

LG

SINGLE A™

Heat pump 50Hz/R410A
5CSL0-02B (Replaces:5CSL0-02A)

TOTAL HVAC SOLUTION PROVIDER

ENGINEERING PRODUCT DATA BOOK



Preface

New era brings the more sophisticated and advanced buildings which in turn demands for specialized and optimized direct expansion air conditioning systems. Also energy efficiency, environment friendly, low noise and low maintenance cost are the features which are essential for these systems.

As a part of vertical integration LG makes all the key components in house, which gives an edge to LG to make better and latest technology products with best quality in optimized time.

SINGLE A™ systems with are equipped with DC inverter technology and R410A refrigerant which is perfect solution to various installation locations.

LG SINGLE A™ system consists of a single common outdoor unit for single indoor unit, such as ceiling cassette, ceiling and floor, ceiling suspended, ceiling concealed duct(H) and Console(Floor stand). Synchro operation is solution to customer with reasonable prices.

It uses 2,3 or 4 indoor units with one outdoor unit.

Each indoor units are running as one cycle with same mode(cooling or heating).

It helps same air distribution all around the middle or larger room(office or open places) even in irregular shaped spaces.

The total capacity based on ODU for Synchro operation are the same as for the fixed combinations.

This Engineering product data book incorporates information about the product itself, its installation and designing for SINGLE A™ system.

The comprehensive study of this book will improve your knowledge about the system and its application in details.

LG Electronics Inc.
Air Conditioning & Energy Solution Company

Step by step Single A system selection process (reference)

(1) Calculate or obtain the maximum heat load for the area(s) to be air conditioned



(2) Indoor unit specifications
Outdoor unit specifications
Capacity coefficient factor
Air flow and temperature distributions



(3) Selection of BD unit and branch



(4) Selection of the control system
Control wiring method
Description of devices



(5) Electrical wiring
Electrical characteristics
Field wiring

CAUTION

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is installed close to the sea shore, direct exposure to the sea breeze should be avoided and choose an outdoor unit with anti-corrosion treatment.



General Information



1. Model Names



2. Nomenclature

3. Features

1. Model Names

DC Inverter SINGLE A™ (1Ø)

DC Inverter	AUJW096D [UU09W ULD]	AUJW126D [UU12W ULD]	AUJW186D2 [UU18W UE2]
No. of connectable indoor units	1		
Total capacity index of connectable indoor units(kW)	2.5	3.5	5.0
Power supply	1Ø, 220 - 240V, 50Hz		
Chassis			

DC Inverter	AUJW246D2 [UU24W U42]	AUJW306D2 [UU30W U42]	AUJW366D2 [UU36W UO2]
No. of connectable indoor units	1		
Total capacity index of connectable indoor units(kW)	7.1	8.0	10.0
Power supply	1Ø, 220 - 240V, 50Hz		
Chassis			

DC Inverter Synchro	AUJW426D2 [UU42W U32]	AUJW486D2 [UU48W U32]	AUJW606D2 [UU60W U32]
No. of connectable indoor units	1 ~ 4		
Total capacity index of connectable indoor units(kW)	12.5	14.0	15.0
Power supply	1Ø, 220 - 240V, 50Hz		
Chassis			

1. Model Names

DC Inverter SINGLE A™ (3Ø)

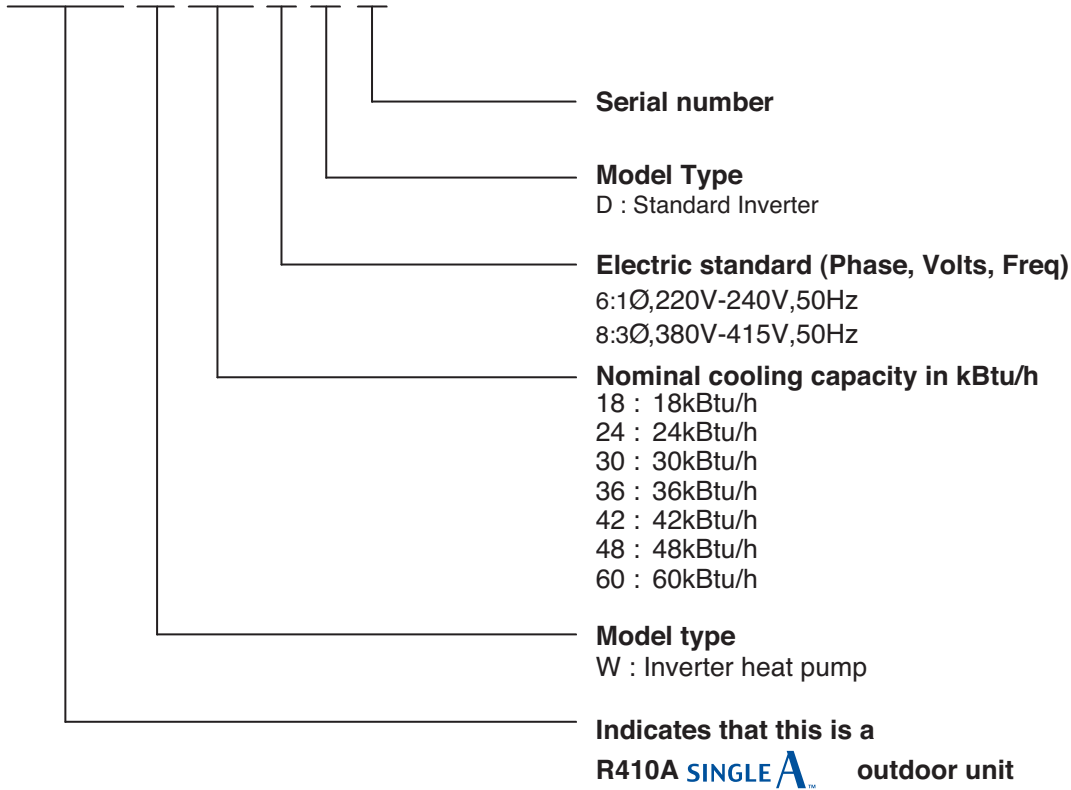
DC Inverter	AUJW368D2 [UU37W UO2]
No. of connectable indoor units	1
Total capacity index of connectable indoor units(kW)	10.0
Power supply	3Ø, 380 - 415V, 50Hz
Chassis	

DC Inverter	AUJW428D2 [UU43W U32]	AUJW488D2 [UU49W U32]	AUJW608D2 [UU61W U32]
No. of connectable indoor units	1 ~ 4		
Total capacity index of connectable indoor units(kW)	12.5	14.0	15.0
Power supply	3Ø, 380 - 415V, 50Hz		
Chassis			

2. Nomenclature

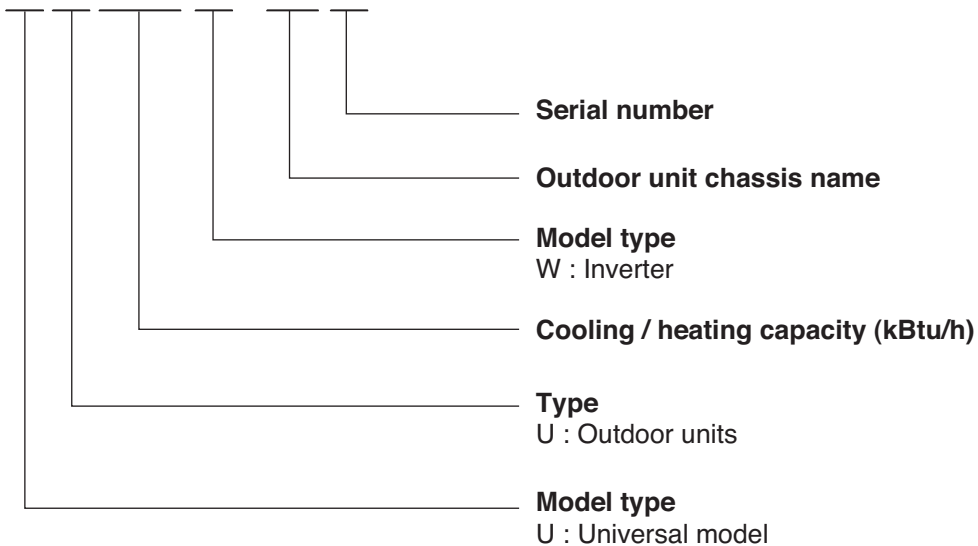
2.1 Outdoor units(Global)

A U U W 2 4 6 D 2



2.2 Outdoor units(Europe)

U U 2 4 W U4 2



3. Features

3.1 What's SINGLE A™



- **Various IDU combination**

Cassette, concealed duct, convertible, console

- **Wide capacity range**

Outdoor range : 2.5~15.0 kW

- **Convenient control**

Wired remote control

Central controller

- **Long and high elevation piping**

- **Wide operation range**

- 5.0~15.0 kW

Cooling : -15~48°CDB

Heating : -18~18°CWB

- 2.5~3.5 kW

Cooling : -10~43°CDB

Heating : -18~18°CWB

3. Features

3.2 Technologies

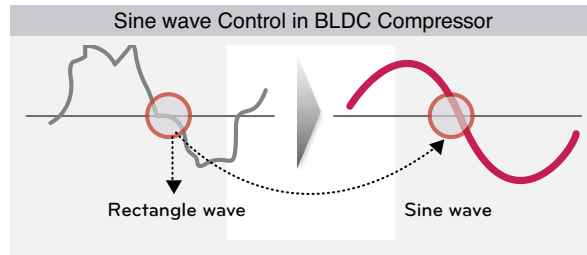
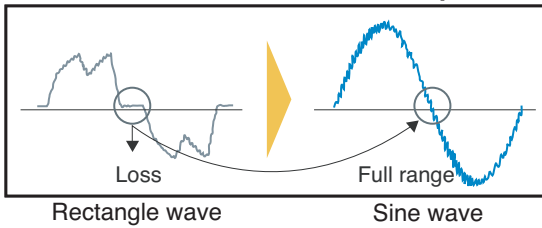
Inverter Technology

With the advancement of Inverter technology, it comes to be more silent, economical and powerful air conditioning systems.

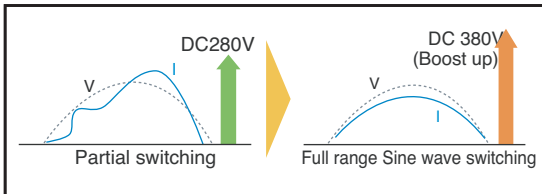
Step-up Inverter by the PFC & the Sine Wave Control Technology (PFC :Power Factor Correction)

The LG air conditioner is manufactured based on the PFC and the sine wave technology. It makes possible to down noise level, be better efficiency, minimize compressor vibration and wider operation range

• Sine wave Control in BLDC Compressor



• PFC Control in Power Input

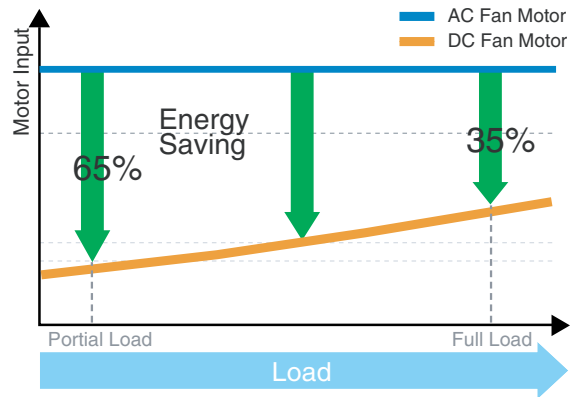
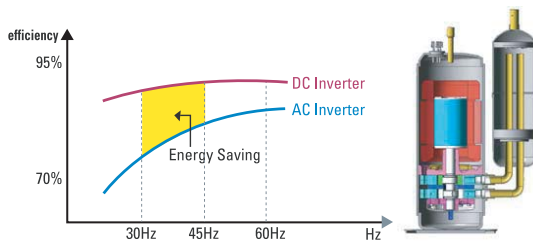


BLDC Fan motor

BLDC fan motor offers additional energy saving in operating mode. Compared with AC motors, BLDC fan motor can cut energy by 35% at full velocity. AC motor is operating at full velocity only, but BLDC Motor can change velocity according to load. Energy efficiency levels at low velocities in particular have been improved by 65%.

Powerful BLDC Compressor

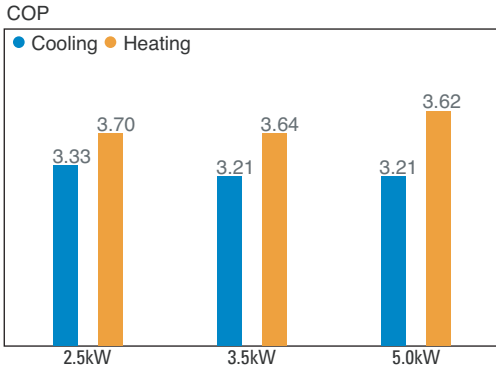
The LG inverter air conditioner comes with a BLDC compressor that uses a strong neodymium magnet. Its compressor thus has improved efficiency compared with AC inverter. Especially during at 30- 45Hz frequency, the efficiency of DC motor at LG inverter compressor goes higher than AC motor.



3. Features

Top Class COP

- DC Inverter Compressor
- BLDC Fan Motor



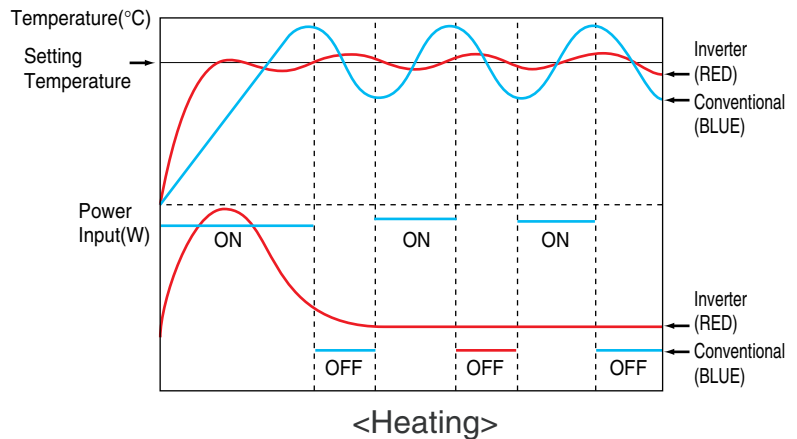
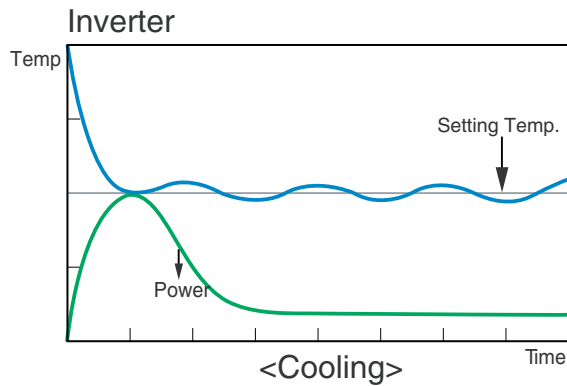
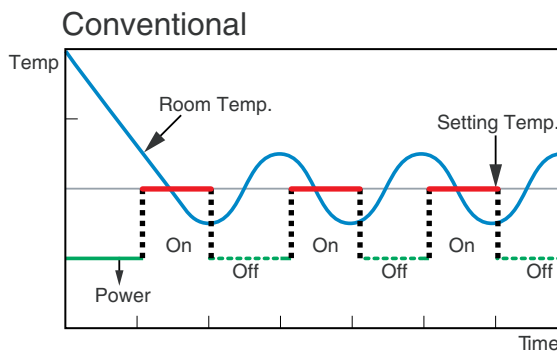
*Testing Combinations

Capacity	2.5kW	3.5kW	5.0kW
Indoor	CT09 NR2	CT12 NR2	CT18 NQ2
Outdoor	UU09W ULD	UU12W ULD	UU18W UE2

Comfortable with Fast Cooling & Heating Performance

When the air conditioner is initially activated to either heat or cool, the compressor will operate at maximum speed to reach the desired temperature quickly.

Once the desired temperature is achieved, unlike conventional air conditioners that turn the compressor on and off, LG inverter units constantly adjust and vary the compressor speed to maintain the desired temperature with minimal fluctuation to ensure that your comfort is not compromised.



3. Features

3.4 Outdoor units

DC Inverter SINGLE A™

- Inverter system
 - High efficiency
 - Low noise
- Meet EU New harmonics regulation
- New Design (10kW)
- Long pipe / high elevation piping
- DC inverter full line up
- Energy saving using DC inverter



2.5/3.5 kW



5.0 kW



7.1/8.0 kW



10.0 kW



12.5/14.0/15.0 kW

DC Inverter SINGLE A™ - Synchro (1Ø, 3Ø)



One large room can be cooled simultaneously by duo, trio or quartet indoor units according to the environmental needs.

- Synchro application
- Connectable to 2~4 indoor units by simple branch kit piping
- DC inverter system
 - High efficiency
 - Low noise
 - High reliability
- Long pipe / high elevation piping
- New Harmonics Regulation

Model name (1Ø)	Model name (3Ø)
AUJW426D2 [UU42W U32]	AUJW428D2 [UU43W U32]
AUJW486D2 [UU48W U32]	AUJW488D2 [UU49W U32]
AUJW606D2 [UU60W U32]	AUJW608D2 [UU61W U32]
Power supply: 1Ø, 220-240V, 50Hz	Power supply: 3Ø, 380-415V, 50Hz

SINGLE ATM

Outdoor units

1. DC Inverter SINGLE A (1Ø, 3Ø)

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

DC Inverter SINGLE A (1Ø, 3Ø)

- 1. Power supply**
- 2. List of functions**
- 3. Specifications**
- 4. Dimensions**
- 5. Piping diagrams**
- 6. Wiring diagrams**
- 7. Capacity tables**
- 8. Capacity coefficient factor**
- 9. Operation range**
- 10. Electrical characteristics**
- 11. Field wiring diagram**
- 12. Sound levels**

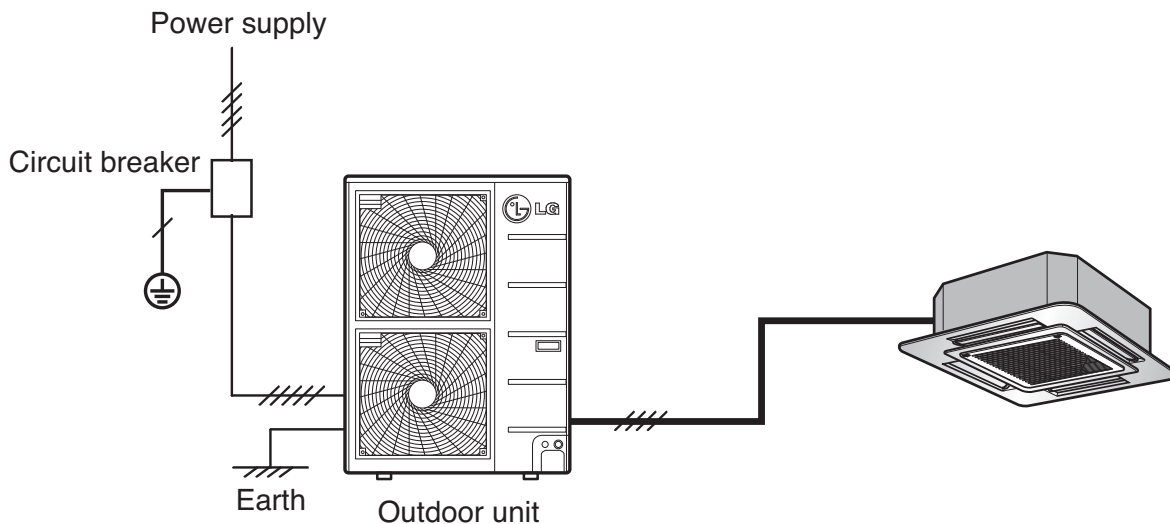
1. DC Inverter SINGLE A (1Ø, 3Ø)

1.1 Power supply

Type	Outdoor unit	Capacity (kW)	Circuit breaker capacity	Power supply
1Phase Inverter	AUW096D[UU09W ULD]	2.5	15A	1Ø, 220-240V, 50Hz
	AUW126D[UU12W ULD]	3.5		
	AUW186D2 [UU18W UE2]	5.0	20A	
	AUW246D2 [UU24W U42]	7.1	30A	
	AUW306D2 [UU30W U42]	8.0		
	AUW366D2 [UU36W UO2]	10.0	40A	
	AUW426D2 [UU42W U32]	12.5		
	AUW486D2 [UU48W U32]	14.0		
AUW606D2 [UU60W U32]	15.0			
3Phase Inverter	AUW368D2 [UU37W UO2]	10.0	20A	3Ø, 380-415V, 50Hz
	AUW428D2 [UU43W U32]	12.5		
	AUW488D2 [UU49W U32]	14.0		
	AUW608D2 [UU61W U32]	15.0		

External wiring procedure

- The power supply work is needed only to the outdoor unit. The power supply to the indoor unit is conducted through the transmission wiring. Therefore, the power supply work can be carried out at just one place of the outdoor unit. It will contribute to simplify the work procedure and to save cost.
- Wiring cable size must comply with the applicable local and national code.



1. DC Inverter SINGLE A (1Ø, 3Ø)

1.2 List of functions

DC Inverter SINGLE A (1Ø)

Category	Functions	AUUW096D [UU09W ULD]	AUUW126D [UU12W ULD]	AUUW186D2 [UU18W UE2]
Reliability	Defrost / Deicing	O	O	O
	High pressure switch	X	X	X
	Low pressure switch	X	X	X
	Phase protection	X	X	X
	Restart delay (3-minutes)	O	O	O
	Self diagnosis	O	O	O
	Soft start	O	O	O
	Test function	O	O	X
Convenience	Night Silent Operation	X	X	O
CAC network function	Network solution(LGAP)	X	X	O

Device	AUUW096D [UU09W ULD]	AUUW126D [UU12W ULD]	AUUW186D2 [UU18W UE2]	
Central Controller	Simple Controller	X	X	PQCSB101S0
	Function controller	X	X	PQCSB101S0 + PQCSC101S0
	Function Scheduler	X	X	PQCSB101S0 + PQCSD130A0
	AC Ez	X	X	PQCSZ250S0
	AC Smart II	X	X	PQCSW320A1E
	Option Kit (SD card type)	X	X	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	X	X	PQCPA11A0E / PQCPB11A0E
	AC Manager	X	X	PQCSS520A0E
	PI485	X	X	PMNFP14A0/PMNFP14A1
	DO(Digital Output) Kit	X	X	PQNFP00T0
BNU (Building Network Unit)	LONWORKS Gateway	X	X	PQNFB16A1
	BACnet Gateway	X	X	PQNFB17B0
Installation	Y branch	X	X	X
	Header branch	X	X	X
	Air Guide	X	X	X
ODU Dry Contact	X	X	X	
Low Ambient Kit	O (Logical operation)	O (Logical operation)	O (Logical operation)	

[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.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Category	Functions	AUUW246D2 [UU24W U42]	AUUW306D2 [UU30W U42]	AUUW366D2 [UU36W UO2]
Reliability	Defrost / Deicing	O	O	O
	High pressure switch	X	X	X
	Low pressure switch	X	X	X
	Phase protection	X	X	X
	Restart delay (3-minutes)	O	O	O
	Self diagnosis	O	O	O
	Soft start	O	O	O
	Test function	X	X	X
Convenience	Night Silent Operation	O	O	O
CAC network function	Network solution(LGAP)	O	O	O

Device	AUUW246D2 [UU24W U42]	AUUW306D2 [UU30W U42]	AUUW366D2 [UU36W UO2]	
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0	PQCSZ250S0
	AC Smart II	PQCSW320A1E	PQCSW320A1E	PQCSW320A1E
	Option Kit (SD card type)	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E	PQCSS520A0E	PQCSS520A0E
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
	DO(Digital Output) Kit	PQNFP00T0	PQNFP00T0	PQNFP00T0
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1	PQNFB16A1	PQNFB16A1
	BACnet Gateway	PQNFB17B0	PQNFB17B0	PQNFB17B0
Installation	Y branch	X	X	X
	Header branch	X	X	X
	Air Guide	X	X	X
ODU Dry Contact	X	X	O (On/off control)	
Low Ambient Kit	O (Logical operation)	O (Logical operation)	O (Logical operation)	

[Note]

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1. DC Inverter SINGLE A (1Ø, 3Ø)

Category	Functions	AUUW426D2 [UU42W U32]	AUUW486D2 [UU48W U32]	AUUW606D2 [UU60W U32]
Reliability	Defrost / Deicing	O	O	O
	High pressure switch	X	X	X
	Low pressure switch	X	X	X
	Phase protection	X	X	X
	Restart delay (3-minutes)	O	O	O
	Self diagnosis	O	O	O
	Soft start	O	O	O
	Test function	X	X	X
Convenience	Night Silent Operation	O	O	O
CAC network function	Network solution(LGAP)	O	O	O

Device		AUUW426D2 [UU42W U32]	AUUW486D2 [UU48W U32]	AUUW606D2 [UU60W U32]
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0	PQCSZ250S0
	AC Smart II	PQCSW320A1E	PQCSW320A1E	PQCSW320A1E
	Option Kit (SD card type)	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E	PQCSS520A0E	PQCSS520A0E
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
	DO(Digital Output) Kit	PQNFP00T0	PQNFP00T0	PQNFP00T0
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1	PQNFB16A1	PQNFB16A1
	BACnet Gateway	PQNFB17B0	PQNFB17B0	PQNFB17B0
Installation	Y branch	X	X	X
	Header branch	X	X	X
	Air Guide	X	X	X
ODU Dry Contact		O (On/off control)	O (On/off control)	O (On/off control)
Low Ambient Kit		O (Logical operation)	O (Logical operation)	O (Logical operation)

[Note]

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

1. DC Inverter SINGLE A (1Ø, 3Ø)

DC Inverter SINGLE A™ (3Ø)

Category	Functions	AUUW368D2 [UU37W UO2]	AUUW428D2 [UU43W U32]
Reliability	Defrost / Deicing	O	O
	High pressure switch	X	X
	Low pressure switch	X	X
	Phase protection	O	O
	Restart delay (3-minutes)	O	O
	Self diagnosis	O	O
	Soft start	O	O
	Test function	X	X
Convenience	Night Silent Operation	O	O
network function	Network solution(LGAP)	O	O

Device		AUUW368D2 [UU37W UO2]	AUUW428D2 [UU43W U32]
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0
	AC Smart II	PQCSW320A1E	PQCSW320A1E
	Option Kit (SD card type)	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E	PQCSS520A0E
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
BNU (Building Network Unit)	DO(Digital Output) Kit	PQNFP00T0	PQNFP00T0
	LONWORKS Gateway	PQNFB16A1	PQNFB16A1
Installation	BACnet Gateway	PQNFB17B0	PQNFB17B0
	Y branch	X	X
Installation	Header branch	X	X
	Air Guide	X	X
ODU Dry Contact		O (On/off control)	O (On/off control)
Low Ambient Kit		O (Logical operation)	O (Logical operation)

[Note]

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1. DC Inverter SINGLE A (1Ø, 3Ø)

Category	Functions	AUUW488D2 [UU49W U32]	AUUW608D2 [UU61W U32]
Reliability	Defrost / Deicing	O	O
	High pressure switch	X	X
	Low pressure switch	X	X
	Phase protection	O	O
	Restart delay (3-minutes)	O	O
	Self diagnosis	O	O
	Soft start	O	O
	Test function	X	X
Convenience	Night Silent Operation	O	O
network function	Network solution(LGAP)	O	O

Device		AUUW488D2 [UU49W U32]	AUUW608D2 [UU61W U32]
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0
	AC Smart II	PQCSW320A1E	PQCSW320A1E
	Option Kit (SD card type)	PQCSE341A0 / PQCSE342A0	PQCSE341A0 / PQCSE342A0
	ACP(Advanced Control Platform)	PQCPA11A0E / PQCPB11A0E	PQCPA11A0E / PQCPB11A0E
	AC Manager	PQCSS520A0E	PQCSS520A0E
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
	DO(Digital Output) Kit	PQNFP00T0	PQNFP00T0
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1	PQNFB16A1
	BACnet Gateway	PQNFB17B0	PQNFB17B0
Installation	Y branch	X	X
	Header branch	X	X
	Air Guide	X	X
ODU Dry Contact		O (On/off control)	O (On/off control)
Low Ambient Kit		O (Logical operation)	O (Logical operation)

[Note]

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1. DC Inverter SINGLE A (1Ø, 3Ø)

1.3 Specifications

DC Inverter SINGLE A (1Ø)

Combination	Outdoor unit			AUUW096D [UU09W ULD]	AUUW096D [UU09W ULD]
	Indoor unit			ATNH09GRLE2 [CT09 NR2]	ABNH09GL1A2 [CB09L N12]
Capacity	Cooling	Min.~Rated~Max.	kW	1.00 ~ 2.50 ~ 2.75	1.10 ~ 2.50 ~ 3.20
		Min.~Rated~Max.	Btu/h	3,400 ~ 8,500 ~ 9,400	3,800 ~ 8,500 ~ 10,900
	Heating	Min.~Rated~Max.	kW	1.20 ~ 3.00 ~ 3.30	1.20 ~ 3.20 ~ 3.60
		Min.~Rated~Max.	Btu/h	4,100 ~ 10,200 ~ 11,300	4,100 ~ 10,900 ~ 12,300
Power Input	Cooling	Rated	kW	0.75	0.70
	Heating	Rated	kW	0.81	0.90
Running Current	Cooling	Rated	A	3.26	3.10
	Heating	Rated	A	3.52	4.00
SEER / SCOP			Wh / Wh	5.11 / 3.81	5.11 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	172 / 1,032	172 / 1,032

Combination	Outdoor unit			AUUW096D [UU09W ULD]	AUUW096D [UU09W ULD]
	Indoor unit			AVNH09GELA2 [CV09 NE2]	AQNH09GALA0 [CQ09 NA0]
Capacity	Cooling	Min.~Rated~Max.	kW	1.00 ~ 2.50 ~ 2.75	1.30 ~ 2.55 ~ 3.40
		Min.~Rated~Max.	Btu/h	3,400 ~ 8,500 ~ 9,400	4,400 ~ 8,700 ~ 11,600
	Heating	Min.~Rated~Max.	kW	1.20 ~ 3.00 ~ 3.30	1.36 ~ 3.10 ~ 4.20
		Min.~Rated~Max.	Btu/h	4,100 ~ 10,200 ~ 11,300	4,600 ~ 10,600 ~ 14,300
Power Input	Cooling	Rated	kW	0.75	0.64
	Heating	Rated	kW	0.83	0.74
Running Current	Cooling	Rated	A	3.26	3.42
	Heating	Rated	A	3.61	3.87
SEER / SCOP			Wh / Wh	5.11 / 3.51	5.11 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	172 / 1,120	172 / 1,032

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW126D [UU12W ULD]	AUUW126D [UU12W ULD]
	Indoor unit			ATNH12GRLE2 [CT12 NR2]	ABNH12GL2A2 [CB12L N22]
Capacity	Cooling	Min.~Rated~Max.	kW	1.36 ~ 3.40 ~ 3.74	1.40 ~ 3.40 ~ 3.70
		Min.~Rated~Max.	Btu/h	4,600 ~ 11,600 ~ 12,800	4,800 ~ 11,600 ~ 12,600
	Heating	Min.~Rated~Max.	kW	1.60 ~ 4.00 ~ 4.40	1.60 ~ 4.00 ~ 4.50
		Min.~Rated~Max.	Btu/h	5,500 ~ 13,600 ~ 15,000	5,500 ~ 13,600 ~ 15,400
Power Input	Cooling	Rated	kW	1.06	1.00
	Heating	Rated	kW	1.10	1.00
Running Current	Cooling	Rated	A	4.61	4.30
	Heating	Rated	A	4.78	4.60
SEER / SCOP			Wh / Wh	5.61 / 3.91	5.61 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A+ / A	A+ / A
Annual Energy Consumption	Cooling / Heating		kWh	213 / 1,077	213 / 1,105

Combination	Outdoor unit			AUUW126D [UU12W ULD]	AUUW126D [UU12W ULD]
	Indoor unit			AVNH12GELA2 [CV12 NE2]	AQNH12GALA0 [CQ12 NA0]
Capacity	Cooling	Min.~Rated~Max.	kW	1.32 ~ 3.30 ~ 3.63	1.36 ~ 3.50 ~ 3.74
		Min.~Rated~Max.	Btu/h	4,500 ~ 11,300 ~ 12,400	4,600 ~ 11,600 ~ 12,800
	Heating	Min.~Rated~Max.	kW	1.52 ~ 3.80 ~ 4.18	1.60 ~ 4.00 ~ 4.40
		Min.~Rated~Max.	Btu/h	5,200 ~ 13,000 ~ 14,300	5,500 ~ 13,600 ~ 15,000
Power Input	Cooling	Rated	kW	1.09	1.06
	Heating	Rated	kW	1.18	1.08
Running Current	Cooling	Rated	A	4.74	5.02
	Heating	Rated	A	5.13	5.03
SEER / SCOP			Wh / Wh	5.31 / 3.61	5.31 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	218 / 1,167	231 / 1,105

