30.8	11.37	30.5	10.75	28.8	10.36	27.9	10.13	27.0	9.79	25.1	9.28
	-7.0	-7.6	32.2	10.95	30.6	10.38	28.8	10.01	27.9	9.78	27.0	9.45	25.1	8.95
	-5.0	-5.6	32.5	10.41	30.6	9.88	28.8	9.54	27.9	9.31	27.0	9.00	25.1	8.52
	-3.0	-3.7	32.5	9.86	30.6	9.38	28.8	9.07	27.9	8.84	27.0	8.55	25.1	8.09
	0.0	-0.7	32.5	9.03	30.6	8.64	28.8	8.36	27.9	8.13	27.0	7.87	25.1	7.44
	3.0	2.2	32.5	8.21	30.6	7.89	28.8	7.65	27.9	7.42	27.0	7.19	25.1	6.79
	5.0	4.1	32.5	7.66	30.6	7.39	28.8	7.18	27.9	6.95	27.0	6.74	25.1	6.36
	7.0	6.0	32.5	7.12	30.6	6.90	28.8	6.71	27.9	6.48	27.0	6.29	25.1	5.93
	9.0	7.9	32.5	6.62	30.6	6.41	28.8	6.24	27.9	6.03	27.0	5.85	25.1	5.51
	11.0	9.8	32.5	6.12	30.6	5.93	28.8	5.77	27.9	5.57	27.0	5.41	25.1	5.10
	13.0	11.8	32.5	5.62	30.6	5.44	28.8	5.30	27.9	5.12	27.0	4.96	25.1	4.68
15.0	13.7	32.5	5.12	30.6	4.96	28.8	4.82	27.9	4.66	27.0	4.52	25.1	4.26	
80	-19.8	-20	25.3	10.84	25.3	11.09	25.3	11.34	25.0	10.94	24.1	10.39	22.4	9.87
	-18.8	-19	25.7	10.93	25.7	11.34	25.7	11.13	25.0	10.73	24.1	10.20	22.4	9.69
	-16.7	-17	25.8	11.34	25.8	10.90	25.8	10.69	25.0	10.30	24.1	9.80	22.4	9.32
	-13.7	-15	25.8	10.67	25.8	10.26	25.8	10.06	25.0	9.69	24.1	9.23	22.4	8.78
	-11.8	-13	26.6	10.25	25.9	9.86	25.8	9.66	25.0	9.30	24.1	8.87	22.4	8.43
	-9.8	-11	27.7	9.81	26.9	9.44	25.8	9.24	25.0	8.90	24.1	8.49	22.4	8.08
	-9.5	-10	27.8	9.74	27.0	9.38	25.8	9.18	25.0	8.84	24.1	8.43	22.4	8.02
	-8.5	-9.1	28.4	9.52	27.5	9.16	25.8	8.97	25.0	8.63	24.1	8.24	22.4	7.84
	-7.0	-7.6	29.1	9.18	27.5	8.85	25.8	8.65	25.0	8.33	24.1	7.96	22.4	7.57
	-5.0	-5.6	29.1	8.74	27.5	8.42	25.8	8.23	25.0	7.92	24.1	7.58	22.4	7.21
	-3.0	-3.7	29.1	8.29	27.5	8.00	25.8	7.81	25.0	7.51	24.1	7.20	22.4	6.85
	0.0	-0.7	29.1	7.62	27.5	7.37	25.8	7.18	25.0	6.90	24.1	6.62	22.4	6.31
	3.0	2.2	29.1	6.95	27.5	6.73	25.8	6.55	25.0	6.29	24.1	6.05	22.4	5.77
	5.0	4.1	29.1	6.51	27.5	6.31	25.8	6.13	25.0	5.88	24.1	5.67	22.4	5.41
	7.0	6.0	29.1	6.06	27.5	5.88	25.8	5.71	25.0	5.47	24.1	5.29	22.4	5.05
	9.0	7.9	29.1	5.69	27.5	5.52	25.8	5.36	25.0	5.14	24.1	4.97	22.4	4.75
	11.0	9.8	29.1	5.28	27.5	5.13	25.8	4.98	25.0	4.77	24.1	4.61	22.4	4.40
	13.0	11.8	29.1	4.93	27.5	4.79	25.8	4.65	25.0	4.45	24.1	4.31	22.4	4.11
15.0	13.7	29.1	4.64	27.5	4.51	25.8	4.37	25.0	4.19	24.1	4.05	22.4	3.87	

**Notes:**

1. TC: Total Capacity(kW)    PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Heating Capacity(10HP)**

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70	-19.8	-20	23.6	11.00	23.3	11.08	21.9	10.65	21.2	10.07	20.6	9.54	19.2	9.02
	-18.8	-19	24.3	11.08	23.3	10.85	21.9	10.43	21.2	9.87	20.6	9.35	19.2	8.85
	-16.7	-17	24.7	10.61	23.3	10.38	21.9	9.98	21.2	9.45	20.6	8.96	19.2	8.47
	-13.7	-15	24.7	9.93	23.3	9.71	21.9	9.34	21.2	8.84	20.6	8.40	19.2	7.94
	-11.8	-13	24.7	9.50	23.3	9.28	21.9	8.93	21.2	8.46	20.6	8.05	19.2	7.60
	-9.8	-11	24.7	9.05	23.3	8.83	21.9	8.50	21.2	8.06	20.6	7.67	19.2	7.25
	-9.5	-10	24.7	8.99	23.3	8.77	21.9	8.44	21.2	8.00	20.6	7.62	19.2	7.19
	-8.5	-9.1	24.7	8.76	23.3	8.54	21.9	8.22	21.2	7.80	20.6	7.43	19.2	7.02
	-7.0	-7.6	24.7	8.42	23.3	8.21	21.9	7.90	21.2	7.49	20.6	7.15	19.2	6.75
	-5.0	-5.6	24.7	7.98	23.3	7.76	21.9	7.47	21.2	7.09	20.6	6.77	19.2	6.39
	-3.0	-3.7	24.7	7.53	23.3	7.31	21.9	7.04	21.2	6.69	20.6	6.40	19.2	6.04
	0.0	-0.7	24.7	6.85	23.3	6.64	21.9	6.40	21.2	6.08	20.6	5.84	19.2	5.51
	3.0	2.2	24.7	6.18	23.3	5.96	21.9	5.75	21.2	5.48	20.6	5.28	19.2	4.97
	5.0	4.1	24.7	5.73	23.3	5.51	21.9	5.32	21.2	5.08	20.6	4.91	19.2	4.62
	7.0	6.0	24.7	5.28	23.3	5.06	21.9	4.90	21.2	4.67	20.6	4.53	19.2	4.26
	9.0	7.9	24.7	4.77	23.3	4.57	21.9	4.42	21.2	4.22	20.6	4.09	19.2	3.85
	11.0	9.8	24.7	4.44	23.3	4.26	21.9	4.12	21.2	3.93	20.6	3.81	19.2	3.58
13.0	11.8	24.7	4.15	23.3	3.98	21.9	3.85	21.2	3.68	20.6	3.57	19.2	3.35	
15.0	13.7	24.7	3.91	23.3	3.76	21.9	3.63	21.2	3.47	20.6	3.36	19.2	3.16	
60	-19.8	-20	21.2	10.83	20.1	10.38	18.8	9.79	18.2	9.23	17.6	8.71	16.4	8.21
	-18.8	-19	21.2	10.60	20.1	10.16	18.8	9.58	18.2	9.04	17.6	8.53	16.4	8.04
	-16.7	-17	21.2	10.12	20.1	9.69	18.8	9.14	18.2	8.63	17.6	8.15	16.4	7.68
	-13.7	-15	21.2	9.43	20.1	9.02	18.8	8.51	18.2	8.05	17.6	7.61	16.4	7.16
	-11.8	-13	21.2	9.00	20.1	8.59	18.8	8.11	18.2	7.68	17.6	7.26	16.4	6.83
	-9.8	-11	21.2	8.54	20.1	8.15	18.8	7.69	18.2	7.29	17.6	6.90	16.4	6.49
	-9.5	-10	21.2	8.47	20.1	8.08	18.8	7.63	18.2	7.23	17.6	6.85	16.4	6.43
	-8.5	-9.1	21.2	8.24	20.1	7.85	18.8	7.42	18.2	7.03	17.6	6.67	16.4	6.26
	-7.0	-7.6	21.2	7.89	20.1	7.52	18.8	7.11	18.2	6.74	17.6	6.39	16.4	6.00
	-5.0	-5.6	21.2	7.44	20.1	7.07	18.8	6.69	18.2	6.35	17.6	6.03	16.4	5.66
	-3.0	-3.7	21.2	6.98	20.1	6.62	18.8	6.27	18.2	5.96	17.6	5.67	16.4	5.31
	0.0	-0.7	21.2	6.29	20.1	5.95	18.8	5.64	18.2	5.38	17.6	5.12	16.4	4.79
	3.0	2.2	21.2	5.60	20.1	5.28	18.8	5.02	18.2	4.80	17.6	4.58	16.4	4.27
	5.0	4.1	21.2	5.14	20.1	4.83	18.8	4.60	18.2	4.41	17.6	4.22	16.4	3.93
	7.0	6.0	21.2	4.68	20.1	4.38	18.8	4.18	18.2	4.02	17.6	3.85	16.4	3.58
	9.0	7.9	21.2	4.18	20.1	3.91	18.8	3.73	18.2	3.58	17.6	3.44	16.4	3.20
	11.0	9.8	21.2	3.90	20.1	3.65	18.8	3.48	18.2	3.35	17.6	3.21	16.4	2.99
13.0	11.8	21.2	3.65	20.1	3.42	18.8	3.26	18.2	3.14	17.6	3.01	16.4	2.80	
15.0	13.7	21.2	3.45	20.1	3.23	18.8	3.08	18.2	2.96	17.6	2.84	16.4	2.64	
50	-19.8	-20	17.7	9.02	16.7	8.49	15.7	8.00	15.2	7.54	14.7	7.12	13.7	6.71
	-18.8	-19	17.7	8.83	16.7	8.31	15.7	7.83	15.2	7.38	14.7	6.97	13.7	6.57
	-16.7	-17	17.7	8.42	16.7	7.92	15.7	7.47	15.2	7.04	14.7	6.66	13.7	6.27
	-13.7	-15	17.7	7.83	16.7	7.36	15.7	6.96	15.2	6.56	14.7	6.21	13.7	5.85
	-11.8	-13	17.7	7.46	16.7	7.01	15.7	6.63	15.2	6.26	14.7	5.93	13.7	5.58
	-9.8	-11	17.7	7.07	16.7	6.64	15.7	6.29	15.2	5.94	14.7	5.63	13.7	5.30
	-9.5	-10	17.7	7.01	16.7	6.59	15.7	6.24	15.2	5.89	14.7	5.59	13.7	5.26
	-8.5	-9.1	17.7	6.81	16.7	6.40	15.7	6.06	15.2	5.73	14.7	5.44	13.7	5.12
	-7.0	-7.6	17.7	6.52	16.7	6.12	15.7	5.81	15.2	5.49	14.7	5.22	13.7	4.90
	-5.0	-5.6	17.7	6.13	16.7	5.75	15.7	5.46	15.2	5.16	14.7	4.92	13.7	4.62
	-3.0	-3.7	17.7	5.73	16.7	5.38	15.7	5.12	15.2	4.84	14.7	4.62	13.7	4.34
	0.0	-0.7	17.7	5.15	16.7	4.83	15.7	4.61	15.2	4.36	14.7	4.18	13.7	3.91
	3.0	2.2	17.7	4.56	16.7	4.28	15.7	4.09	15.2	3.88	14.7	3.73	13.7	3.49
	5.0	4.1	17.7	4.17	16.7	3.91	15.7	3.75	15.2	3.56	14.7	3.43	13.7	3.21
	7.0	6.0	17.7	3.78	16.7	3.54	15.7	3.41	15.2	3.24	14.7	3.13	13.7	2.92
	9.0	7.9	17.7	3.41	16.7	3.19	15.7	3.08	15.2	2.92	14.7	2.83	13.7	2.64
	11.0	9.8	17.7	3.19	16.7	2.99	15.7	2.88	15.2	2.73	14.7	2.65	13.7	2.47
13.0	11.8	17.7	3.00	16.7	2.81	15.7	2.70	15.2	2.57	14.7	2.49	13.7	2.32	
15.0	13.7	17.7	2.83	16.7	2.65	15.7	2.56	15.2	2.43	14.7	2.35	13.7	2.20	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

## ARUN120BSS0

### Heating Capacity(12HP)

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	-19.8	-20	31.3	12.76	31.3	12.89	31.1	13.00	31.1	13.17	31.1	13.33	30.3	13.58
	-18.8	-19	31.9	12.85	31.9	12.97	31.7	13.08	31.7	13.25	31.7	13.41	30.9	13.66
	-16.7	-17	33.0	13.03	33.0	13.15	32.8	13.26	32.8	13.43	32.8	13.59	32.0	13.84
	-13.7	-15	34.6	13.28	34.6	13.40	34.4	13.51	34.4	13.68	34.4	13.84	33.5	13.11
	-11.8	-13	35.6	13.44	35.6	13.56	35.4	13.67	35.4	13.84	35.4	13.33	34.5	12.65
	-9.8	-11	36.6	13.60	36.6	13.73	36.4	13.84	36.4	13.28	36.4	12.80	35.5	12.16
	-9.5	-10	36.8	13.63	36.8	13.76	36.6	13.75	36.6	13.20	36.5	12.72	35.7	12.09
	-8.5	-9.1	37.6	13.71	37.6	13.84	37.3	13.45	37.3	12.92	37.1	12.46	36.2	11.85
	-7	-7.6	38.7	13.84	38.7	13.38	38.4	13.01	38.4	12.50	38.4	12.06	37.0	11.48
	-5	-5.6	40.1	13.21	40.1	12.77	39.9	12.41	39.9	11.94	39.9	11.53	38.0	11.00
	-3	-3.7	41.6	12.58	41.6	12.16	41.3	11.82	41.3	11.38	41.3	10.99	39.1	10.51
	0	-0.7	43.8	11.63	43.8	11.25	43.5	10.93	43.5	10.54	43.5	10.19	40.7	9.78
	3	2.2	46.0	10.68	46.0	10.33	45.7	10.03	45.7	9.71	45.7	9.40	42.2	9.05
	5	4.1	47.5	10.05	47.5	9.72	47.2	9.44	47.2	9.15	45.8	8.86	42.7	8.57
	7	6	48.9	9.41	48.9	9.11	48.6	8.85	47.5	8.59	45.8	8.33	42.7	8.08
	9	7.9	48.9	8.87	48.9	8.58	48.7	8.33	47.5	8.09	45.8	7.85	42.7	7.61
11	9.8	48.9	8.39	48.9	8.12	48.7	7.89	47.5	7.66	45.8	7.43	42.7	7.21	
13	11.8	48.9	7.89	48.9	7.64	48.7	7.41	47.5	7.20	45.8	6.98	42.7	6.78	
15	13.7	48.9	7.36	48.9	7.13	48.7	6.92	47.5	6.72	45.8	6.52	42.7	6.32	
120	-19.8	-20	31.1	12.89	31.1	13.00	30.9	13.17	30.9	13.33	30.9	13.58	30.1	13.76
	-18.8	-19	31.6	12.97	31.6	13.08	31.4	13.25	31.4	13.41	31.4	13.66	30.6	13.84
	-16.7	-17	32.7	13.15	32.7	13.26	32.5	13.43	32.5	13.59	32.5	13.84	31.7	13.37
	-13.7	-15	34.3	13.40	34.3	13.51	34.1	13.68	34.1	13.84	34.1	13.13	33.3	12.70
	-11.8	-13	35.3	13.56	35.3	13.67	35.1	13.84	35.1	13.33	35.1	12.68	34.3	12.28
	-9.8	-11	36.4	13.73	36.4	13.84	36.1	13.27	36.1	12.80	36.1	12.21	35.3	11.83
	-9.5	-10	36.6	13.76	36.6	13.75	36.4	13.18	36.4	12.72	36.4	12.13	35.4	11.76
	-8.5	-9.1	37.3	13.84	37.3	13.44	37.1	12.90	37.1	12.45	36.9	11.90	36.0	11.54
	-7	-7.6	38.4	13.36	38.4	12.97	38.2	12.47	38.2	12.05	37.7	11.54	36.7	11.21
	-5	-5.6	39.9	12.72	39.9	12.35	39.6	11.90	39.6	11.51	39.6	11.07	37.8	10.76
	-3	-3.7	41.3	12.08	41.3	11.73	41.1	11.32	41.1	10.98	41.1	10.60	38.8	10.31
	0	-0.7	43.5	11.12	43.5	10.81	43.2	10.47	43.2	10.18	43.0	9.88	40.1	9.64
	3	2.2	45.7	10.16	45.7	9.88	45.4	9.61	44.5	9.37	43.0	9.17	40.1	8.97
	5	4.1	47.1	9.52	47.1	9.26	46.1	9.04	44.5	8.84	43.1	8.70	40.1	8.53
	7	6	48.5	8.88	48.0	8.64	46.1	8.47	44.5	8.31	43.1	8.23	40.1	8.08
	9	7.9	48.5	8.36	48.0	8.13	46.1	7.97	44.5	7.82	43.1	7.75	40.1	7.61
11	9.8	48.5	7.91	48.0	7.70	46.1	7.54	44.5	7.40	43.1	7.33	40.1	7.20	
13	11.8	48.5	7.43	48.0	7.23	46.1	7.09	44.5	6.95	43.1	6.89	40.1	6.77	
15	13.7	48.5	6.93	48.0	6.75	46.1	6.61	44.5	6.49	43.1	6.43	40.1	6.31	
110	-19.8	-20	30.9	13.00	30.9	13.17	30.7	13.33	30.7	13.58	30.7	13.76	30.0	13.84
	-18.8	-19	31.5	13.08	31.5	13.25	31.3	13.41	31.3	13.66	31.3	13.84	30.5	13.61
	-16.7	-17	32.6	13.26	32.6	13.43	32.4	13.59	32.4	13.84	32.4	13.35	31.6	13.11
	-13.7	-15	34.2	13.51	34.2	13.68	33.9	13.84	33.9	13.09	33.9	12.64	33.9	12.41
	-11.8	-13	35.1	13.67	35.1	13.84	34.9	13.30	34.9	12.61	34.9	12.20	34.9	11.96
	-9.8	-11	36.2	13.84	36.2	13.23	35.9	12.74	35.9	12.11	35.9	11.73	35.3	11.49
	-9.5	-10	36.4	13.74	36.4	13.14	36.2	12.65	36.2	12.03	36.2	11.66	35.8	11.42
	-8.5	-9.1	37.1	13.40	37.1	12.83	36.9	12.37	36.9	11.78	36.9	11.43	36.1	11.19
	-7	-7.6	38.2	12.90	38.2	12.37	38.0	11.95	38.0	11.41	38.0	11.07	36.1	10.84
	-5	-5.6	39.6	12.23	39.6	11.76	39.4	11.38	39.4	10.90	38.6	10.61	36.1	10.37
	-3	-3.7	41.1	11.56	41.1	11.14	40.8	10.82	40.0	10.40	38.6	10.14	36.1	9.90
	0	-0.7	43.3	10.55	43.3	10.23	41.3	9.97	40.0	9.65	38.6	9.43	36.1	9.19
	3	2.2	45.4	9.55	44.0	9.31	41.3	9.12	40.0	8.90	38.6	8.73	36.1	8.49
	5	4.1	46.6	8.88	44.0	8.69	41.3	8.56	40.0	8.40	38.6	8.26	36.1	8.02
	7	6	46.6	8.20	44.0	8.08	41.3	7.99	40.0	7.89	38.6	7.79	36.1	7.55
	9	7.9	46.6	7.70	44.0	7.59	41.3	7.50	40.0	7.41	38.6	7.31	36.1	7.09
11	9.8	46.6	7.26	44.0	7.15	41.3	7.07	40.0	6.98	38.6	6.89	36.1	6.68	
13	11.8	46.6	6.79	44.0	6.69	41.3	6.61	40.0	6.53	38.6	6.45	36.1	6.25	
15	13.7	46.6	6.30	44.0	6.20	41.3	6.13	40.0	6.06	38.6	5.98	36.1	5.79	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. ■ is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Heating Capacity(12HP)**