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW186D2 [UU18W UE2]	AUUW186D2 [UU18W UE2]	AUUW186D2 [UU18W UE2]
	Indoor unit			ATNH18GQLE2 [CT18 NQ2]	ABNH18GH2A2 [CB18 NH2]	ABNH18GL2A2 [CB18L N22]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	2.00 ~ 4.70 ~ 5.50	1.98 ~ 4.95 ~ 5.44	2.00 ~ 5.00 ~ 6.00
		Min. ~ Rated ~ Max.	Btu/h	6,800 ~ 16,000 ~ 18,800	6,800 ~ 16,900 ~ 18,600	6,800 ~ 17,100 ~ 20,500
	Heating	Min. ~ Rated ~ Max.	kW	2.20 ~ 5.50 ~ 6.05	2.40 ~ 6.00 ~ 6.60	2.20 ~ 6.00 ~ 7.30
		Min. ~ Rated ~ Max.	Btu/h	7,500 ~ 18,800 ~ 20,600	8,200 ~ 20,500 ~ 22,500	7,500 ~ 20,500 ~ 24,900
Power Input	Cooling	Rated	kW	1.46	1.54	1.60
	Heating	Rated	kW	1.52	1.66	1.80
Running Current	Cooling	Rated	A	6.30	6.70	7.00
	Heating	Rated	A	6.60	7.20	7.70
SEER / SCOP			Wh / Wh	4.81 / 3.81	4.61 / 3.81	4.61 / 3.81
Seasonal Energy Label	Cooling / Heating		-	B / A	B / A	B / A
Annual Energy Consumption	Cooling / Heating		kWh	343 / 1,474	377 / 1,400	377 / 1,400

Combination	Outdoor unit			AUUW186D2 [UU18W UE2]	AUUW186D2 [UU18W UE2]
	Indoor unit			UVNH18GJLA2 [CV18 NJ2]	AQNH18GALA0 [CQ18 NA0]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	1.92 ~ 4.80 ~ 5.28	2.00 ~ 4.60 ~ 5.50
		Min. ~ Rated ~ Max.	Btu/h	6,600 ~ 16,400 ~ 18,000	6,800 ~ 15,700 ~ 18,800
	Heating	Min. ~ Rated ~ Max.	kW	2.04 ~ 5.00 ~ 5.61	2.20 ~ 4.80 ~ 6.00
		Min. ~ Rated ~ Max.	Btu/h	7,000 ~ 17,100 ~ 19,100	7,500 ~ 16,400 ~ 20,500
Power Input	Cooling	Rated	kW	1.41	1.49
	Heating	Rated	kW	1.46	1.40
Running Current	Cooling	Rated	A	6.10	6.50
	Heating	Rated	A	6.30	6.10
SEER / SCOP			Wh / Wh	5.11 / 3.81	4.71 / 3.51
Seasonal Energy Label	Cooling / Heating		-	A / A	B / A
Annual Energy Consumption	Cooling / Heating		kWh	329 / 1,474	357 / 1,520

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW246D2 [UU24W U42]	AUUW246D2 [UU24W U42]
	Indoor unit			ATNH24GPLE2 [CT24 NP2]	ABNH24GHLA2 [CB24 NH2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	2.84 ~ 7.10 ~ 7.81	2.84 ~ 7.10 ~ 7.81
		Min. ~ Rated ~ Max.	Btu/h	9,700 ~ 24,200 ~ 26,700	9,700 ~ 24,200 ~ 26,700
	Heating	Min. ~ Rated ~ Max.	kW	3.20 ~ 8.00 ~ 8.80	3.20 ~ 8.00 ~ 8.80
		Min. ~ Rated ~ Max.	Btu/h	10,900 ~ 27,300 ~ 30,000	10,900 ~ 27,300 ~ 30,000
Power Input	Cooling	Rated	kW	1.92	2.36
	Heating	Rated	kW	2.21	2.49
Running Current	Cooling	Rated	A	8.30	10.30
	Heating	Rated	A	9.60	10.80
SEER / SCOP			Wh / Wh	6.11 / 3.81	5.11 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A++ / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	407 / 2,395	487 / 2,211

Combination	Outdoor unit			AUUW246D2 [UU24W U42]	AUUW246D2 [UU24W U42]
	Indoor unit			ABNH24GL3A2 [CB24L N32]	UVNH24GJLA2 [CV24 NJ2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	4.00 ~ 7.10 ~ 7.70	2.80 ~ 7.00 ~ 7.70
		Min. ~ Rated ~ Max.	Btu/h	13,600 ~ 24,200 ~ 26,300	9,600 ~ 23,900 ~ 26,300
	Heating	Min. ~ Rated ~ Max.	kW	2.40 ~ 8.00 ~ 8.80	3.08 ~ 7.60 ~ 8.47
		Min. ~ Rated ~ Max.	Btu/h	8,200 ~ 27,300 ~ 30,000	10,500 ~ 25,900 ~ 28,900
Power Input	Cooling	Rated	kW	2.40	2.18
	Heating	Rated	kW	2.20	2.37
Running Current	Cooling	Rated	A	10.30	9.50
	Heating	Rated	A	9.60	10.30
SEER / SCOP			Wh / Wh	5.11 / 3.81	5.51 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	487 / 2,137	433 / 2,137

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW306D2 [UU30W U42]	AUUW306D2 [UU30W U42]	AUUW306D2 [UU30W U42]
	Indoor unit			ATNH30GPLE2 [UT30 NP2]	ABNH30GGLA2 [UB30 NG2]	UVNH30GJLA2 [UV30 NJ2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	3.20 ~ 8.00 ~ 8.80	3.20 ~ 8.00 ~ 8.80	3.04 ~ 7.60 ~ 8.36
		Min. ~ Rated ~ Max.	Btu/h	10,900 ~ 27,300 ~ 30,000	10,900 ~ 27,300 ~ 30,000	10,400 ~ 25,900 ~ 28,500
	Heating	Min. ~ Rated ~ Max.	kW	3.60 ~ 9.00 ~ 9.90	3.60 ~ 9.00 ~ 9.90	3.36 ~ 8.20 ~ 9.24
		Min. ~ Rated ~ Max.	Btu/h	12,300 ~ 30,700 ~ 33,800	12,300 ~ 30,700 ~ 33,800	11,500 ~ 28,000 ~ 31,500
Power Input	Cooling	Rated	kW	2.49	2.28	2.52
	Heating	Rated	kW	2.72	2.49	2.72
Running Current	Cooling	Rated	A	10.80	9.90	11.00
	Heating	Rated	A	11.80	10.80	11.80
SEER / SCOP			Wh / Wh	6.11 / 3.81	5.61 / 3.81	5.31 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A++ / A	A+ / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	459 / 2,505	500 / 2,579	502 / 2,321

Combination	Outdoor unit			AUUW366D2 [UU36W UO2]	AUUW366D2 [UU36W UO2]	AUUW366D2 [UU36W UO2]
	Indoor unit			ATNH36GNLE2 [UT36 NN2]	ABNH36GGLA2 [UB36 NG2]	UVNH36GKLA2 [UV36 NK2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	4.00 ~ 10.0 ~ 11.0	4.00 ~ 10.0 ~ 11.0	3.80 ~ 9.50 ~ 10.5
		Min. ~ Rated ~ Max.	Btu/h	13,600 ~ 34,100 ~ 37,500	13,600 ~ 34,100 ~ 37,500	13,000 ~ 32,400 ~ 35,800
	Heating	Min. ~ Rated ~ Max.	kW	4.40 ~ 11.0 ~ 12.1	4.48 ~ 11.2 ~ 12.3	4.20 ~ 10.5 ~ 11.6
		Min. ~ Rated ~ Max.	Btu/h	15,000 ~ 37,500 ~ 41,300	15,300 ~ 38,200 ~ 42,000	14,300 ~ 35,800 ~ 39,600
Power Input	Cooling	Rated	kW	2.82	3.06	2.78
	Heating	Rated	kW	3.09	3.20	3.08
Running Current	Cooling	Rated	A	12.30	13.30	12.10
	Heating	Rated	A	13.40	13.90	13.40
SEER / SCOP			Wh / Wh	5.41 / 3.81	5.11 / 3.81	5.11 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	A / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	648 / 2,800	686 / 2,800	652 / 2,800

Note :

- All data 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 = 5m
 - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW426D2 [UU42W U32]	AUUW426D2 [UU42W U32]	AUUW426D2 [UU42W U32]
	Indoor unit			ATNH42GMLE2 [UT42 NM2]	ABNH42GRLA2 [UB42 NR2]	UVNH42GLLA2 [UV42 NL2]
Capacity	Cooling	Min.~Rated~Max.	kW	5.00 ~ 12.5 ~ 13.8	5.00 ~ 12.5 ~ 13.8	5.00 ~ 12.5 ~ 13.8
		Min.~Rated~Max.	Btu/h	17,100 ~ 42,700 ~ 47,100	17,100 ~ 42,700 ~ 47,100	17,100 ~ 42,700 ~ 47,100
	Heating	Min.~Rated~Max.	kW	5.00 ~ 14.0 ~ 15.4	5.60 ~ 14.0 ~ 15.4	5.60 ~ 13.6 ~ 15.4
		Min.~Rated~Max.	Btu/h	17,100 ~ 47,800 ~ 52,600	19,100 ~ 47,800 ~ 52,600	19,100 ~ 46,400 ~ 52,600
Power Input	Cooling	Rated	kW	3.89	3.89	3.89
	Heating	Rated	kW	3.88	3.49	3.68
Running Current	Cooling	Rated	A	16.90	16.90	16.90
	Heating	Rated	A	16.90	15.20	16.00
SEER / SCOP			Wh / Wh	-	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-	-

Combination	Outdoor unit			AUUW486D2 [UU48W U32]	AUUW486D2 [UU48W U32]
	Indoor unit			ATNH48GMLE2 [UT48 NM2]	ABNH48GRLA2 [UB48 NR2]
Capacity	Cooling	Min.~Rated~Max.	kW	5.48 ~ 13.9 ~ 15.7	5.60 ~ 14.0 ~ 15.4
		Min.~Rated~Max.	Btu/h	18,700 ~ 47,400 ~ 53,600	19,100 ~ 47,800 ~ 52,600
	Heating	Min.~Rated~Max.	kW	6.40 ~ 15.4 ~ 17.6	6.60 ~ 16.4 ~ 18.2
		Min.~Rated~Max.	Btu/h	21,800 ~ 52,600 ~ 60,100	22,500 ~ 56,000 ~ 62,100
Power Input	Cooling	Rated	kW	4.62	4.36
	Heating	Rated	kW	4.51	4.42
Running Current	Cooling	Rated	A	20.10	19.00
	Heating	Rated	A	19.60	19.20
SEER / SCOP			Wh / Wh	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW486D2 [UU48W U32]	AUUW486D2 [UU48W U32]
	Indoor unit			UVNH48GLLA2 [UV48 NL2]	APNH48GTLA0 [UP48 NT2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	5.32 ~ 13.3 ~ 14.6	6.00 ~ 13.4 ~ 15.2
		Min. ~ Rated ~ Max.	Btu/h	18,200 ~ 45,400 ~ 49,800	20,500 ~ 45,700 ~ 51,900
	Heating	Min. ~ Rated ~ Max.	kW	6.40 ~ 15.3 ~ 17.6	6.00 ~ 15.5 ~ 17.1
		Min. ~ Rated ~ Max.	Btu/h	21,800 ~ 52,200 ~ 60,100	20,500 ~ 52,900 ~ 58,300
Power Input	Cooling	Rated	kW	4.28	4.20
	Heating	Rated	kW	4.49	4.50
Running Current	Cooling	Rated	A	18.60	18.10
	Heating	Rated	A	19.50	19.50
SEER / SCOP			Wh / Wh	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-

Combination	Outdoor unit			AUUW606D2 [UU60W U32]	AUUW606D2 [UU60W U32]	AUUW606D2 [UU60W U32]
	Indoor unit			ATNH60GMLE2 [UT60 NM2]	ABNH60GRLA2 [UB60 NR2]	UVNH60GLLA2 [UV60 NL2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	5.92 ~ 14.6 ~ 16.3	5.92 ~ 14.8 ~ 16.3	5.72 ~ 14.4 ~ 15.7
		Min. ~ Rated ~ Max.	Btu/h	20,200 ~ 49,800 ~ 55,600	20,200 ~ 50,500 ~ 55,600	19,500 ~ 49,100 ~ 53,600
	Heating	Min. ~ Rated ~ Max.	kW	6.80 ~ 16.9 ~ 18.7	6.80 ~ 16.8 ~ 18.7	6.80 ~ 16.8 ~ 18.7
		Min. ~ Rated ~ Max.	Btu/h	23,200 ~ 57,700 ~ 63,800	23,200 ~ 57,300 ~ 63,800	23,200 ~ 57,300 ~ 63,800
Power Input	Cooling	Rated	kW	5.40	5.09	5.24
	Heating	Rated	kW	5.50	4.53	5.42
Running Current	Cooling	Rated	A	23.50	22.10	22.80
	Heating	Rated	A	23.90	19.70	23.60
SEER / SCOP			Wh / Wh	-	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-	-

Note :

- All data 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 = 5m
 - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

DC Inverter SINGLE A (3Ø)

Combination	Outdoor unit		AUW368D2 [UU37W UO2]	AUW368D2 [UU37W UO2]	AUW368D2 [UU37W UO2]	
	Indoor unit		ATNH36GNLE2 [UT36 NN2]	ABNH36GGLA2 [UB36 NG2]	UVNH36GKLA2 [UV36 NK2]	
Capacity	Cooling	Min.~Rated~Max.	kW	4.00 ~ 10.0 ~ 11.0	4.00 ~ 10.0 ~ 11.0	3.80 ~ 9.50 ~ 10.5
		Min.~Rated~Max.	Btu/h	13,600 ~ 34,100 ~ 37,500	13,600 ~ 34,100 ~ 37,500	13,000 ~ 32,400 ~ 35,800
	Heating	Min.~Rated~Max.	kW	4.40 ~ 11.0 ~ 12.1	4.48 ~ 11.2 ~ 12.3	4.20 ~ 10.5 ~ 11.6
		Min.~Rated~Max.	Btu/h	15,000 ~ 37,500 ~ 41,300	15,300 ~ 38,200 ~ 42,000	14,300 ~ 35,800 ~ 39,600
Power Input	Cooling	Rated	kW	2.82	3.06	2.78
	Heating	Rated	kW	3.09	3.2	3.08
Running Current	Cooling	Rated	A	4.1	4.4	4.0
	Heating	Rated	A	4.4	4.6	4.4
SEER / SCOP			Wh / Wh	5.41 / 3.81	4.71 / 3.81	5.11 / 3.81
Seasonal Energy Label	Cooling / Heating		-	A / A	B / A	A / A
Annual Energy Consumption	Cooling / Heating		kWh	648 / 2,800	745 / 2,800	652 / 2,800

Combination	Outdoor unit		AUW428D2 [UU43W U32]	AUW428D2 [UU43W U32]	AUW428D2 [UU43W U32]	
	Indoor unit		ATNH42GMLE2 [UT42 NM2]	ABNH42GRLA2 [UB42 NR2]	UVNH42GLLA2 [UV42 NL2]	
Capacity	Cooling	Min.~Rated~Max.	kW	5.00 ~ 12.5 ~ 13.8	5.00 ~ 12.5 ~ 13.8	5.00 ~ 12.5 ~ 13.8
		Min.~Rated~Max.	Btu/h	17,100 ~ 42,700 ~ 47,100	17,100 ~ 42,700 ~ 47,100	17,100 ~ 42,700 ~ 47,100
	Heating	Min.~Rated~Max.	kW	5.00 ~ 14.0 ~ 15.4	5.60 ~ 14.0 ~ 15.4	5.60 ~ 13.6 ~ 15.4
		Min.~Rated~Max.	Btu/h	17,100 ~ 47,800 ~ 52,600	19,100 ~ 47,800 ~ 52,600	19,100 ~ 46,400 ~ 52,600
Power Input	Cooling	Rated	kW	3.89	3.89	3.89
	Heating	Rated	kW	3.88	3.49	3.68
Running Current	Cooling	Rated	A	5.6	5.6	5.6
	Heating	Rated	A	5.6	5.0	5.3
SEER / SCOP			Wh / Wh	-	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-	-

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW488D2 [UU49W U32]	AUUW488D2 [UU49W U32]
	Indoor unit			ATNH48GMLE2 [UT48 NM2]	ABNH48GRLA2 [UB48 NR2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	5.48 ~ 13.9 ~ 15.7	5.60 ~ 14.0 ~ 15.4
		Min. ~ Rated ~ Max.	Btu/h	18,700 ~ 47,400 ~ 53,600	19,100 ~ 47,800 ~ 52,600
	Heating	Min. ~ Rated ~ Max.	kW	6.40 ~ 15.3 ~ 17.6	6.60 ~ 16.4 ~ 18.2
		Min. ~ Rated ~ Max.	Btu/h	21,800 ~ 52,200 ~ 60,100	22,500 ~ 56,000 ~ 62,100
Power Input	Cooling	Rated	kW	4.62	4.36
	Heating	Rated	kW	4.49	4.42
Running Current	Cooling	Rated	A	6.70	6.30
	Heating	Rated	A	6.50	6.40
SEER / SCOP			Wh / Wh	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-

Combination	Outdoor unit			AUUW488D2 [UU49W U32]	AUUW488D2 [UU49W U32]
	Indoor unit			UVNH48GLLA2 [UV48 NL2]	APNH48GTLA0 [UP48 NT2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	5.32 ~ 13.3 ~ 14.6	6.00 ~ 13.4 ~ 15.2
		Min. ~ Rated ~ Max.	Btu/h	18,200 ~ 45,400 ~ 49,800	20,500 ~ 45,700 ~ 51,900
	Heating	Min. ~ Rated ~ Max.	kW	6.40 ~ 15.3 ~ 17.6	6.00 ~ 15.5 ~ 17.1
		Min. ~ Rated ~ Max.	Btu/h	21,800 ~ 52,200 ~ 60,100	20,500 ~ 52,900 ~ 58,300
Power Input	Cooling	Rated	kW	4.28	4.20
	Heating	Rated	kW	4.49	4.50
Running Current	Cooling	Rated	A	6.20	5.76
	Heating	Rated	A	6.50	6.20
SEER / SCOP			Wh / Wh	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-

Note :

1. All data 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 = 5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

2. Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Combination	Outdoor unit			AUUW608D2 [UU61W U32]	AUUW608D2 [UU61W U32]	AUUW608D2 [UU61W U32]
	Indoor unit			ATNH60GMLE2 [UT60 NM2]	ABNH60GRLA2 [UB60 NR2]	UVNH60GLLA2 [UV60 NL2]
Capacity	Cooling	Min. ~ Rated ~ Max.	kW	5.92 ~ 14.6 ~ 16.3	5.92 ~ 14.8 ~ 16.3	5.72 ~ 14.4 ~ 15.7
		Min. ~ Rated ~ Max.	Btu/h	20,200 ~ 49,800 ~ 55,600	20,200 ~ 50,500 ~ 55,600	19,500 ~ 49,100 ~ 53,600
	Heating	Min. ~ Rated ~ Max.	kW	6.80 ~ 16.9 ~ 18.7	6.80 ~ 16.8 ~ 18.7	6.80 ~ 16.8 ~ 18.7
		Min. ~ Rated ~ Max.	Btu/h	23,200 ~ 57,700 ~ 63,800	23,200 ~ 57,300 ~ 63,800	23,200 ~ 57,300 ~ 63,800
Power Input	Cooling	Rated	kW	5.40	5.09	5.24
	Heating	Rated	kW	5.50	4.53	5.42
Running Current	Cooling	Rated	A	7.8	7.3	7.6
	Heating	Rated	A	8.0	6.5	7.9
SEER / SCOP			Wh / Wh	-	-	-
Seasonal Energy Label	Cooling / Heating		-	-	-	-
Annual Energy Consumption	Cooling / Heating		kWh	-	-	-

Note :

- All data 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 = 5m
 - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- Due to our policy of innovation some specifications may be changed without notification.

1. DC Inverter SINGLE A (1Ø, 3Ø)

DC Inverter SINGLE A (1Ø)

Outdoor unit			AUUW096D [UU09W ULD]	AUUW126D [UU12W ULD]	AUUW186D2 [UU18W UE2]
Power Supply			V, Ø, Hz	220-240 / 1 / 50	220-240 / 1 / 50
Starting Current	Cooling	Max.	A	-	-
	Heating	Max.	A	-	-
Wiring Connections			Power Supply Cable (included Earth)	No. x mm ² (AWG)	3C x 2.5 (12)
Casing Color			-	Warm Gray	Warm Gray
Dimensions	W x H x D		mm	770 x 540 x 245	770 x 540 x 245
	W x H x D		inch	30-5/16 x 21-1/4 x 9-21/32	30-5/16 x 21-1/4 x 9-21/32
Net Weight			kg (lbs)	32.0 (70.5)	32.0 (70.5)
Compressor	Type		-	Rotary	Rotary
	Model		Model x No.	5RS102XAA21 x 1	5RS102XAA21 x 1
	Motor type		-	BLDC	BLDC
	Motor Output		W x No.	1,300 x 1	1,300 x 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount		g (oz)	1,000 (35.3)	1,000 (35.3)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	20 (0.22)	20 (0.22)
	Control		-	Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant Oil	Type		-	FV50S	FV50S
	Charged volume		cc x No.	320 x 1	320 x 1
Heat Exchanger			(Row x Column x Fins per inch) x No.	(2 x 24 x 17) x 1	(2 x 24 x 17) x 1
Fan	Type		-	Propeller	Propeller
	Air Flow Rate		m ³ /min x No.	32 x 1	32 x 1
Fan Motor	Type		-	BLDC	BLDC
	Output		W x No.	43.0 x 1	43.0 x 1
Sound Pressure Level	Cooling	Rated	dB(A)	47	47
	Heating	Rated	dB(A)	48	48
Sound Power Level	Cooling	Max.	dB(A)	56	57
	Piping Connections		Outer Dia.	mm(inch)	Ø 6.35 (1/4)	Ø 6.35 (1/4)
Piping Length	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
Piping Length			Max.	m (ft)	15 (49.2)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit		Max.	m (ft)	10 (32.8)
	Operation Range (Outdoor Temperature)		Min. ~ Max.	°C DB (°F DB)	-10 (14) ~ 43 (109.4)	-10 (14) ~ 43 (109.4)
Operation Range (Outdoor Temperature)			Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)

Note :

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.

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

1. DC Inverter SINGLE A (1Ø, 3Ø)

Outdoor unit				AUUW246D2 [UU24W U42]	AUUW306D2 [UU30W U42]	AUUW366D2 [UU36W UO2]
Power Supply			V, Ø, Hz	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50
Starting Current	Cooling	Max.	A	-	-	-
	Heating	Max.	A	-	-	-
Wiring Connections	Power Supply Cable (included Earth)		No. x mm ² (AWG)	3C x 2.5 (12)	3C x 2.5 (12)	3C x 5.0 (8)
Casing Color			-	Warm Gray	Warm Gray	Warm Gray
Dimensions	W x H x D		mm	950 x 834 x 330	950 x 834 x 330	950 x 1,170 x 330
	W x H x D		inch	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 46-1/16 x 13
Net Weight			kg (lbs)	60.0 (132.3)	60.0 (132.3)	81.0 (178.6)
Compressor	Type		-	Twin Rotary	Twin Rotary	Twin Rotary
	Model		Model x No.	GJT240MAA x 1	GJT240MAA x 1	GPT442MBA x 1
	Motor type		-	BLDC	BLDC	BLDC
	Motor Output		W x No.	2,137 x 1	2,137 x 1	4,000 x 1
Refrigerant	Type		-	R410A	R410A	R410A
	Precharged Amount		g (oz)	2,000 (70.5)	2,000 (70.5)	2,800 (98.8)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)	7.5 (24.6)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	40 (0.43)	40 (0.43)	40 (0.43)
	Control		-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant Oil	Type		-	FVC68D	FVC68D	FVC68D
	Charged volume		cc x No.	900 x 1	900 x 1	1,300 x 1
Heat Exchanger	#1_(Row x Column x Fins per inch) x No.			(2 x 38 x 14) x 1	(2 x 38 x 14) x 1	(2 x 32 x 14) x 1
	#2_(Row x Column x Fins per inch) x No.			-	-	(2 x 22 x 14) x 1
Fan	Type		-	Propeller	Propeller	Propeller
	Air Flow Rate		m ³ /min x No.	58 x 1	58 x 1	45 x 2
Fan Motor	Type			BLDC	BLDC	BLDC
	Output		W x No.	124 x 1	124 x 1	85.4 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	48	48	53
	Heating	Rated	dB(A)	52	52	54
Sound Power Level	Cooling	Max.	dB(A)	62	65	66
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Piping Length		Max.	m (ft)	50 (164.0)	50 (164.0)	50 (164.0)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)	30 (98.4)	30 (98.4)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)

Note :

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.
Therefore, these values can be increased owing to ambient conditions during operation.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Outdoor unit				AUUW426D2 [UU42W U32]	AUUW486D2 [UU48W U32]	AUUW606D2 [UU60W U32]
Power Supply			V, Ø, Hz	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50
Starting Current	Cooling	Max.	A	-	-	-
	Heating	Max.	A	-	-	-
Wiring Connections		Power Supply Cable (included Earth)	No. x mm ² (AWG)	3C x 5.0 (8)	3C x 5.0 (8)	3C x 5.0 (8)
Casing Color			-	Warm Gray	Warm Gray	Warm Gray
Dimensions		W x H x D	mm	950 x 1,380 x 330	950 x 1,380 x 330	950 x 1,380 x 330
		W x H x D	inch	37-13/32 x 54-11/32 x 13	37-13/32 x 54-11/32 x 13	37-13/32 x 54-11/32 x 13
Net Weight			kg (lbs)	92.0 (202.8)	92.0 (202.8)	92.0 (202.8)
Compressor	Type		-	Twin Rotary	Twin Rotary	Twin Rotary
	Model		Model x No.	GPT442MBA x 1	GPT442MBA x 1	GPT442MBA x 1
	Motor type		-	BLDC	BLDC	BLDC
	Motor Output		W x No.	4,000 x 1	4,000 x 1	4,000 x 1
Refrigerant	Type		-	R410A	R410A	R410A
	Precharged Amount		g (oz)	3,400 (119.9)	3,400 (119.9)	3,400 (119.9)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)	7.5 (24.6)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	40 (0.43)	40 (0.43)	40 (0.43)
Control		-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
Refrigerant Oil	Type		-	FVC68D	FVC68D	FVC68D
	Charged volume		cc x No.	1,300 x 1	1,300 x 1	1,300 x 1
Heat Exchanger			(Row x Column x Fins per inch) x No.	(2 x 32 x 14) x 2	(2 x 32 x 14) x 2	(2 x 32 x 14) x 2
Fan	Type		-	Propeller	Propeller	Propeller
	Air Flow Rate		m ³ /min x No.	55 x 2	55 x 2	55 x 2
Fan Motor	Type		-	BLDC	BLDC	BLDC
	Output		W x No.	124 x 2	124 x 2	124 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	52	52	52
	Heating	Rated	dB(A)	54	54	54
Sound Power Level	Cooling	Max.	dB(A)	67	68	71
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Piping Length		Max.	m (ft)	75 (246.1)	75 (246.1)	75 (246.1)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)	30 (98.4)	30 (98.4)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)

Note :

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.

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

1. DC Inverter SINGLE A (1Ø, 3Ø)

DC Inverter SINGLE A (3Ø)

Outdoor unit				AUUW368D2 [UU37W UO2]	AUUW428D2 [UU43W U32]
Power Supply			V, Ø, Hz	380-415 / 3 / 50	380-415 / 3 / 50
Starting Current	Cooling	Max.	A	-	-
	Heating	Max.	A	-	-
Wiring Connections		Power Supply Cable (included Earth)	No. x mm ² (AWG)	5C x 2.5 (12)	5C x 2.5 (12)
Casing Color			-	Warm Gray	Warm Gray
Dimensions		W x H x D	mm	950 x 1,170 x 330	950 x 1,380 x 330
		W x H x D	inch	37-13/32 x 46-1/16 x 13	37-13/32 x 54-11/32 x 13
Net Weight			kg (lbs)	85.0 (187.4)	96.0 (211.6)
Compressor	Type		-	Twin Rotary	Twin Rotary
	Model		Model x No.	GPT442MAA x 1	GPT442MAA x 1
	Motor type		-	BLDC	BLDC
	Motor Output		W x No.	4,000 x 1	4,000 x 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount		g (oz)	2,800 (98.8)	3,400 (119.9)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	40 (0.43)	40 (0.43)
Control			-	Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant Oil	Type		-	FVC68D	FVC68D
	Charged volume		cc x No.	1,300 x 1	1,300 x 1
Heat Exchanger	#1_(Row x Column x Fins per inch) x No.			(2 x 32 x 14) x 1	(2 x 32 x 14) x 2
	#2_(Row x Column x Fins per inch) x No.			(2 x 22 x 14) x 1	-
Fan	Type		-	Propeller	Propeller
	Air Flow Rate		m ³ /min x No.	45 x 2	55 x 2
Fan Motor	Type			BLDC	BLDC
	Output		W x No.	85.4 x 2	124 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	53	52
	Heating	Rated	dB(A)	54	54
Sound Power Level	Cooling	Max.	dB(A)	66	67
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Piping Length		Max.	m (ft)	50 (164.0)	75 (246.1)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)	30 (98.4)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)

Note :

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.
Therefore, these values can be increased owing to ambient conditions during operation.

1. DC Inverter SINGLE A (1Ø, 3Ø)

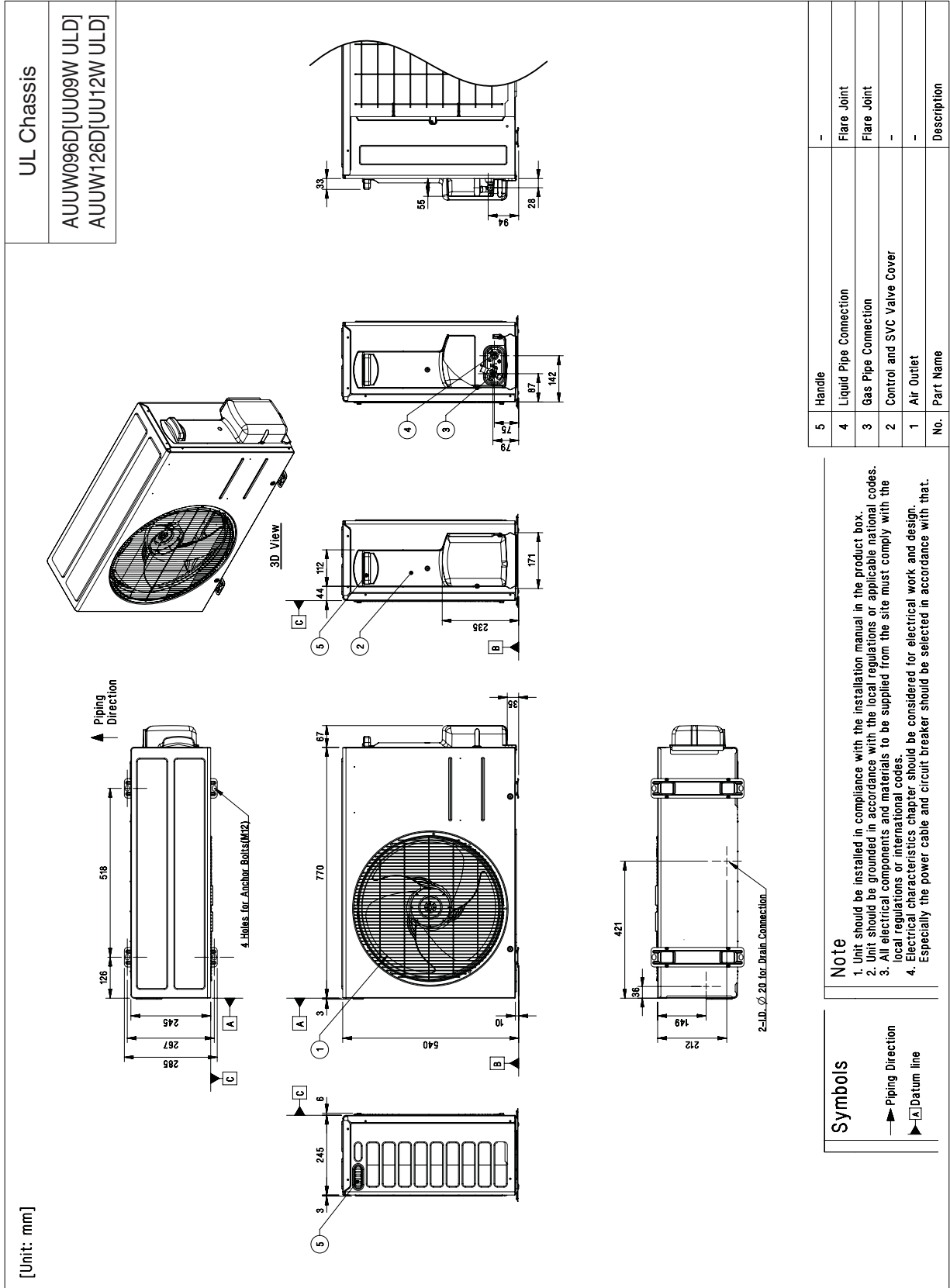
Outdoor unit				AUUW488D2 [UU49W U32]	AUUW608D2 [UU61W U32]
Power Supply			V, Ø, Hz	380-415 / 3 / 50	380-415 / 3 / 50
Starting Current	Cooling	Max.	A	-	-
	Heating	Max.	A	-	-
Wiring Connections		Power Supply Cable (included Earth)	No. x mm ² (AWG)	5C x 2.5 (12)	5C x 2.5 (12)
Casing Color			-	Warm Gray	Warm Gray
Dimensions		W x H x D	mm	950 x 1,380 x 330	950 x 1,380 x 330
		W x H x D	inch	37-13/32 x 54-11/32 x 13	37-13/32 x 54-11/32 x 13
Net Weight			kg (lbs)	96.0 (211.6)	96.0 (211.6)
Compressor	Type		-	Twin Rotary	Twin Rotary
	Model		Model x No.	GPT442MAA x 1	GPT442MAA x 1
	Motor type		-	BLDC	BLDC
	Motor Output		W x No.	4,000 x 1	4,000 x 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount		g (oz)	3,400 (119.9)	3,400 (119.9)
	Chargeless-Pipe Length		m (ft)	7.5 (24.6)	7.5 (24.6)
	Additional Charging Volume		g/m (oz/ft)	40 (0.43)	40 (0.43)
Control		-	Electronic Expansion Valve	Electronic Expansion Valve	
Refrigerant Oil	Type		-	FVC68D	FVC68D
	Charged volume		cc x No.	1,300 x 1	1,300 x 1
Heat Exchanger			(Row x Column x Fins per inch) x No.	(2 x 32 x 14) x 2	(2 x 32 x 14) x 2
Fan	Type		-	Propeller	Propeller
	Air Flow Rate		m ³ /min x No.	55 x 2	55 x 2
Fan Motor	Type		-	BLDC	BLDC
	Output		W x No.	124 x 2	124 x 2
Sound Pressure Level	Cooling	Rated	dB(A)	52	52
	Heating	Rated	dB(A)	54	54
Sound Power Level	Cooling	Max.	dB(A)	68	71
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Gas	Outer Dia.	mm(inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Piping Length		Max.	m (ft)	75 (246.1)	75 (246.1)
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	30 (98.4)	30 (98.4)
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-15 (5.0) ~ 48 (118.4)	-15 (5.0) ~ 48 (118.4)
	Heating	Min. ~ Max.	°C WB (°F WB)	-18 (-0.4) ~ 18 (64.4)	-18 (-0.4) ~ 18 (64.4)

Note :

1. Wiring cable size must comply with the applicable local and national code.
2. Due to our policy of innovation some specifications may be changed without notification.
3. Sound Level Values are measured at Anechoic chamber.
Therefore, these values can be increased owing to ambient conditions during operation.

1. DC Inverter SINGLE A (1Ø, 3Ø)

1.4 Dimensions



1. DC Inverter SINGLE A (1Ø, 3Ø)

[Unit: mm]

UE Chassis
AUUW186D2 [UU18W UE2]

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.

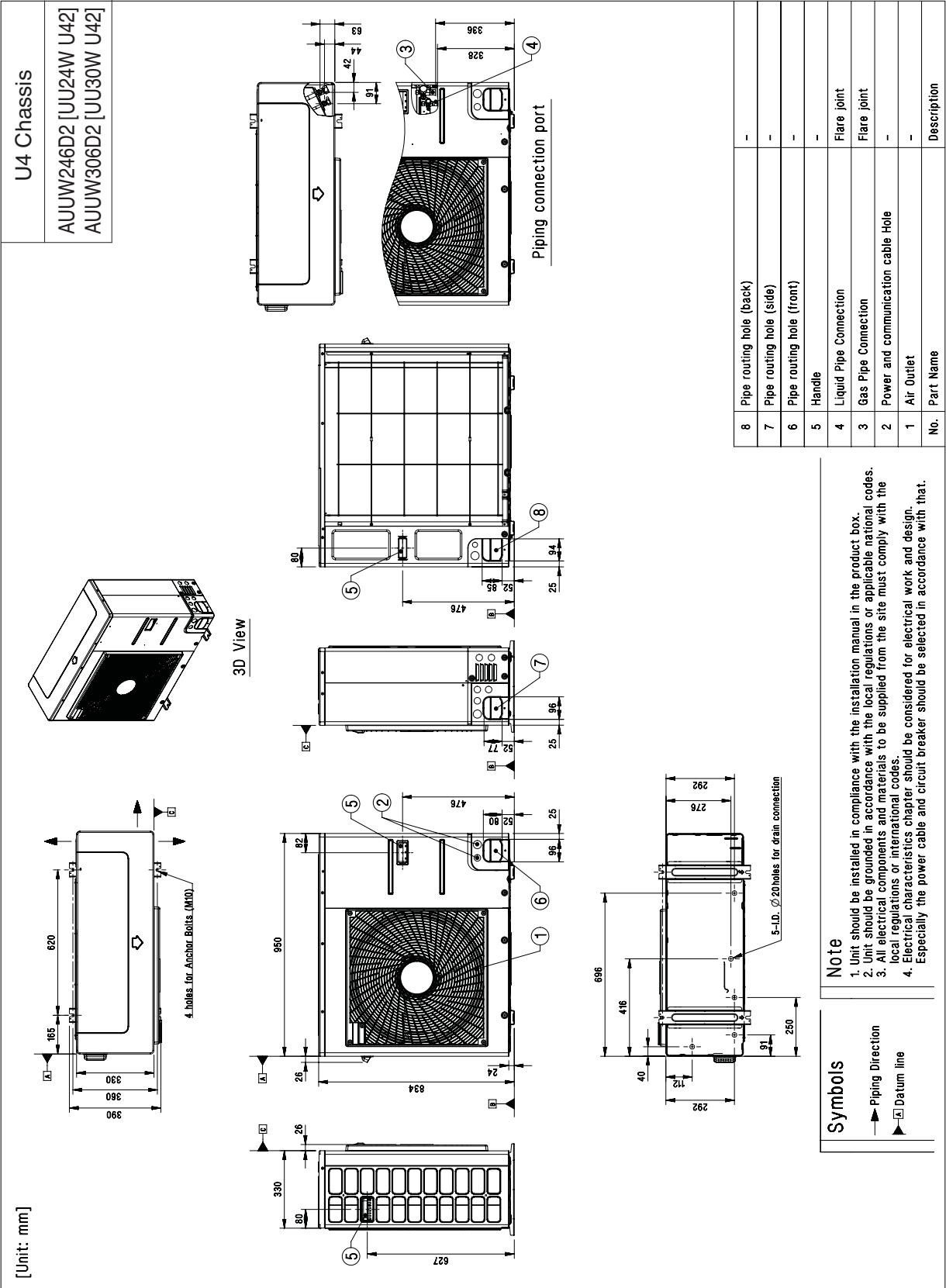
Symbols

→ Piping Direction

⊣ Datum line

No.	Part Name	Description
6	Liquid Pipe Connection	Flare joint
5	Gas Pipe Connection	Flare joint
4	SVC Valve Cover	-
3	Power and communication Cable Hole	-
2	Control Cover	-
1	Air Outlet	-

1. DC Inverter SINGLE A (1Ø, 3Ø)



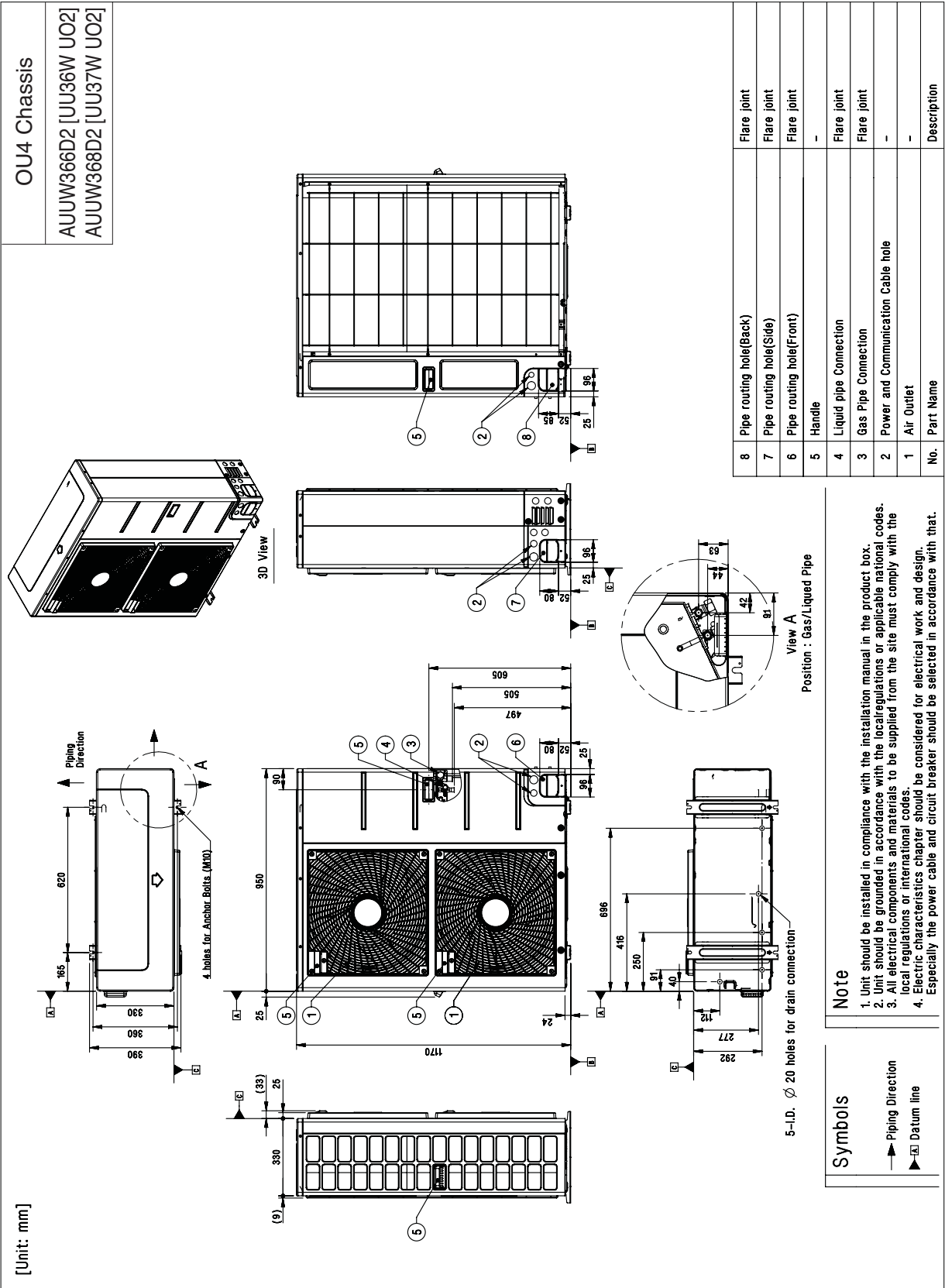
Note

- 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

1. DC Inverter SINGLE A (1Ø, 3Ø)



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.
- Electric characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

Symbols

↑ Piping Direction

▲ Datum line

Outdoor Units

SINGLE A™

1. DC Inverter SINGLE A (1Ø, 3Ø)

[Unit: mm]

U3 Chassis
 AUUW426D2 [UU42W U32]
 AUUW486D2 [UU48W U32]
 AUUW606D2 [UU60W U32]
 AUUW428D2 [UU43W U32]
 AUUW488D2 [UU49W U32]
 AUUW608D2 [UU61W U32]

3D View

Piping connection port

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

5-1D. $\varnothing 20$ holes for drain connection

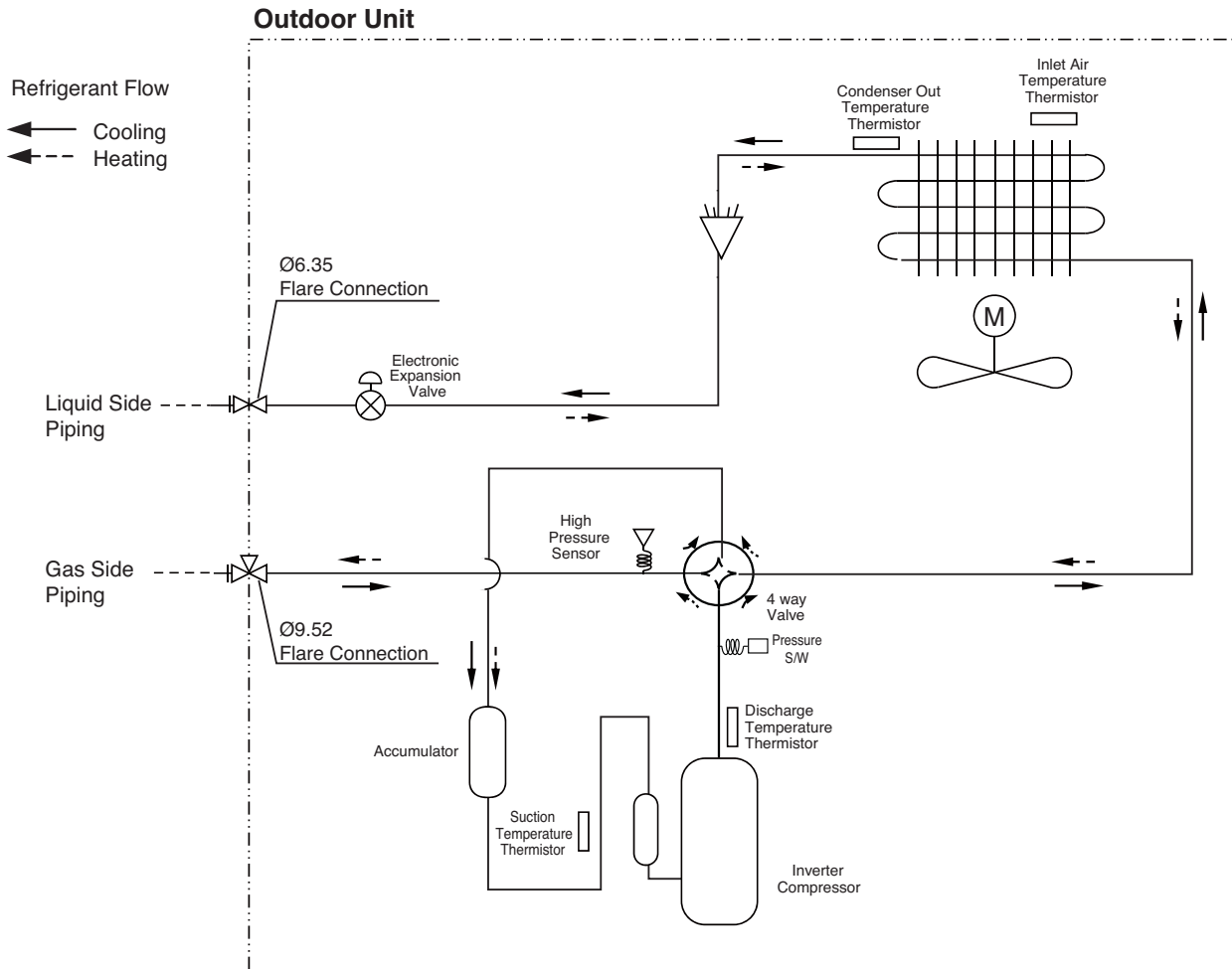
No.	Part Name	Description
8	Pipe routing hole (back)	-
7	Pipe routing hole (side)	-
6	Pipe routing hole (front)	-
5	Handle	-
4	Liquid Pipe Connection	Flare joint
3	Gas Pipe Connection	Flare joint
2	Power and communication cable Hole	-
1	Air Outlet	-

26 _ Heat pump 50Hz/R410A

1. DC Inverter SINGLE A (1Ø, 3Ø)

1.5 Piping diagrams

Models : AUUW096D[UU09W ULD], AUUW126D[UU12W ULD]

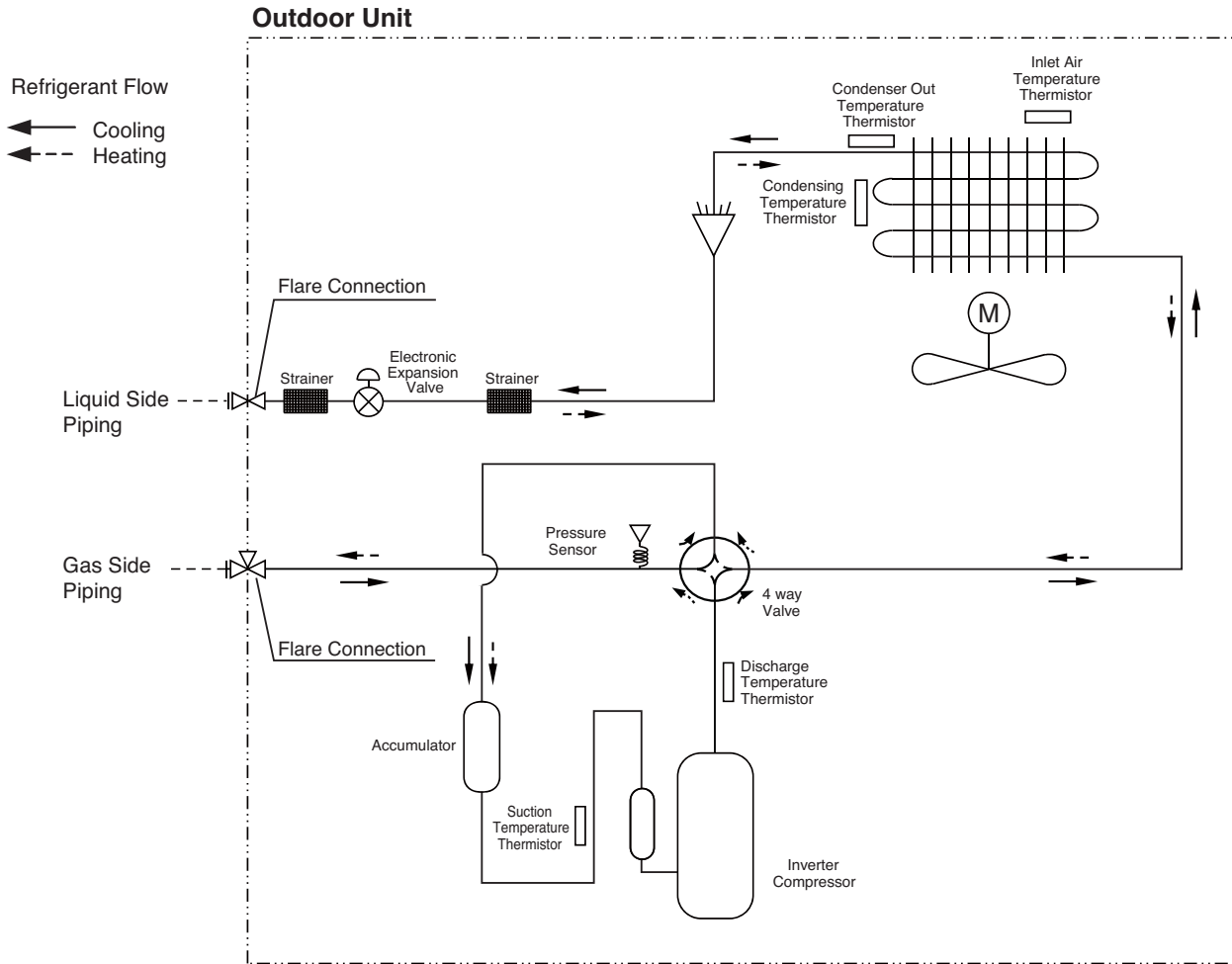


Outdoor Units

Description	PCB Connector
Suction Temperature Thermistor	CN_TH2
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH1
Inlet Air Temperature Thermistor	

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW186D2 [UU18W UE2], AUUW246D2 [UU24W U42], AUUW306D2 [UU30W U42]



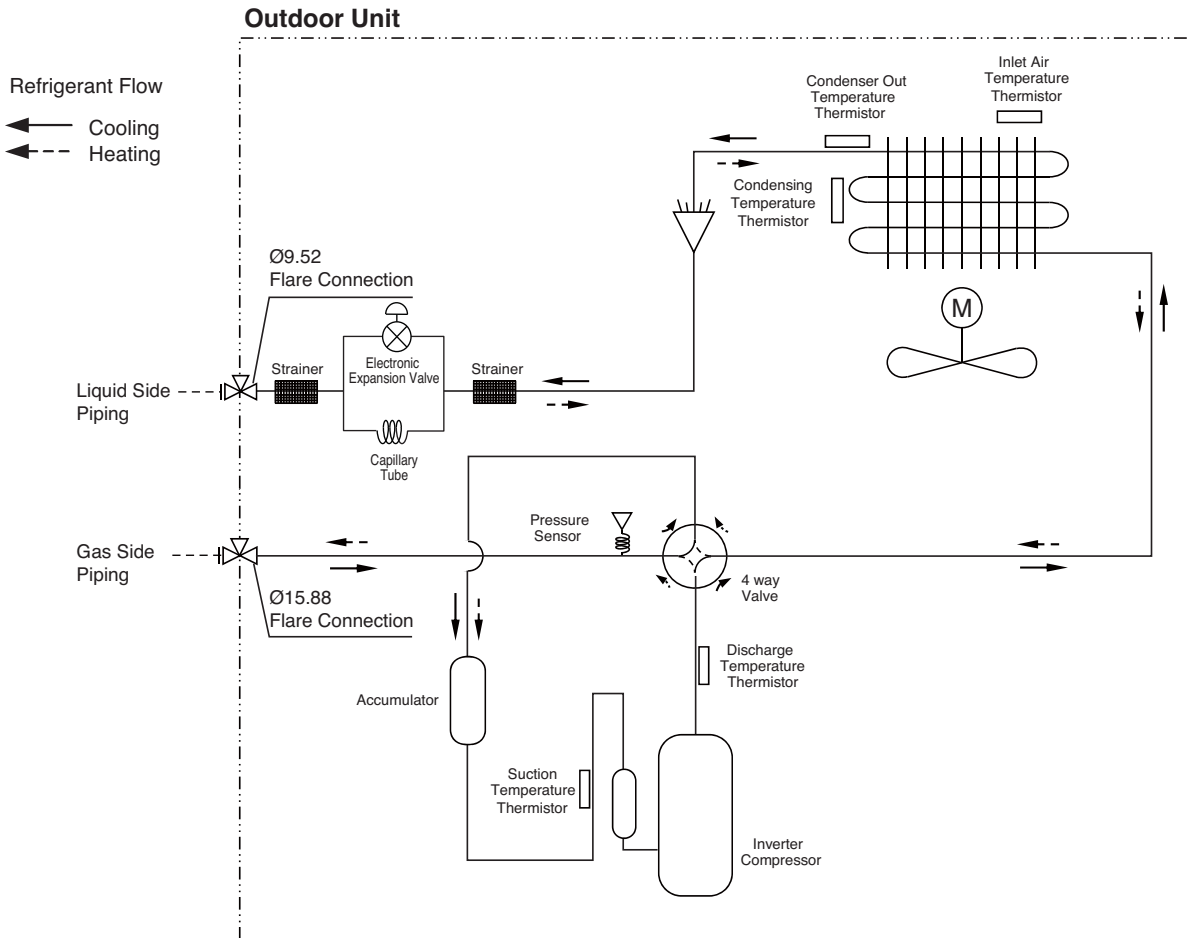
Description	PCB Connector
Suction Temperature Thermistor	CN_TH3
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH2
Inlet Air Temperature Thermistor	
Condensing Temperature Thermistor	CN_TH4
Pressure Sensor	CN_TH1

■ Refrigerant pipe connection port diameters

Model	Gas	Liquid
AUUW186D2 [UU18W UE2]	Ø12.7	Ø6.35
AUUW246D2 [UU24W U42]	Ø15.88	Ø9.52
AUUW306D2 [UU30W U42]		

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW366D2 [UU36W UO2]

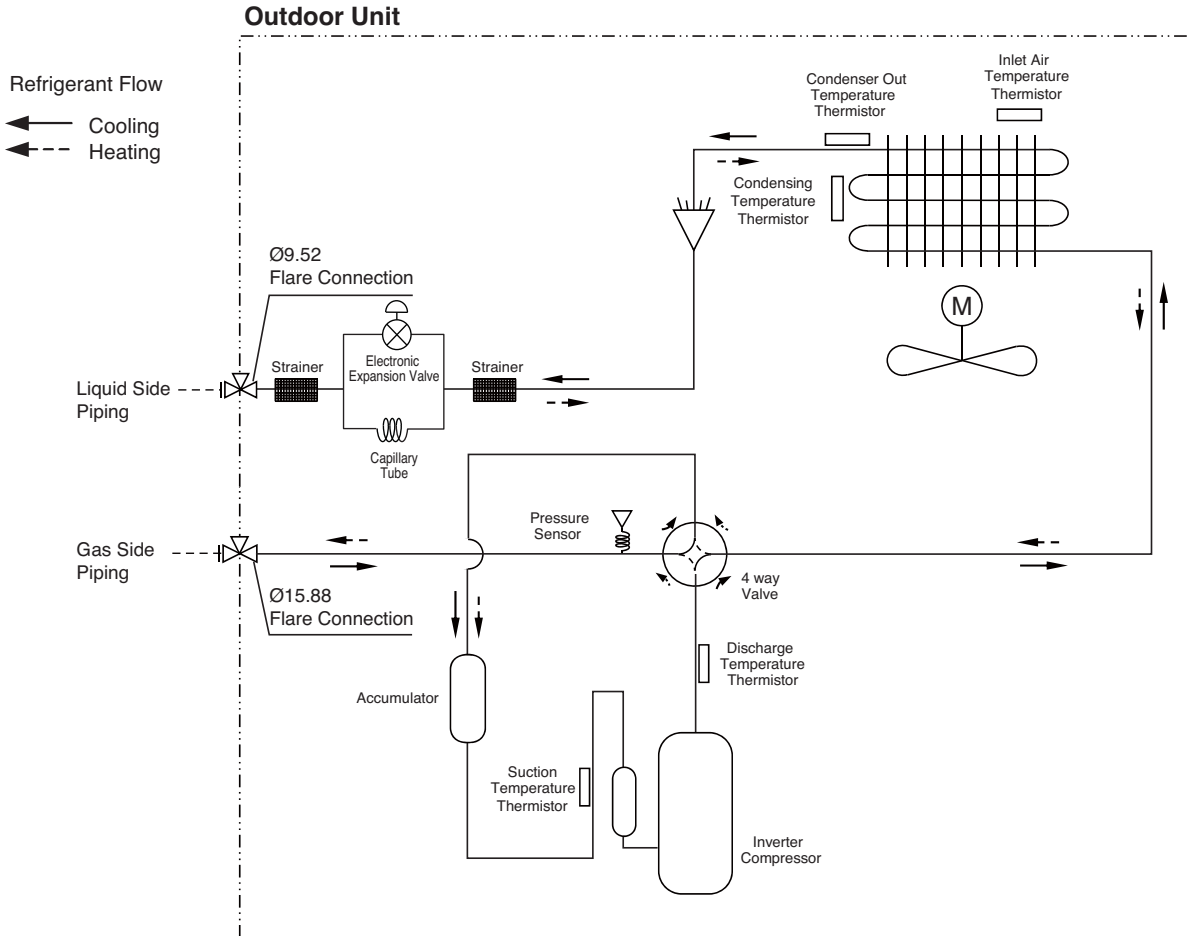


Outdoor Units

Description	PCB Connector
Suction Temperature Thermistor	CN_TH3
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH2
Inlet Air Temperature Thermistor	
Condensing Temperature Thermistor	CN_TH4
Pressure Sensor	P-SENSOR(H)

1. DC Inverter SINGLE A (1Ø, 3Ø)

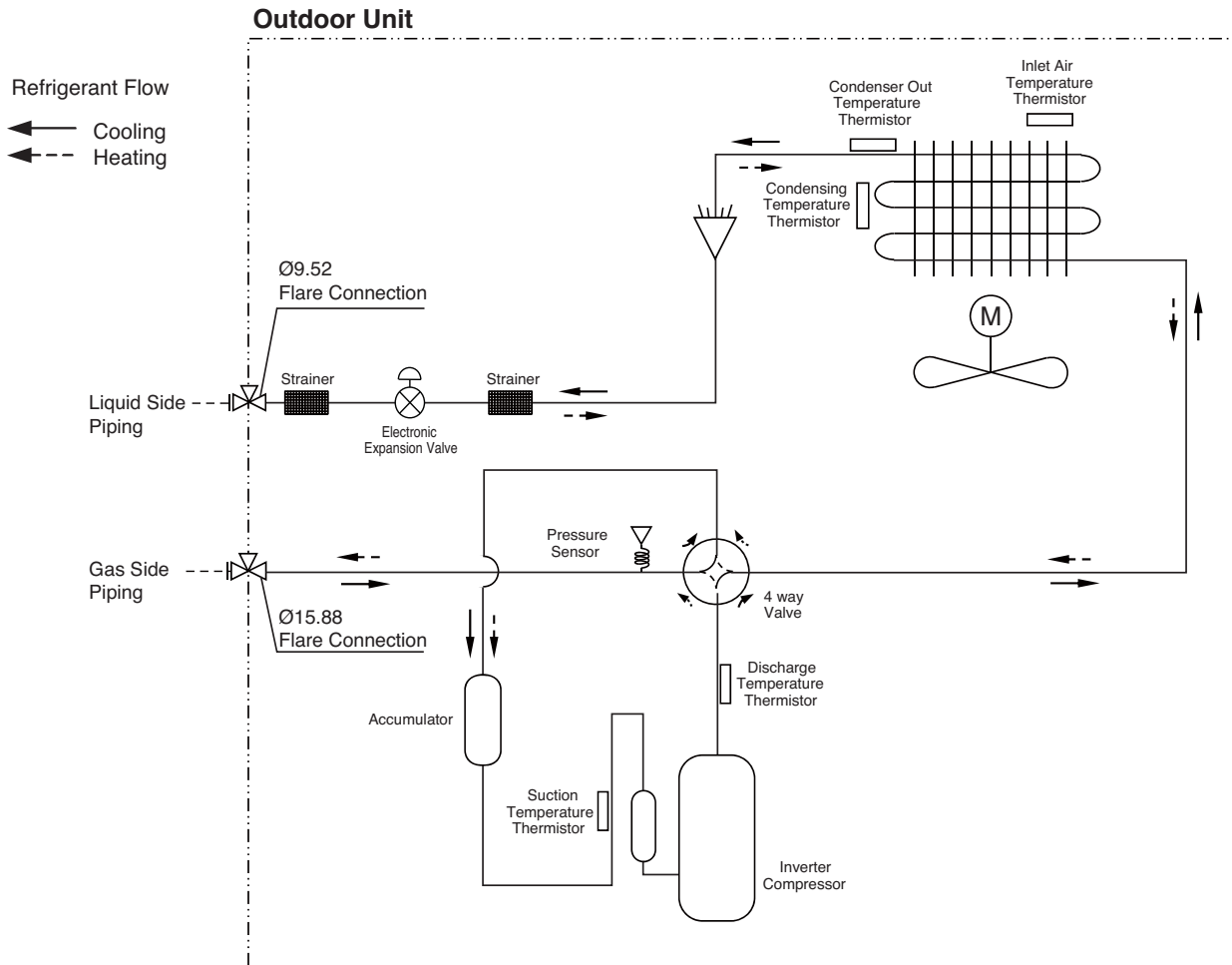
Models : AUUW368D2 [UU37W UO2]



Description	PCB Connector
Suction Temperature Thermistor	CN_TH2
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH1
Inlet Air Temperature Thermistor	
Condensing Temperature Thermistor	CN_TH3
Pressure Sensor	P-SENSOR(H)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32], AUUW606D2 [UU60W U32]

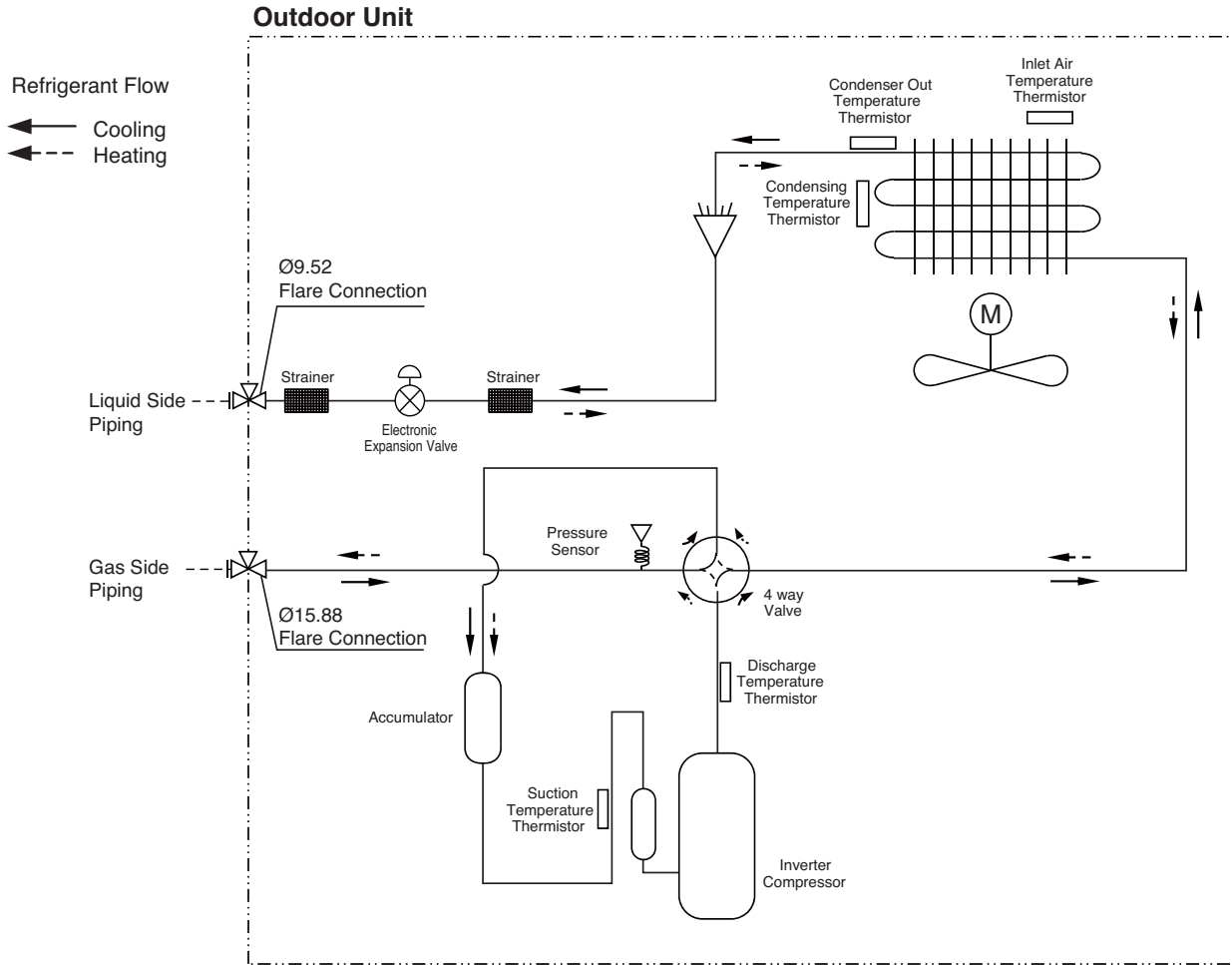


Outdoor Units

Description	PCB Connector
Suction Temperature Thermistor	CN_TH3
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH2
Inlet Air Temperature Thermistor	
Condensing Temperature Thermistor	CN_TH4
Pressure Sensor	P-SENSOR(H)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW428D2 [UU43W U32], AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]