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100	-19.8	-20	30.8	13.35	30.8	13.45	30.6	13.51	30.6	13.69	30.6	13.82	29.8	13.84
	-18.8	-19	31.3	13.40	31.1	13.50	31.1	13.59	31.1	13.74	31.1	13.84	30.3	13.57
	-16.7	-17	32.2	13.50	32.2	13.60	32.2	13.77	32.0	13.84	32.0	13.28	31.2	13.01
	-13.7	-15	34.0	13.65	34.0	13.75	33.8	13.84	33.8	13.00	33.8	12.47	33.0	12.20
	-11.8	-13	35.0	13.74	34.8	13.84	34.8	13.26	34.8	12.47	34.8	11.96	33.0	11.70
	-9.8	-11	36.0	13.84	36.0	13.19	35.8	12.66	35.8	11.92	35.4	11.43	33.0	11.16
	-9.5	-10	36.2	13.73	36.2	13.09	36.0	12.57	36.0	11.83	35.4	11.35	33.0	11.08
	-8.5	-9.1	36.9	13.38	36.9	12.76	36.7	12.26	36.6	11.55	35.4	11.08	33.0	10.81
	-7	-7.6	38.6	12.86	38.5	12.27	37.8	11.81	36.6	11.14	35.4	10.67	33.0	10.41
	-5	-5.6	40.3	12.16	39.9	11.62	37.8	11.20	36.6	10.58	35.4	10.14	33.0	9.87
	-3	-3.7	41.5	11.45	40.2	10.96	37.8	10.59	36.6	10.02	35.4	9.60	33.0	9.34
	0	-0.7	42.6	10.40	40.2	9.98	37.8	9.68	36.6	9.18	35.4	8.80	33.0	8.53
	3	2.2	42.6	9.35	40.2	9.00	37.8	8.77	36.6	8.35	35.4	7.99	33.0	7.73
	5	4.1	42.6	8.65	40.2	8.35	37.8	8.17	36.6	7.79	35.4	7.46	33.0	7.19
	7	6	42.6	7.94	40.2	7.69	37.8	7.56	36.6	7.23	35.4	6.92	33.0	6.66
	9	7.9	42.6	7.26	40.2	7.04	37.8	6.91	36.6	6.61	35.4	6.33	33.0	6.09
	11	9.8	42.6	6.63	40.2	6.42	37.8	6.31	36.6	6.04	35.4	5.78	33.0	5.56
13	11.8	42.6	5.97	40.2	5.79	37.8	5.68	36.6	5.44	35.4	5.20	33.0	5.00	
15	13.7	42.6	5.28	40.2	5.12	37.8	5.03	36.6	4.81	35.4	4.60	33.0	4.43	
90	-19.8	-20	30.7	12.54	30.7	12.79	30.5	12.97	30.5	13.05	30.5	12.59	29.7	11.95
	-18.8	-19	31.3	12.62	31.1	12.88	31.0	13.05	31.0	12.81	31.0	12.36	30.1	11.73
	-16.7	-17	32.2	12.80	32.2	13.05	32.1	12.55	32.1	12.31	32.1	11.88	30.1	11.27
	-13.7	-15	34.0	13.05	34.0	12.29	33.7	11.83	33.5	11.59	32.4	11.19	30.1	10.61
	-11.8	-13	35.0	12.52	34.8	11.81	34.6	11.37	33.5	11.13	32.4	10.75	30.1	10.19
	-9.8	-11	36.0	11.96	36.0	11.30	34.6	10.89	33.5	10.65	32.4	10.29	30.1	9.75
	-9.5	-10	36.2	11.88	36.2	11.22	34.6	10.82	33.5	10.58	32.4	10.22	30.1	9.68
	-8.5	-9.1	36.9	11.60	36.7	10.97	34.6	10.57	33.5	10.34	32.4	9.99	30.1	9.46
	-7	-7.6	38.6	11.18	36.7	10.59	34.6	10.21	33.5	9.98	32.4	9.64	30.1	9.13
	-5	-5.6	39.0	10.62	36.7	10.08	34.6	9.73	33.5	9.50	32.4	9.18	30.1	8.69
	-3	-3.7	39.0	10.06	36.7	9.57	34.6	9.25	33.5	9.02	32.4	8.72	30.1	8.25
	0	-0.7	39.0	9.22	36.7	8.81	34.6	8.53	33.5	8.29	32.4	8.03	30.1	7.59
	3	2.2	39.0	8.38	36.7	8.05	34.6	7.81	33.5	7.57	32.4	7.34	30.1	6.93
	5	4.1	39.0	7.82	36.7	7.54	34.6	7.33	33.5	7.09	32.4	6.88	30.1	6.49
	7	6	39.0	7.26	36.7	7.04	34.6	6.85	33.5	6.61	32.4	6.42	30.1	6.05
	9	7.9	39.0	6.75	36.7	6.54	34.6	6.37	33.5	6.15	32.4	5.97	30.1	5.63
	11	9.8	39.0	6.24	36.7	6.05	34.6	5.88	33.5	5.68	32.4	5.51	30.1	5.20
13	11.8	39.0	5.73	36.7	5.55	34.6	5.40	33.5	5.22	32.4	5.06	30.1	4.78	
15	13.7	39.0	5.22	36.7	5.06	34.6	4.92	33.5	4.75	32.4	4.61	30.1	4.35	
80	-19.8	-20	30.4	11.06	30.4	11.31	30.4	11.57	30.0	11.16	28.9	10.60	26.9	10.07
	-18.8	-19	30.9	11.15	30.9	11.57	30.9	11.36	30.0	10.95	28.9	10.41	26.9	9.89
	-16.7	-17	30.9	11.57	30.9	11.12	30.9	10.91	30.0	10.51	28.9	10.00	26.9	9.50
	-13.7	-15	30.9	10.89	30.9	10.47	30.9	10.27	30.0	9.89	28.9	9.42	26.9	8.95
	-11.8	-13	32.0	10.46	31.1	10.06	30.9	9.86	30.0	9.49	28.9	9.05	26.9	8.61
	-9.8	-11	33.2	10.00	32.2	9.63	30.9	9.43	30.0	9.08	28.9	8.66	26.9	8.24
	-9.5	-10	33.4	9.94	32.4	9.57	30.9	9.36	30.0	9.02	28.9	8.60	26.9	8.18
	-8.5	-9.1	34.0	9.71	33.0	9.35	30.9	9.15	30.0	8.81	28.9	8.41	26.9	8.00
	-7	-7.6	35.0	9.37	33.0	9.03	30.9	8.83	30.0	8.50	28.9	8.12	26.9	7.73
	-5	-5.6	35.0	8.91	33.0	8.59	30.9	8.40	30.0	8.08	28.9	7.73	26.9	7.36
	-3	-3.7	35.0	8.46	33.0	8.16	30.9	7.97	30.0	7.66	28.9	7.34	26.9	6.99
	0	-0.7	35.0	7.78	33.0	7.51	30.9	7.33	30.0	7.04	28.9	6.76	26.9	6.44
	3	2.2	35.0	7.09	33.0	6.87	30.9	6.68	30.0	6.42	28.9	6.18	26.9	5.89
	5	4.1	35.0	6.64	33.0	6.44	30.9	6.25	30.0	6.00	28.9	5.79	26.9	5.52
	7	6	35.0	6.18	33.0	6.00	30.9	5.83	30.0	5.58	28.9	5.40	26.9	5.16
	9	7.9	35.0	5.81	33.0	5.64	30.9	5.47	30.0	5.24	28.9	5.07	26.9	4.84
	11	9.8	35.0	5.39	33.0	5.23	30.9	5.08	30.0	4.87	28.9	4.71	26.9	4.49
13	11.8	35.0	5.03	33.0	4.88	30.9	4.74	30.0	4.54	28.9	4.39	26.9	4.19	
15	13.7	35.0	4.73	33.0	4.60	30.9	4.46	30.0	4.28	28.9	4.14	26.9	3.95	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.

# 6. Capacity Tables

**Heating Capacity(12HP)**

Outdoor Units

Combination (%)	Outdoor air temp		Indoor air temp. °C DB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70	-19.8	-20	28.3	11.22	28.0	11.30	26.3	10.86	25.4	10.28	24.7	9.73	23.0	9.21
	-18.8	-19	29.2	11.30	28.0	11.07	26.3	10.65	25.4	10.07	24.7	9.54	23.0	9.03
	-16.7	-17	29.6	10.82	28.0	10.59	26.3	10.19	25.4	9.64	24.7	9.14	23.0	8.65
	-13.7	-15	29.6	10.13	28.0	9.91	26.3	9.53	25.4	9.02	24.7	8.57	23.0	8.10
	-11.8	-13	29.6	9.70	28.0	9.47	26.3	9.11	25.4	8.63	24.7	8.21	23.0	7.76
	-9.8	-11	29.6	9.24	28.0	9.01	26.3	8.67	25.4	8.22	24.7	7.83	23.0	7.39
	-9.5	-10	29.6	9.17	28.0	8.94	26.3	8.61	25.4	8.16	24.7	7.77	23.0	7.34
	-8.5	-9.1	29.6	8.94	28.0	8.72	26.3	8.39	25.4	7.95	24.7	7.58	23.0	7.16
	-7	-7.6	29.6	8.60	28.0	8.37	26.3	8.06	25.4	7.65	24.7	7.29	23.0	6.89
	-5	-5.6	29.6	8.14	28.0	7.91	26.3	7.62	25.4	7.23	24.7	6.91	23.0	6.52
	-3	-3.7	29.6	7.68	28.0	7.46	26.3	7.18	25.4	6.82	24.7	6.53	23.0	6.16
	0	-0.7	29.6	6.99	28.0	6.77	26.3	6.53	25.4	6.21	24.7	5.96	23.0	5.62
	3	2.2	29.6	6.30	28.0	6.08	26.3	5.87	25.4	5.59	24.7	5.39	23.0	5.07
	5	4.1	29.6	5.84	28.0	5.63	26.3	5.43	25.4	5.18	24.7	5.01	23.0	4.71
	7	6	29.6	5.38	28.0	5.17	26.3	4.99	25.4	4.77	24.7	4.62	23.0	4.35
9	7.9	29.6	4.86	28.0	4.67	26.3	4.51	25.4	4.31	24.7	4.18	23.0	3.93	
11	9.8	29.6	4.53	28.0	4.34	26.3	4.20	25.4	4.01	24.7	3.89	23.0	3.66	
13	11.8	29.6	4.24	28.0	4.07	26.3	3.93	25.4	3.75	24.7	3.64	23.0	3.42	
15	13.7	29.6	3.99	28.0	3.83	26.3	3.70	25.4	3.54	24.7	3.43	23.0	3.22	
60	-19.8	-20	25.4	11.05	24.1	10.59	22.6	9.98	21.8	9.42	21.1	8.89	19.7	8.38
	-18.8	-19	25.4	10.82	24.1	10.37	22.6	9.77	21.8	9.22	21.1	8.71	19.7	8.20
	-16.7	-17	25.4	10.33	24.1	9.89	22.6	9.32	21.8	8.80	21.1	8.32	19.7	7.83
	-13.7	-15	25.4	9.62	24.1	9.20	22.6	8.68	21.8	8.21	21.1	7.76	19.7	7.30
	-11.8	-13	25.4	9.18	24.1	8.77	22.6	8.28	21.8	7.83	21.1	7.41	19.7	6.97
	-9.8	-11	25.4	8.71	24.1	8.31	22.6	7.85	21.8	7.43	21.1	7.04	19.7	6.62
	-9.5	-10	25.4	8.64	24.1	8.24	22.6	7.79	21.8	7.37	21.1	6.98	19.7	6.56
	-8.5	-9.1	25.4	8.41	24.1	8.01	22.6	7.57	21.8	7.18	21.1	6.80	19.7	6.39
	-7	-7.6	25.4	8.05	24.1	7.67	22.6	7.25	21.8	6.88	21.1	6.52	19.7	6.12
	-5	-5.6	25.4	7.59	24.1	7.21	22.6	6.83	21.8	6.48	21.1	6.15	19.7	5.77
	-3	-3.7	25.4	7.12	24.1	6.76	22.6	6.40	21.8	6.08	21.1	5.78	19.7	5.42
	0	-0.7	25.4	6.41	24.1	6.07	22.6	5.76	21.8	5.49	21.1	5.23	19.7	4.89
	3	2.2	25.4	5.71	24.1	5.39	22.6	5.12	21.8	4.89	21.1	4.67	19.7	4.36
	5	4.1	25.4	5.24	24.1	4.93	22.6	4.69	21.8	4.50	21.1	4.30	19.7	4.01
	7	6	25.4	4.78	24.1	4.47	22.6	4.26	21.8	4.10	21.1	3.93	19.7	3.66
9	7.9	25.4	4.26	24.1	3.99	22.6	3.81	21.8	3.66	21.1	3.51	19.7	3.26	
11	9.8	25.4	3.98	24.1	3.73	22.6	3.55	21.8	3.41	21.1	3.28	19.7	3.05	
13	11.8	25.4	3.73	24.1	3.49	22.6	3.33	21.8	3.20	21.1	3.07	19.7	2.85	
15	13.7	25.4	3.52	24.1	3.30	22.6	3.15	21.8	3.02	21.1	2.90	19.7	2.70	
50	-19.8	-20	21.2	9.21	20.0	8.66	18.8	8.17	18.2	7.70	17.6	7.27	16.4	6.85
	-18.8	-19	21.2	9.01	20.0	8.48	18.8	7.99	18.2	7.53	17.6	7.11	16.4	6.70
	-16.7	-17	21.2	8.59	20.0	8.08	18.8	7.62	18.2	7.19	17.6	6.80	16.4	6.40
	-13.7	-15	21.2	7.99	20.0	7.51	18.8	7.10	18.2	6.70	17.6	6.34	16.4	5.97
	-11.8	-13	21.2	7.61	20.0	7.15	18.8	6.77	18.2	6.38	17.6	6.05	16.4	5.69
	-9.8	-11	21.2	7.21	20.0	6.78	18.8	6.42	18.2	6.06	17.6	5.75	16.4	5.41
	-9.5	-10	21.2	7.15	20.0	6.72	18.8	6.36	18.2	6.01	17.6	5.70	16.4	5.36
	-8.5	-9.1	21.2	6.95	20.0	6.53	18.8	6.19	18.2	5.84	17.6	5.55	16.4	5.22
	-7	-7.6	21.2	6.65	20.0	6.25	18.8	5.93	18.2	5.60	17.6	5.32	16.4	5.00
	-5	-5.6	21.2	6.25	20.0	5.87	18.8	5.58	18.2	5.27	17.6	5.02	16.4	4.71
	-3	-3.7	21.2	5.85	20.0	5.49	18.8	5.23	18.2	4.94	17.6	4.72	16.4	4.43
	0	-0.7	21.2	5.25	20.0	4.93	18.8	4.70	18.2	4.45	17.6	4.26	16.4	3.99
	3	2.2	21.2	4.65	20.0	4.36	18.8	4.17	18.2	3.96	17.6	3.81	16.4	3.56
	5	4.1	21.2	4.25	20.0	3.98	18.8	3.82	18.2	3.63	17.6	3.50	16.4	3.27
	7	6	21.2	3.85	20.0	3.61	18.8	3.47	18.2	3.30	17.6	3.20	16.4	2.98
9	7.9	21.2	3.48	20.0	3.26	18.8	3.14	18.2	2.98	17.6	2.89	16.4	2.69	
11	9.8	21.2	3.26	20.0	3.05	18.8	2.94	18.2	2.79	17.6	2.70	16.4	2.52	
13	11.8	21.2	3.06	20.0	2.86	18.8	2.76	18.2	2.62	17.6	2.54	16.4	2.37	
15	13.7	21.2	2.89	20.0	2.71	18.8	2.61	18.2	2.48	17.6	2.40	16.4	2.24	

**Notes:**

1. TC: Total Capacity(kW) PI : Power Input(kW)(Comp. + Outdoor fan motor)
2. Capacity tables show the average value of conditions which may occur.
3. is shown as reference. When operating at this temperature, these values can be different by discontinuous operation.





## 7. Capacity Correction Factor

### Notes

1. These figures illustrate the rate of change in capacity of a standard indoor unit system at maximum load under standard conditions. (Moreover, under partial load conditions there is only a minor deviation from the rate of change in capacity shown in the above figures.)
2. With this outside unit, evaporating pressure constant control when cooling, and condensing pressure constant control when heating is carried out.
3. If heat insulation of piping is insufficient, heat loss will become larger and capacity will decrease.
4. Method of calculating cooling / heating capacity : maximum cooling / heating capacity of outside units = cooling / heating capacity of outside units obtained from capacity table X capacity correction factor due to piping length to the farthest indoor unit
5. Equivalent piping length for Y Branch and other pipes can be calculated with following table.

mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø25.4 (1)	Ø28.58 (1-1/8)	Ø31.8 (1-1/4)	Ø34.9 (1-3/8)	Ø38.1 (1-1/2)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
Elbow (m)	0.16	0.18	0.2	0.25	0.35	0.4	0.45	0.5	0.55	0.6	0.65	0.7	0.75	0.85
Y Branch (m)	0.5													
Header (m)	1													

6. When the any one (or both ) of below conditions are satisfied, the diameter of main pipe must be increased according to below table.  
 - The equivalent length between outdoor unit and the farthest indoor unit is 90m or more (Liquid and Gas pipes are increased)

Upward Outdoor unit total capacity	Standard Pipe Diameter		Increased Pipe Diameter	
			When equivalent pipe length is 90m or more from ODU to farthest IDU	
HP	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]
8	Ø 9.52(3/8)	Ø 19.05(3/4)	Ø 12.7(1/2)	Ø 22.2(7/8)
10	Ø 9.52(3/8)	Ø 22.2(7/8)	Ø 12.7(1/2)	Ø 25.4(1)
12	Ø 9.52(3/8)	Ø 28.58(1-1/8)	Ø 15.88(5/8)	not increased

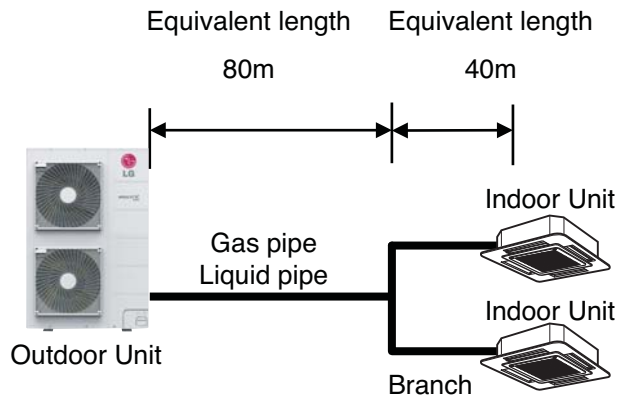
- \* If available on site, select pipe size according to upper table. Otherwise it doesn't need to be increased.
- \* Model line up could be different in accordance with target region.

7. Read cooling / heating capacity rate of change in the above figures based on the following equivalent length. : overall equivalent length = (equivalent length of main pipe) X correction factor + (equivalent length after first branching)

## 7. Capacity Correction Factor

• 8, 10, 12 HP

Rate of change (object piping)	Correction factor	
	standard size	size increase
Cooling(Gas pipe)	1.0	0.5
Heating(Liquid pipe)	1.0	0.2



- (Cooling) Overall equivalent length = 80 m x 0.5 + 40 m = 80 m
- (Heating) Overall equivalent length = 80 m x 0.2 + 40 m = 56 m

The rate of change in Cooling capacity when HU = 0m is thus approximately 0.855

Heating capacity when HU = 0m is thus approximately 1.00

## 7. Capacity Correction Factor

### 7.2 Defrosting Correction Factor for Heating Operation

The capacity table does not consider reduction in capacity when frost has accumulated or during defrosting.