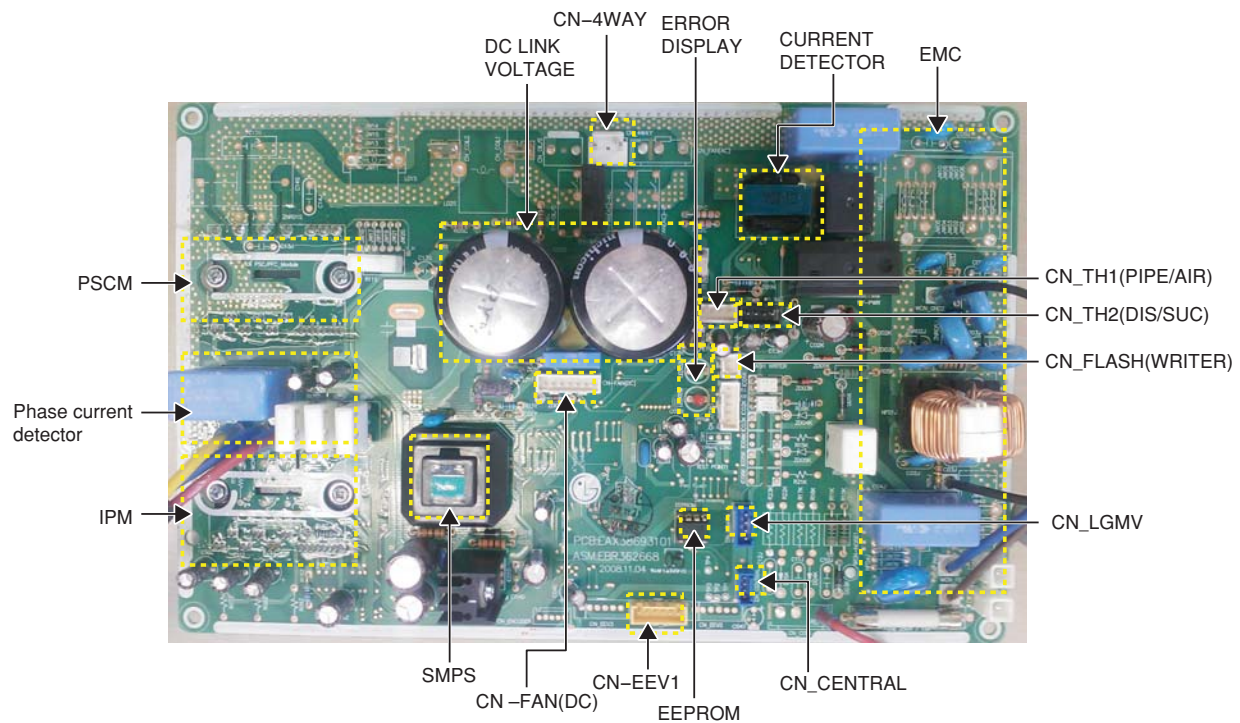
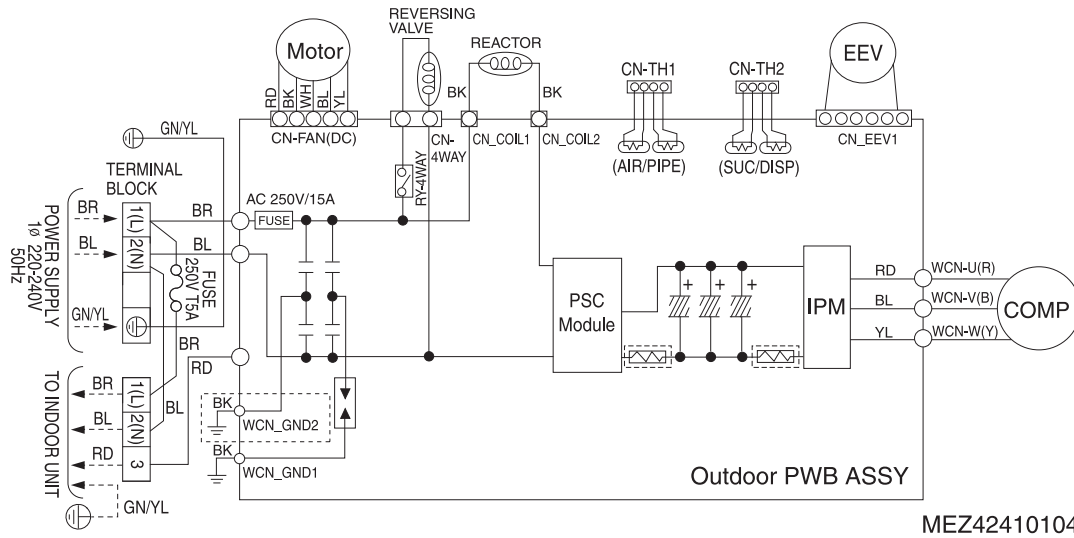


Description	PCB Connector
Suction Temperature Thermistor	CN_TH2
Discharge Temperature Thermistor	
Condenser Out Temperature Thermistor	CN_TH1
Inlet Air Temperature Thermistor	
Condensing Temperature Thermistor	CN_TH3
Pressure Sensor	P-SENSOR(H)

1. DC Inverter SINGLE A (1Ø, 3Ø)

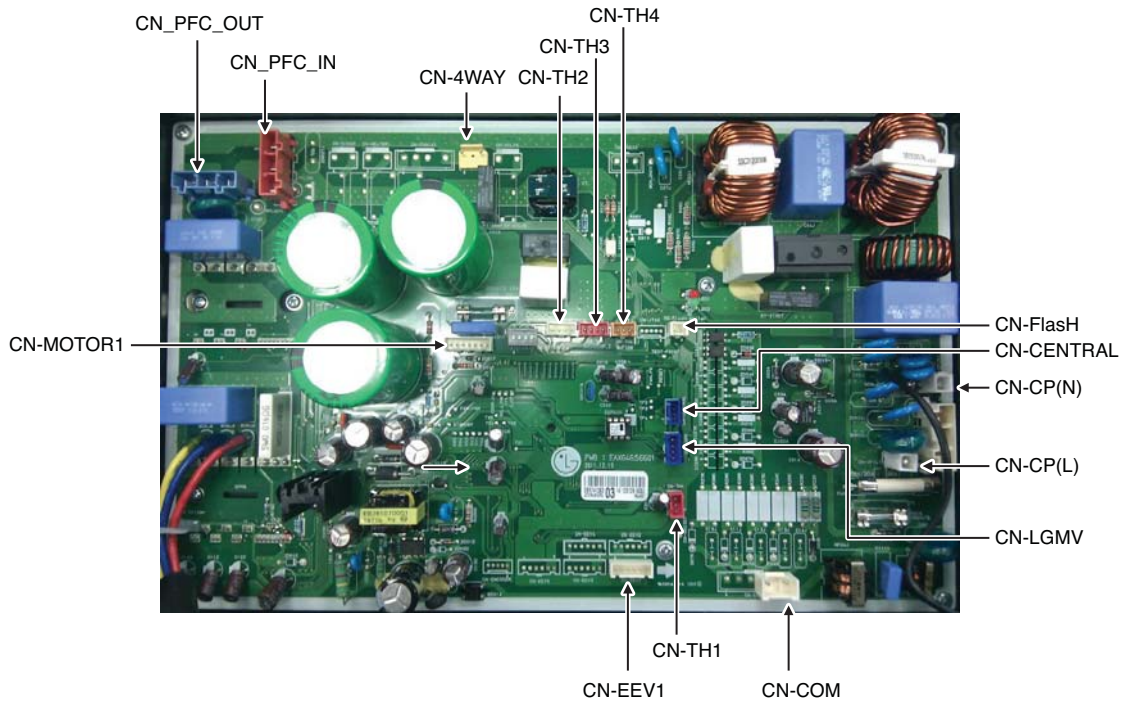
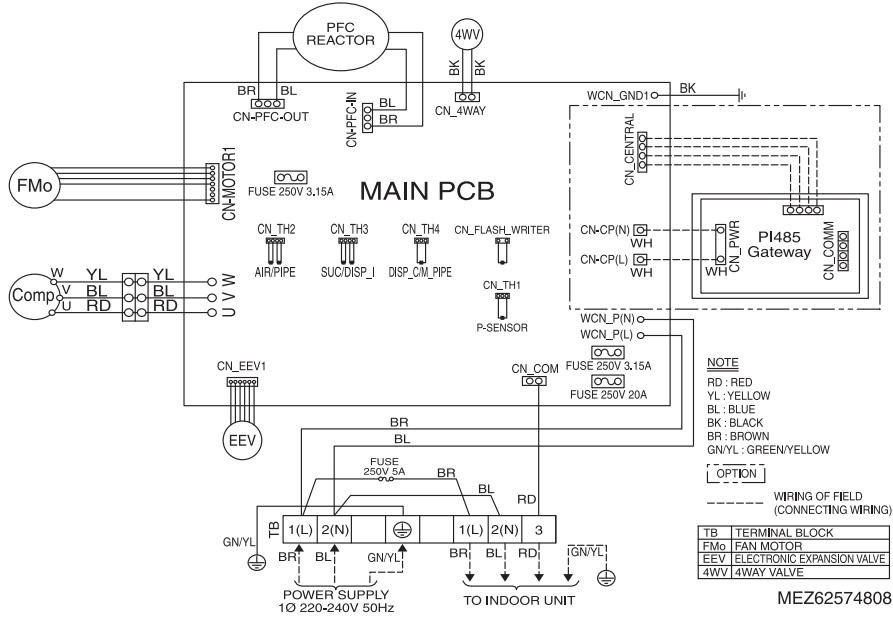
1.6 Wiring diagrams

Models : AUUW096D[UU09W ULD], AUUW126D[UU12W ULD]



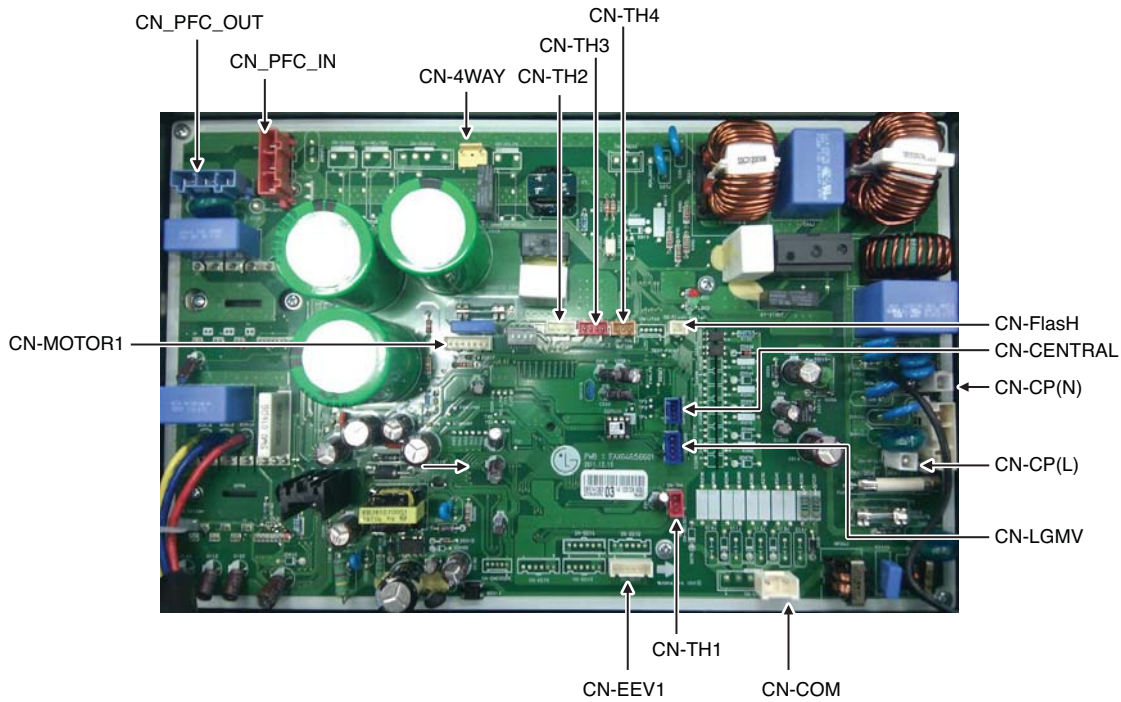
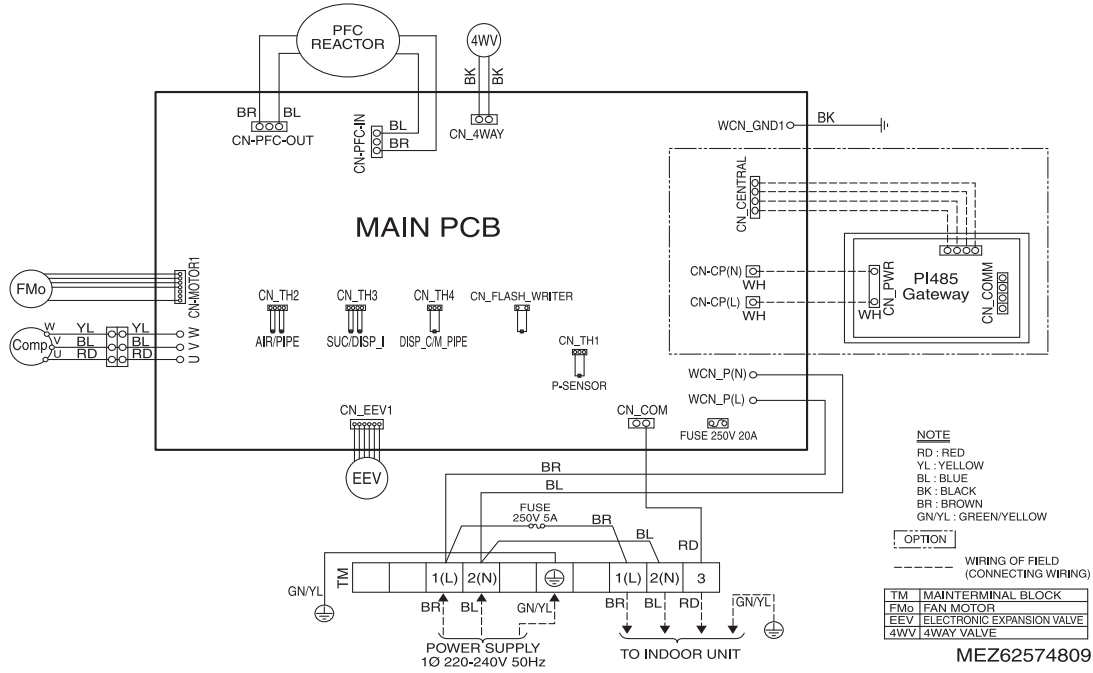
1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW186D2 [UU18W UE2]



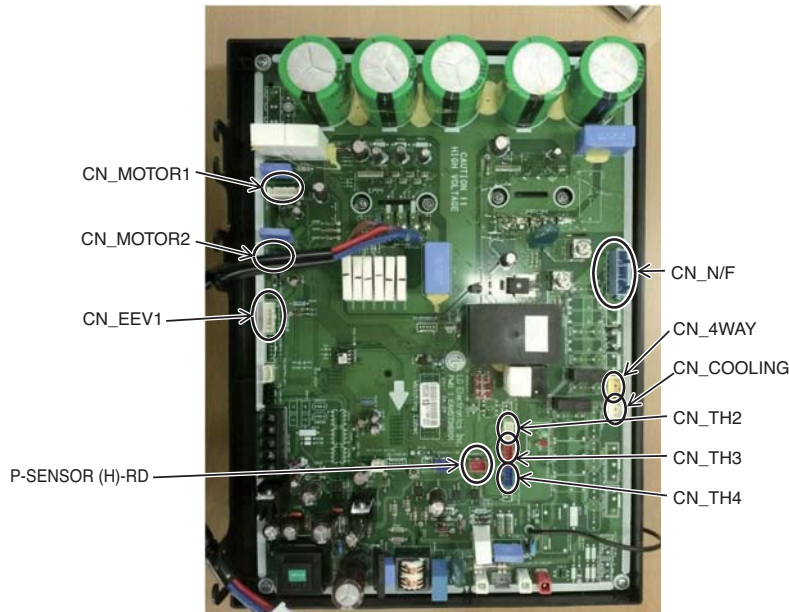
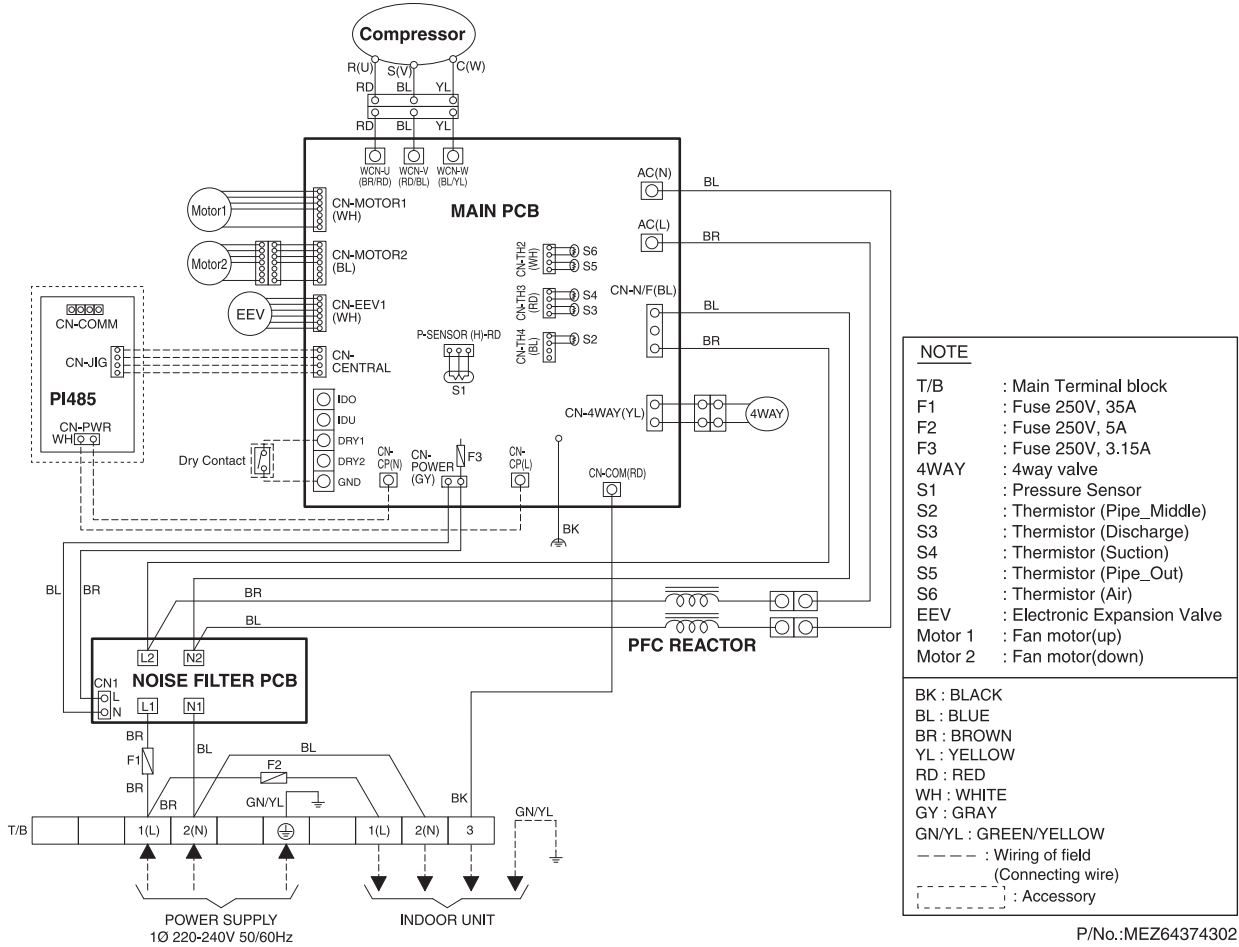
1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW246D2 [UU24W U42] , AUUW306D2 [UU30W U42]



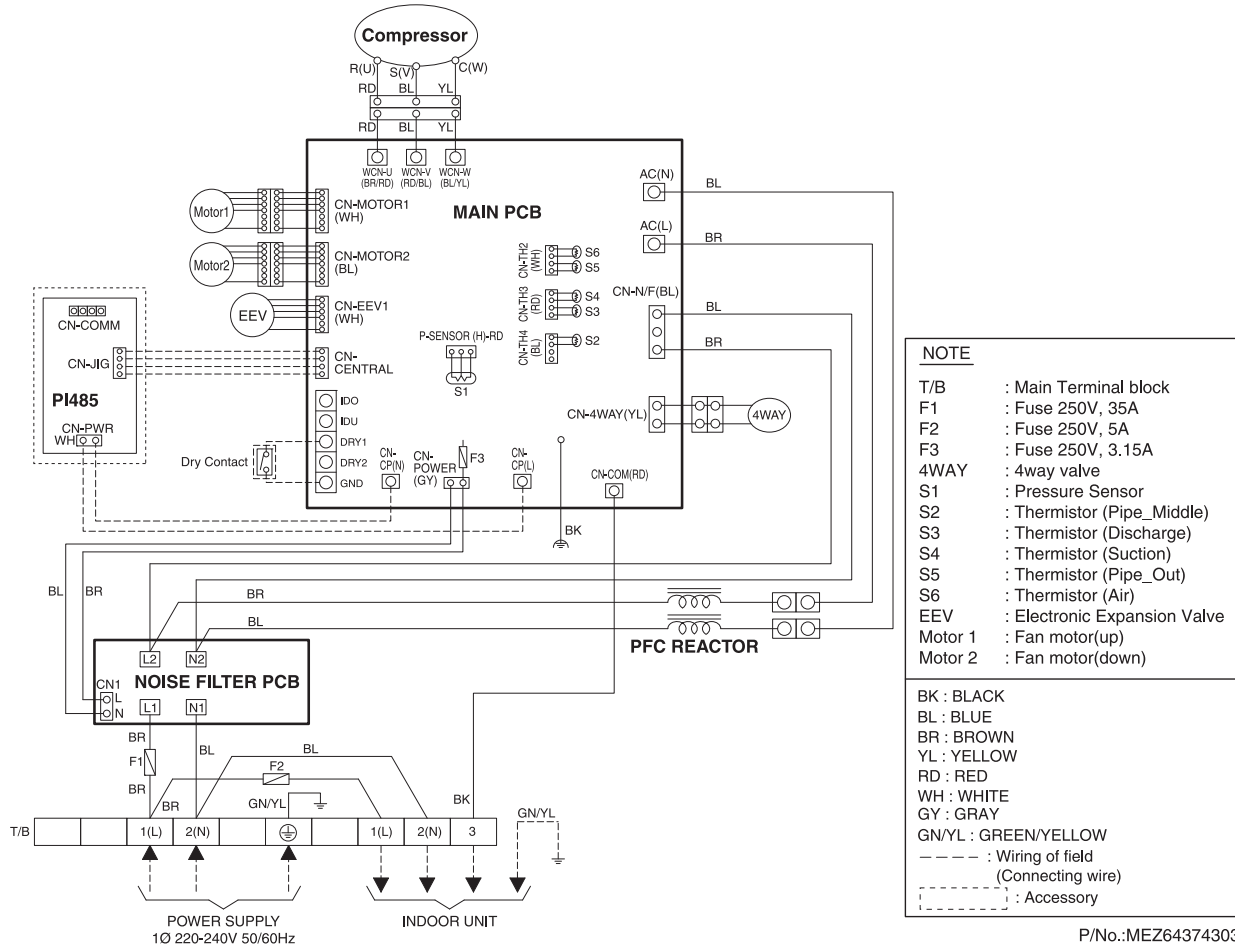
1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW366D2 [UU36W UO2]

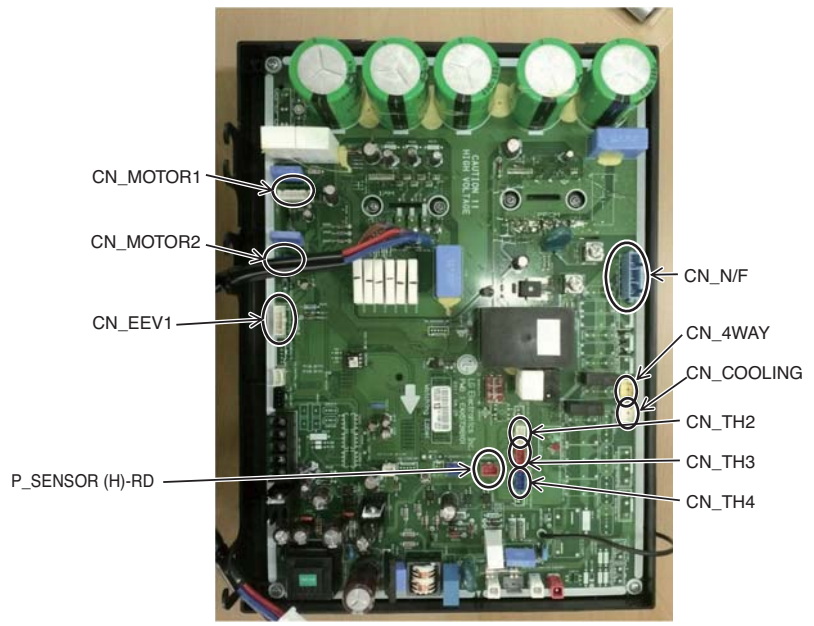


1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32], AUUW606D2 [UU60W U32]

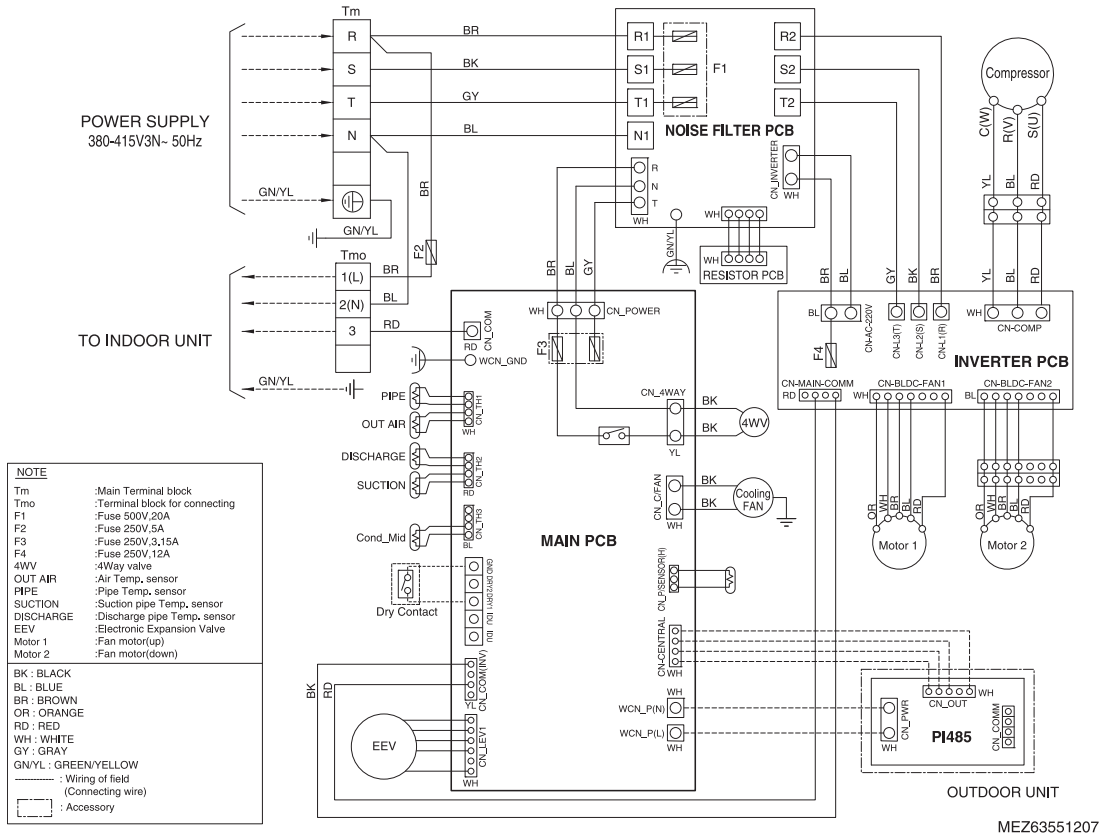


Outdoor Units

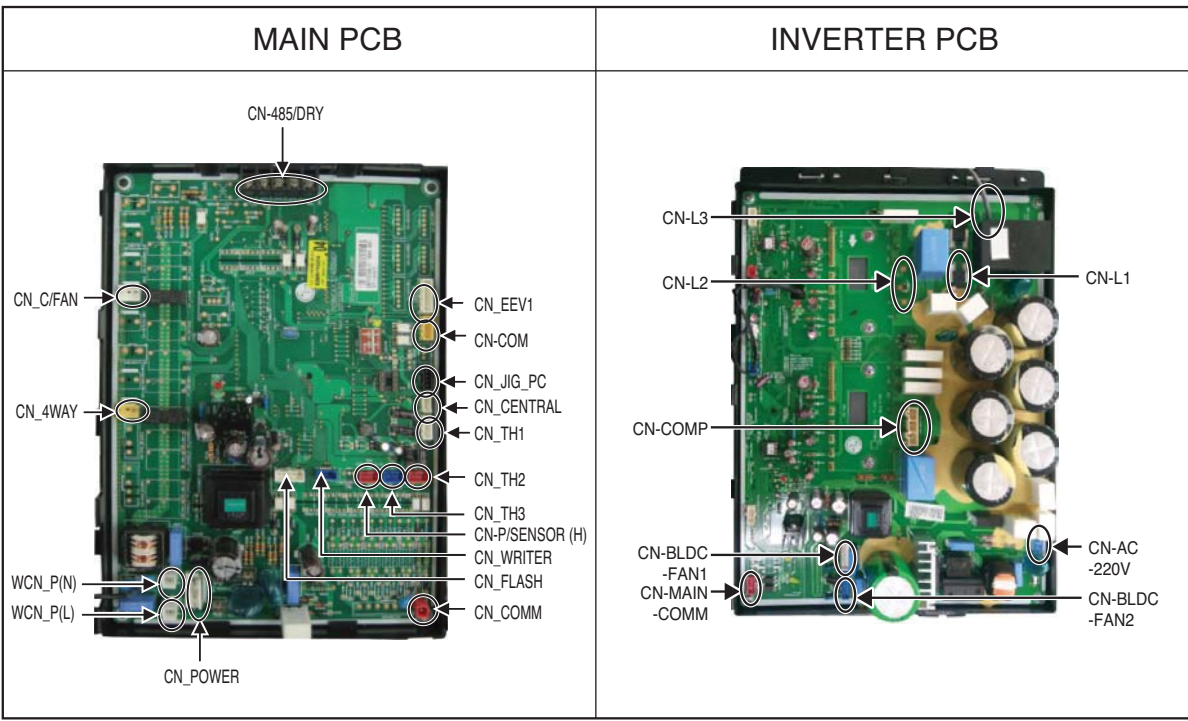


1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW368D2 [UU37W UO2]

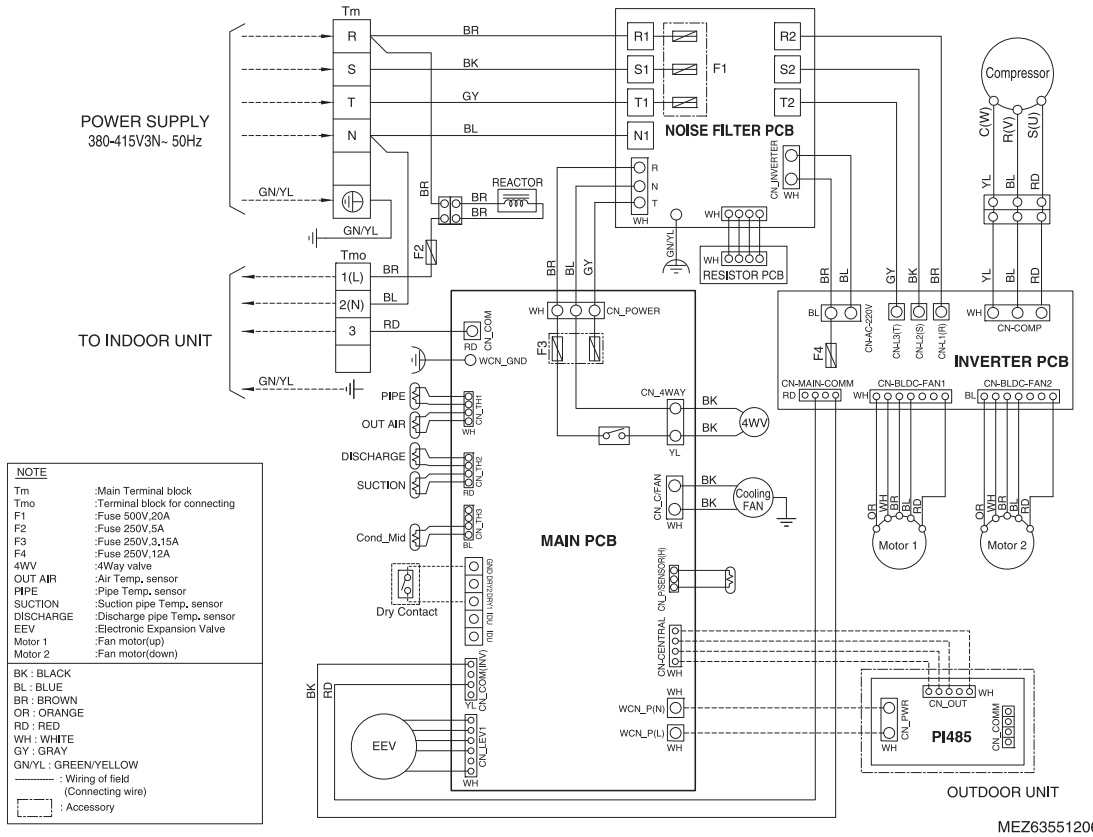


MEZ63551207

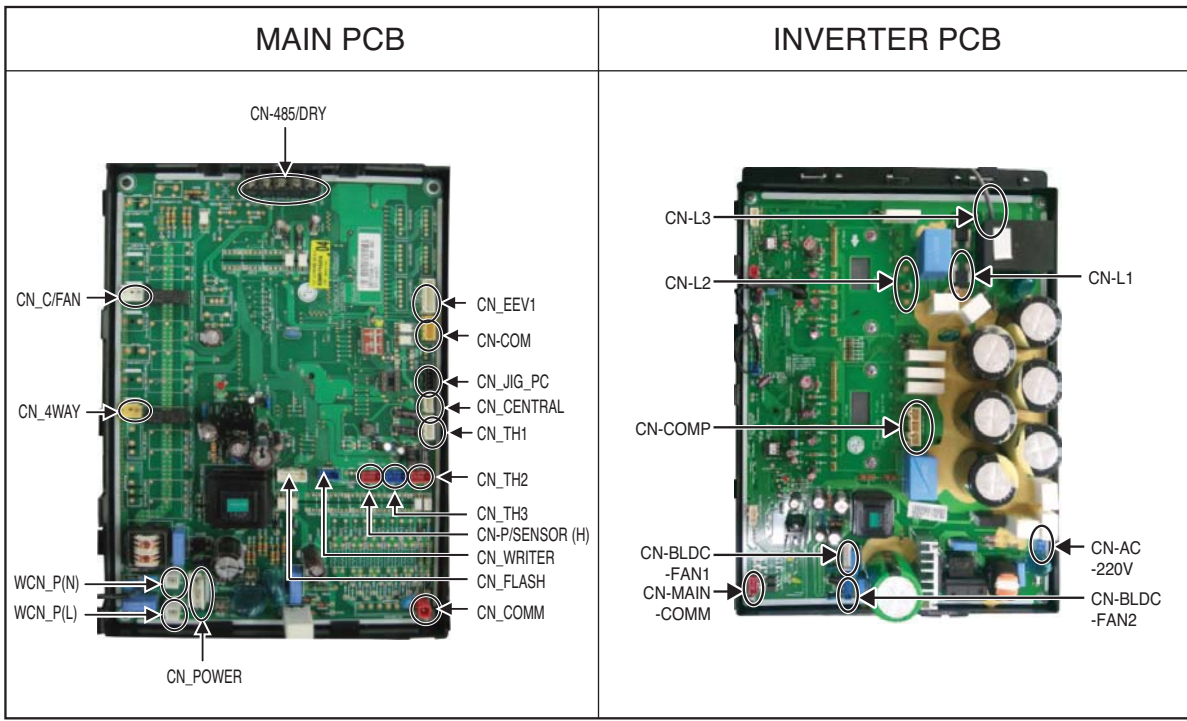


1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW428D2 [UU43W U32], AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]



Outdoor Units



1. DC Inverter SINGLE A (1Ø, 3Ø)

1.7 Capacity tables

Models : AUUW096D + ATNH09GRLE2, ABNH09GL1A2, AVNH09GELA2, AQNH09GALA0
 [UU09W ULD] + [CT09 NR2], [CB09L N12], [CV09 NE2], [CQ09 NAO]

• Cooling Capacity

Model	ATNH09GRLE2 [CT09 NR2]
AFR	8.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.70	2.46	0.55	2.58	2.38	0.57	2.42	2.28	0.77	2.35	2.21	0.86	2.24	2.14	0.94	2.18	2.07	0.92	2.12	2.00	0.83
16.0	22.0	2.86	2.49	0.74	2.74	2.42	0.75	2.59	2.33	0.90	2.51	2.25	0.97	2.41	2.19	1.01	2.35	2.12	0.96	2.28	2.06	0.84
18.0	25.0	3.03	2.51	0.80	2.91	2.44	0.81	2.75	2.36	0.95	2.67	2.29	0.99	2.57	2.23	1.03	2.51	2.16	0.96	2.45	2.10	0.82
19.0	27.0	3.11	2.54	0.81	2.99	2.47	0.82	2.83	2.39	0.96	2.75	2.31	0.99	2.65	2.26	1.03	2.59	2.19	0.96	2.53	2.13	0.81
22.0	30.0	3.36	2.59	0.81	3.24	2.52	0.83	3.08	2.45	0.98	3.00	2.38	1.04	2.90	2.33	1.05	2.84	2.26	0.97	2.78	2.21	0.81
24.0	32.0	3.53	2.64	0.81	3.41	2.57	0.84	3.24	2.51	1.00	3.17	2.44	1.06	3.06	2.39	1.07	3.00	2.32	0.99	2.94	2.27	0.83

Model	ABNH09GL1A2 [CB09L N12]
AFR	9.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.14	2.73	0.59	3.00	2.64	0.61	2.82	2.54	0.82	2.73	2.45	0.92	2.61	2.38	1.01	2.54	2.29	0.99	2.47	2.22	0.88
16.0	22.0	3.33	2.77	0.79	3.19	2.68	0.80	3.01	2.58	0.97	2.92	2.50	1.04	2.80	2.43	1.08	2.73	2.35	1.03	2.66	2.28	0.90
18.0	25.0	3.52	2.79	0.86	3.39	2.71	0.86	3.20	2.62	1.02	3.11	2.54	1.08	2.99	2.48	1.10	2.92	2.40	1.03	2.85	2.33	0.87
19.0	27.0	3.62	2.82	0.87	3.48	2.74	0.88	3.30	2.65	1.03	3.20	2.56	1.06	3.09	2.51	1.10	3.02	2.43	1.03	2.94	2.37	0.87
22.0	30.0	3.91	2.87	0.87	3.77	2.80	0.89	3.58	2.72	1.05	3.49	2.64	1.11	3.37	2.59	1.12	3.30	2.51	1.04	3.23	2.45	0.87
24.0	32.0	4.10	2.92	0.86	3.96	2.86	0.90	3.77	2.78	1.07	3.68	2.71	1.13	3.56	2.65	1.14	3.49	2.58	1.06	3.42	2.52	0.89

Model	AVNH09GELA2 [CV09 NE2]
AFR	7.6

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	2.70	2.55	0.55	2.58	2.47	0.57	2.42	2.37	0.77	2.35	2.29	0.86	2.24	2.22	0.94	2.18	2.14	0.92	2.12	2.07	0.83
16.0	22.0	2.86	2.58	0.74	2.74	2.50	0.75	2.59	2.41	0.90	2.51	2.33	0.97	2.41	2.27	1.01	2.35	2.19	0.96	2.28	2.13	0.84
18.0	25.0	3.03	2.60	0.80	2.91	2.53	0.81	2.75	2.45	0.95	2.67	2.37	0.99	2.57	2.31	1.03	2.51	2.24	0.96	2.45	2.18	0.82
19.0	27.0	3.11	2.63	0.81	2.99	2.56	0.82	2.83	2.47	0.96	2.75	2.39	0.99	2.65	2.34	1.03	2.59	2.27	0.96	2.53	2.21	0.81
22.0	30.0	3.36	2.68	0.81	3.24	2.61	0.83	3.08	2.54	0.98	3.00	2.47	1.04	2.90	2.42	1.05	2.84	2.35	0.97	2.78	2.29	0.81
24.0	32.0	3.53	2.73	0.81	3.41	2.67	0.84	3.24	2.60	1.00	3.17	2.52	1.06	3.06	2.48	1.07	3.00	2.41	0.99	2.94	2.35	0.83

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	AQNH09GALA0 [CQ09 NA0]
AFR	8.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.33	3.08	0.53	3.19	2.98	0.55	2.99	2.86	0.74	2.90	2.76	0.83	2.78	2.68	0.91	2.70	2.58	0.89	2.62	2.50	0.80
16.0	22.0	3.54	3.12	0.72	3.39	3.02	0.73	3.20	2.91	0.88	3.10	2.82	0.94	2.98	2.74	0.98	2.90	2.65	0.93	2.83	2.57	0.81
18.0	25.0	3.74	3.15	0.78	3.60	3.06	0.78	3.40	2.95	0.92	3.31	2.86	0.96	3.18	2.79	1.00	3.10	2.70	0.93	3.03	2.63	0.79
19.0	27.0	3.85	3.17	0.79	3.70	3.09	0.79	3.50	2.99	0.93	3.40	2.89	0.96	3.28	2.83	1.00	3.20	2.74	0.93	3.13	2.67	0.78
22.0	30.0	4.15	3.24	0.79	4.01	3.16	0.81	3.81	3.07	0.95	3.71	2.98	1.01	3.58	2.92	1.01	3.51	2.83	0.94	3.43	2.76	0.78
24.0	32.0	4.36	3.30	0.78	4.21	3.22	0.81	4.01	3.14	0.97	3.91	3.05	1.03	3.79	2.99	1.04	3.71	2.91	0.96	3.63	2.84	0.80

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH. However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW096D + ATNH09GRLE2, ABNH09GL1A2, AVNH09GELA2, AQNH09GALA0
 [UU09W ULD] + [CT09 NR2], [CB09L N12], [CV09 NE2], [CQ09 NA0]

• Heating Capacity

Model	ATNH09GRLE2 [CT09 NR2]
AFR	8.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	2.35	1.30	2.51	1.32	2.80	1.26	3.08	1.17	3.36	1.11	3.57	1.08	3.67	1.03
18	2.33	1.32	2.50	1.36	2.81	1.29	3.08	1.21	3.33	1.14	3.53	1.10	3.66	1.04
20	2.31	1.34	2.50	1.39	2.81	1.33	3.07	1.24	3.30	1.16	3.50	1.12	3.66	1.04
21	2.30	1.36	2.50	1.41	2.81	1.35	3.06	1.26	3.28	1.17	3.50	1.13	3.64	1.04
22	2.30	1.37	2.50	1.43	2.81	1.37	3.05	1.27	3.26	1.18	3.50	1.13	3.61	1.04
24	2.28	1.39	2.48	1.45	2.77	1.39	3.04	1.28	3.25	1.19	3.44	1.13	3.59	1.05

Model	ABNH09GL1A2 [CB09L N12]
AFR	9.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	2.56	1.46	2.74	1.48	3.05	1.41	3.36	1.31	3.66	1.24	3.89	1.21	4.00	1.15
18.0	2.54	1.48	2.73	1.52	3.06	1.44	3.36	1.36	3.63	1.28	3.85	1.23	3.99	1.16
20.0	2.52	1.50	2.73	1.56	3.06	1.49	3.35	1.39	3.60	1.30	3.82	1.25	3.99	1.16
21.0	2.51	1.52	2.73	1.58	3.06	1.51	3.34	1.41	3.58	1.31	3.82	1.27	3.97	1.16
22.0	2.51	1.53	2.73	1.60	3.06	1.53	3.32	1.42	3.55	1.32	3.82	1.27	3.93	1.16
24.0	2.49	1.56	2.70	1.62	3.02	1.56	3.31	1.43	3.54	1.33	3.75	1.27	3.91	1.18

Model	AVNH09GELA2 [CV09 NE2]
AFR	7.6

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	2.35	1.33	2.51	1.36	2.80	1.29	3.08	1.20	3.36	1.13	3.57	1.11	3.67	1.05
18	2.33	1.35	2.50	1.39	2.81	1.33	3.08	1.24	3.33	1.16	3.53	1.13	3.66	1.06
20	2.31	1.38	2.50	1.42	2.81	1.36	3.07	1.27	3.30	1.19	3.50	1.15	3.66	1.07
21	2.30	1.39	2.50	1.45	2.81	1.38	3.06	1.29	3.28	1.20	3.50	1.15	3.64	1.07
22	2.30	1.40	2.50	1.47	2.81	1.40	3.05	1.30	3.26	1.21	3.50	1.16	3.61	1.07
24	2.28	1.43	2.48	1.49	2.77	1.42	3.04	1.32	3.25	1.22	3.44	1.16	3.59	1.08

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	AQNH09GALA0 [CQ09 NA0]
AFR	8.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	2.99	1.33	3.19	1.35	3.56	1.29	3.92	1.20	4.27	1.13	4.55	1.10	4.67	1.05
18	2.96	1.35	3.19	1.39	3.57	1.32	3.92	1.23	4.24	1.16	4.49	1.13	4.65	1.06
20	2.94	1.37	3.19	1.42	3.57	1.36	3.91	1.27	4.20	1.18	4.46	1.14	4.66	1.07
21	2.93	1.39	3.19	1.44	3.57	1.38	3.90	1.28	4.17	1.20	4.46	1.15	4.63	1.07
22	2.93	1.40	3.19	1.46	3.57	1.40	3.89	1.30	4.14	1.20	4.46	1.16	4.59	1.07
24	2.90	1.43	3.15	1.48	3.53	1.42	3.86	1.31	4.14	1.21	4.38	1.16	4.57	1.07

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- | |
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 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW126D + ATNH12GRLE2, ABNH12GL2A2, AVNH12GELA2, AQNH2GALA0
[UU12W ULD] + [CT12 NR2], [CB12L N22], [CV12 NE2], [CQ12 NA0]

• Cooling Capacity

Model	ATNH12GRLE2 [CT12 NR2]
AFR	9.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.67	3.39	0.77	3.51	3.28	0.81	3.29	3.14	1.08	3.19	3.04	1.21	3.05	2.95	1.33	2.97	2.84	1.30	2.89	2.75	1.17
16.0	22.0	3.89	3.43	1.05	3.73	3.33	1.06	3.52	3.20	1.28	3.42	3.10	1.37	3.28	3.02	1.43	3.19	2.92	1.36	3.11	2.83	1.18
18.0	25.0	4.12	3.46	1.13	3.96	3.36	1.14	3.74	3.25	1.34	3.64	3.15	1.40	3.50	3.07	1.45	3.41	2.97	1.36	3.33	2.89	1.15
19.0	27.0	4.23	3.49	1.15	4.07	3.40	1.16	3.85	3.29	1.36	3.74	3.18	1.40	3.61	3.11	1.46	3.53	3.01	1.36	3.44	2.93	1.14
22.0	30.0	4.57	3.56	1.15	4.41	3.47	1.18	4.19	3.37	1.39	4.08	3.28	1.47	3.94	3.21	1.48	3.86	3.12	1.37	3.77	3.04	1.14
24.0	32.0	4.80	3.63	1.14	4.63	3.54	1.19	4.41	3.45	1.41	4.31	3.35	1.50	4.17	3.29	1.51	4.08	3.20	1.40	4.00	3.12	1.17

Model	ABNH12GL2A2 [CB12L N22]
AFR	10.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.74	3.29	0.72	3.58	3.18	0.75	3.36	3.05	1.00	3.25	2.95	1.13	3.11	2.86	1.24	3.03	2.75	1.21	2.95	2.67	1.09
16.0	22.0	3.97	3.33	0.98	3.80	3.23	0.99	3.59	3.10	1.19	3.49	3.01	1.27	3.35	2.93	1.33	3.25	2.83	1.26	3.17	2.75	1.10
18.0	25.0	4.20	3.36	1.05	4.04	3.26	1.06	3.81	3.15	1.25	3.61	3.06	1.30	3.57	2.98	1.35	3.48	2.88	1.26	3.40	2.80	1.07
19.0	27.0	4.31	3.39	1.07	4.15	3.30	1.08	3.93	3.19	1.26	3.70	3.10	1.30	3.68	3.02	1.36	3.60	2.92	1.26	3.51	2.84	1.06
22.0	30.0	4.66	3.45	1.07	4.50	3.37	1.10	4.27	3.27	1.29	4.16	3.18	1.37	4.02	3.11	1.38	3.94	3.03	1.27	3.85	2.95	1.06
24.0	32.0	4.90	3.52	1.06	4.72	3.43	1.11	4.50	3.35	1.31	4.40	3.25	1.40	4.25	3.19	1.40	4.16	3.10	1.30	4.08	3.03	1.09

Model	AVNH12GELA2 [CV12 NE2]
AFR	9.2

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.56	3.40	0.79	3.40	3.29	0.83	3.20	3.16	1.11	3.10	3.05	1.24	2.96	2.96	1.37	2.88	2.85	1.34	2.80	2.76	1.20
16.0	22.0	3.78	3.44	1.08	3.62	3.34	1.09	3.41	3.22	1.31	3.32	3.11	1.41	3.18	3.03	1.47	3.10	2.93	1.40	3.02	2.84	1.22
18.0	25.0	4.00	3.47	1.16	3.84	3.37	1.17	3.63	3.26	1.38	3.53	3.16	1.44	3.40	3.08	1.49	3.31	2.98	1.40	3.23	2.90	1.19
19.0	27.0	4.11	3.50	1.18	3.95	3.41	1.19	3.74	3.30	1.40	3.63	3.19	1.44	3.50	3.12	1.50	3.42	3.02	1.40	3.34	2.94	1.18
22.0	30.0	4.44	3.57	1.18	4.28	3.48	1.21	4.06	3.38	1.43	3.96	3.29	1.51	3.83	3.22	1.52	3.75	3.13	1.41	3.66	3.05	1.18
24.0	32.0	4.65	3.64	1.17	4.49	3.55	1.22	4.28	3.46	1.45	4.18	3.37	1.54	4.04	3.30	1.55	3.96	3.21	1.44	3.88	3.14	1.20

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	AQNH2GALA0 [CQ12 NAO]
AFR	9.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	3.67	3.47	0.79	3.51	3.36	0.83	3.29	3.22	1.11	3.19	3.11	1.24	3.05	3.02	1.36	2.97	2.91	1.33	2.89	2.82	1.19
16.0	22.0	3.89	3.52	1.07	3.73	3.41	1.08	3.52	3.29	1.31	3.42	3.18	1.40	3.28	3.09	1.46	3.19	2.99	1.39	3.11	2.90	1.21
18.0	25.0	4.12	3.55	1.16	3.96	3.45	1.17	3.74	3.33	1.37	3.64	3.23	1.43	3.50	3.15	1.48	3.41	3.05	1.39	3.33	2.96	1.18
19.0	27.0	4.23	3.58	1.17	4.07	3.48	1.18	3.85	3.37	1.39	3.74	3.26	1.43	3.61	3.19	1.49	3.53	3.09	1.39	3.44	3.01	1.17
22.0	30.0	4.57	3.65	1.17	4.41	3.56	1.20	4.19	3.46	1.42	4.08	3.36	1.50	3.94	3.29	1.51	3.86	3.19	1.40	3.77	3.12	1.17
24.0	32.0	4.80	3.72	1.16	4.63	3.63	1.21	4.41	3.54	1.45	4.31	3.44	1.53	4.17	3.37	1.54	4.08	3.28	1.43	4.00	3.20	1.20

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW126D + ATNH12GRLE2, ABNH12GL2A2, AVNH12GELA2, AQNH2GALA0
 [UU12W ULD] + [CT12 NR2], [CB12L N22], [CV12 NE2], [CQ12 NA0]

• Heating Capacity

Model	ATNH12GRLE2 [CT12 NR2]
AFR	9.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	3.13	1.77	3.34	1.80	3.73	1.71	4.11	1.60	4.47	1.50	4.76	1.47	4.89	1.39
18	3.10	1.79	3.34	1.84	3.74	1.76	4.10	1.64	4.44	1.54	4.70	1.50	4.88	1.41
20	3.08	1.82	3.34	1.89	3.74	1.81	4.09	1.68	4.40	1.57	4.67	1.52	4.88	1.42
21	3.07	1.84	3.34	1.92	3.74	1.83	4.08	1.71	4.37	1.59	4.67	1.53	4.85	1.42
22	3.07	1.86	3.34	1.94	3.74	1.86	4.07	1.73	4.34	1.60	4.67	1.54	4.81	1.42
24	3.04	1.89	3.30	1.97	3.70	1.88	4.05	1.74	4.33	1.61	4.59	1.54	4.79	1.43

Model	ABNH12GL2A2 [CB12L N22]
AFR	10.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	3.19	1.70	3.41	1.73	3.80	1.64	4.19	1.54	4.56	1.44	4.86	1.41	4.99	1.33
18.0	3.16	1.72	3.41	1.77	3.81	1.69	4.18	1.57	4.53	1.48	4.79	1.44	4.98	1.35
20.0	3.14	1.75	3.41	1.81	3.81	1.74	4.17	1.61	4.50	1.50	4.76	1.46	4.98	1.36
21.0	3.13	1.77	3.41	1.84	3.81	1.76	4.16	1.64	4.46	1.53	4.76	1.47	4.95	1.36
22.0	3.13	1.79	3.41	1.86	3.81	1.79	4.15	1.66	4.43	1.54	4.76	1.48	4.91	1.36
24.0	3.10	1.81	3.37	1.89	3.77	1.80	4.13	1.67	4.42	1.55	4.68	1.48	4.89	1.37

Model	AVNH12GELA2 [CV12 NE2]
AFR	9.2

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	2.97	1.89	3.18	1.93	3.55	1.83	3.90	1.71	4.25	1.61	4.53	1.57	4.65	1.49
18	2.95	1.92	3.17	1.98	3.55	1.89	3.90	1.76	4.22	1.65	4.47	1.61	4.63	1.51
20	2.93	1.96	3.17	2.02	3.55	1.94	3.89	1.81	4.18	1.69	4.44	1.63	4.64	1.52
21	2.92	1.97	3.17	2.05	3.55	1.97	3.88	1.83	4.15	1.70	4.44	1.64	4.61	1.52
22	2.91	2.00	3.17	2.08	3.55	1.99	3.87	1.85	4.12	1.72	4.43	1.65	4.57	1.52
24	2.89	2.03	3.14	2.11	3.51	2.02	3.85	1.87	4.12	1.73	4.36	1.65	4.55	1.53

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	AQNH2GALA0 [CQ12 NAO]
AFR	9.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	3.13	1.73	3.34	1.77	3.73	1.68	4.11	1.57	4.47	1.48	4.76	1.44	4.89	1.37
18	3.10	1.76	3.34	1.81	3.74	1.73	4.10	1.61	4.44	1.51	4.70	1.47	4.88	1.38
20	3.08	1.79	3.34	1.85	3.74	1.78	4.09	1.65	4.40	1.54	4.67	1.49	4.88	1.39
21	3.07	1.81	3.34	1.88	3.74	1.80	4.08	1.67	4.37	1.56	4.67	1.50	4.85	1.39
22	3.07	1.83	3.34	1.91	3.74	1.83	4.07	1.70	4.34	1.57	4.67	1.51	4.81	1.39
24	3.04	1.86	3.30	1.93	3.70	1.85	4.05	1.71	4.33	1.58	4.59	1.51	4.79	1.40

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW186D2 + ATNH18GQLE2, ABNH18GH2LA2, ABNH18GL2A2, UVNH18GJLA2, AQNH18GALAO
 [UU18W UE2] + [CT18 NQ2], [CB18 NH2], [CB18L N22], [CV18 NJ2], [CQ18 NA0]

• Cooling Capacity

Model	ATNH18GQLE2 [CT18 NQ2]
AFR	13.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.39	5.10	1.14	5.16	4.93	1.19	4.84	4.73	1.60	4.70	4.57	1.78	4.49	4.43	1.95	4.37	4.28	1.92	4.24	4.14	1.72
16.0	22.0	5.72	5.16	1.54	5.49	5.01	1.56	5.17	4.82	1.88	5.02	4.67	2.02	4.82	4.54	2.11	4.69	4.39	2.00	4.57	4.26	1.74
18.0	25.0	6.06	5.21	1.67	5.82	5.06	1.68	5.50	4.89	1.98	5.35	4.74	2.06	5.14	4.62	2.14	5.02	4.48	2.00	4.90	4.35	1.70
19.0	27.0	6.22	5.25	1.69	5.98	5.11	1.70	5.67	4.95	2.00	5.50	4.79	2.06	5.31	4.68	2.14	5.18	4.54	2.00	5.06	4.42	1.68
22.0	30.0	6.72	5.36	1.69	6.48	5.23	1.73	6.16	5.08	2.04	6.00	4.93	2.16	5.80	4.83	2.18	5.67	4.69	2.02	5.55	4.58	1.68
24.0	32.0	7.05	5.46	1.68	6.81	5.33	1.75	6.49	5.19	2.08	6.33	5.05	2.20	6.13	4.95	2.22	6.00	4.82	2.06	5.88	4.70	1.72

Model	UVNH18GJLA2 [CV18 NJ2]
AFR	12.4

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.18	4.46	1.09	4.95	4.32	1.13	4.65	4.15	1.52	4.51	4.01	1.70	4.31	3.88	1.87	4.19	3.75	1.83	4.07	3.63	1.64
16.0	22.0	5.50	4.52	1.47	5.27	4.39	1.49	4.97	4.22	1.80	4.82	4.09	1.93	4.62	3.98	2.01	4.51	3.84	1.91	4.39	3.73	1.66
18.0	25.0	5.81	4.56	1.59	5.59	4.43	1.60	5.28	4.28	1.89	5.14	4.15	1.97	4.94	4.05	2.04	4.82	3.92	1.91	4.70	3.81	1.62
19.0	27.0	5.97	4.60	1.61	5.75	4.48	1.63	5.44	4.33	1.91	5.28	4.19	1.97	5.10	4.10	2.05	4.98	3.97	1.91	4.86	3.87	1.61
22.0	30.0	6.45	4.69	1.61	6.22	4.58	1.65	5.91	4.45	1.95	5.76	4.32	2.06	5.57	4.23	2.08	5.45	4.11	1.93	5.33	4.01	1.61
24.0	32.0	6.77	4.78	1.60	6.54	4.67	1.67	6.23	4.55	1.99	6.08	4.42	2.10	5.88	4.34	2.12	5.76	4.22	1.97	5.64	4.12	1.65

Model	ABNH18GH2LA2 [CB18 NH2]
AFR	16.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.33	4.51	1.12	5.10	4.36	1.17	4.79	4.18	1.58	4.64	4.04	1.76	4.44	3.92	1.93	4.32	3.78	1.89	4.20	3.67	1.70
16.0	22.0	5.66	4.57	1.52	5.43	4.43	1.54	5.12	4.27	1.86	4.97	4.13	2.00	4.76	4.01	2.08	4.64	3.88	1.98	4.52	3.77	1.72
18.0	25.0	5.99	4.61	1.65	5.76	4.48	1.66	5.44	4.32	1.95	5.29	4.19	2.03	5.09	4.09	2.11	4.97	3.96	1.98	4.84	3.85	1.68
19.0	27.0	6.16	4.65	1.66	5.92	4.52	1.68	5.60	4.37	1.97	5.44	4.23	2.03	5.25	4.14	2.11	5.13	4.01	1.97	5.01	3.91	1.66
22.0	30.0	6.65	4.74	1.66	6.41	4.62	1.71	6.09	4.49	2.02	5.94	4.36	2.13	5.74	4.27	2.15	5.61	4.15	1.99	5.49	4.05	1.66
24.0	32.0	6.98	4.83	1.65	6.74	4.71	1.72	6.42	4.59	2.06	6.26	4.46	2.17	6.06	4.38	2.19	5.94	4.26	2.04	5.81	4.16	1.70

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	ABNH18GL2A2 [CB18L N22]
AFR	15.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.88	4.49	1.22	5.62	4.34	1.27	5.28	4.16	1.71	5.12	4.02	1.90	4.89	3.90	2.09	4.76	3.77	2.05	4.62	3.64	1.84
16.0	22.0	6.23	4.54	1.65	5.98	4.41	1.67	5.64	4.24	2.01	5.47	4.11	2.16	5.25	4.00	2.26	5.11	3.86	2.14	4.98	3.75	1.86
18.0	25.0	6.61	4.58	1.79	6.34	4.45	1.80	6.00	4.30	2.12	5.83	4.17	2.20	5.60	4.07	2.29	5.47	3.94	2.14	5.34	3.83	1.82
19.0	27.0	6.78	4.62	1.81	6.52	4.50	1.82	6.18	4.36	2.14	6.00	4.20	2.20	5.79	4.12	2.29	5.65	4.00	2.14	5.52	3.89	1.80
22.0	30.0	7.32	4.72	1.81	7.06	4.60	1.85	6.71	4.47	2.18	6.54	4.34	2.31	6.32	4.25	2.33	6.18	4.13	2.16	6.05	4.03	1.80
24.0	32.0	7.68	4.80	1.80	7.42	4.69	1.87	7.07	4.57	2.23	6.90	4.44	2.35	6.68	4.36	2.38	6.54	4.24	2.20	6.41	4.14	1.84

Model	AQNH18GALA0 [CQ18 NA0]
AFR	10.1

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	5.39	4.80	1.14	5.16	4.65	1.19	4.84	4.46	1.60	4.70	4.31	1.79	4.49	4.18	1.96	4.37	4.03	1.92	4.24	3.90	1.72
16.0	22.0	5.72	4.86	1.55	5.49	4.72	1.56	5.17	4.54	1.89	5.02	4.40	2.03	4.82	4.28	2.11	4.69	4.13	2.01	4.57	4.01	1.75
18.0	25.0	6.06	4.91	1.67	5.82	4.77	1.68	5.50	4.61	1.98	5.35	4.47	2.07	5.14	4.35	2.14	5.02	4.22	2.01	4.90	4.10	1.70
19.0	27.0	6.22	4.95	1.69	5.98	4.81	1.71	5.67	4.66	2.00	5.50	4.51	2.07	5.31	4.41	2.15	5.18	4.27	2.00	5.06	4.16	1.69
22.0	30.0	6.72	5.05	1.69	6.48	4.92	1.74	6.16	4.78	2.05	6.00	4.65	2.17	5.80	4.55	2.18	5.67	4.42	2.02	5.55	4.31	1.69
24.0	32.0	7.05	5.14	1.68	6.81	5.02	1.75	6.49	4.89	2.09	6.33	4.76	2.21	6.13	4.67	2.23	6.00	4.54	2.07	5.88	4.43	1.73

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW186D2 + ATNH18GQLE2, ABNH18GHLA2, ABNH18GL2A2, UVNH18GJLA2, QNH18GALA0
 [UU18W UE2] + [CT18 NQ2], [CB18 NH2], [CB18L N22], [CV18 NJ2], [CQ18 NA0]

• Heating Capacity

Model	ATNH18GQLE2 [CT18 NQ2]
AFR	13.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	4.31	2.44	4.60	2.49	5.13	2.36	5.65	2.20	6.15	2.08	6.55	2.03	6.73	1.93
18	4.26	2.48	4.59	2.55	5.14	2.43	5.64	2.27	6.11	2.13	6.47	2.07	6.70	1.95
20	4.24	2.52	4.59	2.61	5.14	2.50	5.63	2.33	6.05	2.17	6.43	2.10	6.72	1.96
21	4.22	2.54	4.59	2.65	5.14	2.53	5.61	2.36	6.01	2.19	6.43	2.11	6.67	1.96
22	4.22	2.57	4.59	2.69	5.14	2.57	5.60	2.39	5.97	2.21	6.42	2.12	6.62	1.96
24	4.18	2.62	4.54	2.72	5.08	2.60	5.57	2.41	5.96	2.23	6.31	2.13	6.58	1.97

Model	UVNH18GJLA2 [CV18 NJ2]
AFR	12.4

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	3.99	2.39	4.26	2.44	4.76	2.31	5.24	2.16	5.70	2.04	6.08	1.99	6.24	1.89
18	3.95	2.43	4.25	2.50	4.77	2.38	5.23	2.22	5.66	2.09	6.00	2.03	6.22	1.91
20	3.93	2.47	4.25	2.56	4.77	2.45	5.22	2.28	5.61	2.13	5.96	2.06	6.23	1.92
21	3.92	2.49	4.25	2.59	4.77	2.48	5.21	2.31	5.57	2.15	5.96	2.07	6.19	1.92
22	3.91	2.52	4.25	2.63	4.77	2.52	5.19	2.34	5.53	2.17	5.95	2.08	6.14	1.92
24	3.87	2.56	4.21	2.67	4.71	2.55	5.16	2.36	5.53	2.18	5.85	2.09	6.10	1.93