The capacity values considered these factors, in other words the integrated heating capacity values, can be obtained as follows:

#### Formula

Integrated Heating capacity = A

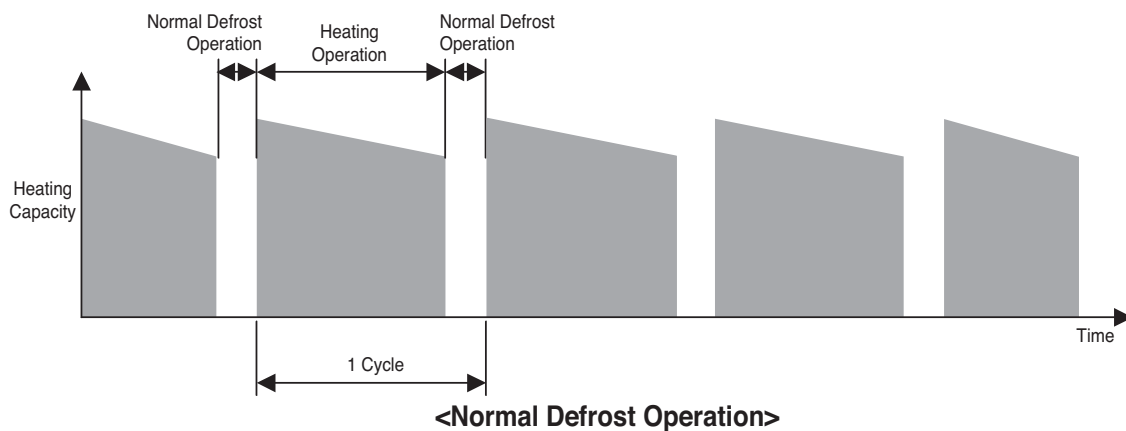
Value given in table of capacity characteristics = B

Integrated correction factor for frost accumulation = C

$A=B \times C$

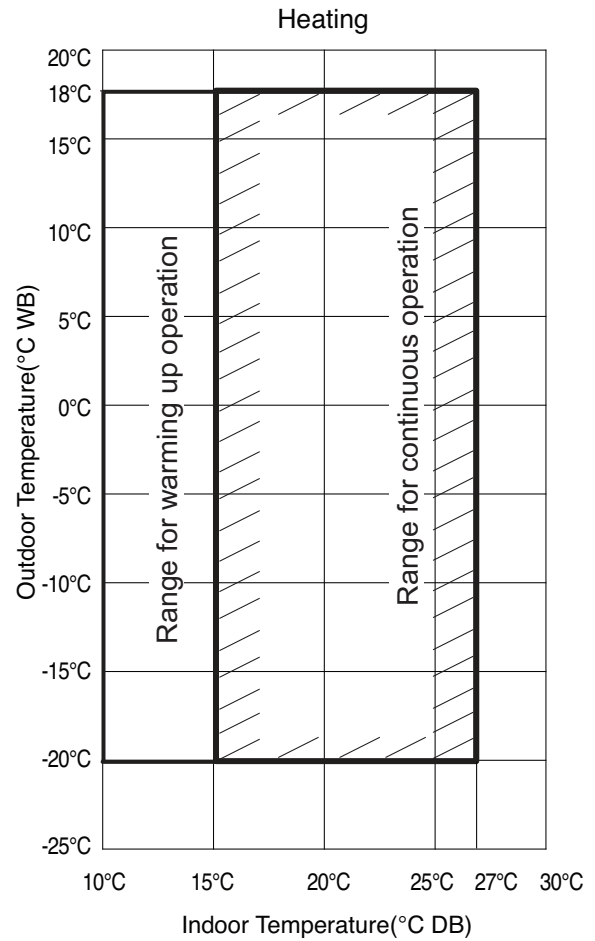
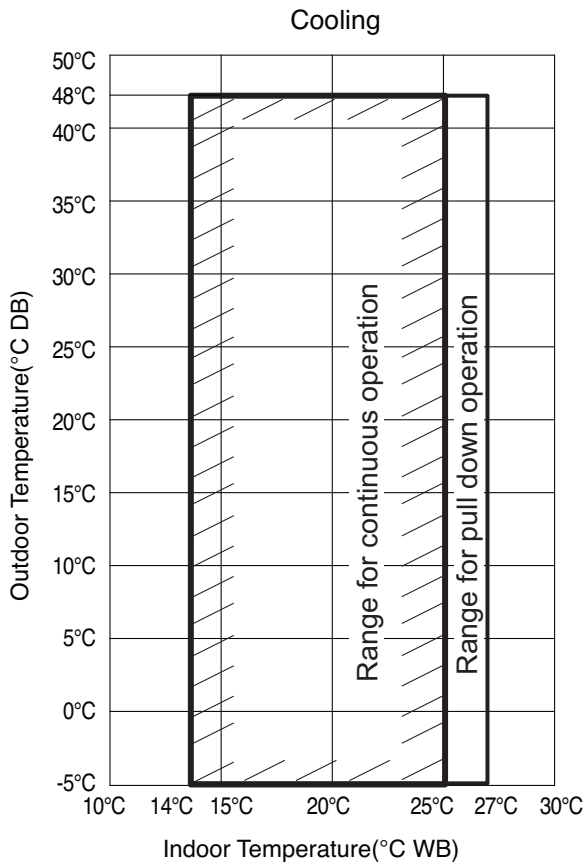
#### Correction factor for finding integrated Heating capacity

Inlet Port Temperature of Heat Exchange (*C/RH 85%)	-7	-5	-3	0	3	5	7
Integrated Correction Factor for Frost Accumulation (Normal Defrost Operation)	0.98	0.95	0.93	0.86	0.93	0.96	1.0



Please note that there will be temporary reduction in capacity when snow piles up on the outside surface of the outdoor unit heat exchanger. Of course, it will be different in degree depending on a number of other factors, for example, the outdoor temperature(°CDB), the relative humidity(RH) and the frosting amount.

## 8. Operation Limits



**Notes:**

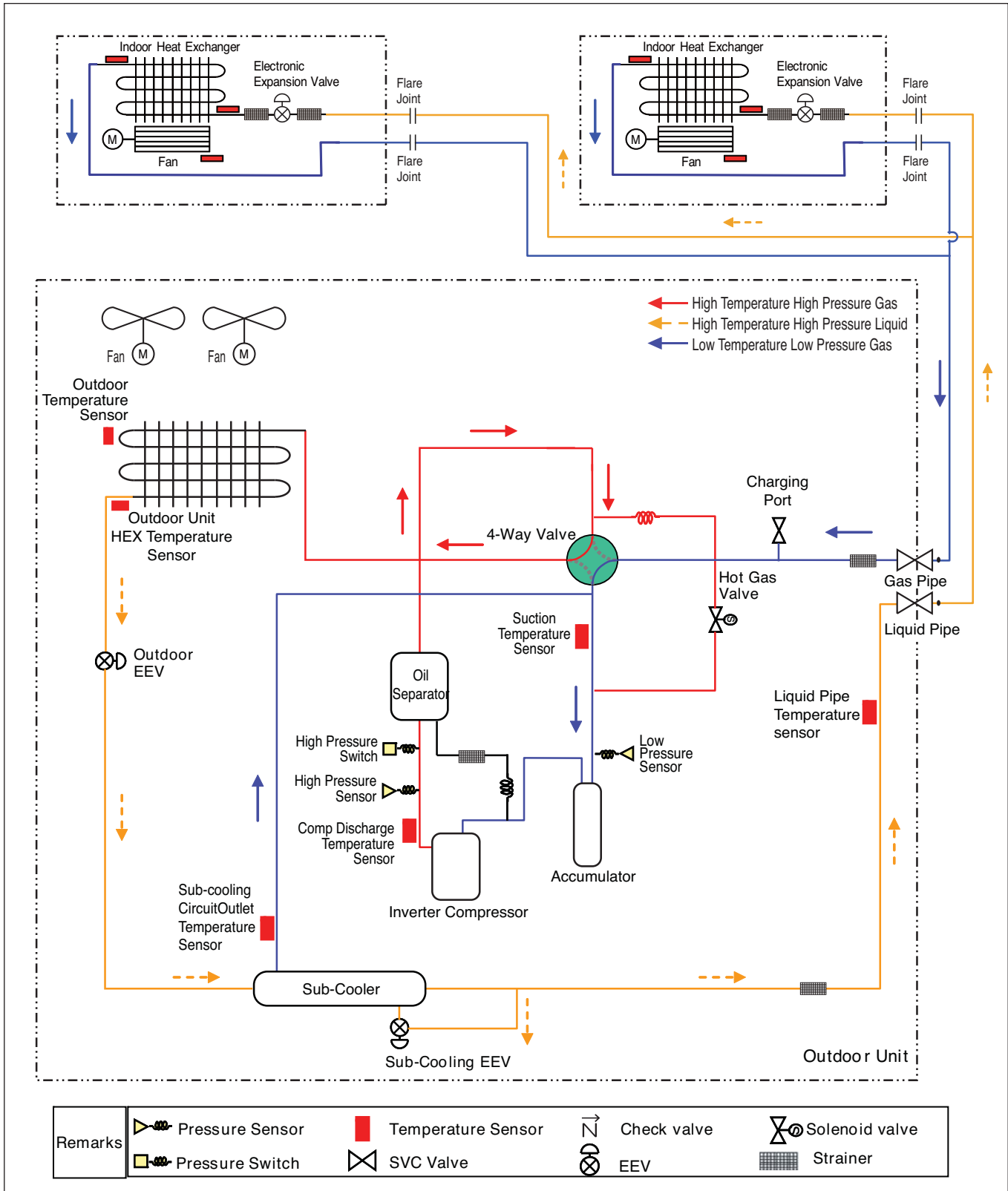
These figures assume the following operating conditions:  
 Equivalent piping length:7.5m  
 Level difference:0m

# 9. Piping Diagrams

## 9.1 8 HP

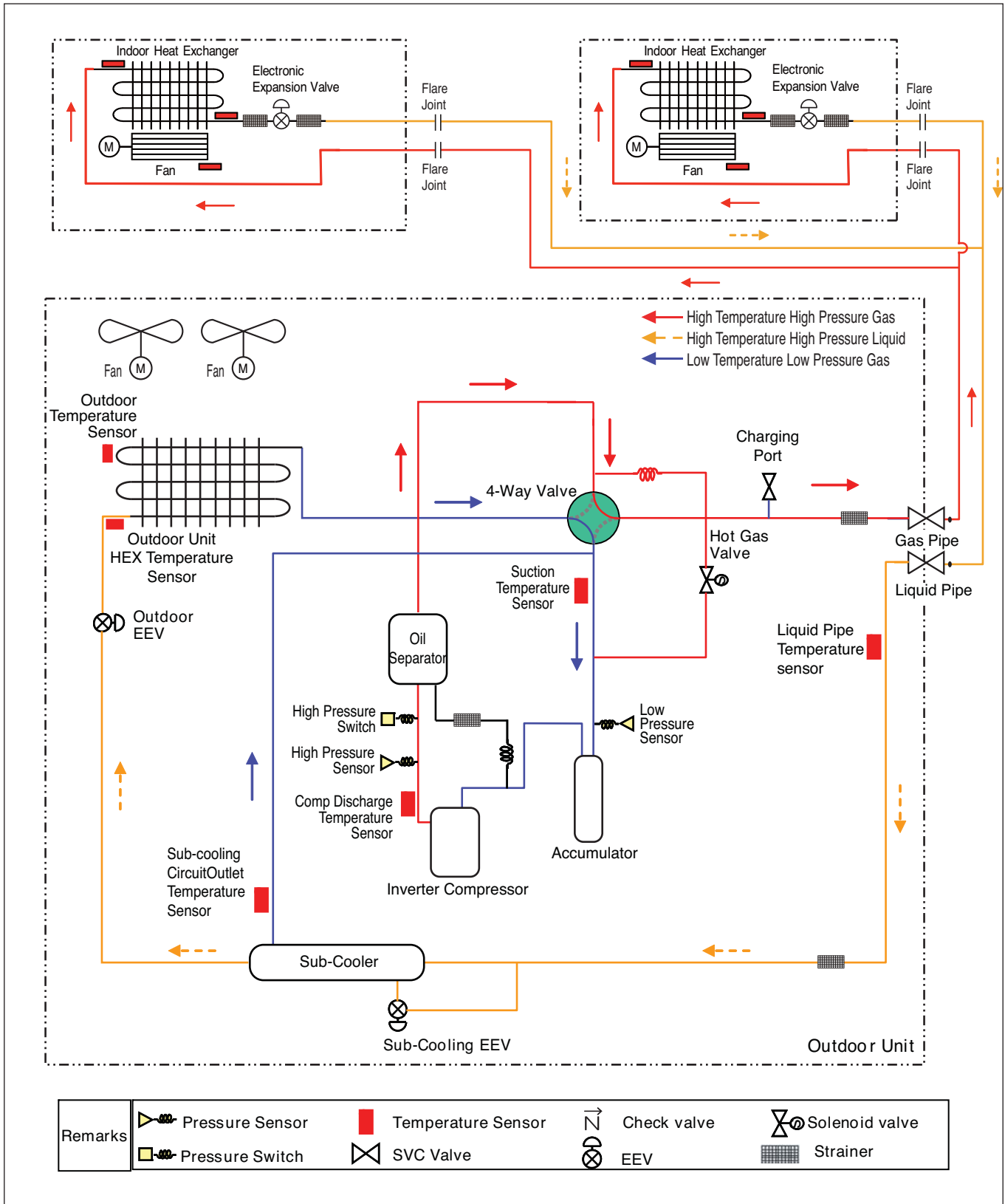
### Cooling Operation

Outdoor Units



# 9. Piping Diagrams

## Heating Operation

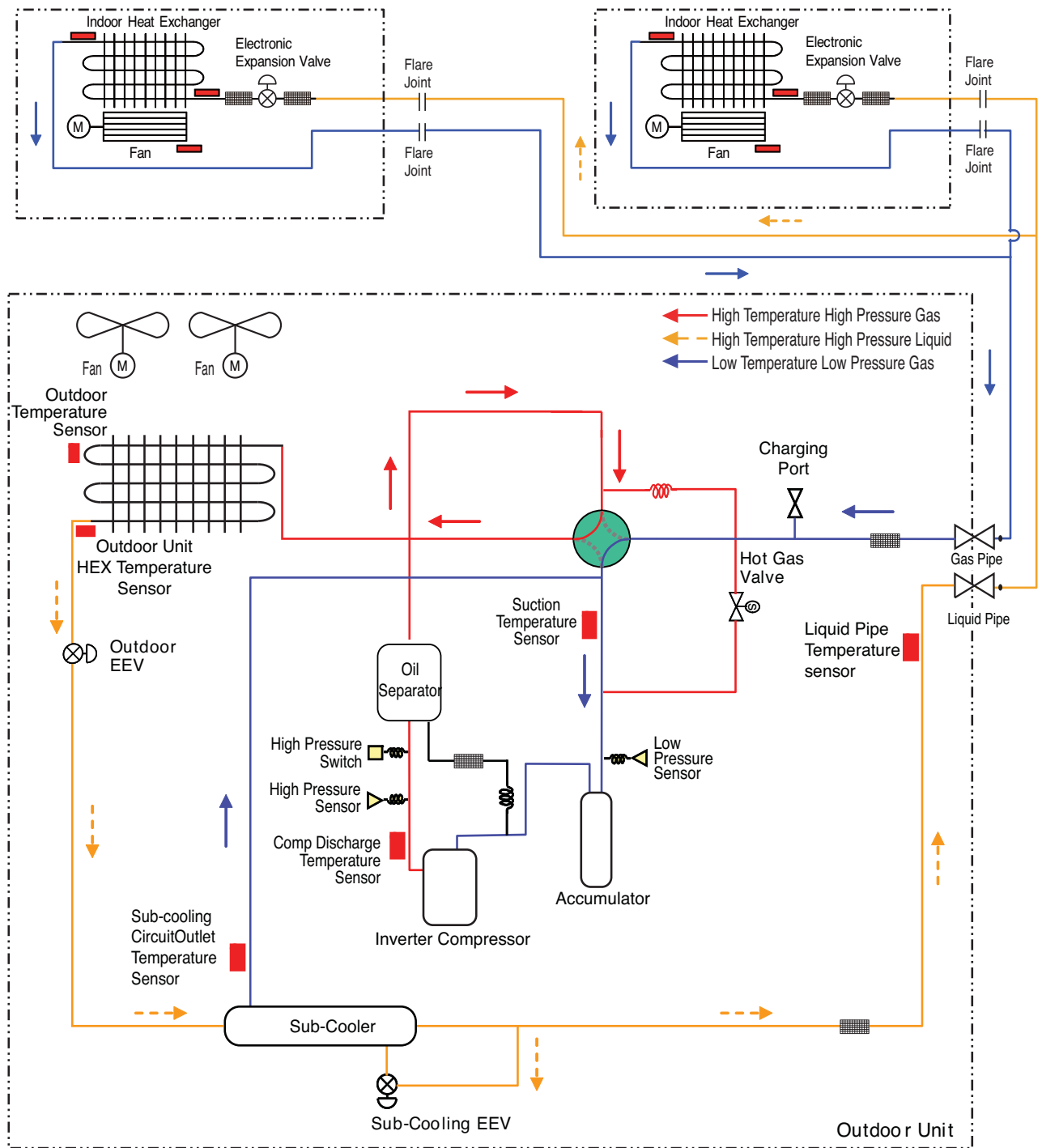


Outdoor Units

# 9. Piping Diagrams

## Oil Return/ Defrost Operation

Outdoor Units

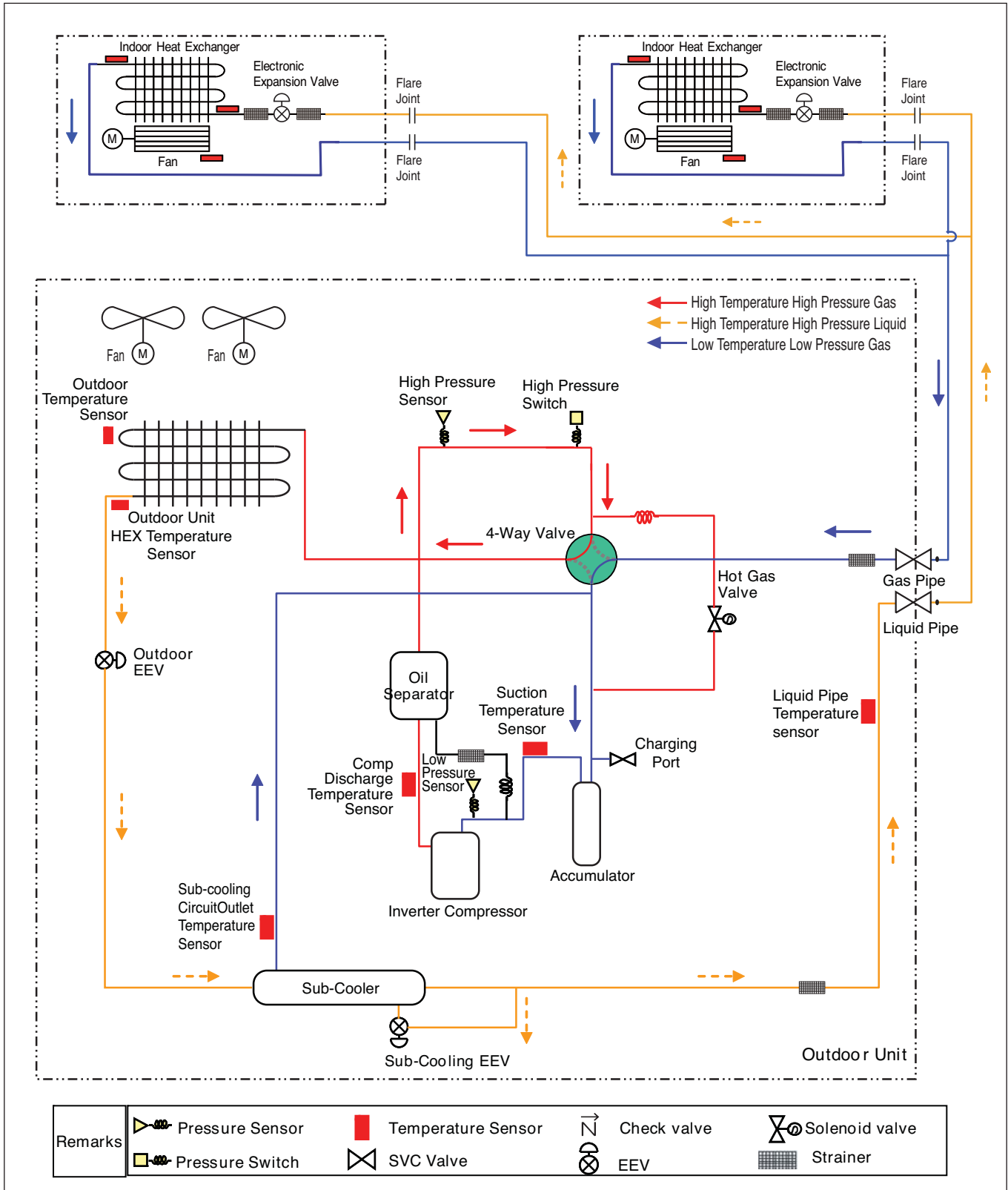


Remarks	Pressure Sensor	Temperature Sensor	Check valve	Solenoid valve
	Pressure Switch	SVC Valve	EEV	Strainer