Model	ABNH18GHLA2 [CB18 NH2]
AFR	16.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	4.70	2.67	5.01	2.71	5.60	2.58	6.16	2.41	6.71	2.27	7.15	2.21	7.34	2.10
18	4.65	2.71	5.01	2.78	5.61	2.65	6.16	2.47	6.66	2.33	7.06	2.26	7.31	2.13
20	4.62	2.75	5.01	2.85	5.61	2.73	6.14	2.54	6.60	2.37	7.01	2.29	7.33	2.14
21	4.61	2.78	5.01	2.89	5.61	2.77	6.12	2.57	6.56	2.40	7.01	2.31	7.28	2.14
22	4.60	2.81	5.01	2.93	5.61	2.81	6.11	2.61	6.51	2.41	7.00	2.32	7.22	2.14
24	4.56	2.86	4.96	2.97	5.54	2.84	6.07	2.63	6.50	2.43	6.89	2.32	7.18	2.15

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	ABNH18GL2A2 [CB18L N22]
AFR	15.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	5.22	3.03	5.57	3.09	6.21	2.93	6.84	2.73	7.44	2.58	7.93	2.52	8.14	2.39
18.0	5.15	3.08	5.55	3.16	6.22	3.01	6.82	2.81	7.39	2.64	7.83	2.57	8.11	2.42
20.0	5.13	3.12	5.55	3.24	6.22	3.10	6.81	2.89	7.30	2.70	7.78	2.60	8.13	2.43
21.0	5.11	3.15	5.55	3.29	6.22	3.14	6.79	2.93	7.27	2.72	7.78	2.62	8.07	2.43
22.0	5.11	3.19	5.55	3.34	6.22	3.19	6.78	2.96	7.22	2.74	7.77	2.63	8.01	2.43
24.0	5.06	3.25	5.49	3.37	6.15	3.22	6.74	2.99	7.21	2.77	7.64	2.64	7.96	2.44

Model	AQNH18GALA0 [CQ18 NA0]
AFR	10.1

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	4.27	2.42	4.56	2.47	5.09	2.34	5.60	2.19	6.10	2.06	6.50	2.01	6.67	1.91
18	4.23	2.46	4.55	2.53	5.10	2.41	5.60	2.25	6.06	2.12	6.42	2.05	6.65	1.93
20	4.20	2.50	4.55	2.59	5.10	2.48	5.58	2.31	6.00	2.16	6.37	2.08	6.66	1.94
21	4.19	2.53	4.55	2.63	5.10	2.52	5.57	2.34	5.96	2.18	6.37	2.10	6.62	1.95
22	4.18	2.56	4.55	2.67	5.10	2.55	5.55	2.37	5.92	2.20	6.36	2.11	6.56	1.95
24	4.14	2.60	4.51	2.70	5.04	2.59	5.52	2.39	5.91	2.21	6.26	2.11	6.53	1.96

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW246D2 + ATNH24GPLE2, ABNH24GHLA2, ABNH24GL3A2, UVNH24GJLA2
 [UU24W U42] + [CT24 NP2], [CB24 NH2], [CB24L N32], [CV24 NJ2]

• Cooling Capacity

Model	ATNH24GPLE2 [CT24 NP2]
AFR	17.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	7.66	6.55	1.57	7.32	6.34	1.64	6.88	6.08	2.20	6.67	5.88	2.45	6.38	5.70	2.69	6.20	5.50	2.64	6.02	5.33	2.37
16.0	22.0	8.13	6.64	2.13	7.79	6.44	2.14	7.34	6.20	2.59	7.13	6.00	2.79	6.84	5.83	2.90	6.66	5.64	2.76	6.49	5.48	2.40
18.0	25.0	8.60	6.69	2.30	8.26	6.50	2.31	7.81	6.28	2.72	7.60	6.09	2.84	7.30	5.94	2.94	7.13	5.75	2.76	6.95	5.59	2.34
19.0	27.0	8.84	6.75	2.32	8.50	6.57	2.34	8.04	6.36	2.75	7.81	6.15	2.84	7.54	6.02	2.95	7.36	5.83	2.75	7.19	5.68	2.32
22.0	30.0	9.54	6.89	2.32	9.20	6.72	2.39	8.74	6.52	2.82	8.53	6.34	2.98	8.23	6.21	3.00	8.06	6.03	2.78	7.88	5.88	2.32
24.0	32.0	10.02	7.01	2.31	9.67	6.85	2.41	9.21	6.67	2.87	8.99	6.49	3.03	8.70	6.37	3.06	8.52	6.19	2.84	8.35	6.04	2.38

Model	UVNH24GJLA2 [CV24 NJ2]
AFR	13.9

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	7.55	5.61	1.68	7.22	5.43	1.75	6.78	5.21	2.35	6.57	5.04	2.62	6.29	4.88	2.88	6.11	4.71	2.82	5.94	4.56	2.53
16.0	22.0	8.01	5.69	2.27	7.68	5.51	2.29	7.24	5.31	2.77	7.03	5.14	2.98	6.74	5.00	3.11	6.57	4.83	2.96	6.40	4.69	2.57
18.0	25.0	8.48	5.74	2.46	8.15	5.57	2.47	7.70	5.39	2.91	7.49	5.22	3.04	7.20	5.09	3.15	7.03	4.93	2.95	6.86	4.79	2.50
19.0	27.0	8.71	5.79	2.49	8.38	5.63	2.51	7.93	5.45	2.94	7.70	5.27	3.04	7.43	5.16	3.16	7.26	5.00	2.94	7.08	4.86	2.48
22.0	30.0	9.41	5.90	2.49	9.07	5.75	2.55	8.62	5.59	3.01	8.41	5.43	3.18	8.12	5.32	3.21	7.94	5.16	2.97	7.77	5.04	2.48
24.0	32.0	9.87	6.01	2.47	9.53	5.87	2.57	9.08	5.72	3.07	8.86	5.56	3.25	8.58	5.45	3.28	8.40	5.30	3.04	8.23	5.18	2.54

Model	ABNH24GHLA2 [CB24 NH2]
AFR	18.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	7.66	5.99	1.91	7.32	5.79	2.00	6.88	5.56	2.68	6.67	5.37	2.99	6.38	5.21	3.28	6.20	5.03	3.22	6.02	4.87	2.89
16.0	22.0	8.13	6.07	2.59	7.79	5.88	2.61	7.34	5.67	3.16	7.13	5.48	3.39	6.84	5.33	3.54	6.66	5.16	3.37	6.49	5.01	2.92
18.0	25.0	8.60	6.12	2.80	8.26	5.95	2.82	7.81	5.75	3.32	7.60	5.57	3.46	7.30	5.43	3.59	7.13	5.26	3.36	6.95	5.11	2.85
19.0	27.0	8.84	6.17	2.83	8.50	6.00	2.86	8.04	5.81	3.35	7.81	5.62	3.46	7.54	5.50	3.60	7.36	5.33	3.35	7.19	5.19	2.83
22.0	30.0	9.54	6.29	2.83	9.20	6.14	2.91	8.74	5.96	3.43	8.53	5.79	3.63	8.23	5.67	3.65	8.06	5.51	3.39	7.88	5.37	2.83
24.0	32.0	10.02	6.41	2.82	9.67	6.26	2.93	9.21	6.10	3.50	8.99	5.93	3.70	8.70	5.82	3.73	8.52	5.66	3.46	8.35	5.52	2.90

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	ABNH24GL3A2 [CB24L N32]
AFR	20.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	7.58	6.09	1.55	7.25	5.90	1.62	6.81	5.65	2.18	6.60	5.47	2.43	6.32	5.30	2.66	6.14	5.12	2.61	5.96	4.96	2.35
16.0	22.0	8.05	6.18	2.11	7.71	5.99	2.12	7.27	5.77	2.56	7.06	5.58	2.76	6.77	5.42	2.87	6.59	5.25	2.73	6.43	5.10	2.38
18.0	25.0	8.51	6.22	2.28	8.18	6.05	2.29	7.73	5.84	2.69	7.52	5.66	2.81	7.23	5.52	2.91	7.06	5.35	2.73	6.88	5.20	2.32
19.0	27.0	8.75	6.28	2.30	8.42	6.11	2.32	7.96	5.91	2.72	7.70	5.70	2.80	7.46	5.60	2.92	7.29	5.42	2.72	7.12	5.28	2.30
22.0	30.0	9.44	6.41	2.30	9.11	6.25	2.37	8.65	6.06	2.79	8.44	5.90	2.95	8.15	5.78	2.97	7.98	5.61	2.75	7.80	5.47	2.30
24.0	32.0	9.92	6.52	2.29	9.57	6.37	2.39	9.12	6.20	2.84	8.90	6.04	3.00	8.61	5.92	3.03	8.43	5.76	2.81	8.27	5.62	2.36

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
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 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW246D2 + ATNH24GPLE2, ABNH24GHLA2, ABNH24GL3A2, UVNH24GJLA2
 [UU24W U42] + [CT24 NP2], [CB24 NH2], [CB24L N32], [CV24 NJ2]

• Heating Capacity

Model	ATNH24GPLE2 [CT24 NP2]
AFR	17.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	6.26	3.76	6.68	3.83	7.47	3.63	8.21	3.39	8.95	3.20	9.53	3.12	9.78	2.96
18	6.20	3.81	6.67	3.92	7.48	3.74	8.21	3.49	8.89	3.28	9.41	3.18	9.75	3.00
20	6.16	3.88	6.67	4.02	7.48	3.85	8.18	3.58	8.80	3.35	9.35	3.23	9.77	3.01
21	6.14	3.92	6.67	4.07	7.48	3.90	8.17	3.63	8.74	3.38	9.35	3.25	9.71	3.02
22	6.13	3.96	6.67	4.13	7.48	3.96	8.14	3.67	8.68	3.40	9.34	3.27	9.63	3.02
24	6.07	4.03	6.61	4.19	7.39	4.01	8.10	3.71	8.67	3.43	9.18	3.27	9.57	3.03

Model	UVNH24GJLA2 [CV24 NJ2]
AFR	13.9

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	6.03	4.06	6.43	4.14	7.19	3.93	7.90	3.67	8.61	3.46	9.17	3.37	9.42	3.20
18	5.97	4.12	6.42	4.24	7.20	4.04	7.90	3.77	8.55	3.55	9.06	3.44	9.39	3.24
20	5.93	4.20	6.42	4.34	7.20	4.16	7.88	3.87	8.47	3.62	9.00	3.49	9.40	3.26
21	5.91	4.23	6.42	4.40	7.20	4.22	7.86	3.92	8.42	3.65	9.00	3.52	9.34	3.26
22	5.90	4.28	6.42	4.47	7.20	4.28	7.84	3.97	8.36	3.68	8.98	3.53	9.27	3.26
24	5.85	4.35	6.36	4.53	7.11	4.33	7.79	4.01	8.34	3.70	8.84	3.54	9.21	3.28

Model	ABNH24GHLA2 [CB24 NH2]
AFR	18.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	6.26	4.08	6.68	4.15	7.47	3.94	8.21	3.68	8.95	3.47	9.53	3.39	9.78	3.21
18	6.20	4.14	6.67	4.25	7.48	4.06	8.21	3.78	8.89	3.56	9.41	3.45	9.75	3.25
20	6.16	4.21	6.67	4.36	7.48	4.17	8.18	3.88	8.80	3.63	9.35	3.50	9.77	3.27
21	6.14	4.25	6.67	4.42	7.48	4.23	8.17	3.93	8.74	3.67	9.35	3.53	9.71	3.27
22	6.13	4.30	6.67	4.48	7.48	4.29	8.14	3.99	8.68	3.69	9.34	3.54	9.63	3.27
24	6.07	4.37	6.61	4.55	7.39	4.35	8.10	4.02	8.67	3.72	9.18	3.55	9.57	3.29

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	ABNH24GL3A2 [CB24L N32]
AFR	20.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	6.39	3.72	6.81	3.79	7.62	3.59	8.37	3.36	9.13	3.17	9.72	3.09	9.98	2.93
18.0	6.32	3.77	6.80	3.88	7.63	3.70	8.37	3.46	9.07	3.25	9.60	3.15	9.95	2.97
20.0	6.28	3.84	6.80	3.98	7.63	3.81	8.34	3.54	8.80	3.30	9.54	3.20	9.97	2.98
21.0	6.26	3.88	6.80	4.03	7.63	3.86	8.33	3.59	8.65	3.35	9.54	3.22	9.90	2.99
22.0	6.25	3.92	6.80	4.09	7.63	3.92	8.30	3.63	8.59	3.37	9.53	3.24	9.82	2.99
24.0	6.19	3.99	6.74	4.15	7.54	3.97	8.26	3.67	8.58	3.40	9.36	3.24	9.76	3.00

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
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 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW306D2 + ATNH30GPLE2, ABNH30GGLA2, UVNH30GJLA2
 [UU30W U42] + [UT30 NP2], [UB30 NG2], [UV30 NJ2]

• Cooling Capacity

Model	ATNH30GPLE2 [UT30 NP2]
AFR	19.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	8.63	7.22	1.93	8.25	6.98	2.02	7.75	6.70	2.71	7.51	6.48	3.02	7.18	6.28	3.32	6.99	6.06	3.25	6.79	5.87	2.92
16.0	22.0	9.16	7.31	2.62	8.78	7.09	2.64	8.28	6.83	3.20	8.04	6.61	3.43	7.71	6.43	3.58	7.51	6.21	3.41	7.31	6.03	2.96
18.0	25.0	9.69	7.38	2.83	9.31	7.17	2.85	8.80	6.93	3.36	8.56	6.71	3.50	8.23	6.54	3.63	8.03	6.34	3.40	7.84	6.16	2.89
19.0	27.0	9.96	7.44	2.86	9.58	7.24	2.89	9.06	7.00	3.39	8.80	6.78	3.50	8.49	6.63	3.64	8.29	6.43	3.39	8.10	6.25	2.86
22.0	30.0	10.75	7.59	2.86	10.37	7.40	2.94	9.85	7.19	3.47	9.61	6.99	3.67	9.28	6.84	3.70	9.08	6.64	3.43	8.88	6.48	2.86
24.0	32.0	11.28	7.73	2.85	10.90	7.55	2.97	10.38	7.35	3.54	10.13	7.15	3.74	9.80	7.01	3.77	9.60	6.82	3.50	9.41	6.66	2.93

Model	UVNH30GJLA2 [UV30 NJ2]
AFR	13.9

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	8.20	6.23	1.95	7.84	6.03	2.04	7.36	5.79	2.74	7.14	5.59	3.06	6.82	5.42	3.36	6.64	5.23	3.29	6.45	5.07	2.95
16.0	22.0	8.70	6.32	2.65	8.34	6.12	2.67	7.86	5.90	3.23	7.63	5.71	3.47	7.32	5.55	3.62	7.13	5.37	3.44	6.95	5.21	2.99
18.0	25.0	9.21	6.37	2.86	8.85	6.19	2.88	8.36	5.98	3.39	8.13	5.80	3.54	7.82	5.65	3.67	7.63	5.47	3.44	7.44	5.32	2.92
19.0	27.0	9.46	6.43	2.90	9.10	6.25	2.92	8.61	6.05	3.43	8.36	5.85	3.54	8.07	5.73	3.68	7.88	5.55	3.43	7.69	5.40	2.89
22.0	30.0	10.22	6.55	2.90	9.85	6.39	2.97	9.36	6.21	3.51	9.13	6.03	3.71	8.81	5.91	3.74	8.63	5.74	3.46	8.44	5.60	2.89
24.0	32.0	10.72	6.68	2.88	10.35	6.52	3.00	9.86	6.35	3.58	9.62	6.17	3.78	9.31	6.06	3.82	9.12	5.89	3.54	8.94	5.75	2.96

Model	ABNH30GGLA2 [UB30 NG2]
AFR	26.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	8.63	7.69	1.93	8.25	7.44	2.02	7.75	7.14	2.71	7.51	6.90	3.02	7.18	6.69	3.32	6.99	6.45	3.25	6.79	6.25	2.92
16.0	22.0	9.16	7.79	2.62	8.78	7.55	2.64	8.28	7.27	3.20	8.04	7.04	3.43	7.71	6.85	3.58	7.51	6.62	3.41	7.31	6.43	2.96
18.0	25.0	9.69	7.85	2.83	9.31	7.63	2.85	8.80	7.38	3.36	8.56	7.15	3.50	8.23	6.97	3.63	8.03	6.75	3.40	7.84	6.56	2.89
19.0	27.0	9.96	7.92	2.86	9.58	7.71	2.89	9.06	7.46	3.39	8.80	7.22	3.50	8.49	7.06	3.64	8.29	6.84	3.39	8.10	6.66	2.86
22.0	30.0	10.75	8.08	2.86	10.37	7.88	2.94	9.85	7.66	3.47	9.61	7.44	3.67	9.28	7.28	3.70	9.08	7.07	3.43	8.88	6.90	2.86
24.0	32.0	11.28	8.23	2.85	10.90	8.04	2.97	10.38	7.83	3.54	10.13	7.61	3.74	9.80	7.47	3.77	9.60	7.26	3.50	9.41	7.09	2.93

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW306D2 + ATNH30GPLE2, ABNH30GGLA2, UVNH30GJLA2
 [UU30W U42] + [UT30 NP2], [UB30 NG2], [UV30 NJ2]

• Heating Capacity

Model	ATNH30GPLE2 [UT30 NP2]
AFR	19.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	7.04	4.50	7.52	4.58	8.40	4.35	9.24	4.06	10.07	3.83	10.72	3.73	11.01	3.55
18	6.98	4.56	7.51	4.69	8.42	4.48	9.23	4.17	10.00	3.93	10.59	3.81	10.97	3.59
20	6.93	4.64	7.51	4.80	8.42	4.60	9.21	4.28	9.90	4.00	10.51	3.86	10.99	3.60
21	6.91	4.69	7.51	4.88	8.42	4.67	9.19	4.34	9.84	4.04	10.51	3.89	10.92	3.61
22	6.90	4.74	7.51	4.95	8.42	4.73	9.16	4.40	9.77	4.07	10.50	3.91	10.83	3.61
24	6.83	4.82	7.43	5.01	8.31	4.79	9.11	4.44	9.75	4.10	10.33	3.92	10.77	3.63

Model	UVNH30GJLA2 [UV30 NJ2]
AFR	13.9

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	6.58	4.80	7.02	4.89	7.84	4.64	8.62	4.34	9.39	4.09	10.01	3.99	10.27	3.79
18	6.51	4.87	7.01	5.01	7.85	4.78	8.62	4.46	9.33	4.19	9.88	4.07	10.24	3.83
20	6.47	4.96	7.01	5.13	7.85	4.92	8.59	4.57	9.24	4.28	9.81	4.13	10.26	3.85
21	6.45	5.00	7.01	5.21	7.85	4.99	8.57	4.63	9.18	4.32	9.81	4.16	10.19	3.86
22	6.44	5.06	7.01	5.28	7.85	5.05	8.55	4.69	9.11	4.35	9.80	4.18	10.11	3.86
24	6.38	5.15	6.94	5.35	7.76	5.12	8.50	4.74	9.10	4.38	9.64	4.18	10.05	3.87

Model	ABNH30GGLA2 [UB30 NG2]
AFR	26.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	7.04	4.00	7.52	4.07	8.40	3.87	9.24	3.61	10.07	3.40	10.72	3.32	11.01	3.15
18	6.98	4.06	7.51	4.17	8.42	3.98	9.23	3.71	10.00	3.49	10.59	3.39	10.97	3.19
20	6.93	4.13	7.51	4.27	8.42	4.09	9.21	3.81	9.90	3.56	10.51	3.44	10.99	3.20
21	6.91	4.17	7.51	4.34	8.42	4.15	9.19	3.86	9.84	3.60	10.51	3.46	10.92	3.21
22	6.90	4.21	7.51	4.40	8.42	4.21	9.16	3.91	9.77	3.62	10.50	3.48	10.83	3.21
24	6.83	4.29	7.43	4.46	8.31	4.26	9.11	3.95	9.75	3.65	10.33	3.48	10.77	3.23

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW366D2 + ATNH36GNLE2, ABNH36GGLA2, UVNH36GKLA2
[UU36W UO2] + [UT36 NN2], [UB36 NG2], [UV36 NK2]

• Cooling Capacity

Model	ATNH36GNLE2 [UT36 NN2]
AFR	24.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.79	9.49	2.27	10.32	9.18	2.38	9.69	8.81	3.19	9.39	8.52	3.56	8.98	8.26	3.91	8.73	7.97	3.83	8.49	7.72	3.44
16.0	22.0	11.45	9.61	3.08	10.98	9.33	3.11	10.34	8.98	3.76	10.05	8.69	4.04	9.63	8.45	4.21	9.39	8.17	4.01	9.14	7.93	3.48
18.0	25.0	12.11	9.70	3.33	11.64	9.43	3.35	11.00	9.11	3.95	10.70	8.83	4.12	10.29	8.61	4.27	10.04	8.33	4.00	9.79	8.11	3.40
19.0	27.0	12.45	9.78	3.37	11.97	9.52	3.40	11.33	9.21	3.99	11.00	8.91	4.12	10.62	8.72	4.28	10.37	8.45	3.99	10.12	8.22	3.37
22.0	30.0	13.44	9.98	3.37	12.96	9.73	3.46	12.32	9.45	4.09	12.01	9.19	4.32	11.60	8.99	4.35	11.35	8.73	4.03	11.10	8.52	3.37
24.0	32.0	14.11	10.16	3.35	13.62	9.93	3.49	12.97	9.67	4.16	12.66	9.40	4.40	12.25	9.22	4.44	12.00	8.97	4.12	11.76	8.76	3.45

Model	UVNH36GKLA2 [UV36 NK2]
AFR	21.4

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.30	8.50	2.42	9.85	8.22	2.53	9.25	7.89	3.40	8.96	7.63	3.79	8.57	7.39	4.16	8.34	7.13	4.08	8.10	6.91	3.66
16.0	22.0	10.93	8.61	3.28	10.48	8.35	3.31	9.87	8.04	4.00	9.59	7.79	4.30	9.20	7.57	4.48	8.96	7.32	4.27	8.72	7.11	3.70
18.0	25.0	11.56	8.69	3.55	11.11	8.44	3.57	10.50	8.16	4.20	10.21	7.91	4.38	9.82	7.71	4.55	9.58	7.46	4.26	9.35	7.26	3.62
19.0	27.0	11.88	8.76	3.59	11.42	8.52	3.62	10.82	8.25	4.25	10.50	7.98	4.38	10.13	7.81	4.56	9.90	7.57	4.25	9.66	7.37	3.58
22.0	30.0	12.83	8.94	3.59	12.37	8.72	3.68	11.76	8.47	4.35	11.46	8.23	4.59	11.07	8.06	4.63	10.83	7.82	4.29	10.60	7.63	3.58
24.0	32.0	13.46	9.10	3.57	13.00	8.89	3.72	12.38	8.66	4.43	12.09	8.42	4.69	11.69	8.26	4.73	11.46	8.03	4.39	11.22	7.84	3.67

Model	ABNH36GGLA2 [UB36 NG2]
AFR	32.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.79	9.25	2.37	10.32	8.95	2.47	9.69	8.59	3.32	9.39	8.30	3.71	8.98	8.05	4.07	8.73	7.77	3.99	8.49	7.53	3.58
16.0	22.0	11.45	9.38	3.21	10.98	9.09	3.24	10.34	8.76	3.92	10.05	8.48	4.21	9.63	8.24	4.39	9.39	7.97	4.18	9.14	7.74	3.62
18.0	25.0	12.11	9.46	3.47	11.64	9.19	3.49	11.00	8.88	4.12	10.70	8.61	4.29	10.29	8.39	4.45	10.04	8.13	4.17	9.79	7.90	3.54
19.0	27.0	12.45	9.54	3.51	11.97	9.28	3.54	11.33	8.98	4.16	11.00	8.69	4.29	10.62	8.50	4.46	10.37	8.24	4.16	10.12	8.02	3.51
22.0	30.0	13.44	9.73	3.51	12.96	9.49	3.61	12.32	9.22	4.26	12.01	8.96	4.50	11.60	8.77	4.53	11.35	8.52	4.20	11.10	8.31	3.51
24.0	32.0	14.11	9.91	3.49	13.62	9.68	3.64	12.97	9.42	4.34	12.66	9.17	4.59	12.25	8.99	4.63	12.00	8.74	4.30	11.76	8.54	3.59

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- | |
|--|
| |
|--|

 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW366D2 + ATNH36GNLE2, ABNH36GGLA2, UVNH36GKLA2
 [UU36W UO2] + [UT36 NN2], [UB36 NG2], [UV36 NK2]

• Heating Capacity

Model	ATNH36GNLE2 [UT36 NN2]
AFR	24.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.61	5.19	9.19	5.28	10.27	5.02	11.29	4.68	12.30	4.41	13.10	4.31	13.45	4.09
18	8.53	5.26	9.18	5.41	10.29	5.16	11.28	4.81	12.22	4.53	12.94	4.39	13.41	4.14
20	8.47	5.36	9.18	5.54	10.29	5.31	11.25	4.94	12.10	4.62	12.85	4.46	13.43	4.16
21	8.45	5.40	9.18	5.62	10.29	5.39	11.23	5.01	12.02	4.66	12.85	4.49	13.35	4.17
22	8.43	5.47	9.18	5.71	10.29	5.46	11.20	5.07	11.94	4.70	12.84	4.51	13.24	4.17
24	8.35	5.56	9.09	5.78	10.16	5.53	11.13	5.12	11.92	4.73	12.62	4.52	13.16	4.19

Model	UVNH36GKLA2 [UV36 NK2]
AFR	21.4

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.25	5.25	8.81	5.35	9.85	5.08	10.83	4.74	11.79	4.47	12.56	4.36	12.90	4.14
18	8.18	5.33	8.80	5.48	9.86	5.23	10.82	4.87	11.71	4.58	12.40	4.45	12.85	4.19
20	8.12	5.42	8.80	5.61	9.86	5.38	10.79	5.00	11.60	4.68	12.32	4.51	12.88	4.21
21	8.10	5.47	8.80	5.69	9.86	5.45	10.77	5.07	11.53	4.72	12.32	4.54	12.80	4.22
22	8.08	5.53	8.80	5.78	9.86	5.53	10.73	5.13	11.44	4.76	12.31	4.57	12.69	4.22
24	8.01	5.63	8.71	5.86	9.74	5.60	10.67	5.18	11.43	4.79	12.10	4.58	12.62	4.24

Model	ABNH36GGLA2 [UB36 NG2]
AFR	32.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.75	5.27	9.34	5.36	10.44	5.09	11.48	4.76	12.51	4.48	13.32	4.38	13.68	4.15
18	8.67	5.35	9.33	5.50	10.46	5.24	11.47	4.89	12.42	4.60	13.15	4.46	13.63	4.20
20	8.61	5.44	9.33	5.63	10.46	5.39	11.44	5.02	12.30	4.69	13.06	4.53	13.65	4.22
21	8.59	5.49	9.33	5.71	10.46	5.47	11.41	5.08	12.22	4.74	13.06	4.56	13.57	4.23
22	8.57	5.55	9.33	5.79	10.46	5.54	11.38	5.15	12.13	4.77	13.05	4.58	13.46	4.23
24	8.49	5.65	9.24	5.87	10.33	5.62	11.32	5.20	12.12	4.80	12.83	4.59	13.38	4.25

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW426D2 + ATNH42GMLE2, ABNH42GRLA2, UVNH42GLLA2
[UU42W U32] + [UT42 NM2], [UB42 NR2], [UV42 NL2]

• Cooling Capacity

Model	ATNH42GMLE2 [UT42 NM2]
AFR	30.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	11.76	2.84	12.94	11.38	2.96	12.15	10.92	3.98	11.78	10.55	4.44	11.27	10.23	4.87	10.96	9.87	4.78	10.65	9.56	4.29
16.0	22.0	14.36	11.91	3.85	13.77	11.55	3.88	12.98	11.13	4.69	12.60	10.77	5.04	12.09	10.47	5.25	11.78	10.13	5.00	11.47	9.83	4.34
18.0	25.0	15.20	12.02	4.16	14.60	11.68	4.18	13.80	11.28	4.93	13.42	10.94	5.13	12.91	10.66	5.33	12.60	10.33	4.99	12.29	10.04	4.24
19.0	27.0	15.61	12.12	4.21	15.02	11.79	4.24	14.21	11.41	4.98	13.80	11.04	5.13	13.32	10.80	5.34	13.01	10.47	4.98	12.70	10.19	4.20
22.0	30.0	16.86	12.36	4.20	16.26	12.06	4.32	15.45	11.71	5.10	15.07	11.38	5.38	14.55	11.14	5.42	14.24	10.82	5.03	13.93	10.56	4.20
24.0	32.0	17.70	12.59	4.18	17.09	12.30	4.35	16.28	11.98	5.19	15.89	11.65	5.49	15.37	11.43	5.54	15.06	11.11	5.14	14.75	10.85	4.30

Model	UVNH42GLLA2 [UV42 NL2]
AFR	28.6

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	11.03	2.92	12.94	10.67	3.05	12.15	10.24	4.09	11.78	9.90	4.56	11.27	9.60	5.01	10.96	9.26	4.91	10.65	8.97	4.41
16.0	22.0	14.36	11.17	3.95	13.77	10.84	3.99	12.98	10.44	4.82	12.60	10.10	5.18	12.09	9.82	5.40	11.78	9.50	5.14	11.47	9.22	4.46
18.0	25.0	15.20	11.27	4.28	14.60	10.95	4.30	13.80	10.58	5.07	13.42	10.26	5.28	12.91	10.00	5.48	12.60	9.69	5.13	12.29	9.42	4.36
19.0	27.0	15.61	11.37	4.32	15.02	11.06	4.36	14.21	10.70	5.12	13.80	10.36	5.28	13.32	10.13	5.49	13.01	9.82	5.12	12.70	9.56	4.31
22.0	30.0	16.86	11.60	4.32	16.26	11.31	4.44	15.45	10.99	5.24	15.07	10.68	5.53	14.55	10.45	5.58	14.24	10.15	5.17	13.93	9.90	4.32
24.0	32.0	17.70	11.81	4.30	17.09	11.54	4.48	16.28	11.23	5.34	15.89	10.93	5.65	15.37	10.72	5.70	15.06	10.42	5.29	14.75	10.18	4.42

Model	ABNH42GRLA2 [UB42 NR2]
AFR	38.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	12.46	3.03	12.94	12.06	3.16	12.15	11.57	4.24	11.78	11.18	4.74	11.27	10.84	5.20	10.96	10.46	5.09	10.65	10.14	4.57
16.0	22.0	14.36	12.63	4.10	13.77	12.25	4.14	12.98	11.80	5.01	12.60	11.42	5.38	12.09	11.10	5.60	11.78	10.73	5.33	11.47	10.42	4.63
18.0	25.0	15.20	12.74	4.44	14.60	12.38	4.46	13.80	11.96	5.25	13.42	11.59	5.48	12.91	11.30	5.68	12.60	10.95	5.32	12.29	10.65	4.52
19.0	27.0	15.61	12.85	4.49	15.02	12.50	4.53	14.21	12.09	5.31	13.80	11.70	5.48	13.32	11.45	5.70	13.01	11.10	5.31	12.70	10.80	4.48
22.0	30.0	16.86	13.11	4.49	16.26	12.78	4.60	15.45	12.42	5.44	15.07	12.06	5.74	14.55	11.81	5.79	14.24	11.47	5.37	13.93	11.19	4.48
24.0	32.0	17.70	13.35	4.46	17.09	13.04	4.64	16.28	12.69	5.54	15.89	12.35	5.86	15.37	12.11	5.91	15.06	11.78	5.48	14.75	11.50	4.59

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUW426D2 [UU42W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	4.60	4.60	4.60	4.60

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.20	5.20	5.20	5.20

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

- AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW426D2 + ATNH42GMLE2, ABNH42GRLA2, UVNH42GLLA2
 [UU42W U32] + [UT42 NM2], [UB42 NR2], [UV42 NL2]

• Heating Capacity

Model	ATNH42GMLE2 [UT42 NM2]
AFR	30.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	6.21	11.70	6.33	13.07	6.01	14.37	5.61	15.66	5.29	16.68	5.16	17.12	4.90
18	10.86	6.31	11.68	6.48	13.09	6.19	14.36	5.77	15.55	5.43	16.47	5.26	17.07	4.96
20	10.78	6.42	11.68	6.64	13.09	6.36	14.32	5.92	15.40	5.53	16.36	5.34	17.09	4.98
21	10.75	6.48	11.68	6.74	13.09	6.45	14.29	6.00	15.30	5.59	16.36	5.38	16.99	4.99
22	10.73	6.55	11.68	6.84	13.09	6.54	14.25	6.08	15.19	5.63	16.34	5.40	16.85	4.99
24	10.63	6.66	11.56	6.93	12.93	6.63	14.17	6.13	15.17	5.67	16.07	5.42	16.75	5.01

Model	UVNH42GLLA2 [UV42 NL2]
AFR	28.6

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	6.39	11.70	6.51	13.07	6.18	14.37	5.77	15.66	5.44	16.68	5.31	17.12	5.04
18	10.86	6.49	11.68	6.67	13.09	6.36	14.36	5.93	15.55	5.58	16.47	5.41	17.07	5.10
20	10.78	6.60	11.68	6.83	13.09	6.55	14.32	6.09	15.40	5.69	16.36	5.49	17.09	5.12
21	10.75	6.66	11.68	6.93	13.09	6.64	14.29	6.17	15.30	5.75	16.36	5.53	16.99	5.13
22	10.73	6.74	11.68	7.03	13.09	6.73	14.25	6.25	15.19	5.79	16.34	5.56	16.85	5.13
24	10.63	6.85	11.56	7.13	12.93	6.81	14.17	6.31	15.17	5.83	16.07	5.57	16.75	5.16