# 9. Piping Diagrams

## 9.2 10 / 12 HP

### Cooling Operation



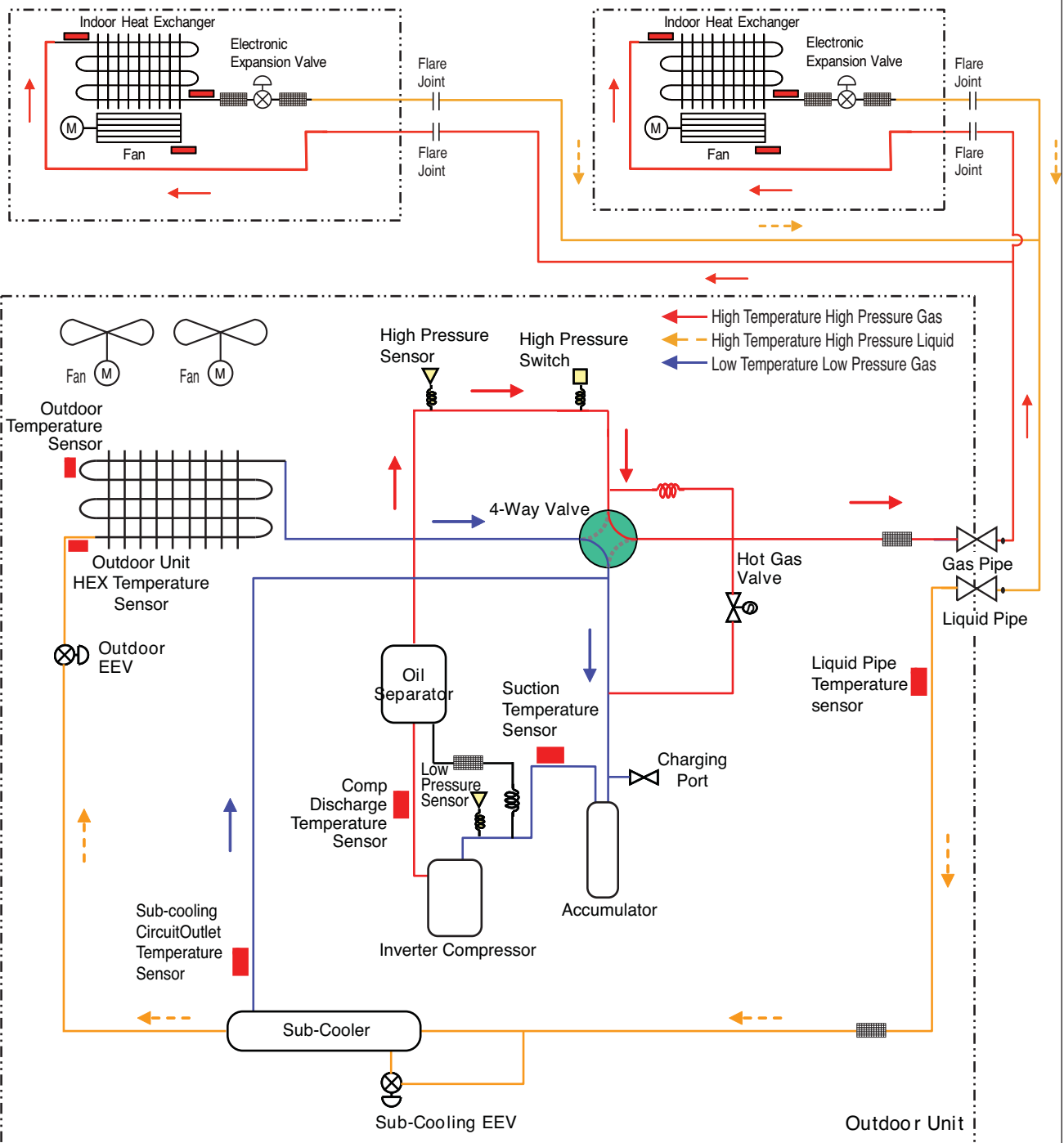
Outdoor Units



# 9. Piping Diagrams

## Heating Operation

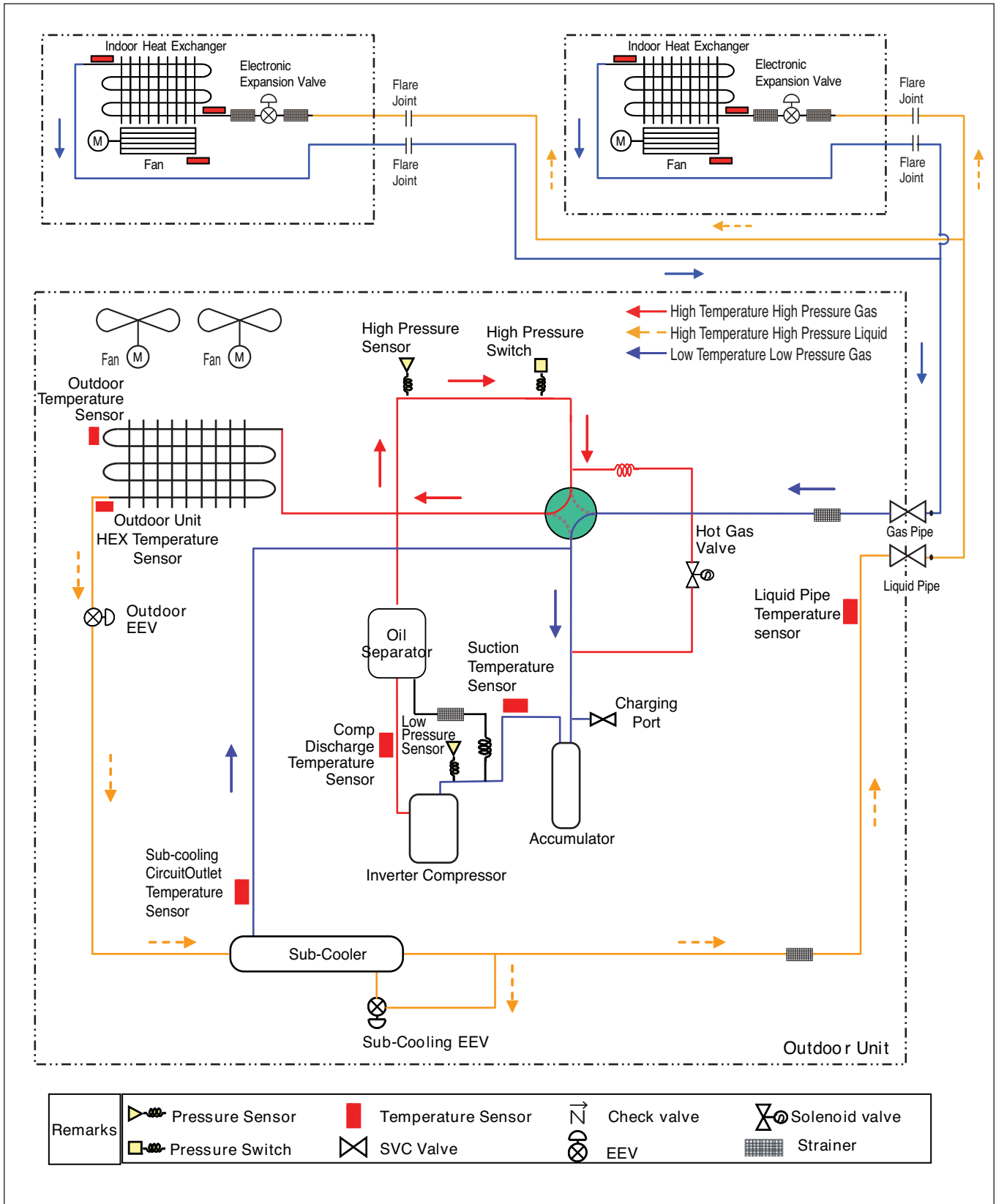
Outdoor Units



Remarks	Pressure Sensor	Temperature Sensor	Check valve	Solenoid valve
	Pressure Switch	SVC Valve	EEV	Strainer

# 9. Piping Diagrams

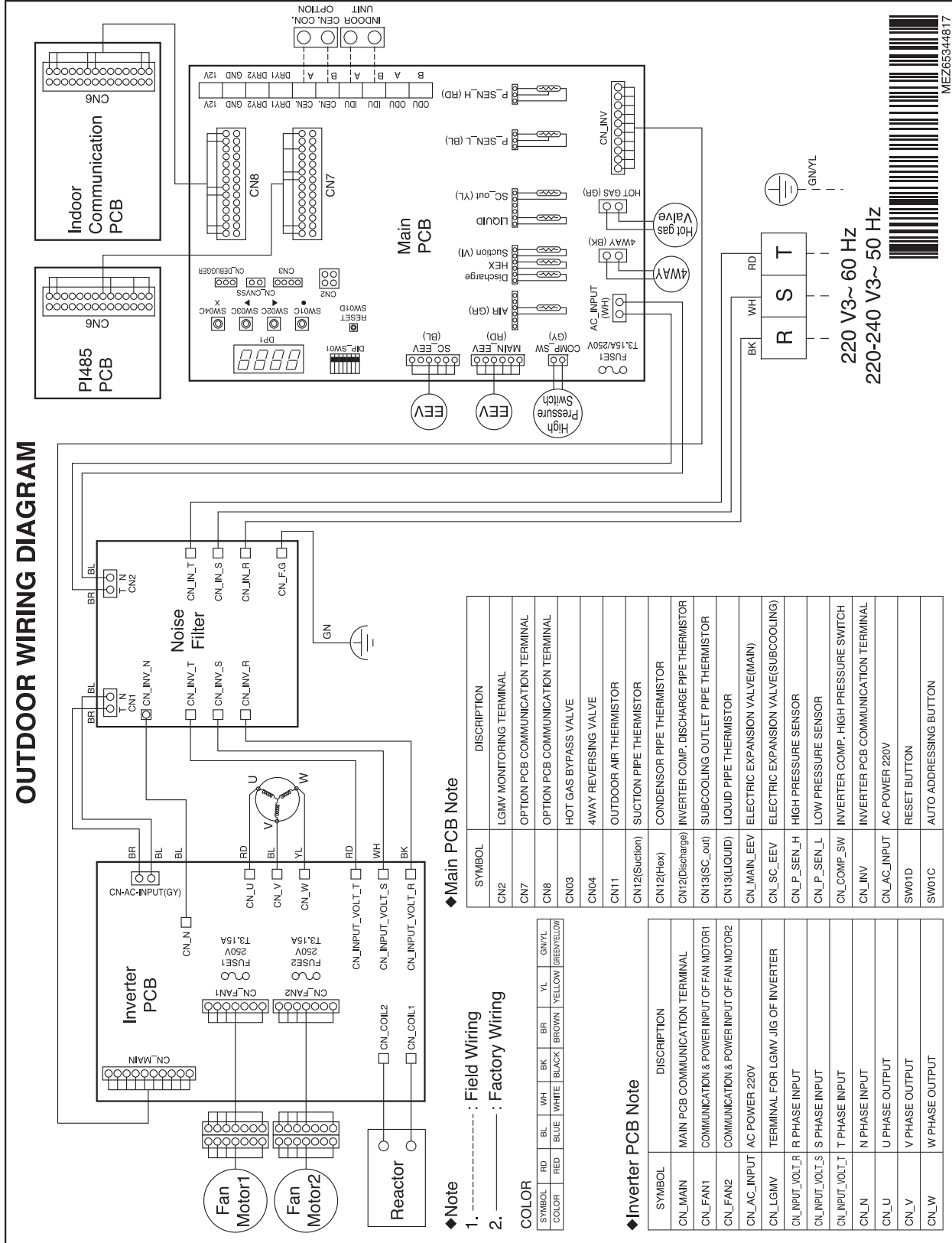
## Oil Return/ Defrost Operation



# 10. Wiring Diagrams

## 10.1 8 HP

### OUTDOOR WIRING DIAGRAM

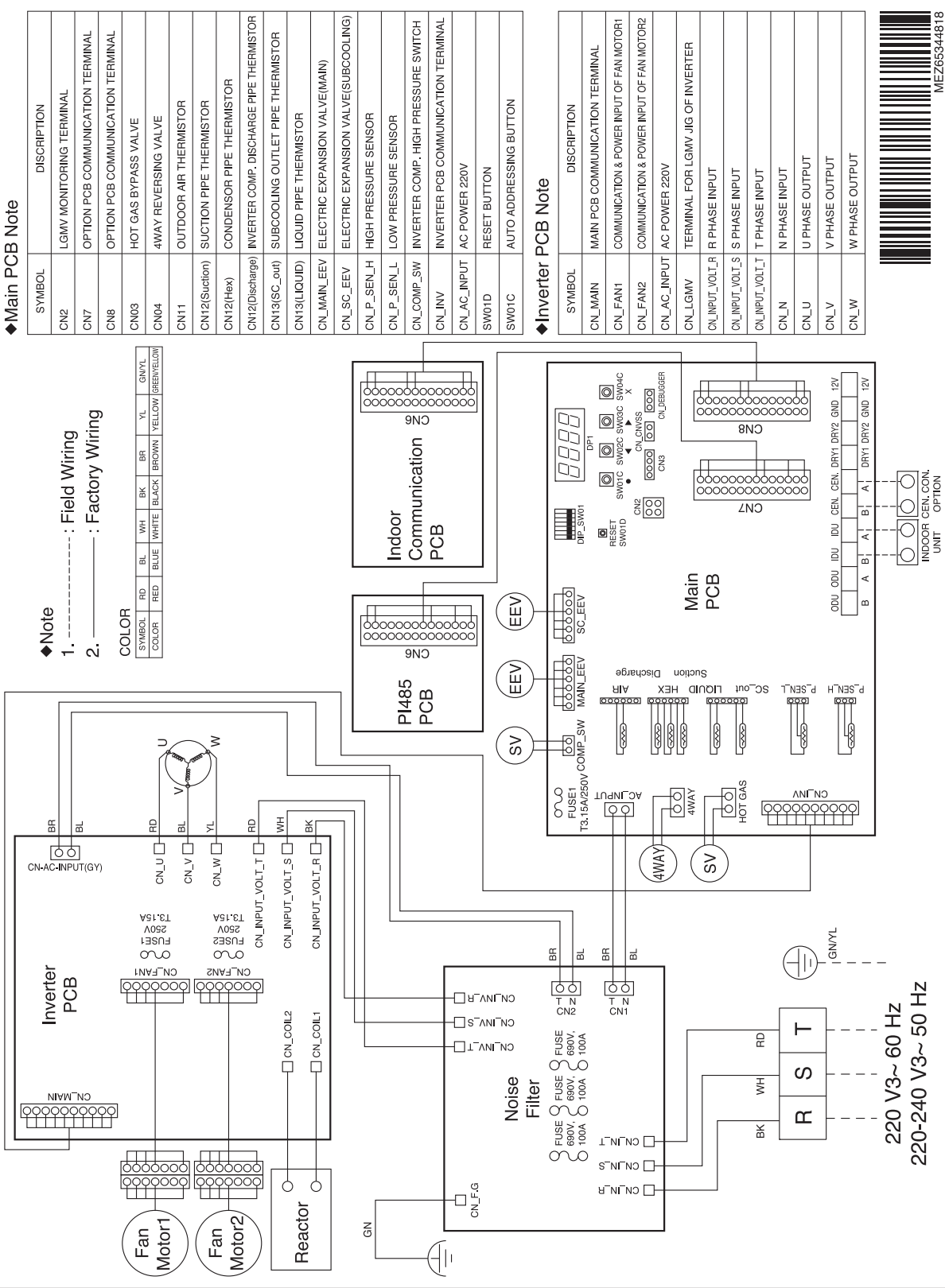


220 V3~60 Hz  
220-240 V3~50 Hz

# 10. Wiring Diagrams

## 10.2 10 / 12 HP

### OUTDOOR WIRING DIAGRAM



Outdoor Units

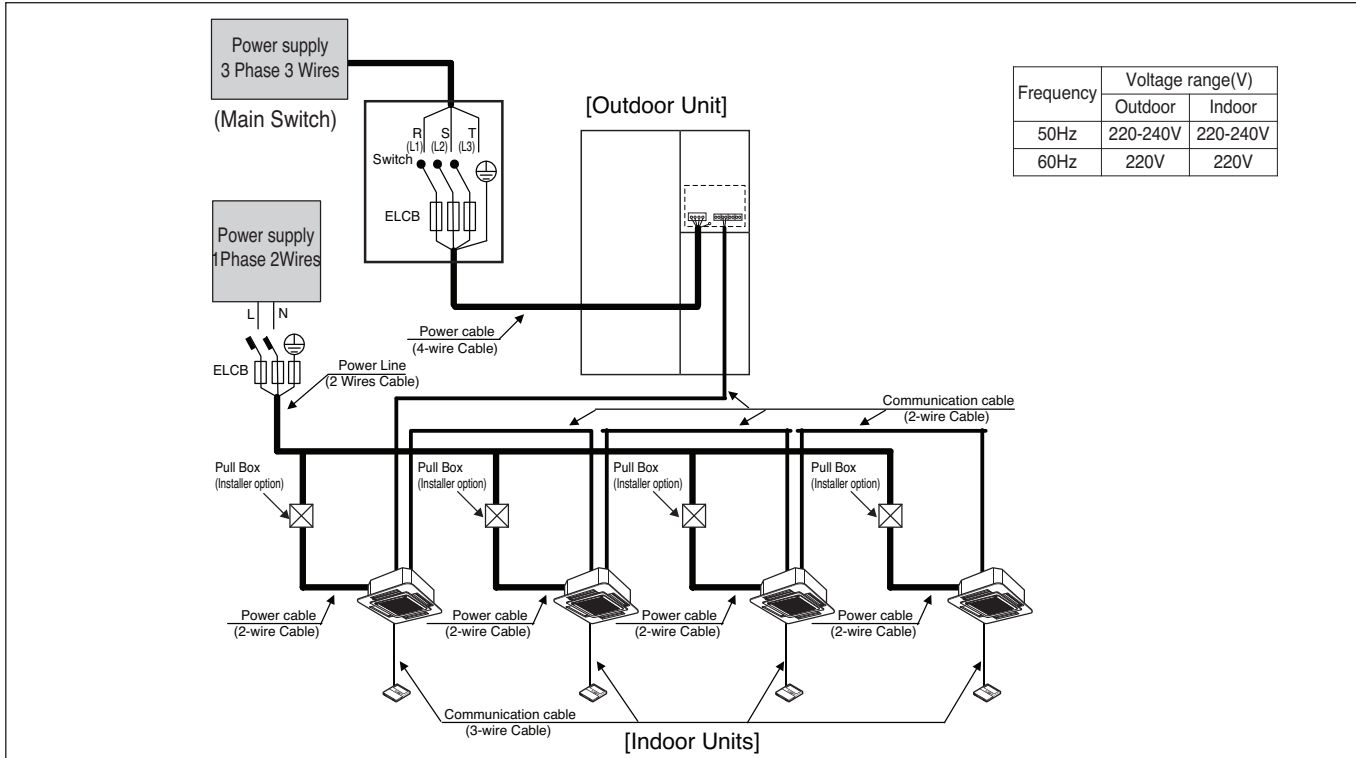
# 11. Field Wiring

## 11.1 50Hz/60Hz

### ◆ Example Connection of Communication Cable

#### ■ Single Outdoor Unit

Outdoor Units



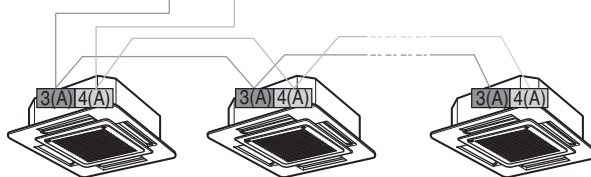
### ⚠ WARNING

- All installation site must require attachment of an earth leakage breaker. If no earth leakage breaker is installed, it may cause an electric shock.
- Indoor Unit ground Lines are required for preventing electrical shock accident during current leakage, Communication disorder by noise effect and motor current leakage (without connection to pipe).
- Don't install an individual switch or electrical outlet to disconnect each of indoor unit separately from the power supply.
- Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
- If there exists the possibility of reversed phase, lose phase, momentary blackout or the power goes on and off while the product is operating, attach a reversed phase protection circuit locally. Running the product in reversed phase may break the compressor and other parts.

Between Indoor and Master Outdoor unit

⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
SODU.B	SODU.A	IDU.B	IDU.A	CEN.B	CEN.A	DRY1	DRY2	GND	12V	
⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	

Master Outdoor Unit



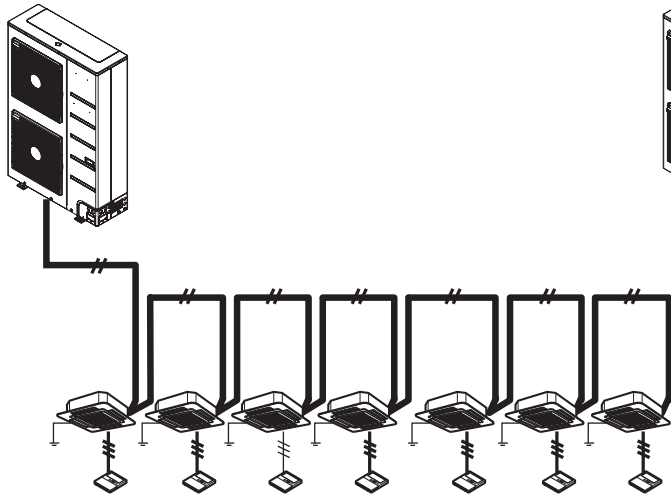
The GND terminal at the main PCB is a '-' terminal for day contact, it is not the point to make ground connection.

## 11. Field Wiring

### ◆ Example Connection of Communication Cable

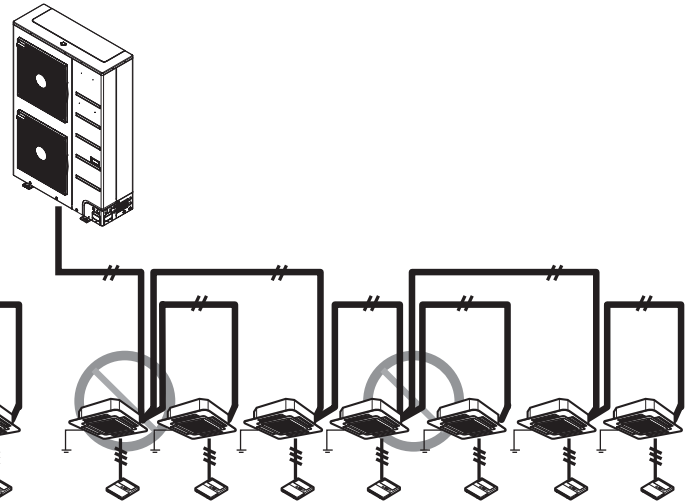
#### [BUS type]

- Connection of communication cable must be installed like below figure between indoor unit to outdoor unit.



#### [STAR type]

- Abnormal operation can be caused by communication defect, when connection of communication cable is installed like below figure(STAR type).

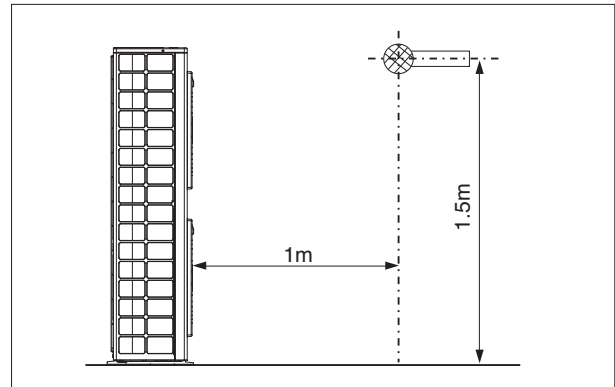


# 12. Sound Levels

## 12.1 Sound Pressure Level

Unit : dB(A)

Model	Sound Pressure Levels (50Hz/60Hz)	
	Cooling	Heating
ARUN080BSS0	57	57
ARUN100BSS0	58	58
ARUN120BSS0	60	60



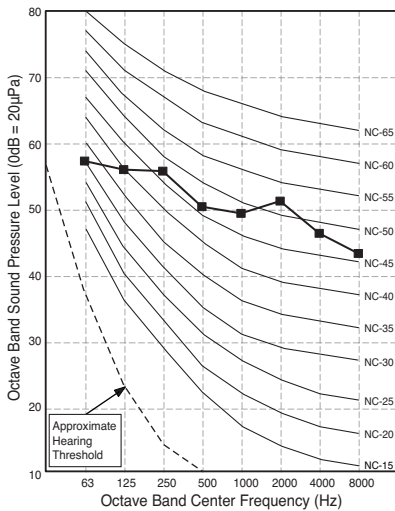
**Notes:**

- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure mode or used air guide.

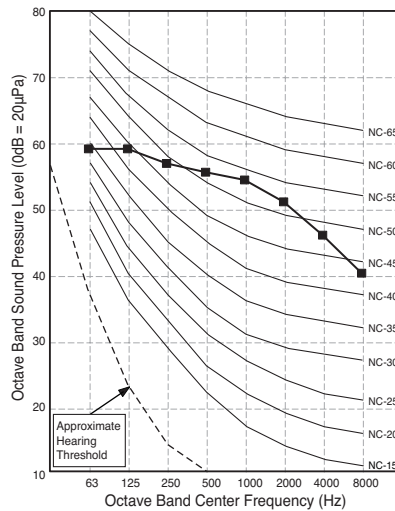
Outdoor Units

### ■ Cooling

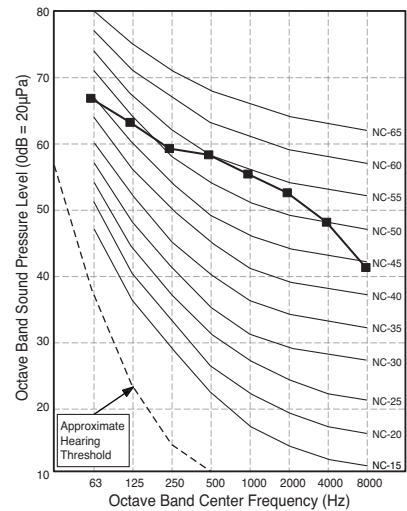
**ARUN080BSS0**



**ARUN100BSS0**



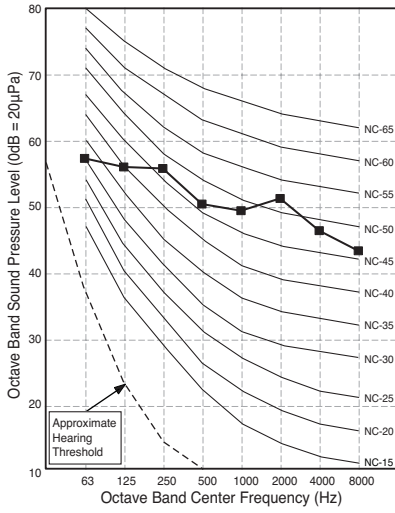
**ARUN120BSS0**



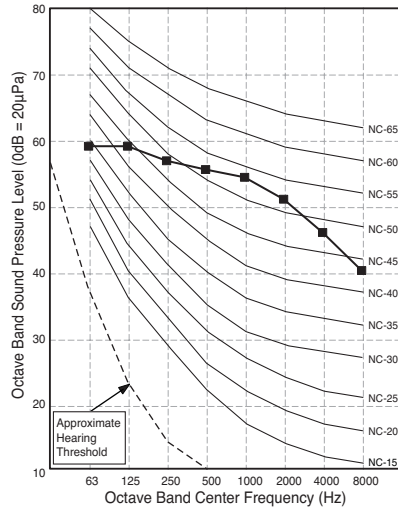
# 12. Sound Levels

## ■ Heating

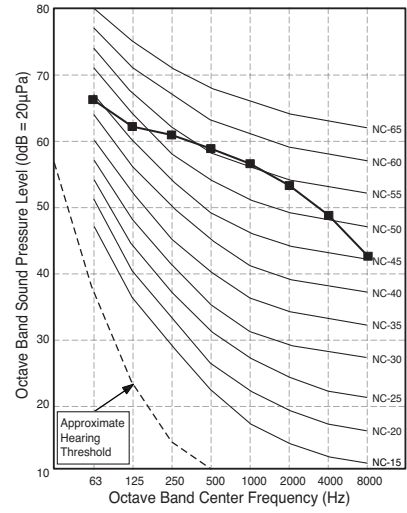
**ARUN080BSS0**



**ARUN100BSS0**



**ARUN120BSS0**



Outdoor Units



# 12. Sound Levels

## 12.2 Sound Power Levels

Unit : dB(A)

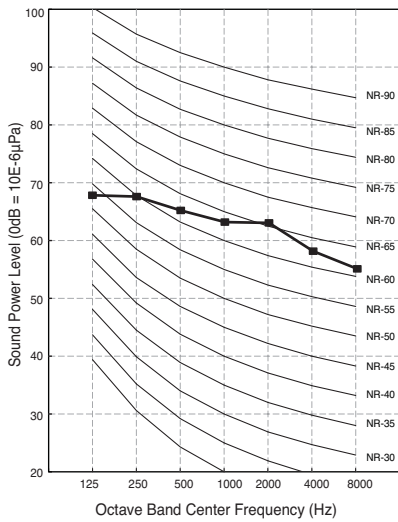
Model	Sound Power Levels (50Hz/60Hz)
ARUN080BSS0	69
ARUN100BSS0	70
ARUN120BSS0	71

**Notes:**

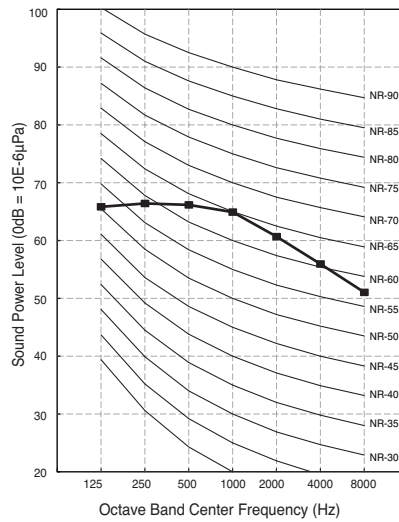
- Data is valid at diffuse field condition
- Data is valid at nominal operating condition
- Sound level can be increased in static pressure mode or used air guide.
- Sound power level is measured on the rated condition in the reverberation rooms.
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
- Reference acoustic intensity 0dB = 10E-6μW/m<sup>2</sup>

Outdoor Units

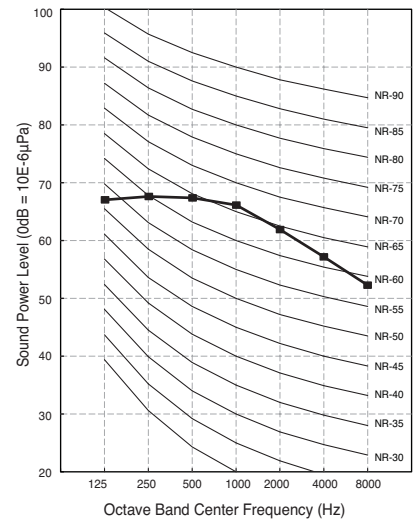
**ARUN080BSS0**



**ARUN100BSS0**



**ARUN120BSS0**





## **Installation of Outdoor Units**

- 1. Alternative Refrigerant R410A**
- 2. Select the Best Location**
- 3. Installation Space**
- 4. Lifting Method**
- 5. Installation**
- 6. Refrigerant piping Installation**
- 7. Refrigerant piping system**
- 8. Electrical Wiring**

# 1. Alternative Refrigerant R410A

- The refrigerant R410A has the property of higher operating pressure in comparison with R22. Therefore, all materials have the characteristics of higher resisting pressure than R22 ones and this characteristic should be also considered during the installation.  
R410A is an azeotrope of R32 and R125 mixed at 50:50, so the ozone depletion potential (ODP) of R410A is 0.

## **⚠ CAUTION**

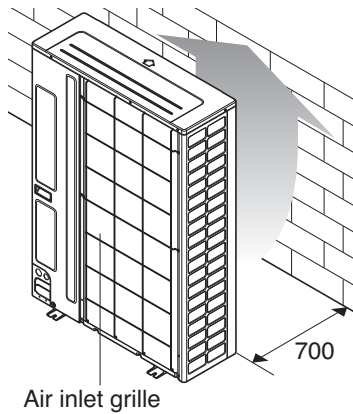
- The wall thickness of the piping should comply with the relevant local and national regulations for the designed pressure 3.8MPa
- Since R410A is a mixed refrigerant, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in its gaseous state, its composition changes and the system will not work properly.
- Do not place the refrigerant container under the direct rays of the sun to prevent it from exploding.
- For high-pressure refrigerant, any unapproved pipe must not be used.
- Do not heat pipes more than necessary to prevent them from softening.
- Be careful not to install wrongly to minimize economic loss because it is expensive in comparison with R22.

## 2. Select the Best Location

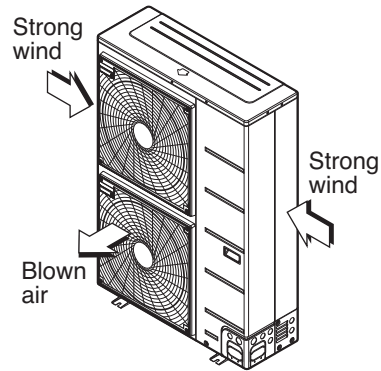
1. Select space for installing outdoor unit, which will meet the following conditions:
  - No direct thermal radiation from other heat sources
  - No possibility of annoying neighbors by noise from unit
  - No exposition to strong wind
  - With strength which bears weight of unit
  - Note that drain flows out of unit when heating
  - With space for air passage and service work shown next
  - Because of the possibility of fire, do not install unit to the space where generation, inflow, stagnation, and leakage of combustible gas is expected.
  - Avoid unit installation in a place where acidic solution and spray (sulfur) are often used.
  - Do not use unit under any special environment where oil, steam and sulfuric gas exist.
  - It is recommended to fence round the outdoor unit in order to prevent any person or animal from accessing the outdoor unit.
  - If installation site is area of heavy snowfall, then the following directions should be observed.
    - Make the foundation as high as possible.
    - Fit a snow protection hood.
2. Select installation location considering following conditions to avoid bad condition when additionally performing defrost operation.
  - Install the outdoor unit at a place well ventilated and having a lot of sunshine in case of installing the product at a place with a high humidity in winter (near beach, coast, lake, etc).  
(Ex) Rooftop where sunshine always shines.
  - Performance of heating will be reduced and pre-heat time of the indoor unit may be lengthened in case of installing the outdoor unit in winter at following location:
    - Shade position with a narrow space
    - Location with much moisture in neighboring floor.
    - Location with much humidity around.
    - Location where ventilation is good.It is recommended to install the outdoor unit at a place with a lot of sunshine as possible as.
    - Location where water gathers since the floor is not even.

## 2. Select the Best Location

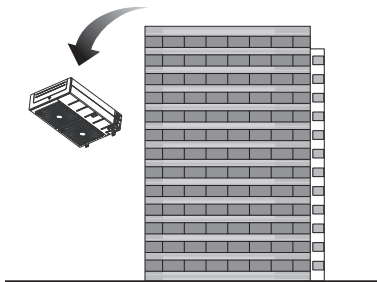
3. When installing the outdoor unit in a place that is constantly exposed to a strong wind like a coast or on a high story of a building, secure a normal fan operation by using a duct or a wind shield.
- Install the unit so that its discharge port faces to the wall of the building. Keep a distance 700mm or more between the unit and the wall surface.
  - Supposing the wind direction during the operation season of the air conditioner, install the unit so that the discharge port is set at right angle to the wind direction.



Turn the air outlet side toward the building's wall, fence or windbreak screen.



Set the outlet side at a right angle to the direction of the wind.



### **⚠ WARNING**

Fix the outdoor unit firmly with anchor bolt or it may fall and hurt people. (refer to 'Foundation for installation')

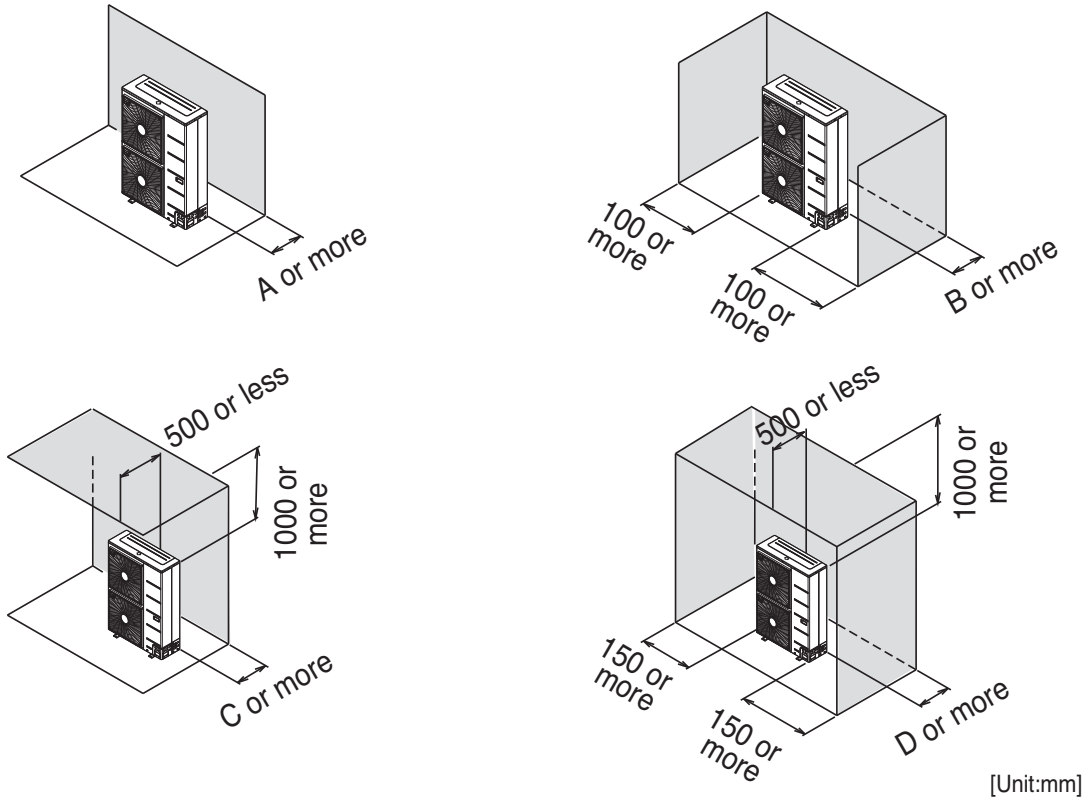
### 3. Installation Space

- The following values are the least space for installation.  
If any service area is needed for service according to field circumstance, obtain enough service space.
- The unit of values is mm.

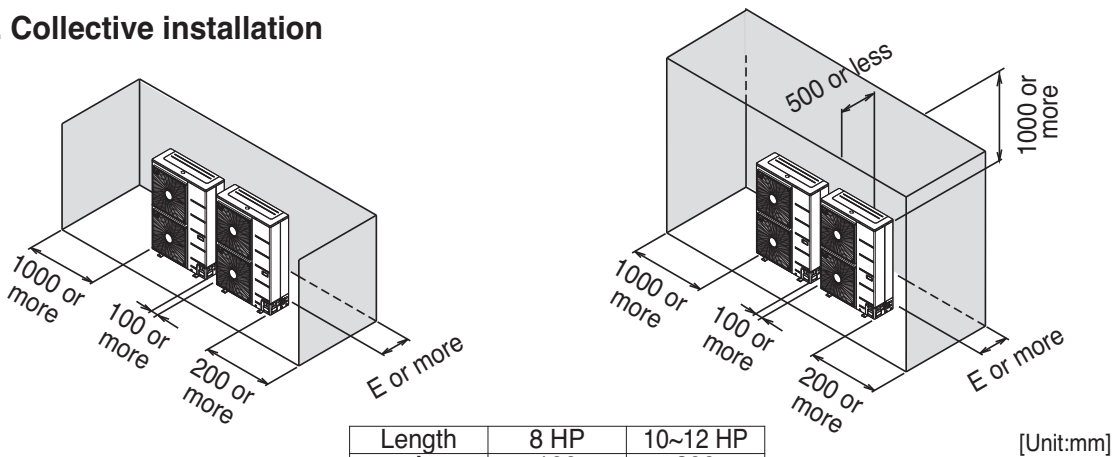
#### 3.1 Individual Installation

##### ■ In case of obstacles on the suction side

###### 1. Stand alone installation



###### 2. Collective installation

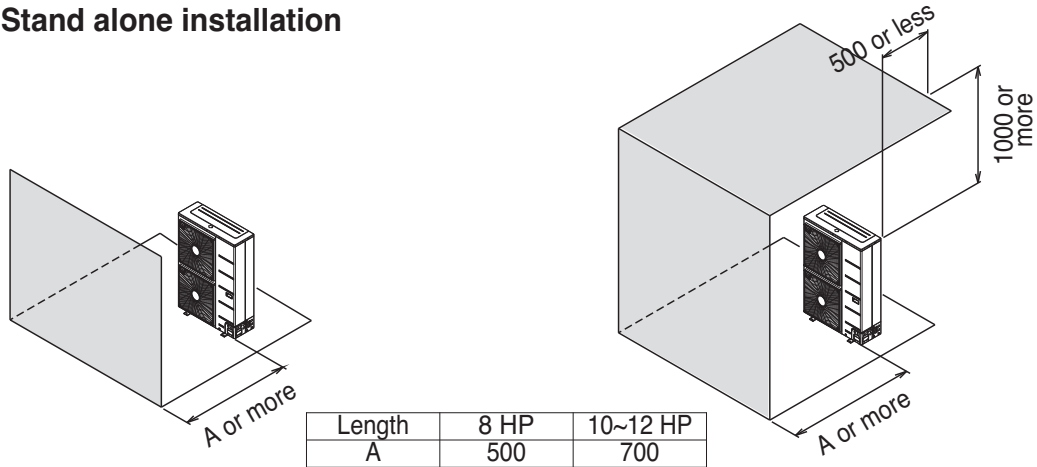


Length	8 HP	10~12 HP
A	100	200
B	100	300
C	300	350
D	300	350
E	300	350

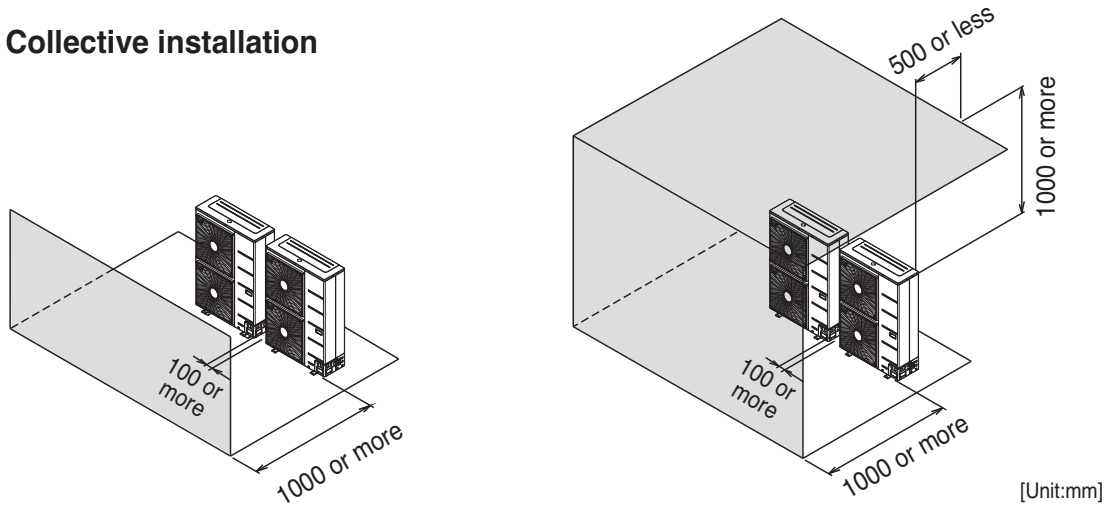
### 3. Installation Space

■ In case of obstacles on the discharge side

1. Stand alone installation



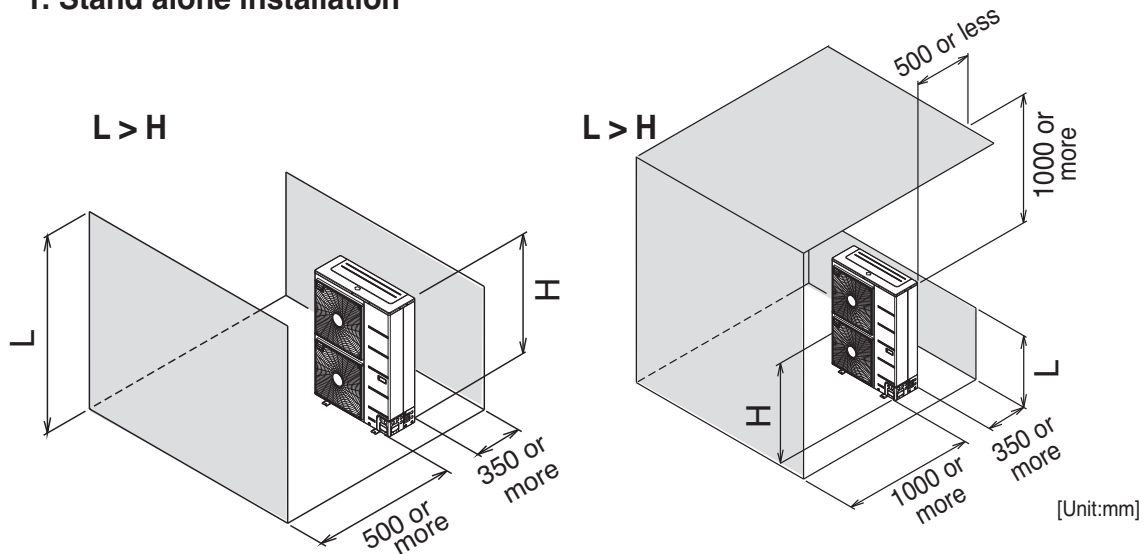
2. Collective installation



[Unit:mm]