Model	ABNH42GRLA2 [UB42 NR2]
AFR	38.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	5.99	11.70	6.10	13.07	5.79	14.37	5.41	15.66	5.10	16.68	4.98	17.12	4.72
18	10.86	6.08	11.68	6.25	13.09	5.96	14.36	5.56	15.55	5.23	16.47	5.07	17.07	4.78
20	10.78	6.19	11.68	6.40	13.09	6.13	14.32	5.71	15.40	5.33	16.36	5.15	17.09	4.80
21	10.75	6.24	11.68	6.49	13.09	6.22	14.29	5.78	15.30	5.39	16.36	5.18	16.99	4.81
22	10.73	6.31	11.68	6.59	13.09	6.30	14.25	5.86	15.19	5.43	16.34	5.21	16.85	4.81
24	10.63	6.42	11.56	6.68	12.93	6.39	14.17	5.91	15.17	5.46	16.07	5.22	16.75	4.83

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUW426D2 [UU42W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	4.60	4.60	4.60	4.60

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.20	5.20	5.20	5.20

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

- AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW486D2 + ATNH48GMLE2, ABNH48GRLA2, UVNH48GLLA2, APNH48GTLA0
 [UU48W U32] + [UT48 NM2], [UB48 NR2], [UV48 NL2], [UP48 NT2]

• Cooling Capacity

Model	ATNH48GMLE2 [UT48 NM2]
AFR	34.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.39	12.87	3.36	14.72	12.46	3.51	13.83	11.95	4.71	13.40	11.55	5.26	12.82	11.20	5.78	12.46	10.80	5.66	12.11	10.47	5.08
16.0	22.0	16.34	13.04	4.56	15.67	12.65	4.60	14.76	12.18	5.56	14.34	11.79	5.97	13.75	11.47	6.22	13.40	11.08	5.92	13.05	10.76	5.14
18.0	25.0	17.29	13.15	4.93	16.61	12.78	4.96	15.70	12.35	5.84	15.27	11.97	6.09	14.68	11.67	6.31	14.33	11.30	5.91	13.98	10.99	5.02
19.0	27.0	17.76	13.27	4.98	17.08	12.91	5.03	16.17	12.49	5.90	15.70	12.09	6.09	15.15	11.83	6.33	14.80	11.46	5.90	14.45	11.16	4.97
22.0	30.0	19.19	13.53	4.98	18.50	13.20	5.11	17.58	12.82	6.04	17.14	12.46	6.38	16.55	12.20	6.43	16.20	11.85	5.96	15.85	11.56	4.97
24.0	32.0	20.13	13.79	4.95	19.44	13.47	5.16	18.52	13.11	6.15	18.07	12.75	6.51	17.49	12.51	6.57	17.13	12.16	6.09	16.78	11.88	5.09

Model	UVNH48GLLA2 [UV48 NL2]
AFR	30.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	14.32	11.51	3.21	13.69	11.13	3.36	12.86	10.68	4.51	12.46	10.32	5.03	11.92	10.01	5.53	11.59	9.66	5.41	11.26	9.36	4.86
16.0	22.0	15.20	11.66	4.36	14.57	11.31	4.40	13.73	10.89	5.32	13.33	10.54	5.71	12.79	10.25	5.95	12.46	9.91	5.67	12.13	9.62	4.92
18.0	25.0	16.08	11.76	4.71	15.45	11.43	4.74	14.60	11.04	5.58	14.20	10.70	5.82	13.66	10.43	6.04	13.33	10.10	5.66	13.00	9.83	4.80
19.0	27.0	16.52	11.86	4.77	15.89	11.54	4.81	15.04	11.16	5.65	14.60	10.80	5.82	14.09	10.57	6.05	13.76	10.24	5.65	13.43	9.97	4.76
22.0	30.0	17.84	12.10	4.77	17.20	11.80	4.89	16.35	11.46	5.78	15.94	11.14	6.10	15.39	10.90	6.15	15.06	10.59	5.70	14.74	10.33	4.76
24.0	32.0	18.72	12.32	4.74	18.08	12.04	4.94	17.22	11.72	5.89	16.81	11.40	6.23	16.26	11.18	6.28	15.93	10.87	5.83	15.60	10.62	4.87

Model	ABNH48GRLA2 [UB48 NR2]
AFR	40.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.10	13.59	3.39	14.44	13.15	3.54	13.56	12.62	4.76	13.15	12.19	5.31	12.57	11.82	5.83	12.23	11.41	5.71	11.88	11.05	5.12
16.0	22.0	16.03	13.77	4.60	15.37	13.35	4.64	14.48	12.86	5.61	14.06	12.45	6.02	13.49	12.11	6.28	13.14	11.70	5.98	12.80	11.36	5.19
18.0	25.0	16.96	13.89	4.97	16.29	13.50	5.00	15.40	13.04	5.89	14.98	12.64	6.14	14.40	12.32	6.37	14.06	11.93	5.97	13.71	11.61	5.06
19.0	27.0	17.42	14.01	5.03	16.76	13.63	5.07	15.86	13.19	5.95	15.40	12.76	6.14	14.86	12.49	6.38	14.52	12.10	5.95	14.17	11.78	5.02
22.0	30.0	18.82	14.29	5.03	18.14	13.94	5.16	17.24	13.54	6.09	16.81	13.15	6.43	16.24	12.88	6.48	15.89	12.51	6.01	15.54	12.20	5.02
24.0	32.0	19.75	14.56	5.00	19.07	14.22	5.20	18.16	13.84	6.21	17.73	13.46	6.56	17.15	13.21	6.62	16.81	12.84	6.15	16.46	12.54	5.14

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	APNH48GTLA0 [UP48 NT2]
AFR	31.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	14.94	11.63	2.61	14.28	11.26	2.73	13.42	10.80	3.66	13.01	10.44	4.07	12.44	10.12	4.47	12.09	9.77	4.39	11.74	9.47	3.94
16.0	22.0	15.86	11.79	3.54	15.19	11.44	3.56	14.32	11.01	4.31	13.91	10.66	4.64	13.34	10.36	4.82	12.99	10.02	4.59	12.66	9.73	3.99
18.0	25.0	16.77	11.88	3.83	16.11	11.55	3.84	15.23	11.16	4.52	14.82	10.82	4.72	14.24	10.55	4.89	13.91	10.21	4.59	13.55	9.93	3.89
19.0	27.0	17.24	11.99	3.86	16.58	11.67	3.89	15.68	11.30	4.57	15.20	10.90	4.70	14.71	10.69	4.91	14.35	10.36	4.57	14.02	10.09	3.86
22.0	30.0	18.61	12.24	3.86	17.94	11.94	3.98	17.05	11.58	4.69	16.64	11.26	4.96	16.05	11.03	4.99	15.72	10.71	4.62	15.37	10.44	3.86
24.0	32.0	19.54	12.45	3.84	18.86	12.17	4.01	17.96	11.85	4.77	17.53	11.53	5.04	16.97	11.32	5.09	16.62	11.00	4.72	16.29	10.73	3.96

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
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 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUUW486D2 [UU48W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	5.06	5.06	5.06	5.06

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.72	5.72	5.72	5.72

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW486D2 + ATNH48GMLE2, ABNH48GRLA2, UVNH48GLLA2, APNH48GTLA0
 [UU48W U32] + [UT48 NM2], [UB48 NR2], [UV48 NL2], [UP48 NT2]

• Heating Capacity

Model	ATNH48GMLE2 [UT48 NM2]
AFR	34.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.52	7.29	13.37	7.42	14.94	7.05	16.43	6.58	17.90	6.21	19.06	6.06	19.57	5.75
18	12.41	7.40	13.35	7.61	14.96	7.26	16.41	6.77	17.77	6.36	18.82	6.18	19.50	5.82
20	12.32	7.53	13.35	7.79	14.96	7.47	16.37	6.95	17.60	6.49	18.69	6.26	19.54	5.84
21	12.29	7.60	13.35	7.91	14.96	7.57	16.33	7.04	17.49	6.56	18.69	6.31	19.42	5.86
22	12.27	7.68	13.35	8.02	14.96	7.67	16.29	7.13	17.36	6.60	18.67	6.34	19.25	5.86
24	12.15	7.81	13.22	8.13	14.78	7.77	16.19	7.20	17.34	6.65	18.36	6.35	19.14	5.88

Model	UVNH48GLLA2 [UV48 NL2]
AFR	30.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.52	6.39	13.37	6.51	14.94	6.18	16.43	5.77	17.90	5.44	19.06	5.31	19.57	5.04
18	12.41	6.49	13.35	6.67	14.96	6.36	16.41	5.93	17.77	5.58	18.82	5.41	19.50	5.10
20	12.32	6.60	13.35	6.83	14.96	6.55	16.37	6.09	17.60	5.69	18.69	5.49	19.54	5.12
21	12.29	6.66	13.35	6.93	14.96	6.64	16.33	6.17	17.49	5.75	18.69	5.53	19.42	5.13
22	12.27	6.74	13.35	7.03	14.96	6.73	16.29	6.25	17.36	5.79	18.67	5.56	19.25	5.13
24	12.15	6.85	13.22	7.13	14.78	6.81	16.19	6.31	17.34	5.83	18.36	5.57	19.14	5.16

Model	ABNH48GRLA2 [UB48 NR2]
AFR	40.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.95	7.29	13.82	7.42	15.45	7.05	16.99	6.58	18.51	6.21	19.71	6.06	20.24	5.75
18	12.83	7.40	13.80	7.61	15.47	7.26	16.97	6.77	18.38	6.36	19.46	6.18	20.17	5.82
20	12.74	7.53	13.80	7.79	15.47	7.47	16.93	6.95	18.20	6.49	19.33	6.26	20.20	5.84
21	12.71	7.60	13.80	7.91	15.47	7.57	16.89	7.04	18.08	6.56	19.33	6.31	20.08	5.86
22	12.68	7.68	13.80	8.02	15.47	7.67	16.84	7.13	17.95	6.60	19.31	6.34	19.91	5.86
24	12.56	7.81	13.67	8.13	15.28	7.77	16.75	7.20	17.93	6.65	18.99	6.35	19.80	5.88

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	APNH48GTLA0 [UP48 NT2]
AFR	31.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	12.14	5.81	12.97	5.92	14.49	5.62	15.94	5.25	17.36	4.95	18.49	4.83	18.98	4.59
18.0	12.04	5.91	12.95	6.07	14.51	5.79	15.92	5.40	17.24	5.08	18.26	4.92	18.92	4.64
20.0	11.95	6.01	12.95	6.22	14.51	5.96	15.88	5.54	17.10	5.20	18.13	5.00	18.95	4.66
21.0	11.92	6.06	12.95	6.31	14.51	6.04	15.84	5.61	16.97	5.23	18.13	5.03	18.84	4.67
22.0	11.90	6.13	12.95	6.40	14.51	6.12	15.80	5.69	16.84	5.27	18.11	5.06	18.67	4.67
24.0	11.79	6.23	12.82	6.49	14.34	6.20	15.70	5.74	16.82	5.31	17.81	5.07	18.57	4.70

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input (Comp.+ indoor fan motor+outdoor fan motor)	[kW]

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
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 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUW486D2 [UU48W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	5.06	5.06	5.06	5.06

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.50	5.50	5.50	5.50

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.89	4.89

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW606D2 + ATNH60GMLE2, ABNH60GRLA2, UVNH60GLLA2
 [UU60W U32] + [UT60 NM2], [UB60 NR2], [UV60 NL2]

• Cooling Capacity

Model	ATNH60GMLE2 [UT60 NM2]
AFR	34.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.98	12.84	3.94	15.29	12.43	4.11	14.35	11.93	5.52	13.92	11.52	6.16	13.31	11.17	6.77	12.94	10.78	6.63	12.57	10.44	5.95
16.0	22.0	16.97	13.01	5.34	16.27	12.62	5.38	15.33	12.15	6.51	14.89	11.76	7.00	14.28	11.44	7.29	13.91	11.06	6.94	13.54	10.74	6.02
18.0	25.0	17.95	13.12	5.77	17.25	12.76	5.81	16.30	12.32	6.84	15.86	11.95	7.13	15.25	11.65	7.39	14.88	11.28	6.93	14.51	10.97	5.88
19.0	27.0	18.44	13.24	5.84	17.74	12.88	5.89	16.79	12.46	6.91	16.30	12.06	7.13	15.73	11.80	7.41	15.36	11.43	6.91	15.00	11.13	5.82
22.0	30.0	19.92	13.50	5.84	19.20	13.17	5.99	18.25	12.79	7.08	17.79	12.43	7.47	17.18	12.17	7.53	16.82	11.82	6.98	16.45	11.53	5.83
24.0	32.0	20.90	13.75	5.80	20.18	13.43	6.04	19.23	13.08	7.21	18.76	12.72	7.62	18.15	12.48	7.69	17.79	12.13	7.14	17.42	11.85	5.97

Model	UVNH60GLLA2 [UV60 NL2]
AFR	31.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.39	11.96	3.86	14.72	11.57	4.04	13.83	11.11	5.42	13.40	10.73	6.05	12.82	10.41	6.64	12.46	10.04	6.51	12.11	9.73	5.84
16.0	22.0	16.34	12.12	5.24	15.67	11.75	5.29	14.76	11.32	6.39	14.34	10.96	6.87	13.75	10.65	7.16	13.40	10.30	6.81	13.05	10.00	5.91
18.0	25.0	17.29	12.22	5.66	16.61	11.88	5.70	15.70	11.48	6.71	15.27	11.13	7.00	14.68	10.85	7.26	14.33	10.50	6.80	13.98	10.22	5.77
19.0	27.0	17.76	12.33	5.73	17.08	12.00	5.78	16.17	11.61	6.79	15.70	11.23	7.00	15.15	10.99	7.28	14.80	10.65	6.79	14.45	10.37	5.72
22.0	30.0	19.19	12.58	5.73	18.50	12.27	5.88	17.58	11.91	6.95	17.14	11.58	7.33	16.55	11.34	7.39	16.20	11.01	6.85	15.85	10.74	5.72
24.0	32.0	20.13	12.81	5.70	19.44	12.51	5.93	18.52	12.18	7.07	18.07	11.85	7.48	17.49	11.62	7.55	17.13	11.30	7.00	16.78	11.04	5.86

Model	ABNH60GRLA2 [UB60 NR2]
AFR	50.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.98	14.43	3.83	15.29	13.96	4.01	14.35	13.40	5.38	13.92	12.95	6.00	13.31	12.55	6.59	12.94	12.11	6.46	12.57	11.73	5.79
16.0	22.0	16.97	14.62	5.20	16.27	14.18	5.25	15.33	13.66	6.34	14.89	13.22	6.81	14.28	12.85	7.10	13.91	12.42	6.76	13.54	12.06	5.87
18.0	25.0	17.95	14.74	5.62	17.25	14.33	5.65	16.30	13.85	6.66	15.86	13.42	6.94	15.25	13.08	7.20	14.88	12.67	6.75	14.51	12.32	5.73
19.0	27.0	18.44	14.87	5.69	17.74	14.47	5.74	16.79	14.00	6.73	16.30	13.55	6.94	15.73	13.26	7.22	15.36	12.85	6.73	15.00	12.50	5.67
22.0	30.0	19.92	15.17	5.69	19.20	14.80	5.84	18.25	14.37	6.89	17.79	13.97	7.28	17.18	13.68	7.34	16.82	13.28	6.80	16.45	12.95	5.68
24.0	32.0	20.90	15.45	5.65	20.18	15.09	5.89	19.23	14.70	7.02	18.76	14.29	7.42	18.15	14.02	7.49	17.79	13.63	6.95	17.42	13.31	5.81

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUW606D2 [UU60W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
PI	5.80	5.80	5.80

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.20	5.20	5.20	5.20

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
AFR	19.0 * 2	26.5 * 2	13.9 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW606D2 + ATNH60GMLE2, ABNH60GRLA2, UVNH60GLLA2
 [UU60W U32] + [UT60 NM2], [UB60 NR2], [UV60 NL2]

• Heating Capacity

Model	ATNH60GMLE2 [UT60 NM2]
AFR	34.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	8.83	14.20	8.99	15.87	8.54	17.45	7.98	19.01	7.52	20.25	7.34	20.79	6.97
18	13.18	8.96	14.18	9.22	15.90	8.79	17.44	8.20	18.88	7.71	20.00	7.48	20.72	7.05
20	13.09	9.12	14.18	9.44	15.90	9.04	17.39	8.42	18.70	7.87	19.86	7.59	20.76	7.08
21	13.06	9.20	14.18	9.58	15.90	9.17	17.35	8.53	18.58	7.94	19.86	7.64	20.63	7.09
22	13.03	9.31	14.18	9.72	15.90	9.30	17.30	8.63	18.45	8.00	19.84	7.68	20.46	7.09
24	12.91	9.47	14.04	9.85	15.70	9.42	17.21	8.72	18.42	8.06	19.51	7.70	20.34	7.13

Model	UVNH60GLLA2 [UV60 NL2]
AFR	31.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	8.83	14.20	8.99	15.87	8.54	17.45	7.98	19.01	7.52	20.25	7.34	20.79	6.97
18	13.18	8.96	14.18	9.22	15.90	8.79	17.44	8.20	18.88	7.71	20.00	7.48	20.72	7.05
20	13.09	9.12	14.18	9.44	15.90	9.04	17.39	8.42	18.70	7.87	19.86	7.59	20.76	7.08
21	13.06	9.20	14.18	9.58	15.90	9.17	17.35	8.53	18.58	7.94	19.86	7.64	20.63	7.09
22	13.03	9.31	14.18	9.72	15.90	9.30	17.30	8.63	18.45	8.00	19.84	7.68	20.46	7.09
24	12.91	9.47	14.04	9.85	15.70	9.42	17.21	8.72	18.42	8.06	19.51	7.70	20.34	7.13

Model	ABNH60GRLA2 [UB60 NR2]
AFR	50.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	7.34	14.20	7.47	15.87	7.10	17.45	6.63	19.01	6.25	20.25	6.10	20.79	5.79
18	13.18	7.45	14.18	7.66	15.90	7.31	17.44	6.81	18.88	6.41	20.00	6.22	20.72	5.85
20	13.09	7.58	14.18	7.84	15.90	7.52	17.39	6.99	18.70	6.54	19.86	6.31	20.76	5.88
21	13.06	7.65	14.18	7.96	15.90	7.62	17.35	7.08	18.58	6.60	19.86	6.35	20.63	5.89
22	13.03	7.74	14.18	8.07	15.90	7.72	17.30	7.17	18.45	6.65	19.84	6.38	20.46	5.89
24	12.91	7.87	14.04	8.18	15.70	7.83	17.21	7.24	18.42	6.69	19.51	6.40	20.34	5.92

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 1Ø Synchro Equivalent capacity table

AUUW606D2 [UU60W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
PI	5.70	5.70	5.70

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.00	5.00	5.00	5.00

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.89	4.89

Air Flow rate is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
AFR	19.0 * 2	26.5 * 2	13.9 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

- AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW368D2 + ATNH36GNLE2, ABNH36GGLA2, UVNH36GKLA2
 [UU37W UO2] + [UT36 NN2], [UB36 NG2], [UV36 NK2]

• Cooling Capacity

Model	ATNH36GNLE2 [UT36 NN2]
AFR	24.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.79	9.49	2.27	10.32	9.18	2.38	9.69	8.81	3.19	9.39	8.52	3.56	8.98	8.26	3.91	8.73	7.97	3.83	8.49	7.72	3.44
16.0	22.0	11.45	9.61	3.08	10.98	9.33	3.11	10.34	8.98	3.76	10.05	8.69	4.04	9.63	8.45	4.21	9.39	8.17	4.01	9.14	7.93	3.48
18.0	25.0	12.11	9.70	3.33	11.64	9.43	3.35	11.00	9.11	3.95	10.70	8.83	4.12	10.29	8.61	4.27	10.04	8.33	4.00	9.79	8.11	3.40
19.0	27.0	12.45	9.78	3.37	11.97	9.52	3.40	11.33	9.21	3.99	11.00	8.91	4.12	10.62	8.72	4.28	10.37	8.45	3.99	10.12	8.22	3.37
22.0	30.0	13.44	9.98	3.37	12.96	9.73	3.46	12.32	9.45	4.09	12.01	9.19	4.32	11.60	8.99	4.35	11.35	8.73	4.03	11.10	8.52	3.37
24.0	32.0	14.11	10.16	3.35	13.62	9.93	3.49	12.97	9.67	4.16	12.66	9.40	4.40	12.25	9.22	4.44	12.00	8.97	4.12	11.76	8.76	3.45

Model	UVNH36GKLA2 [UV36 NK2]
AFR	21.4

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.30	8.50	2.42	9.85	8.22	2.53	9.25	7.89	3.40	8.96	7.63	3.79	8.57	7.39	4.16	8.34	7.13	4.08	8.10	6.91	3.66
16.0	22.0	10.93	8.61	3.28	10.48	8.35	3.31	9.87	8.04	4.00	9.59	7.79	4.30	9.20	7.57	4.48	8.96	7.32	4.27	8.72	7.11	3.70
18.0	25.0	11.56	8.69	3.55	11.11	8.44	3.57	10.50	8.16	4.20	10.21	7.91	4.38	9.82	7.71	4.55	9.58	7.46	4.26	9.35	7.26	3.62
19.0	27.0	11.88	8.76	3.59	11.42	8.52	3.62	10.82	8.25	4.25	10.50	7.98	4.38	10.13	7.81	4.56	9.90	7.57	4.25	9.66	7.37	3.58
22.0	30.0	12.83	8.94	3.59	12.37	8.72	3.68	11.76	8.47	4.35	11.46	8.23	4.59	11.07	8.06	4.63	10.83	7.82	4.29	10.60	7.63	3.58
24.0	32.0	13.46	9.10	3.57	13.00	8.89	3.72	12.38	8.66	4.43	12.09	8.42	4.69	11.69	8.26	4.73	11.46	8.03	4.39	11.22	7.84	3.67

Model	ABNH36GGLA2 [UB36 NG2]
AFR	32.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	10.79	9.26	2.56	10.32	8.96	2.67	9.69	8.60	3.59	9.39	8.30	4.01	8.98	8.05	4.40	8.73	7.77	4.31	8.49	7.53	3.87
16.0	22.0	11.45	9.38	3.47	10.98	9.10	3.50	10.34	8.76	4.23	10.05	8.48	4.55	9.63	8.24	4.74	9.39	7.97	4.51	9.14	7.74	3.91
18.0	25.0	12.11	9.46	3.75	11.64	9.19	3.77	11.00	8.88	4.44	10.70	8.61	4.63	10.29	8.39	4.81	10.04	8.13	4.50	9.79	7.90	3.82
19.0	27.0	12.45	9.54	3.79	11.97	9.28	3.83	11.33	8.98	4.49	11.00	8.69	4.63	10.62	8.50	4.82	10.37	8.24	4.49	10.12	8.02	3.79
22.0	30.0	13.44	9.73	3.79	12.96	9.49	3.89	12.32	9.22	4.60	12.01	8.96	4.86	11.60	8.77	4.89	11.35	8.52	4.54	11.10	8.31	3.79
24.0	32.0	14.11	9.91	3.77	13.62	9.68	3.93	12.97	9.43	4.69	12.66	9.17	4.95	12.25	9.00	5.00	12.00	8.74	4.64	11.76	8.54	3.88

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

**Models : AUUW368D2 + ATNH36GNLE2, ABNH36GGLA2, UVNH36GKLA2
[UU37W UO2] + [UT36 NN2], [UB36 NG2], [UV36 NK2]**

• Heating Capacity

Model	ATNH36GNLE2 [UT36 NN2]
AFR	24.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.61	5.19	9.19	5.28	10.27	5.02	11.29	4.68	12.30	4.41	13.10	4.31	13.45	4.09
18	8.53	5.26	9.18	5.41	10.29	5.16	11.28	4.81	12.22	4.53	12.94	4.39	13.41	4.14
20	8.47	5.36	9.18	5.54	10.29	5.31	11.25	4.94	12.10	4.62	12.85	4.46	13.43	4.16
21	8.45	5.40	9.18	5.62	10.29	5.39	11.23	5.01	12.02	4.66	12.85	4.49	13.35	4.17
22	8.43	5.47	9.18	5.71	10.29	5.46	11.20	5.07	11.94	4.70	12.84	4.51	13.24	4.17
24	8.35	5.56	9.09	5.78	10.16	5.53	11.13	5.12	11.92	4.73	12.62	4.52	13.16	4.19

Model	UVNH36GKLA2 [UV36 NK2]
AFR	21.4

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.25	5.25	8.81	5.35	9.85	5.08	10.83	4.74	11.79	4.47	12.56	4.36	12.90	4.14
18	8.18	5.33	8.80	5.48	9.86	5.23	10.82	4.87	11.71	4.58	12.40	4.45	12.85	4.19
20	8.12	5.42	8.80	5.61	9.86	5.38	10.79	5.00	11.60	4.68	12.32	4.51	12.88	4.21
21	8.10	5.47	8.80	5.69	9.86	5.45	10.77	5.07	11.53	4.72	12.32	4.54	12.80	4.22
22	8.08	5.53	8.80	5.78	9.86	5.53	10.73	5.13	11.44	4.76	12.31	4.57	12.69	4.22
24	8.01	5.63	8.71	5.86	9.74	5.60	10.67	5.18	11.43	4.79	12.10	4.58	12.62	4.24

Model	ABNH36GGLA2 [UB36 NG2]
AFR	32.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	8.75	5.60	9.34	5.71	10.44	5.42	11.48	5.06	12.51	4.77	13.32	4.66	13.68	4.42
18	8.67	5.69	9.33	5.85	10.46	5.58	11.47	5.20	12.42	4.89	13.15	4.75	13.63	4.47
20	8.61	5.79	9.33	5.99	10.46	5.74	11.44	5.34	12.30	4.99	13.06	4.82	13.65	4.49
21	8.59	5.84	9.33	6.08	10.46	5.82	11.41	5.41	12.22	5.04	13.06	4.85	13.57	4.50
22	8.57	5.91	9.33	6.16	10.46	5.90	11.38	5.48	12.13	5.08	13.05	4.87	13.46	4.50
24	8.49	6.01	9.24	6.25	10.33	5.98	11.32	5.53	12.12	5.11	12.83	4.88	13.38	4.52

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW428D2 + ATNH42GMLE2, ABNH42GRLA2, UVNH42GLLA2
[UU43W U32] + [UT42 NM2], [UB42 NR2], [UV42 NL2]

• Cooling Capacity

Model	ATNH42GMLE2 [UT42 NM2]
AFR	30.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	11.70	2.84	12.94	11.32	2.96	12.15	10.86	3.98	11.78	10.50	4.44	11.27	10.18	4.87	10.96	9.82	4.78	10.65	9.52	4.29
16.0	22.0	14.36	11.85	3.85	13.77	11.50	3.88	12.98	11.07	4.69	12.60	10.72	5.04	12.09	10.42	5.25	11.78	10.07	5.00	11.47	9.78	4.34
18.0	25.0	15.20	11.96	4.16	14.60	11.62	4.18	13.80	11.23	4.93	13.42	10.88	5.13	12.91	10.61	5.33	12.60	10.27	4.99	12.29	9.99	4.24
19.0	27.0	15.61	12.06	4.21	15.02	11.73	4.24	14.21	11.35	4.98	13.80	10.98	5.13	13.32	10.75	5.34	13.01	10.42	4.98	12.70	10.14	4.20
22.0	30.0	16.86	12.30	4.20	16.26	12.00	4.32	15.45	11.65	5.10	15.07	11.32	5.38	14.55	11.09	5.42	14.24	10.77	5.03	13.93	10.50	4.20
24.0	32.0	17.70	12.53	4.18	17.09	12.24	4.35	16.28	11.92	5.19	15.89	11.59	5.49	15.37	11.37	5.54	15.06	11.05	5.14	14.75	10.80	4.30

Model	UVNH42GLLA2 [UV42 NL2]
AFR	28.6

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	11.03	2.92	12.94	10.67	3.05	12.15	10.24	4.09	11.78	9.90	4.56	11.27	9.60	5.01	10.96	9.26	4.91	10.65	8.97	4.41
16.0	22.0	14.36	11.17	3.95	13.77	10.84	3.99	12.98	10.44	4.82	12.60	10.10	5.18	12.09	9.82	5.40	11.78	9.50	5.14	11.47	9.22	4.46
18.0	25.0	15.20	11.27	4.28	14.60	10.95	4.30	13.80	10.58	5.07	13.42	10.26	5.28	12.91	10.00	5.48	12.60	9.69	5.13	12.29	9.42	4.36
19.0	27.0	15.61	11.37	4.32	15.02	11.06	4.36	14.21	10.70	5.12	13.80	10.36	5.28	13.32	10.13	5.49	13.01	9.82	5.12	12.70	9.56	4.31
22.0	30.0	16.86	11.60	4.32	16.26	11.31	4.44	15.45	10.99	5.24	15.07	10.68	5.53	14.55	10.45	5.58	14.24	10.15	5.17	13.93	9.90	4.32
24.0	32.0	17.70	11.81	4.30	17.09	11.54	4.48	16.28	11.23	5.34	15.89	10.93	5.65	15.37	10.72	5.70	15.06	10.42	5.29	14.75	10.18	4.42

Model	ABNH42GRLA2 [UB42 NR2]
AFR	38.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	13.53	12.46	3.03	12.94	12.06	3.16	12.15	11.57	4.24	11.78	11.18	4.74	11.27	10.84	5.20	10.96	10.46	5.09	10.65	10.14	4.57
16.0	22.0	14.36	12.63	4.10	13.77	12.25	4.14	12.98	11.80	5.01	12.60	11.42	5.38	12.09	11.10	5.60	11.78	10.73	5.33	11.47	10.42	4.63
18.0	25.0	15.20	12.74	4.44	14.60	12.38	4.46	13.80	11.96	5.25	13.42	11.59	5.48	12.91	11.30	5.68	12.60	10.95	5.32	12.29	10.65	4.52
19.0	27.0	15.61	12.85	4.49	15.02	12.50	4.53	14.21	12.09	5.31	13.80	11.70	5.48	13.32	11.45	5.70	13.01	11.10	5.31	12.70	10.80	4.48
22.0	30.0	16.86	13.11	4.49	16.26	12.78	4.60	15.45	12.42	5.44	15.07	12.06	5.74	14.55	11.81	5.79	14.24	11.47	5.37	13.93	11.19	4.48
24.0	32.0	17.70	13.35	4.46	17.09	13.04	4.64	16.28	12.69	5.54	15.89	12.35	5.86	15.37	12.11	5.91	15.06	11.78	5.48	14.75	11.50	4.59

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUUW428D2 [UU43W U32](Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	4.60	4.60	4.60	4.60

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.20	5.20	5.20	5.20

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

- AFR : Air flow rate [m³/min]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW428D2 + ATNH42GMLE2, ABNH42GRLA2, UVNH42GLLA2
[UU43W U32] + [UT42 NM2], [UB42 NR2], [UV42 NL2]

• Heating Capacity

Model	ATNH42GMLE2 [UT42 NM2]
AFR	30.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	6.21	11.70	6.33	13.07	6.01	14.37	5.61	15.66	5.29	16.68	5.16	17.12	4.90
18	10.86	6.31	11.68	6.48	13.09	6.19	14.36	5.77	15.55	5.43	16.47	5.26	17.07	4.96
20	10.78	6.42	11.68	6.64	13.09	6.36	14.32	5.92	15.40	5.53	16.36	5.34	17.09	4.98
21	10.75	6.48	11.68	6.74	13.09	6.45	14.29	6.00	15.30	5.59	16.36	5.38	16.99	4.99
22	10.73	6.55	11.68	6.84	13.09	6.54	14.25	6.08	15.19	5.63	16.34	5.40	16.85	4.99
24	10.63	6.66	11.56	6.93	12.93	6.63	14.17	6.13	15.17	5.67	16.07	5.42	16.75	5.01

Model	UVNH42GLLA2 [UV42 NL2]
AFR	28.6

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	6.39	11.70	6.51	13.07	6.18	14.37	5.77	15.66	5.44	16.68	5.31	17.12	5.04
18	10.86	6.49	11.68	6.67	13.09	6.36	14.36	5.93	15.55	5.58	16.47	5.41	17.07	5.10
20	10.78	6.60	11.68	6.83	13.09	6.55	14.32	6.09	15.40	5.69	16.36	5.49	17.09	5.12
21	10.75	6.66	11.68	6.93	13.09	6.64	14.29	6.17	15.30	5.75	16.36	5.53	16.99	5.13
22	10.73	6.74	11.68	7.03	13.09	6.73	14.25	6.25	15.19	5.79	16.34	5.56	16.85	5.13
24	10.63	6.85	11.56	7.13	12.93	6.81	14.17	6.31	15.17	5.83	16.07	5.57	16.75	5.16

Model	ABNH42GRLA2 [UB42 NR2]
AFR	38.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	10.96	6.13	11.70	6.25	13.07	5.93	14.37	5.54	15.66	5.22	16.68	5.10	17.12	4.84
18	10.86	6.23	11.68	6.40	13.09	6.11	14.36	5.69	15.55	5.36	16.47	5.20	17.07	4.89
20	10.78	6.34	11.68	6.56	13.09	6.28	14.32	5.84	15.40	5.46	16.36	5.27	17.09	4.92
21	10.75	6.39	11.68	6.65	13.09	6.37	14.29	5.92	15.30	5.52	16.36	5.31	16.99	4.93
22	10.73	6.47	11.68	6.75	13.09	6.46	14.25	6.00	15.19	5.56	16.34	5.33	16.85	4.93
24	10.63	6.57	11.56	6.84	12.93	6.54	14.17	6.06	15.17	5.60	16.07	5.35	16.75	4.95

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUUW428D2 [UU43W U32](Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	4.60	4.60	4.60	4.60

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.00	5.00	5.00	5.00

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW488D2 + ATNH48GMLE2, ABNH48GRLA2, UVNH48GLLA2, APNH48GTLA0
 [UU49W U32] + [UT48 NM2], [UB48 NR2], [UV48 NL2], [UP48 NT2]