■ In case of obstacles on the suction and the discharge side  
 ⊃ Obstacle height of discharge side is higher than the unit

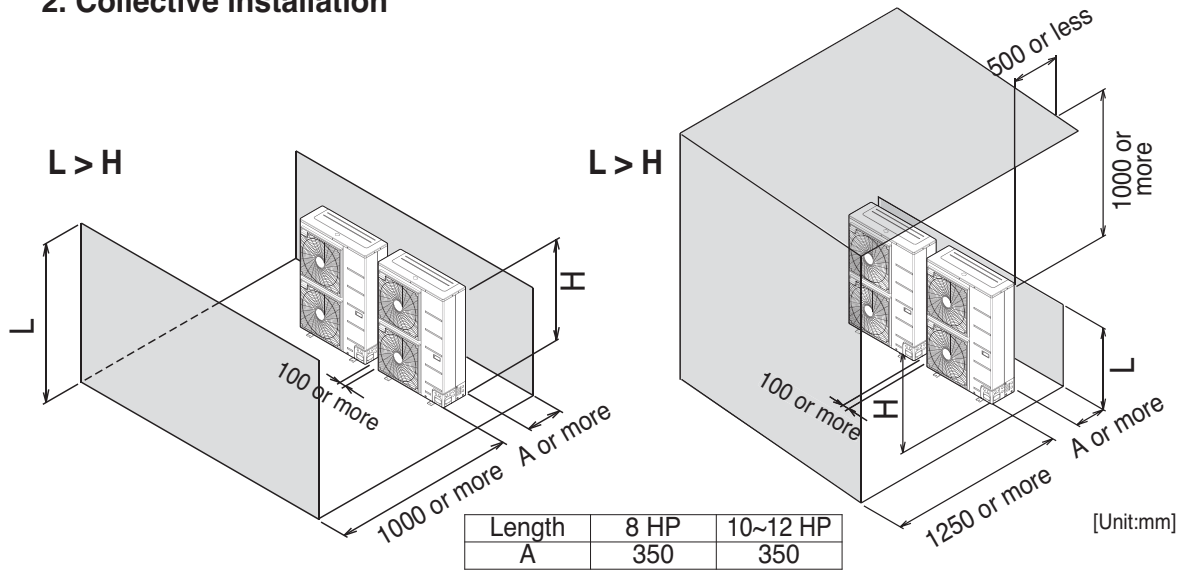
1. Stand alone installation



[Unit:mm]

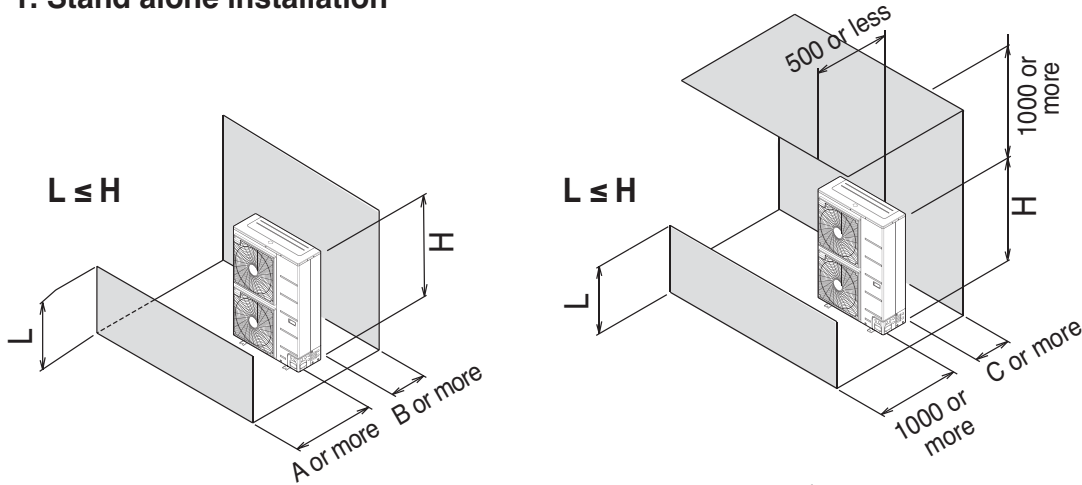
### 3. Installation Space

#### 2. Collective installation

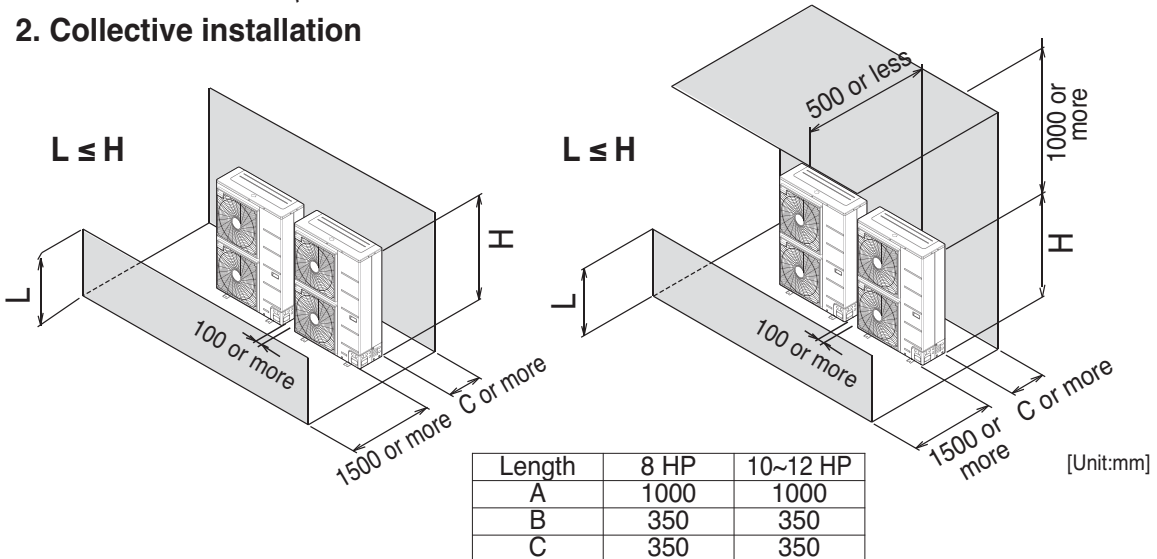


#### Obstacle height of discharge side is lower than the unit

##### 1. Stand alone installation



##### 2. Collective installation

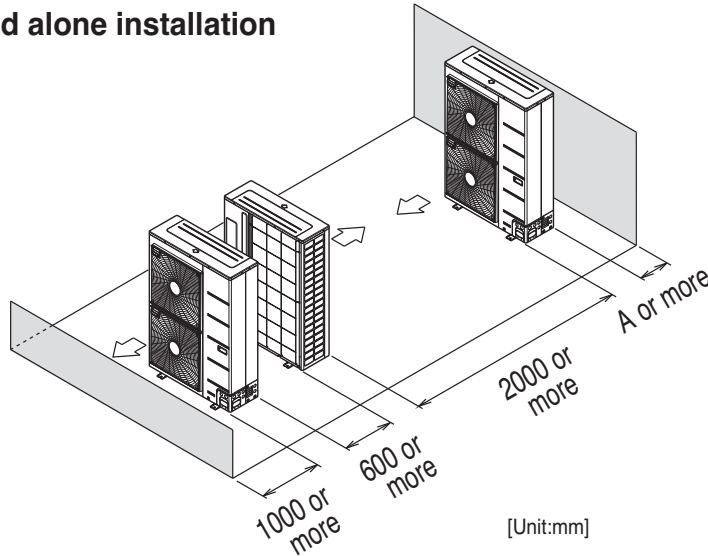


### 3. Installation Space

#### 3.2 Collective / continuous installation

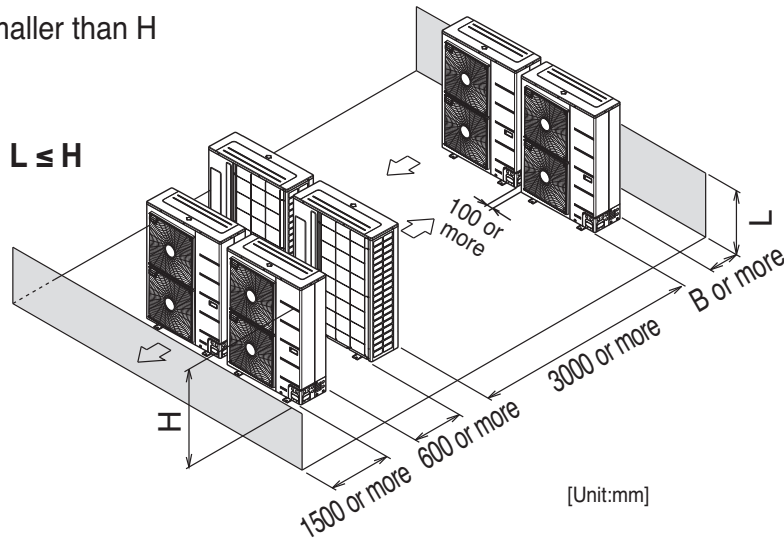
Space required for collective installation and continuous installation: When installing several units, leave space between each block as shown below considering passage for air and people.

##### 1. One row of stand alone installation



##### 2. Rows of collective installation (2 or more)

• L should be smaller than H



Length	8 HP	10~12 HP
A	350	350
B	350	350

##### Seasonal wind and cautions in winter

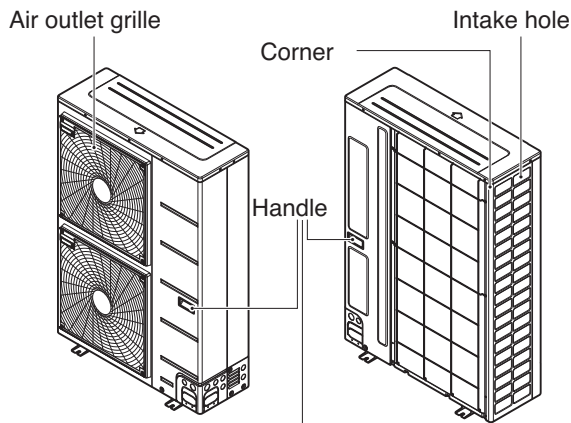
- Sufficient measures are required in a snow area or severe cold area in winter so that product can be operated well.
- Get ready for seasonal wind or snow in winter even in other areas.
- Install a suction and discharge duct not to let in snow or rain.
- Install the outdoor unit not to come in contact with snow directly. If snow piles up and freezes on the air suction hole, the system may malfunction. If it is installed at snowy area, attach the hood to the system.
- The raised support platform must be high enough to allow the unit to remain above possible snow drifts, and must be higher than the maximum anticipated snowfall for the location.

Don't install the suction hole and discharge hole of the Outdoor Unit facing the seasonal wind.

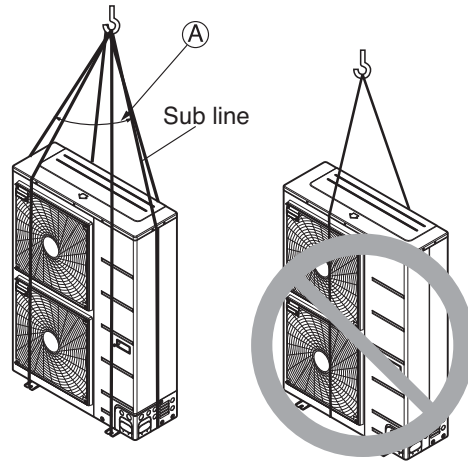


## 4. Lifting Method

- When carrying the suspended, unit pass the ropes between legs of base panel under the unit.
- Always lift the unit with ropes attached at four points so that impact is not applied to the unit.
- Attach the ropes to the unit at an angle of 40° or less.
- Use only accessories and parts which are of the designated specification when installing.



Always hold the unit by the corners, as holding it by the side intake holes on the casing may cause them to deform.



Ⓐ 40° or less

**! WARNING**

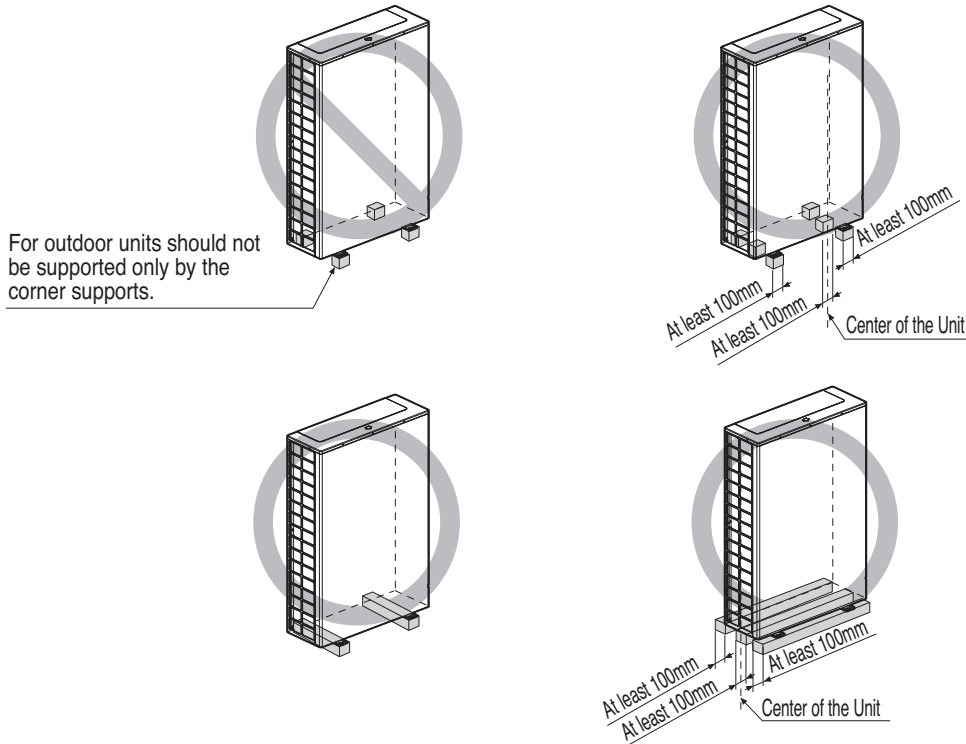
### **! CAUTION**

**Be very careful while carrying the product.**

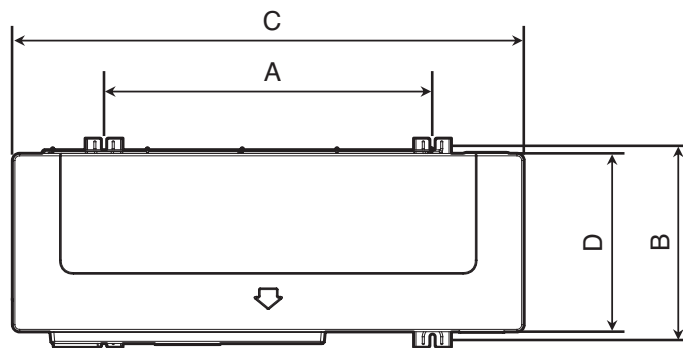
- Do not have only one person carry product if it is more than 20 kg.
- PP bands are used to pack some products. Do not use them as a mean for transportation because they are dangerous.
- Do not touch heat exchanger fins with your bare hands. Otherwise you may get a cut in your hands.
- Tear plastic packaging bag and scrap it so that children cannot play with it Otherwise plastic packaging bag may suffocate children to death.
- When carrying in Outdoor Unit, be sure to support it at four points. Carrying in and lifting with 3-point support may make Outdoor Unit unstable, resulting in a fall.

## 5. Installation

- Install at places where it can endure the weight and vibration/noise of the outdoor unit.
- The outdoor unit supports at the bottom shall have width of at least 100mm under the Unit's legs before being fixed.
- The outdoor unit supports should have minimum height of 200mm.
- Anchor bolts must be inserted at least 75mm.



### 5.1 The location of the Anchor bolts



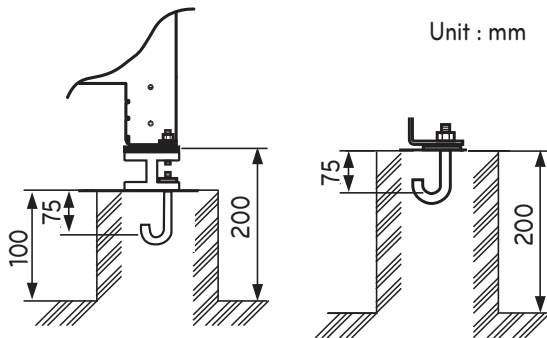
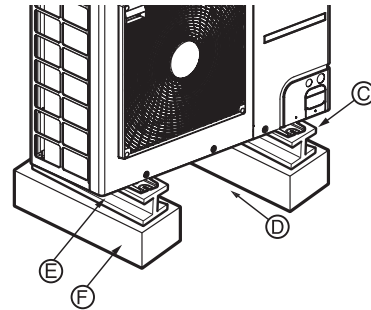
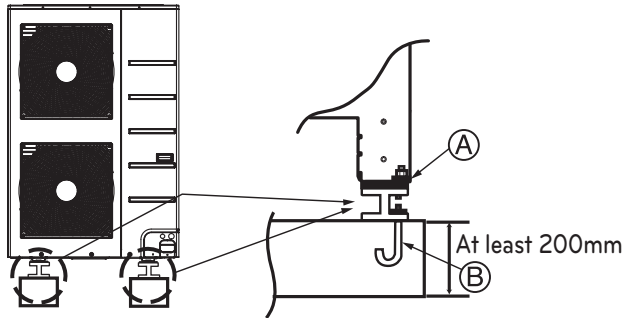
[Unit : mm]

Chassis	Model	A x B	C x D
U3	8 HP	620 x 360	950 x 330
U7	10, 12 HP	620 x 360	1,090 x 380

## 5. Installation

### 5.2 Foundation for Installation

- Fix the unit tightly with bolts as shown below so that unit will not fall down due to earthquake or gust.
- Use the H-beam support as a base support
- Noise and vibration may occur from the floor or wall since vibration is transferred through the installation part depending on installation status. Thus, use anti-vibration materials (cushion pad) fully (The base pad shall be more than 200mm).



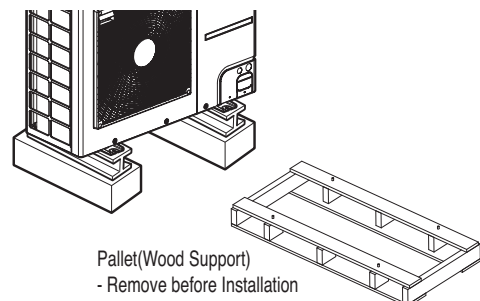
- Ⓐ The corner part must be fixed firmly. Otherwise, the support for the installation may be bent.
- Ⓑ Get and use M10 Anchor bolt.
- Ⓒ Put Cushion Pad between the outdoor unit and ground support for the vibration protection in wide area.
- Ⓓ Space for pipes and wiring (Pipes and wirings for bottom side)
- Ⓔ H-beam support
- Ⓕ Concrete support

#### ⚠ WARNING

- Install where it can sufficiently support the weight of the outdoor unit.  
If the support strength is not enough, the outdoor unit may drop and hurt people.
- Install where the outdoor unit may not fall in strong wind or earthquake.  
If there is a fault in the supporting conditions, the outdoor unit may fall and hurt people.
- Please take extra cautions on the supporting strength of the ground, water outlet treatment (treatment of the water flowing out of the outdoor unit in operation), and the passages of the pipe and wiring, when making the ground support.
- Do not use tube or pipe for water outlet in the Base pan. Use drainage instead for water outlet. The tube or pipe may freeze and the water may not be drained.

#### ⚠ WARNING

- Be sure to remove the Pallet (Wood Support) of the bottom side of the outdoor unit Base Pan before fixing the bolt. It may cause the unstable state of the outdoor settlement, and may cause freezing of the heat exchanger resulting in abnormal operations.
- Be sure to remove the Pallet (Wood Support) of the bottom side of the outdoor unit before welding. Not removing Pallet (Wood Support) causes hazard of fire during welding.

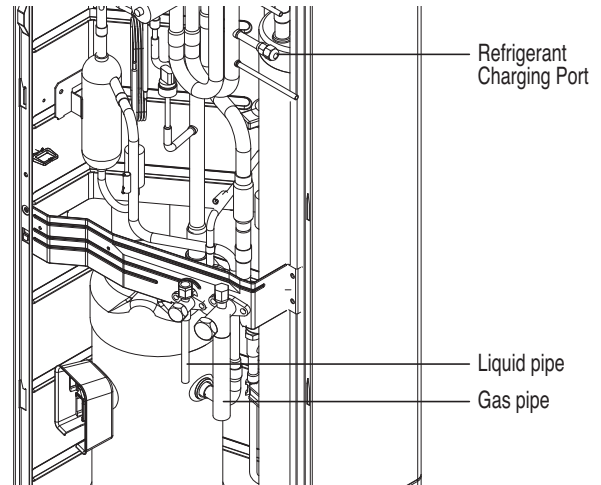


## 6. Refrigerant piping Installation

### 6.1 Precautions on Pipe connection / Valve operation

Pipe connection is done by connecting from the end of the pipe to the branching pipes, and the refrigerant pipe coming out of the outdoor unit is divided at the end to connect to each indoor unit. Flare connection for the indoor unit, and welding connection for the outdoor pipe and the branching parts.

- Use hexagonal wrench to open/close the valve.



#### **⚠ WARNING**

- Always careful not to leak the refrigerant during welding.
- The refrigerant generates poisonous gas harmful to human body if combusted.
- Do not perform welding in a closed space.
- Be sure to close the cap of the service port to prevent gas leakage after the work.

#### **⚠ CAUTION**

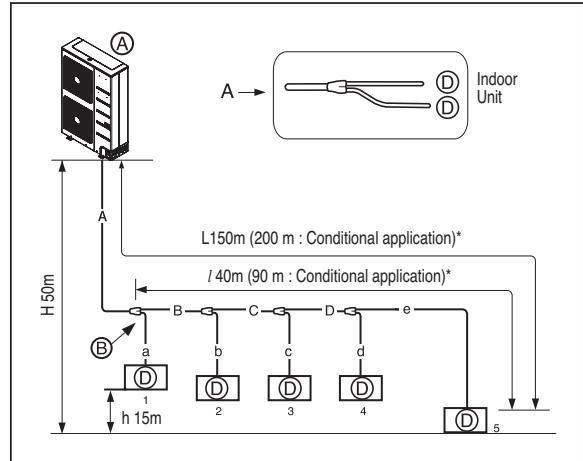
Please block the pipe knock outs of the front and side panels after installing the pipes.  
(Animals or foreign objects may be brought in to damage wires.)

## 7. Refrigerant Piping System

### 7.1 Pipe Connection Method between outdoor unit / indoor unit

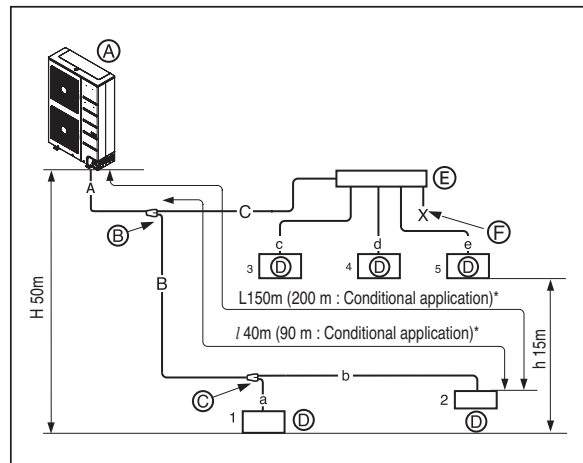
#### Y branch method

- Ⓐ : Outdoor Unit
- Ⓑ : 1st branch (Y branch)
- Ⓓ : Indoor Units



#### Combination of Y branch / header method

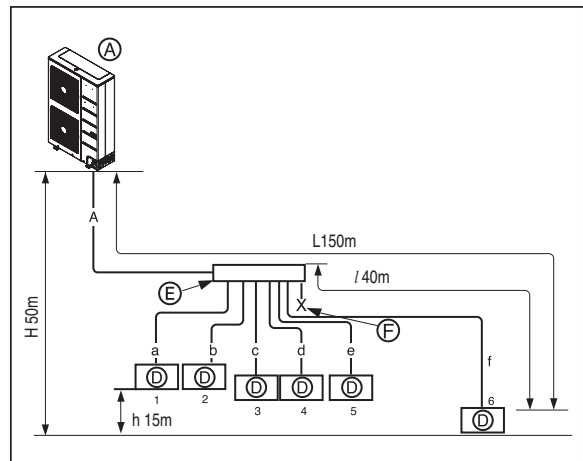
- Ⓐ : Outdoor Unit
- Ⓑ : 1st branch (Y branch)
- Ⓒ : Y branch
- Ⓓ : Indoor Unit
- Ⓔ : Header
- Ⓕ : Sealed piping



**Branch pipe can not be used after header**

#### Header method

- Ⓐ : Outdoor Unit
- Ⓓ : Indoor Unit
- Ⓔ : Header
- Ⓕ : Sealed piping



**Branch pipe can not be used after header**

### **⚠ WARNING**

#### Pipe length after header branching

- It is recommended that difference in length of the pipes connected to the indoor units (a~f) is minimized. Performance difference between indoor units may occur.

## 7. Refrigerant Piping System

### ↳ Limits of pipe length and difference in height

Connection method		Y branch only	Combination of Y branch / header	Header only
Max. pipe length	Longest pipe length (L) : between Outdoor Unit ↔ Indoor Unit	$A+B+C+D+e \leq 150 \text{ m}(200 \text{ m}^{**})$	$A+B+b \leq 150 \text{ m}(200 \text{ m}^{**})$ $A+C+e \leq 150 \text{ m}(200 \text{ m}^{**})$	$A+f \leq 150 \text{ m}$
	Longest pipe equivalent length* (L) : between Outdoor Unit ↔ Indoor Unit	175m(225 m <sup>**</sup> )	175 m(225 m <sup>**</sup> )	175 m
	Longest pipe length after 1st branch (l)	40 m (90 m <sup>**</sup> )	40 m (90 m <sup>**</sup> )	40 m
	Total pipe length	300 m	300 m	300 m
Max. difference in height	Difference in height (H) : between Outdoor Unit ↔ Indoor Unit	50 m	50 m	50 m
	Difference in height (h) : between Indoor Unit ↔ Indoor Unit	15 m	15 m	15 m

- \* : Assume equivalent piping length of Y branch to be 0.5m, that of header to be 1m, calculation purpose.
- \*\* : To apply Conditional Application

### ⚠ WARNING

When the below condition is satisfied, the diameter of main pipe (A) must be increased according to below table.

- The equivalent length between outdoor unit and the farthest indoor unit is 90m or more (Liquid and Gas pipes are increased)
- The level difference (Outdoor unit ↔ Indoor unit) is 50m or more (Only liquid pipe is increased)

### ↳ Refrigerant pipe diameter from outdoor unit to first branch. (A)

Upward Outdoor unit total capacity	Standard Pipe Diameter		Increased Pipe Diameter			
			When equivalent pipe length is 90m or more from ODU to farthest IDU		When level difference is 50m or more	
HP	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]
8	Ø 9.52(3/8)	Ø 19.05(3/4)	Ø 12.7(1/2)	Ø 22.2(7/8)	Ø 12.7(1/2)	not increased
10	Ø 9.52(3/8)	Ø 22.2(7/8)	Ø 12.7(1/2)	Ø 25.4(1) *	Ø 12.7(1/2)	not increased
12	Ø 9.52(3/8)	Ø 28.58(1-1/8)	Ø 15.88(5/8)	not increased	Ø 12.7(1/2)	not increased

\* \* : If available on site, select pipe size from the pipe diameter table according to capacity. Otherwise it doesn't need to be increased.

\* Model line up could be different in accordance with target region.

## 7. Refrigerant Piping System

### ⇒ Refrigerant pipe diameter from branch to branch (B,C,D)

Downward Indoor Unit total capacity [kW(Btu/h)]	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]
≤ 5.6(19,100)	Ø6.35(1/4)	Ø12.7(1/2)
< 16.0(54,600)	Ø9.52(3/8)	Ø15.88(5/8)
≤ 22.4(76,400)	Ø9.52(3/8)	Ø19.05(3/4)
< 33.6(114,700)	Ø9.52(3/8)	Ø22.2(7/8)
≥33.6(114,700)	Ø12.7(1/2)	Ø28.58(1-1/8)

### ⇒ Conditional Application (only for Y Branch method)

If the below conditions are satisfied, limit of longest pipe length after 1st branch( *l* ) could be extended by 40 m → 90 m.

#### 1) Pipe diameter Size Up

Pipe diameter(Liquid/Gas pipes) between 1st branch ↔ last branch(B,C,D) is increased by on step.

If the pipe diameter of B,C,D is same as A, it is not necessary.

: Ø6.35 → Ø 9.52 → Ø 12.7 → Ø 15.88 → Ø 19.05 → Ø 22.2 → ...

\* If available on site, select pipe size from the pipe diameter table according to capacity.

Otherwise it doesn't need to be increased.

#### 2) Correction for calculating the total pipe length

When calculating total pipe length, pipe B,C,D length should be calculated twice.

:  $A+B \times 2 + C \times 2 + D \times 2 + a + b + c + d + e \leq 300$  m

#### 3) Indoor unit pipe length

Length of pipe from each indoor unit to the closest branch (a,b,c,d,e) ≤ 40 m.

#### 4) Difference in length between outdoor unit and the farthest or closest indoor unit

[Length of pipe from outdoor unit to the farthest indoor unit 5 (A+B+C+D+e)]

- [Length of pipe from outdoor unit to the closest indoor unit 1 (A+a)] ≤ 40 m

## 7. Refrigerant Piping System

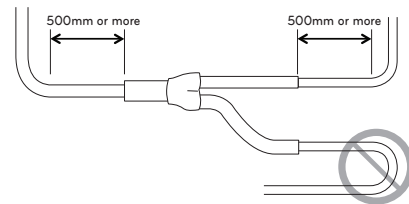
### 7.2 Indoor Unit Connection

#### ↳ Indoor Unit connecting pipe from branch (a,b,c,d,e,f)

Indoor Unit capacity [kW(Btu/h)]	Liquid pipe [mm(inch)]	Gas pipe [mm(inch)]
≤ 5.6(19,100)	Ø6.35(1/4)	Ø12.7(1/2)
< 16.0(54,600)	Ø9.52(3/8)	Ø15.88(5/8)
< 22.4(76,400)	Ø9.52(3/8)	Ø19.05(3/4)
≤ 28.0(95,900)	Ø9.52(3/8)	Ø22.2(7/8)

#### ⚠ CAUTION

- Bending radius should be at least twice the diameter of the pipe.
- Bend pipe after 500mm or more from branch(or header). Do not bend U type. It may cause Performance unsatisfactory or noise.



### 7.3 The amount of Refrigerant

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

$$\begin{aligned}
 \text{Additional charge(kg)} &= \text{Total liquid pipe : } \text{Ø9.52 mm} \times 0.061(\text{kg/m}) \\
 &+ \text{Total liquid pipe : } \text{Ø6.35 mm} \times 0.022(\text{kg/m}) \\
 &+ \text{CF value of indoor unit (kg/EA)}
 \end{aligned}$$

**Note:**

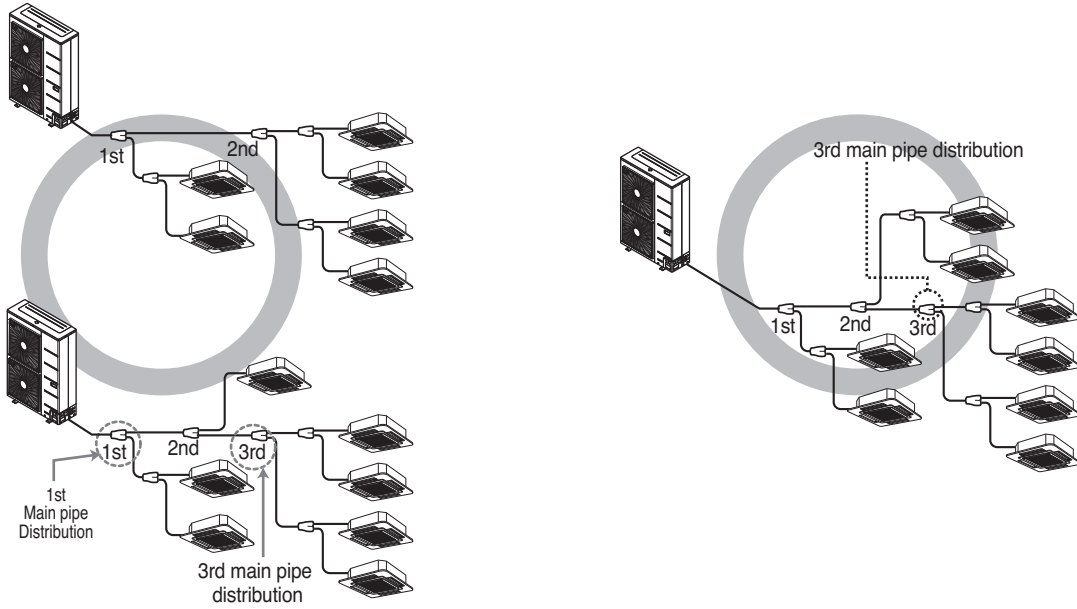
For CF value (additional refrigerant) table of indoor units, please refer to installation manual of outdoor unit.



# 7. Refrigerant Piping System

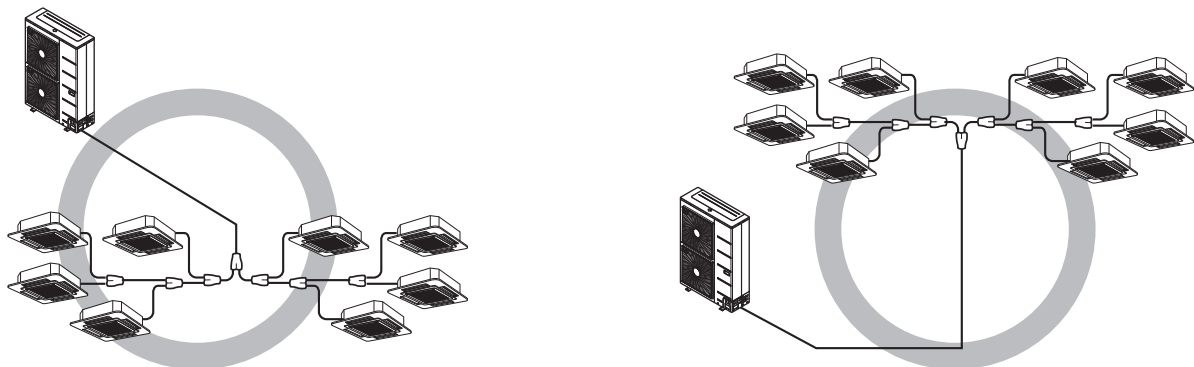
## 7.4 Distribution Method

### 1. Line Distribution

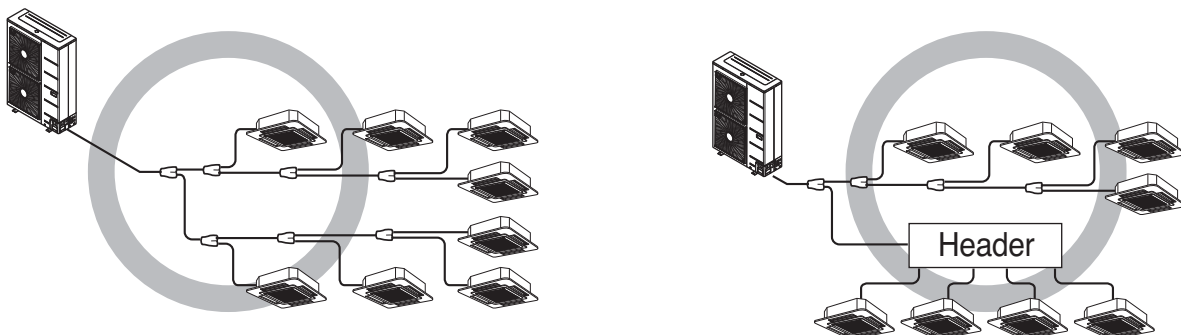


### 2. Vertical Distribution

Ensure that the branch pipes are attached vertically.



### 3. The others



# 7. Refrigerant Piping System

## 7.5 Selection of Y Branch and Header

### 7.5.1 Y Branch

[unit:mm]

Models	Gas pipe	Liquid pipe
ARBLN01621		
ARBLN03321		
ARBLN07121		
ARBLN14521		

# 7. Refrigerant Piping System

## 7.5.2 Header

[unit:mm]

Models	Gas pipe	Liquid pipe
4 branch ARBL054		
7 branch ARBL057		
4 branch ARBL104		
7 branch ARBL107		
10 branch ARBL1010		
10 branch ARBL2010		

Installation of Outdoor Units

## 8. Electrical Wiring

### 8.1 Electrical Wiring

#### 8.1.1 Caution

- 1) Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations and guidance of each electric power company.

#### **⚠ WARNING**

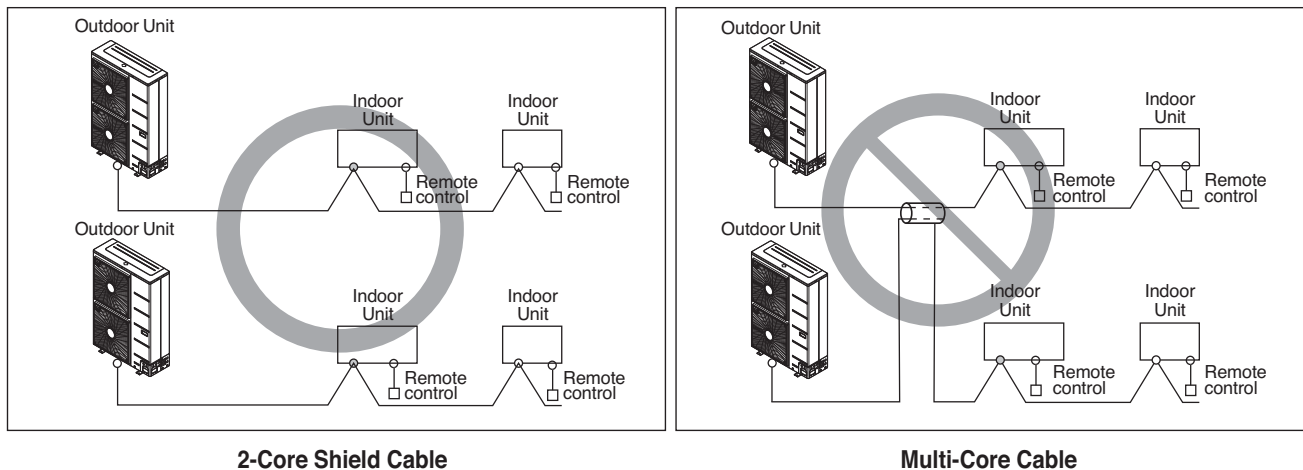
**Be sure to have authorized electrical engineers do the electric work using special circuits in accordance with regulations and this installation manual. If power supply circuit has a lack of capacity or electric work deficiency, it may cause an electric shock or fire.**

- 2) Install the Outdoor Unit communication line away from the power source wiring so that it is not affected by electric noise from the power source. (Do not run it through the same conduit.)
- 3) Be sure to provide designated grounding work to Outdoor Unit.

#### **⚠ CAUTION**

**Be sure to connect the Outdoor Unit to earth. Do not connect earth line to any gas pipe, water pipe, lightning rod or telephone earth line. If earth is incomplete, it may cause an electric shock.**

- 4) Give some allowance to wiring for electrical part box of Indoor and Outdoor Units, because the box is sometimes removed at the time of service work.
- 5) Never connect the main power source to terminal block of communication line. If connected, electrical parts will be burnt out.
- 6) Use 2-core shield cable for communication line. (○ mark in the figure below) If communication lines of different systems are wired with the same multiplecore cable, the resultant poor transmitting and receiving will cause erroneous operations. (⊗ mark in the figure below)
- 7) Only the communication line specified should be connected to the terminal block for Outdoor Unit communication.



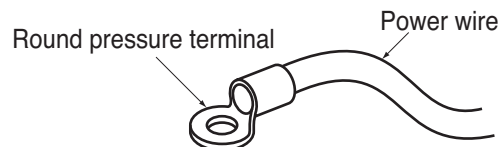
## 8. Electrical Wiring

### ⚠ CAUTION

- This product has a reversed phase protection detector that only works when the power is turned on. If there is a black out or the power goes on and off while the product is operating, attach a reversed phase protection circuit locally. Running the product in reversed phase may break the compressor and other parts.
- Use 2-core shield cables for communication lines. Never use them together with power cables.
- The conductive shielding layer of the cable should be grounded to the metal part of both units.
- Never use multi-core cable
- As this unit is equipped with an inverter, installing a phase leading capacitor not only will deteriorate the power factor improvement effect, but also may cause abnormal heating of the capacitor. Therefore, never install a phase leading capacitor.
- Make sure that the power unbalance ratio is not greater than 2%. If it is greater, the unit's lifespan will be reduced.
- Introducing power with a missing N-phase or with a mistaken N-phase will break the equipment.

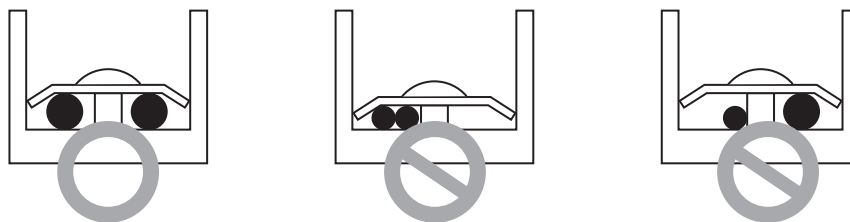
### ◆ Precautions when laying power wiring

Use round pressure terminals for connections to the power terminal block.



When none are available, follow the instructions below.

- Do not connect wiring of different thicknesses to the power terminal block. (Slack in the power wiring may cause abnormal heat.)
- When connecting wiring which is the same thickness, do as shown in the figure below.



- For wiring, use the designated power wire and connect firmly, then secure to prevent outside pressure being exerted on the terminal block.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.

### ⚠ CAUTION

When the 400 volt power supply is applied to "N" phase by mistake, replace inverter PCB and transformer in control box.

## 8. Electrical Wiring

### 8.1.2 Communication and Power Cables

#### 1) Communication cable

- Types : shielding cable
- Cross section : 1.0~1.5mm<sup>2</sup>
- Maximum allowable temperature: 60°C
- Maximum allowable cable length: under 300m

#### 2) Remote control cable

- Types : 3-core cable

#### 3) Central control cable

Product type	Cable type	Diameter
ACP	2-core cable (Shielding cable)	1.0~1.5mm <sup>2</sup>
AC Smart	2-core cable (Shielding cable)	1.0~1.5mm <sup>2</sup>
AC Ez	4-core cable (Shielding cable)	1.0~1.5mm <sup>2</sup>

#### 4) Separation of communication and power cables

- If communication and power cables are run alongside each other then there is a strong likelihood of operational faults developing due to interference in the signal wiring caused by electrostatic and electromagnetic coupling.

The tables below indicates our recommendation as to appropriate spacing of communication and power cables where these are to be run side by side

Current capacity of power cable		Spacing
100V or more	10A	300mm
	50A	500mm
	100A	1,000mm
	Exceed 100A	1,500mm

#### Note:

- The figures are based on assumed length of parallel cabling up to 100m. For length in excess of 100m the figures will have to be recalculated in direct proportion to the additional length of cable involved.
- If the power supply waveform continues to exhibit some distortion the recommended spacing in the table should be increased.
  - If the cable are laid inside conduits then the following point must also be taken into account when grouping various cable together for introduction into the conduits
  - Power cable(including power supply to air conditioner) and communication cables must not be laid inside the same
  - In the same way, when grouping the power wires and communication cables should not be bunched together.

### CAUTION

- If apparatus is not properly earthed then there is always a risk of electric shocks, the earthing of the apparatus must be carried out by a qualified person.
- Use a power wire pipe for the power wiring.

## 8. Electrical Wiring

### 8.2 DIP Switch Setting

#### 8.2.1 Checking according to dip switch setting

1. You can check the setting values of the Master outdoor unit from the 7 segment LED.  
The dip switch setting should be changed when the power is OFF.

#### 8.2.2 Checking the setting of the Master unit

The number is sequentially appeared at the 7 segment in 5 seconds after applying the power. This number represents the setting condition.

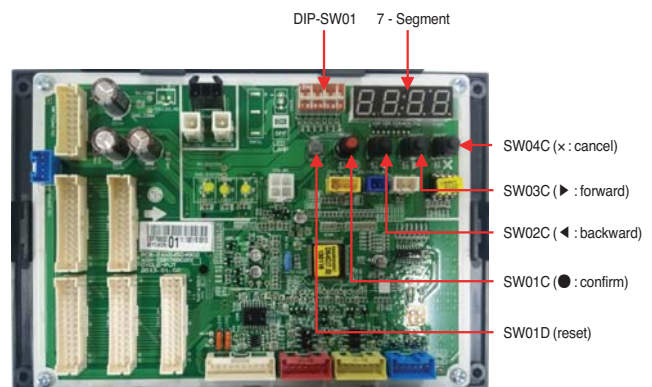
#### • Initial display order

Order	No	Note
①	4~12	Model capacity
②	1	Cooling only
	2	Heat pump
③	38	380V
	46	460V
	22	220V
④	1	Standard
	5	Cold temperature area
	6	Tropical

#### • Example) ARUN100BSS0

①	②	③	④
10	2	22	1

#### ■ Main PCB



#### Notes :

1. Example of model names could be different with model names included within this PDB.
2. In accordance with the number of combined outdoor unit or target region, it could not be applied to set the order ③,④.

### ⚠ CAUTION

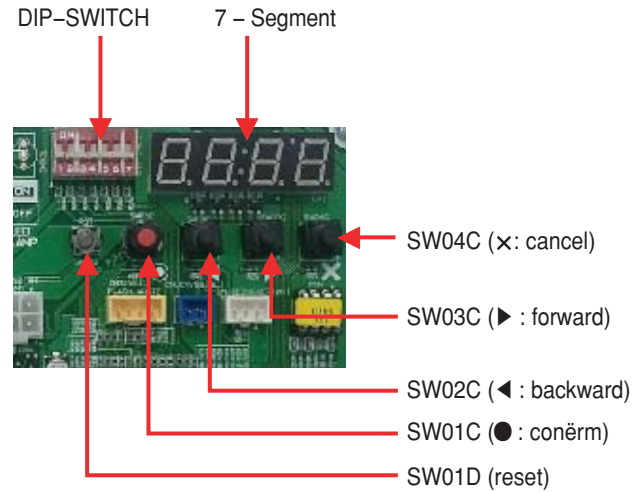
Product may not properly operate if the relevant DIP switch is not properly setup.

## 8. Electrical Wiring

### 8.3 Automatic Addressing

- **The address of indoor units would be set by auto addressing**
  - 1) Wait for 3 minutes after supplying power.  
(Master and Slave outdoor units, indoor units)
  - 2) Press RED button of the outdoor units for 5 seconds.  
(SW01C)
  - 3) A "88" is indicated on 7-segment LED of the outdoor unit PCB.
  - 4) For completing addressing, 2~7 minutes are required depending on numbers of connected indoor units
  - 5) Numbers of connected indoor units whose addressing is completed are indicated for 30 seconds on 7-segment LED of the outdoor unit PCB
  - 6) After completing addressing, address of each indoor unit is indicated on the wired remote control display window. (CH01, CH02, CH03, ....., CH06 : Indicated as numbers of connected indoor units)

#### ■ Main PCB



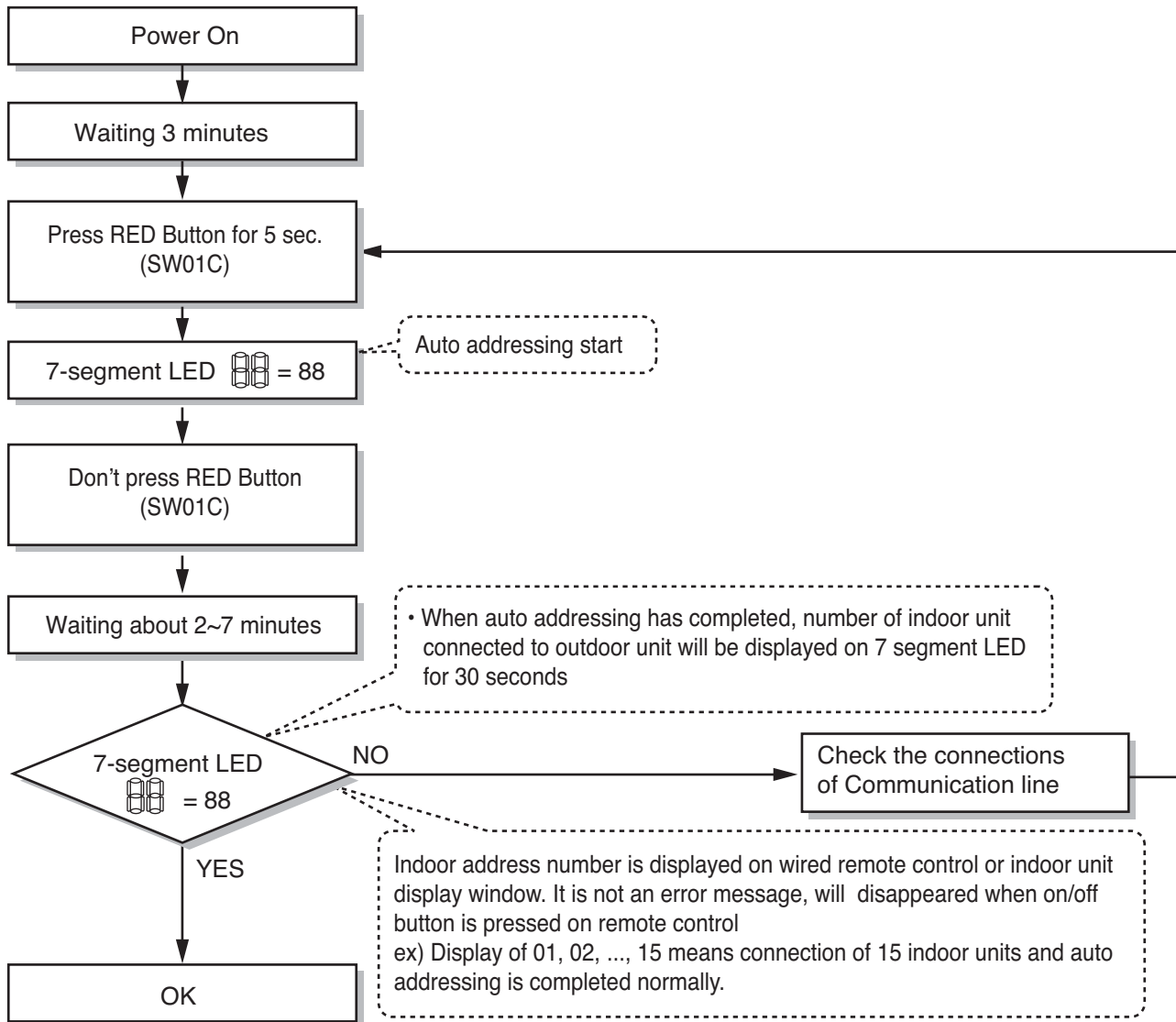
#### ⚠ CAUTION

- In replacement of the indoor unit PCB, always perform Auto addressing setting again (At that time, please check about using Independent power module to any indoor unit.)
- If power supply is not applied to the indoor unit, operation error occur.
- Auto addressing is only possible on the master Unit.
- Auto addressing has to be performed after 3 minutes to improve communication.



## 8. Electrical Wiring

### ◆ The Procedure of Automatic Addressing





## **Special Guide**

- 1. Cautions for Refrigerant Leaks**
- 2. Installation guide at the seaside**

# 1. Caution For Refrigerant Leaks

The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable if local regulations are not available.

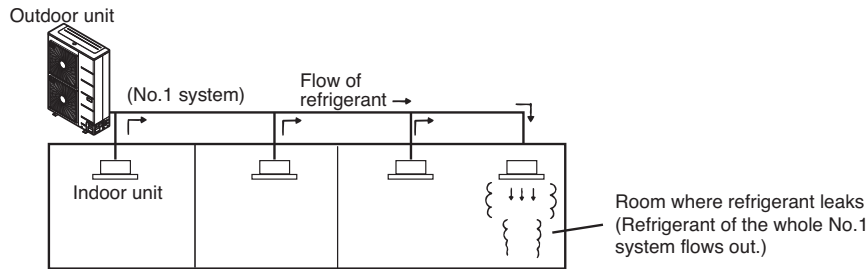
## 1.1 Introduction

Though the R410A refrigerant is harmless and incombustible itself, the room to equip the air conditioner should be large enough to such an extent that the refrigerant gas will not exceed the limiting concentration even if the refrigerant gas leaks in the room.

### ■ Limiting concentration

Limiting concentration is the limit of Freon gas concentration where immediate measures can be taken without hurting human body when refrigerant leaks in the air. The limiting concentration shall be described in the unit of kg/m<sup>3</sup> (Freon gas weight per unit air volume) for facilitating calculation.

**Limiting concentration: 0.44kg/m<sup>3</sup>(R410A)**



## 1.2 Checking procedure of limiting concentration

Check limiting concentration along following steps and take appropriate measure depending on the situation.

### ■ Calculate amount of all the replenished refrigerant (kg) per each refrigerant system.

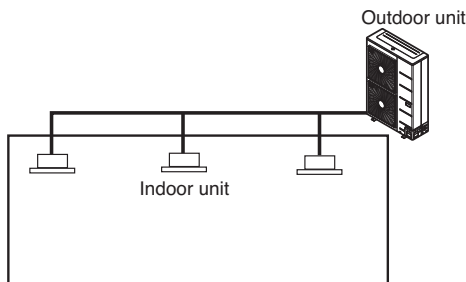
Amount of replenished refrigerant per one outdoor unit system	+	Amount of additional replenished refrigerant	=	Total amount of replenished refrigerant in refrigerant facility (kg)
Amount of replenished refrigerant at factory shipment		Amount of additionally replenished refrigerant depending on piping length or piping diameter at customer		

Note : In case one refrigerant facility is divided into 2 or more refrigerant systems and each system is independent, amount of replenished refrigerant of each system shall be adopted.

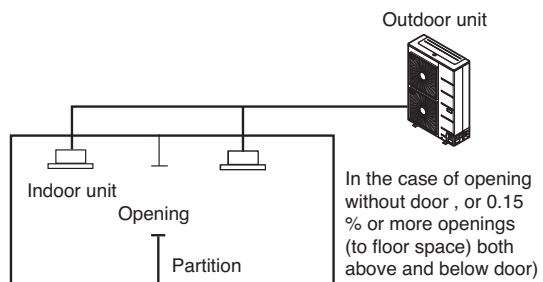
### ■ Calculate minimum room capacity

Calculate room capacity by regarding a portion as one room or the smaller room.

(1) Without partition

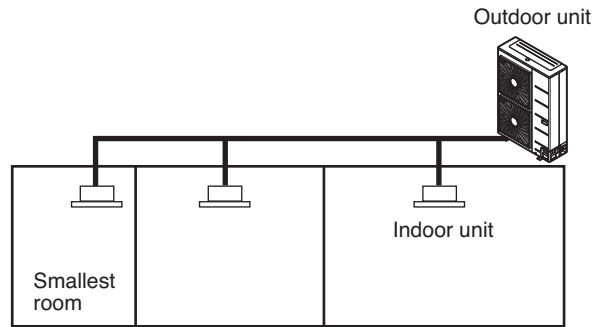


(2) With partition and with opening which serve as passage of air to adjoining room



# 1. Caution For Refrigerant Leaks

(3) With partition and without opening which serve as passage of air to adjoining room



## ■ Calculate refrigerant concentration

Total amount of replenished refrigerant in refrigerant facility (kg)  
 Capacity of smallest room where indoor unit is installed (m<sup>3</sup>)

$$\leq \text{Refrigerant concentration (kg/m}^3\text{)} \quad \text{(R410A)}$$

In case the result of calculation exceeds the limiting concentration, perform the same calculations by shifting to the second smallest, and the third smallest rooms until at last the result is below the limiting concentration.

## ■ In case the concentration exceeds the limit

When the concentration exceeds the limit, change original plan or take one of the counter measure shown below:

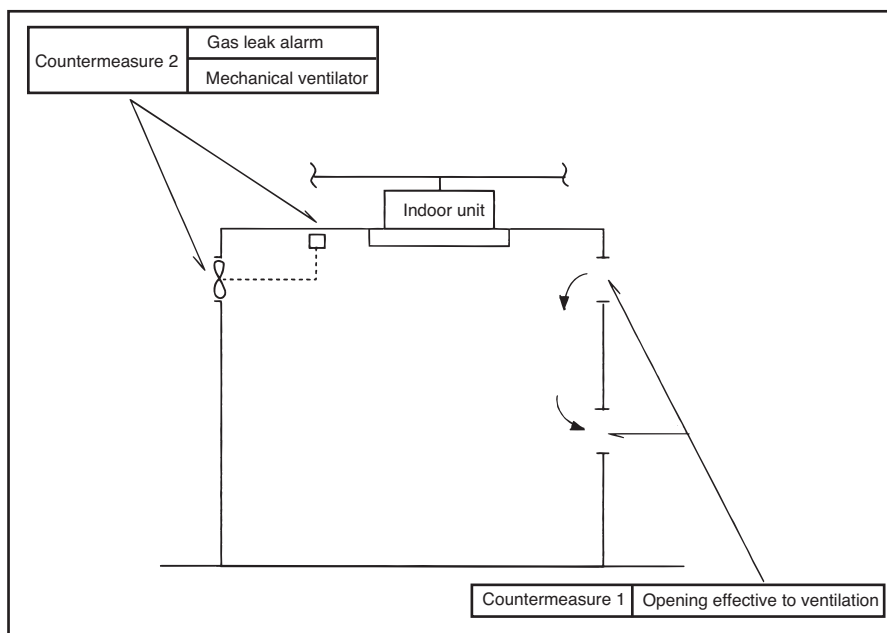
### • Counter measure 1

Provide opening for ventilation.

Provide 0.15% or more opening to floor space both above and below door, or provide opening without door.

### • Counter measure 2

Provide gas leak alarm linked with mechanical ventilator.



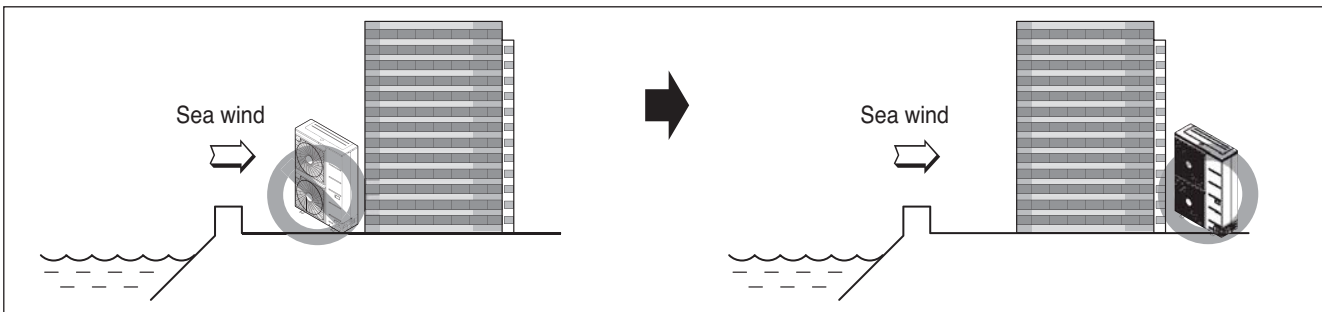
## 2. Installation guide at the seaside

### ⚠ CAUTION

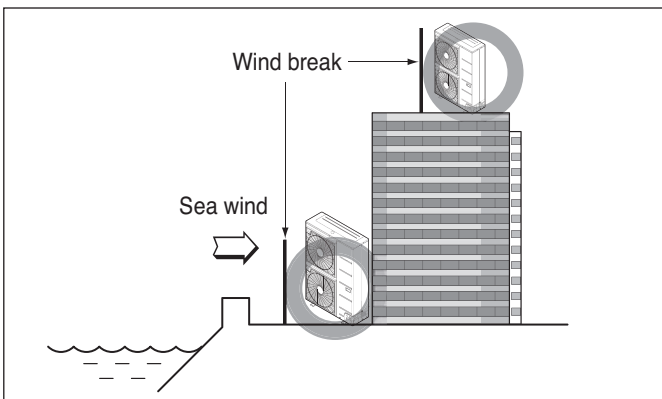
1. Air conditioners should not be installed in areas where corrosive gases, such as acid or alkaline gas, are produced.
2. Do not install the product where it could be exposed to sea wind (salty wind) directly. It can result corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient performance.
3. If outdoor unit is installed close to the seaside, it should avoid direct exposure to the sea wind. Otherwise it needs additional anticorrosion treatment on the heat exchanger.

### 2.1 Selecting the location(Outdoor Unit)

- 1) If the outdoor unit is to be installed close to the seaside, direct exposure to the sea wind should be avoided. Install the outdoor unit on the opposite side of the sea wind direction.



- 2) In case, to install the outdoor unit on the seaside, set up a windbreak not to be exposed to the sea wind.



- It should be strong enough like concrete to prevent the sea wind from the sea.
- The height and width should be more than 150% of the outdoor unit.
- It should be keep more than 70 cm of space between outdoor unit and the windbreak for easy air flow.

- 3) Select a well-drained place.

1. Periodic ( more than once/year ) cleaning of the dust or salt particles stuck on the heat exchanger by using water.



P/No.: MFL67474022



**Air Solution**

LG Electronics Inc, 128, Yeoui-daero,  
Yeongdeungpo-gu, Seoul, Korea  
(07336)  
<http://partner.lge.com>

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The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.  
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