• Cooling Capacity

Model	ATNH48GMLE2 [UT48 NM2]
AFR	34.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.39	12.85	3.34	14.72	12.43	3.49	13.83	11.93	4.68	13.40	11.53	5.23	12.82	11.17	5.74	12.46	10.78	5.62	12.11	10.45	5.05
16.0	22.0	16.34	13.01	4.53	15.67	12.62	4.57	14.76	12.16	5.52	14.34	11.77	5.93	13.75	11.44	6.18	13.40	11.06	5.89	13.05	10.74	5.11
18.0	25.0	17.29	13.13	4.90	16.61	12.76	4.92	15.70	12.33	5.80	15.27	11.95	6.05	14.68	11.65	6.27	14.33	11.28	5.88	13.98	10.97	4.99
19.0	27.0	17.76	13.24	4.95	17.08	12.88	5.00	16.17	12.46	5.86	15.70	12.06	6.05	15.15	11.80	6.29	14.80	11.44	5.86	14.45	11.13	4.94
22.0	30.0	19.19	13.51	4.95	18.50	13.17	5.08	17.58	12.79	6.00	17.14	12.43	6.34	16.55	12.17	6.39	16.20	11.82	5.92	15.85	11.53	4.94
24.0	32.0	20.13	13.76	4.92	19.44	13.44	5.13	18.52	13.08	6.11	18.07	12.72	6.46	17.49	12.48	6.52	17.13	12.14	6.05	16.78	11.85	5.06

Model	UVNH48GLLA2 [UV48 NL2]
AFR	30.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	14.32	11.44	3.21	13.69	11.07	3.36	12.86	10.62	4.51	12.46	10.26	5.03	11.92	9.95	5.53	11.59	9.60	5.41	11.26	9.30	4.86
16.0	22.0	15.20	11.59	4.36	14.57	11.24	4.40	13.73	10.82	5.32	13.33	10.47	5.71	12.79	10.19	5.95	12.46	9.85	5.67	12.13	9.56	4.92
18.0	25.0	16.08	11.69	4.71	15.45	11.36	4.74	14.60	10.97	5.58	14.20	10.64	5.82	13.66	10.37	6.04	13.33	10.04	5.66	13.00	9.77	4.80
19.0	27.0	16.52	11.79	4.77	15.89	11.47	4.81	15.04	11.10	5.65	14.60	10.74	5.82	14.09	10.51	6.05	13.76	10.18	5.65	13.43	9.91	4.76
22.0	30.0	17.84	12.02	4.77	17.20	11.73	4.89	16.35	11.39	5.78	15.94	11.07	6.10	15.39	10.84	6.15	15.06	10.52	5.70	14.74	10.27	4.76
24.0	32.0	18.72	12.25	4.74	18.08	11.96	4.94	17.22	11.65	5.89	16.81	11.33	6.23	16.26	11.11	6.28	15.93	10.80	5.83	15.60	10.55	4.87

Model	ABNH48GRLA2 [UB48 NR2]
AFR	40.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.10	13.59	3.39	14.44	13.15	3.54	13.56	12.62	4.76	13.15	12.19	5.31	12.57	11.82	5.83	12.23	11.41	5.71	11.88	11.05	5.12
16.0	22.0	16.03	13.77	4.60	15.37	13.35	4.64	14.48	12.86	5.61	14.06	12.45	6.02	13.49	12.11	6.28	13.14	11.70	5.98	12.80	11.36	5.19
18.0	25.0	16.96	13.89	4.97	16.29	13.50	5.00	15.40	13.04	5.89	14.98	12.64	6.14	14.40	12.32	6.37	14.06	11.93	5.97	13.71	11.61	5.06
19.0	27.0	17.42	14.01	5.03	16.76	13.63	5.07	15.86	13.19	5.95	15.40	12.76	6.14	14.86	12.49	6.38	14.52	12.10	5.95	14.17	11.78	5.02
22.0	30.0	18.82	14.29	5.03	18.14	13.94	5.16	17.24	13.54	6.09	16.81	13.15	6.43	16.24	12.88	6.48	15.89	12.51	6.01	15.54	12.20	5.02
24.0	32.0	19.75	14.56	5.00	19.07	14.22	5.20	18.16	13.84	6.21	17.73	13.46	6.56	17.15	13.21	6.62	16.81	12.84	6.15	16.46	12.54	5.14

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	APNH48GTLA0 [UP48 NT2]
AFR	31.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	14.94	11.63	2.61	14.28	11.26	2.73	13.42	10.80	3.66	13.01	10.44	4.07	12.44	10.12	4.47	12.09	9.77	4.39	11.74	9.47	3.94
16.0	22.0	15.86	11.79	3.54	15.19	11.44	3.56	14.32	11.01	4.31	13.91	10.66	4.64	13.34	10.36	4.82	12.99	10.02	4.59	12.66	9.73	3.99
18.0	25.0	16.77	11.88	3.83	16.11	11.55	3.84	15.23	11.16	4.52	14.82	10.82	4.72	14.24	10.55	4.89	13.91	10.21	4.59	13.55	9.93	3.89
19.0	27.0	17.24	11.99	3.86	16.58	11.67	3.89	15.68	11.30	4.57	15.20	10.90	4.70	14.71	10.69	4.91	14.35	10.36	4.57	14.02	10.09	3.86
22.0	30.0	18.61	12.24	3.86	17.94	11.94	3.98	17.05	11.58	4.69	16.64	11.26	4.96	16.05	11.03	4.99	15.72	10.71	4.62	15.37	10.44	3.86
24.0	32.0	19.54	12.45	3.84	18.86	12.17	4.01	17.96	11.85	4.77	17.53	11.53	5.04	16.97	11.32	5.09	16.62	11.00	4.72	16.29	10.73	3.96

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- | |
|--|
| |
|--|

 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH. However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUUW488D2 [UU49W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	5.06	5.06	5.06	5.06

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.72	5.72	5.72	5.72

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	5.12	5.12

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW488D2 + ATNH48GMLE2, ABNH48GRLA2, UVNH48GLLA2, APNH48GTLA0
 [UU49W U32] + [UT48 NM2], [UB48 NR2], [UV48 NL2], [UP48 NT2]

• Heating Capacity

Model	ATNH48GMLE2 [UT48 NM2]
AFR	34.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.52	7.48	13.37	7.62	14.94	7.24	16.43	6.76	17.90	6.37	19.06	6.22	19.57	5.90
18	12.41	7.59	13.35	7.81	14.96	7.45	16.41	6.94	17.77	6.53	18.82	6.34	19.50	5.97
20	12.32	7.73	13.35	8.00	14.96	7.66	16.37	7.13	17.60	6.66	18.69	6.43	19.54	6.00
21	12.29	7.80	13.35	8.11	14.96	7.77	16.33	7.22	17.49	6.73	18.69	6.48	19.42	6.01
22	12.27	7.89	13.35	8.23	14.96	7.88	16.29	7.32	17.36	6.78	18.67	6.51	19.25	6.01
24	12.15	8.02	13.22	8.34	14.78	7.98	16.19	7.39	17.34	6.83	18.36	6.52	19.14	6.04

Model	UVNH48GLLA2 [UV48 NL2]
AFR	30.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.52	7.64	13.37	7.78	14.94	7.39	16.43	6.90	17.90	6.51	19.06	6.35	19.57	6.03
18	12.41	7.76	13.35	7.98	14.96	7.61	16.41	7.09	17.77	6.67	18.82	6.47	19.50	6.10
20	12.32	7.90	13.35	8.17	14.96	7.83	16.37	7.28	17.60	6.81	18.69	6.57	19.54	6.13
21	12.29	7.96	13.35	8.29	14.96	7.94	16.33	7.38	17.49	6.87	18.69	6.62	19.42	6.14
22	12.27	8.06	13.35	8.41	14.96	8.05	16.29	7.47	17.36	6.92	18.67	6.65	19.25	6.14
24	12.15	8.19	13.22	8.52	14.78	8.15	16.19	7.55	17.34	6.97	18.36	6.66	19.14	6.17

Model	ABNH48GRLA2 [UB48 NR2]
AFR	40.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	12.95	7.34	13.82	7.47	15.45	7.10	16.99	6.63	18.51	6.25	19.71	6.10	20.24	5.79
18	12.83	7.45	13.80	7.66	15.47	7.31	16.97	6.81	18.38	6.41	19.46	6.22	20.17	5.85
20	12.74	7.58	13.80	7.84	15.47	7.52	16.93	6.99	18.20	6.54	19.33	6.31	20.20	5.88
21	12.71	7.65	13.80	7.96	15.47	7.62	16.89	7.08	18.08	6.60	19.33	6.35	20.08	5.89
22	12.68	7.74	13.80	8.07	15.47	7.72	16.84	7.17	17.95	6.65	19.31	6.38	19.91	5.89
24	12.56	7.87	13.67	8.18	15.28	7.83	16.75	7.24	17.93	6.69	18.99	6.40	19.80	5.92

• Symbol

AFR : Air flow rate [m³/min]
 DB : Dry bulb temperature [°C]
 WB : Wet bulb temperature [°C]
 TC : Total capacity [kW]
 SHC : Sensible capacity [kW]
 PI : Power Input [kW]
 (Comp.+ indoor fan motor+outdoor fan motor)

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

Model	APNH48GTLA0 [UP48 NT2]
AFR	31.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16.0	12.14	5.81	12.97	5.92	14.49	5.62	15.94	5.25	17.36	4.95	18.49	4.83	18.98	4.59
18.0	12.04	5.91	12.95	6.07	14.51	5.79	15.92	5.40	17.24	5.08	18.26	4.92	18.92	4.64
20.0	11.95	6.01	12.95	6.22	14.51	5.96	15.88	5.54	17.10	5.20	18.13	5.00	18.95	4.66
21.0	11.92	6.06	12.95	6.31	14.51	6.04	15.84	5.61	16.97	5.23	18.13	5.03	18.84	4.67
22.0	11.90	6.13	12.95	6.40	14.51	6.12	15.80	5.69	16.84	5.27	18.11	5.06	18.67	4.67
24.0	11.79	6.23	12.82	6.49	14.34	6.20	15.70	5.74	16.82	5.31	17.81	5.07	18.57	4.70

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
- Interconnecting Piping Length : 5m
- Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUUW488D2 [UU49W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
PI	5.06	5.06	5.06	5.06

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.50	5.50	5.50	5.50

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	5.22	5.22

Air Flow rate is tabulated below

(Duo)

Model	CT24 NP2 * 2	CB24 NH2 * 2	CV24 NJ2 * 2	CB24L N32 * 2
AFR	17.0 * 2	18.0 * 2	13.9 * 2	20.0 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW608D2 + ATNH60GMLE2, ABNH60GRLA2, UVNH60GLLA2
[UU61W U32] + [UT60 NM2], [UB60 NR2], [UV60 NL2]

• Cooling Capacity

Model	ATNH60GMLE2 [UT60.NM2]
AFR	34.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.98	12.76	4.10	15.29	12.34	4.29	14.35	11.84	5.76	13.92	11.44	6.42	13.31	11.10	7.06	12.94	10.71	6.91	12.57	10.37	6.20
16.0	22.0	16.97	12.92	5.57	16.27	12.53	5.61	15.33	12.07	6.79	14.89	11.68	7.29	14.28	11.36	7.60	13.91	10.98	7.23	13.54	10.66	6.28
18.0	25.0	17.95	13.03	6.02	17.25	12.67	6.05	16.30	12.24	7.13	15.86	11.86	7.43	15.25	11.57	7.71	14.88	11.20	7.22	14.51	10.89	6.13
19.0	27.0	18.44	13.15	6.09	17.74	12.79	6.14	16.79	12.38	7.21	16.30	11.98	7.43	15.73	11.72	7.73	15.36	11.36	7.21	15.00	11.05	6.07
22.0	30.0	19.92	13.41	6.09	19.20	13.08	6.25	18.25	12.71	7.38	17.79	12.35	7.79	17.18	12.09	7.85	16.82	11.74	7.28	16.45	11.45	6.08
24.0	32.0	20.90	13.66	6.05	20.18	13.34	6.30	19.23	12.99	7.52	18.76	12.64	7.95	18.15	12.40	8.02	17.79	12.05	7.44	17.42	11.77	6.22

Model	UVNH60GLLA2 [UV60.NL2]
AFR	31.5

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.39	11.96	3.86	14.72	11.57	4.04	13.83	11.11	5.42	13.40	10.73	6.05	12.82	10.41	6.64	12.46	10.04	6.51	12.11	9.73	5.84
16.0	22.0	16.34	12.12	5.24	15.67	11.75	5.29	14.76	11.32	6.39	14.34	10.96	6.87	13.75	10.65	7.16	13.40	10.30	6.81	13.05	10.00	5.91
18.0	25.0	17.29	12.22	5.66	16.61	11.88	5.70	15.70	11.48	6.71	15.27	11.13	7.00	14.68	10.85	7.26	14.33	10.50	6.80	13.98	10.22	5.77
19.0	27.0	17.76	12.33	5.73	17.08	12.00	5.78	16.17	11.61	6.79	15.70	11.23	7.00	15.15	10.99	7.28	14.80	10.65	6.79	14.45	10.37	5.72
22.0	30.0	19.19	12.58	5.73	18.50	12.27	5.88	17.58	11.91	6.95	17.14	11.58	7.33	16.55	11.34	7.39	16.20	11.01	6.85	15.85	10.74	5.72
24.0	32.0	20.13	12.81	5.70	19.44	12.51	5.93	18.52	12.18	7.07	18.07	11.85	7.48	17.49	11.62	7.55	17.13	11.30	7.00	16.78	11.04	5.86

Model	ABNH60GRLA2 [UB60.NR2]
AFR	50.0

Indoor Air Temperature		Outdoor Air Temperature : °CDB																				
		20			25			32			35			40			43			46		
°CWB	°CDB	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20.0	15.98	14.43	3.83	15.29	13.96	4.01	14.35	13.40	5.38	13.92	12.95	6.00	13.31	12.55	6.59	12.94	12.11	6.46	12.57	11.73	5.79
16.0	22.0	16.97	14.62	5.20	16.27	14.18	5.25	15.33	13.66	6.34	14.89	13.22	6.81	14.28	12.85	7.10	13.91	12.42	6.76	13.54	12.06	5.87
18.0	25.0	17.95	14.74	5.62	17.25	14.33	5.65	16.30	13.85	6.66	15.86	13.42	6.94	15.25	13.08	7.20	14.88	12.67	6.75	14.51	12.32	5.73
19.0	27.0	18.44	14.87	5.69	17.74	14.47	5.74	16.79	14.00	6.73	16.30	13.55	6.94	15.73	13.26	7.22	15.36	12.85	6.73	15.00	12.50	5.67
22.0	30.0	19.92	15.17	5.69	19.20	14.80	5.84	18.25	14.37	6.89	17.79	13.97	7.28	17.18	13.68	7.34	16.82	13.28	6.80	16.45	12.95	5.68
24.0	32.0	20.90	15.45	5.65	20.18	15.09	5.89	19.23	14.70	7.02	18.76	14.29	7.42	18.15	14.02	7.49	17.79	13.63	6.95	17.42	13.31	5.81

• Symbol

AFR : Air flow rate	[m³/min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- indicates maximum capacity at the standard temperature condition.
- Heating mode Outdoor conditions : 85%RH.
However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUW608D2 [UU61W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
PI	5.80	5.80	5.80

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.20	5.20	5.20	5.20

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
AFR	19.0 * 2	26.5 * 2	13.9 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW608D2 + ATNH60GMLE2, ABNH60GRLA2, UVNH60GLLA2
[UU61W U32] + [UT60 NM2], [UB60 NR2], [UV60 NL2]

• Heating Capacity

Model	ATNH60GMLE2 [UT60.NM2]
AFR	34.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	9.06	14.20	9.22	15.87	8.76	17.45	8.18	19.01	7.71	20.25	7.52	20.79	7.14
18	13.18	9.19	14.18	9.45	15.90	9.02	17.44	8.41	18.88	7.91	20.00	7.67	20.72	7.23
20	13.09	9.36	14.18	9.68	15.90	9.27	17.39	8.63	18.70	8.07	19.86	7.78	20.76	7.26
21	13.06	9.44	14.18	9.82	15.90	9.40	17.35	8.74	18.58	8.14	19.86	7.84	20.63	7.28
22	13.03	9.55	14.18	9.96	15.90	9.53	17.30	8.85	18.45	8.20	19.84	7.88	20.46	7.28
24	12.91	9.71	14.04	10.10	15.70	9.66	17.21	8.94	18.42	8.26	19.51	7.89	20.34	7.31

Model	UVNH60GLLA2 [UV60.NL2]
AFR	31.5

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	8.83	14.20	8.99	15.87	8.54	17.45	7.98	19.01	7.52	20.25	7.34	20.79	6.97
18	13.18	8.96	14.18	9.22	15.90	8.79	17.44	8.20	18.88	7.71	20.00	7.48	20.72	7.05
20	13.09	9.12	14.18	9.44	15.90	9.04	17.39	8.42	18.70	7.87	19.86	7.59	20.76	7.08
21	13.06	9.20	14.18	9.58	15.90	9.17	17.35	8.53	18.58	7.94	19.86	7.64	20.63	7.09
22	13.03	9.31	14.18	9.72	15.90	9.30	17.30	8.63	18.45	8.00	19.84	7.68	20.46	7.09
24	12.91	9.47	14.04	9.85	15.70	9.42	17.21	8.72	18.42	8.06	19.51	7.70	20.34	7.13

Model	ABNH60GRLA2 [UB60.NR2]
AFR	50.0

Indoor Air Temperature	Outdoor Air Temperature : °CWB													
	-15		-10		-5		0		6		10		15	
°CDB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	13.31	7.55	14.20	7.69	15.87	7.30	17.45	6.82	19.01	6.42	20.25	6.27	20.79	5.95
18	13.18	7.66	14.18	7.88	15.90	7.51	17.44	7.00	18.88	6.59	20.00	6.39	20.72	6.02
20	13.09	7.80	14.18	8.07	15.90	7.73	17.39	7.19	18.70	6.72	19.86	6.49	20.76	6.05
21	13.06	7.86	14.18	8.18	15.90	7.84	17.35	7.29	18.58	6.79	19.86	6.53	20.63	6.06
22	13.03	7.96	14.18	8.30	15.90	7.94	17.30	7.38	18.45	6.84	19.84	6.56	20.46	6.06
24	12.91	8.09	14.04	8.42	15.70	8.05	17.21	7.45	18.42	6.88	19.51	6.58	20.34	6.09

• Symbol

AFR : Air flow rate	[m ³ /min]
DB : Dry bulb temperature	[°C]
WB : Wet bulb temperature	[°C]
TC : Total capacity	[kW]
SHC : Sensible capacity	[kW]
PI : Power Input	[kW]
(Comp.+ indoor fan motor+outdoor fan motor)	

• Notes

- All capacities are net. A deduction (cooling mode) or an addition (heating mode) of Capacity due to operating heat of indoor unit motor is reflected.
- | |
|--|
| |
|--|

 indicates maximum capacity at the standard temperature condition.
 - Heating mode Outdoor conditions : 85%RH.
 - However, the condition on nominal capacity is 7°CDB/6°CWB(44.6°FDB/42.8°FWB)
- Direct interpolation is permissible. Do not extrapolate.
- Capacities are based on the following conditions:
 - Interconnecting Piping Length : 5m
 - Level Difference : Zero.

1. DC Inverter SINGLE A (1Ø, 3Ø)

■ 3Ø Synchro Equivalent capacity table

AUW608D2 [UU61W U32] (Synchro-Duo, Trio, Quartet)

Max Power input of each model is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
PI	5.70	5.70	5.70

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
PI	5.00	5.00	5.00	5.00

(Quartet)

Model	CT12 NR2 * 4	CB12L N22 * 4
PI	4.82	4.82

Air Flow rate is tabulated below

(Duo)

Model	UT30 NP2 * 2	UB30 NG2 * 2	UV30 NJ2 * 2
AFR	19.0 * 2	26.5 * 2	13.9 * 2

(Trio)

Model	CT18 NQ2 * 3	CB18 NH2 * 3	CV18 NJ2 * 3	CB18L N22 * 3
AFR	13.0 * 3	16.5 * 3	12.4 * 3	15.0 * 3

(Trio)

Model	CT12 NR2 * 4	CB12L N22 * 4
AFR	9.5 * 4	10.0 * 4

• Notes

- Individual indoor capacities are not given because the combinations are for simultaneous operation.
- Rated cooling capacities are based on the following conditions:
Indoor air temperature: 27°CDB, 19.0°CWB, outdoor temperature 35°CDB.
Rated heating capacities are based on the following conditions:
Indoor air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB.

• Symbol

- AFR : Air flow rate [m³/min]
PI : Power Input [kW]
(Comp.+ indoor fan motor+outdoor fan motor)

SINGLE A™
1. DC Inverter SINGLE A (1Ø, 3Ø)

1.8 Capacity coefficient factor

DC Inverter SINGLE A.(1Ø)

1) Rate of change in capacity due to the main piping length

Rate of change in cooling capacity

Piping length(m)		5	10	15	20	30	40	50	60	70	75
Rate of change in capacity(%)	2.5/3.5kW	100	99.8	99.3	-	-	-	-	-	-	-
	5.0 kW	100	99.8	99.3	98.8	97.8	96.9	-	-	-	-
	7.1/8.0/10.0 kW	100	99.3	97.9	96.6	93.8	91.1	88.4	-	-	-
	12.5/14.0/15.0 kW	100	99.3	97.9	96.6	93.8	91.1	88.4	85.6	82.9	81.5

Rate of change in heating capacity

Piping length(m)		5	10	15	20	30	40	50	60	70	75
Rate of change in capacity(%)	2.5/3.5kW	100	99.8	99.4	-	-	-	-	-	-	-
	5.0 kW	100	99.8	99.4	99.0	98.3	97.5	-	-	-	-
	7.1/8.0/10.0 kW	100	99.7	99.2	98.7	97.7	96.6	95.6	-	-	-
	12.5/14.0/15.0 kW	100	99.7	99.2	98.7	97.7	96.6	95.6	94.6	93.5	93

DC Inverter SINGLE A.(3Ø)

1) Rate of change in capacity due to the main piping length

Rate of change in cooling capacity

Piping length(m)		5	10	15	20	30	40	50	60	70	75
Rate of change in capacity(%)	10.0 kW	100	99.3	97.9	96.6	93.8	91.1	88.4	-	-	-
	12.5/14.0/15.0 kW	100	99.3	97.9	96.6	93.8	91.1	88.4	85.6	82.9	81.5

Rate of change in heating capacity

Piping length(m)		5	10	15	20	30	40	50	60	70	75
Rate of change in capacity(%)	10.0 kW	100	99.7	99.2	98.7	97.7	96.6	95.6	-	-	-
	12.5/14.0/15.0 kW	100	99.7	99.2	98.7	97.7	96.6	95.6	94.6	93.5	93

Outdoor Units

1. DC Inverter SINGLE A (1Ø, 3Ø)

3) Calculation of actual system capacity

- ① Outdoor unit standard maximum capacity
 Q_{max} . [from specification table]
- ② Outdoor unit capacity at T_i , T_o temperature.
 $Q_{(T_i, T_o)}$ [from capacity table]
- ③ Outdoor unit capacity coefficient factor
 $F_{(T_i, T_o)} = Q_{(T_i, T_o)} / Q_{(max.)}$
- ④ Piping correction factor
 F_{piping} for piping length [from capacity coefficient factor table]
- ⑤ Indoor Unit actual capacity
 $Q_{actual} = Q_{max} \times F_{(T_i, T_o)} \times F_{piping}$

Example)

- Outdoor unit model : AUUW126D[UU12W ULD]
- Indoor units (ATNH12GRLE2 [CT12 NR2]) : 3.5kW
- Outdoor temperature : 40.0°CDB
- Indoor temperature: 19.0°CWB
- Piping length (ODU to IDU):15m
- Indoor unit actual cooling capacity in A room?
- Q_{max} : 3.74kW
- $Q_{(T_i, T_o)}$: 3.61 kW
- $F_{(T_i, T_o)}$: $3.61 / 3.74 = 96.52\%$
- $F_{piping} = 99.3\%$
- $Q_{actual} = 3.74 \times 0.9652 \times 0.993 = 3.585kW$

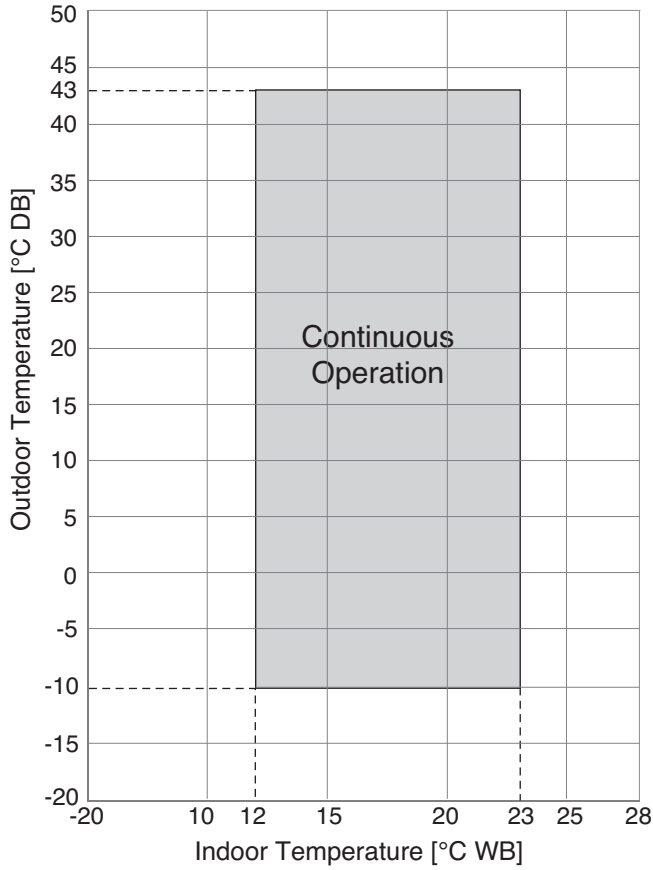
1. DC Inverter SINGLE A (1Ø, 3Ø)

1.9 Operation range

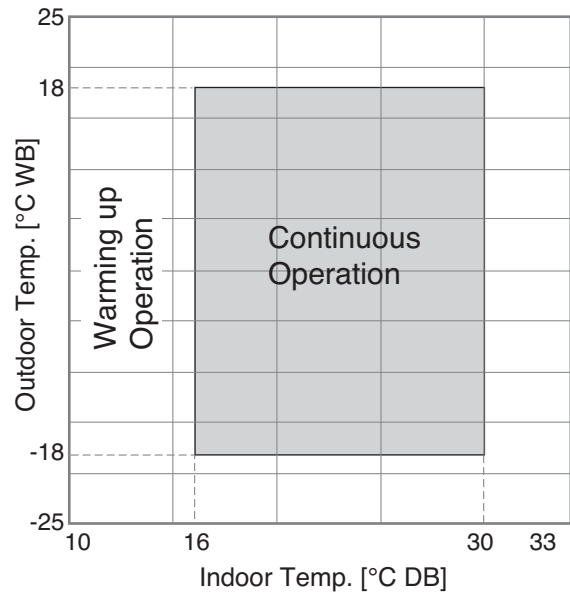
Models : AUUW096D [UU09W ULD], AUUW126D [UU12W ULD]

Outdoor Units

Cooling

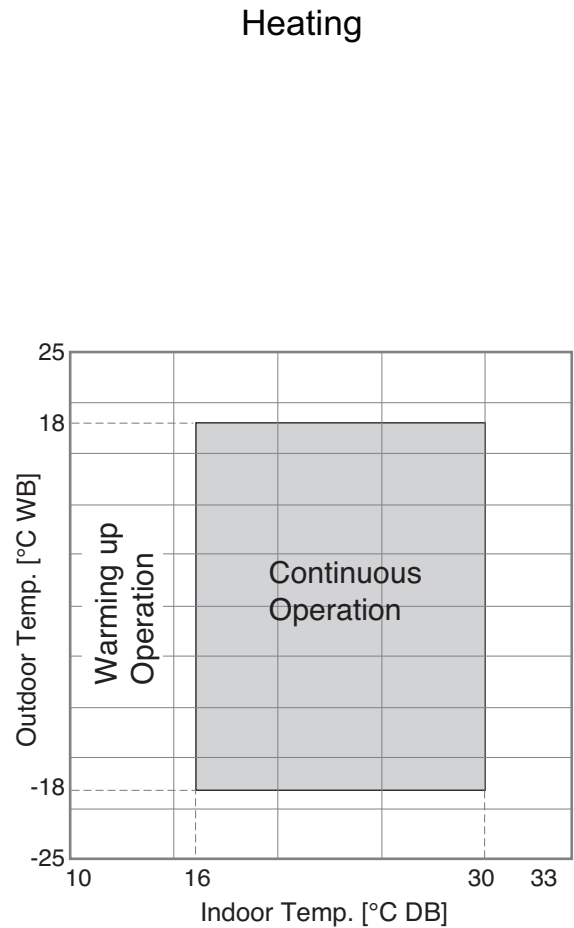
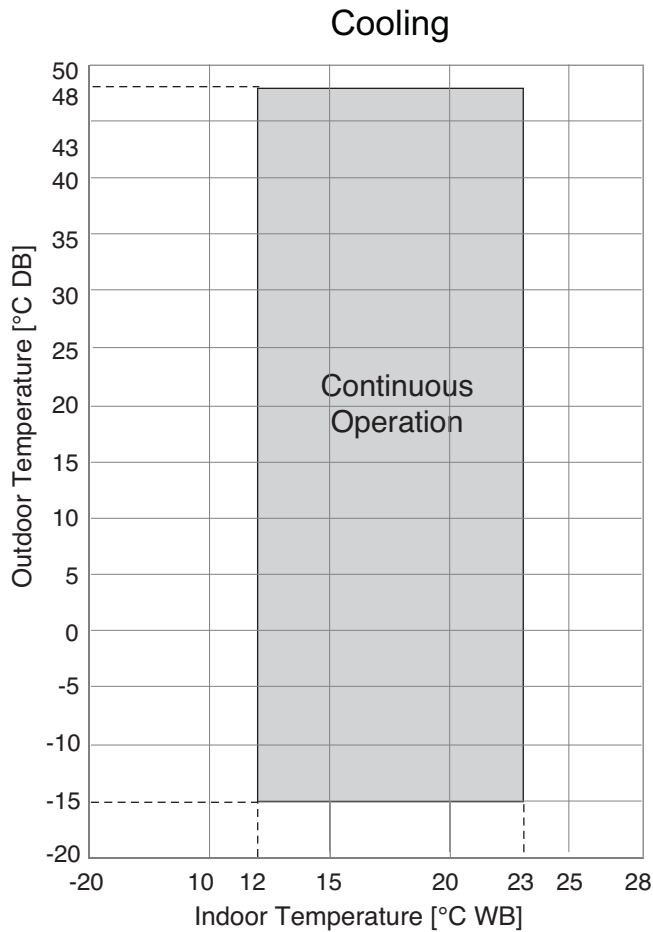


Heating



1. DC Inverter SINGLE A (1Ø, 3Ø)

Models : AUUW186D2 [UU18W UE2], AUUW246D2 [UU24W U42], AUUW306D2 [UU30W U42]
 AUUW366D2 [UU36W UO2], AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32]
 AUUW606D2 [UU60W U32], AUUW368D2 [UU37W UO2], AUUW428D2 [UU43W U32]
 AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]



1. DC Inverter SINGLE A (1Ø, 3Ø)

1.10 Electric characteristics

Unit				Power		Compressor		OFM	
Model	Type	Hz	Voltage	MCA	MOP	MSC	RLA	kW	FLA
AUUW096D[UU09W ULD]	1Ø	50	220-240	4.80	8.20	-	3.40	0.043	0.25
AUUW126D[UU12W ULD]				6.80	11.80	-	5.00	0.043	0.25
AUUW186D2 [UU18W UE2]				12.18	20.06	-	7.88	0.085	0.33
AUUW246D2 [UU24W U42]				17.88	30.20	-	12.32	0.124	0.48
AUUW306D2 [UU30W U42]				18.06	30.52	-	12.46	0.124	0.48
AUUW366D2 [UU36W UO2]				23.81	40.74	-	16.93	0.171	0.65
AUUW426D2 [UU42W U32]				25.55	43.63	-	18.08	0.248	0.95
AUUW486D2 [UU48W U32]				29.84	51.35	-	21.51	0.248	0.95
AUUW606D2 [UU60W U32]				34.91	60.48	-	25.57	0.248	0.95
AUUW368D2 [UU37W UO2]				3Ø	50	380-415	12.29	20.00	-	7.71	0.171	0.65
AUUW428D2 [UU43W U32]	13.54	22.01	-				8.47	0.248	0.95
AUUW488D2 [UU49W U32]	14.35	23.47	-				9.12	0.248	0.95
AUUW608D2 [UU61W U32]	15.41	25.38	-				9.97	0.248	0.95

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 %
- MCA / MOP
 $MCA = (1.25 \times \text{Load1}) + \text{Load2} + \text{Load3}$
 $MOP = (2.25 \times \text{Load1}) + \text{Load2} + \text{Load3}$
 - Load1 : Rated running current of largest motor (compressor or other motor)
 - Load2 : sum of current for all other motors
 - Load3 : any other load rated 1.0A or more
- Select wire spec. based on the MCA
- Recommended circuit breaker is ELCB (Earth Leakage circuit breaker)
- MSC & RLA are measured as the compressor only test condition.
- OFM is measured as the outdoor unit test condition

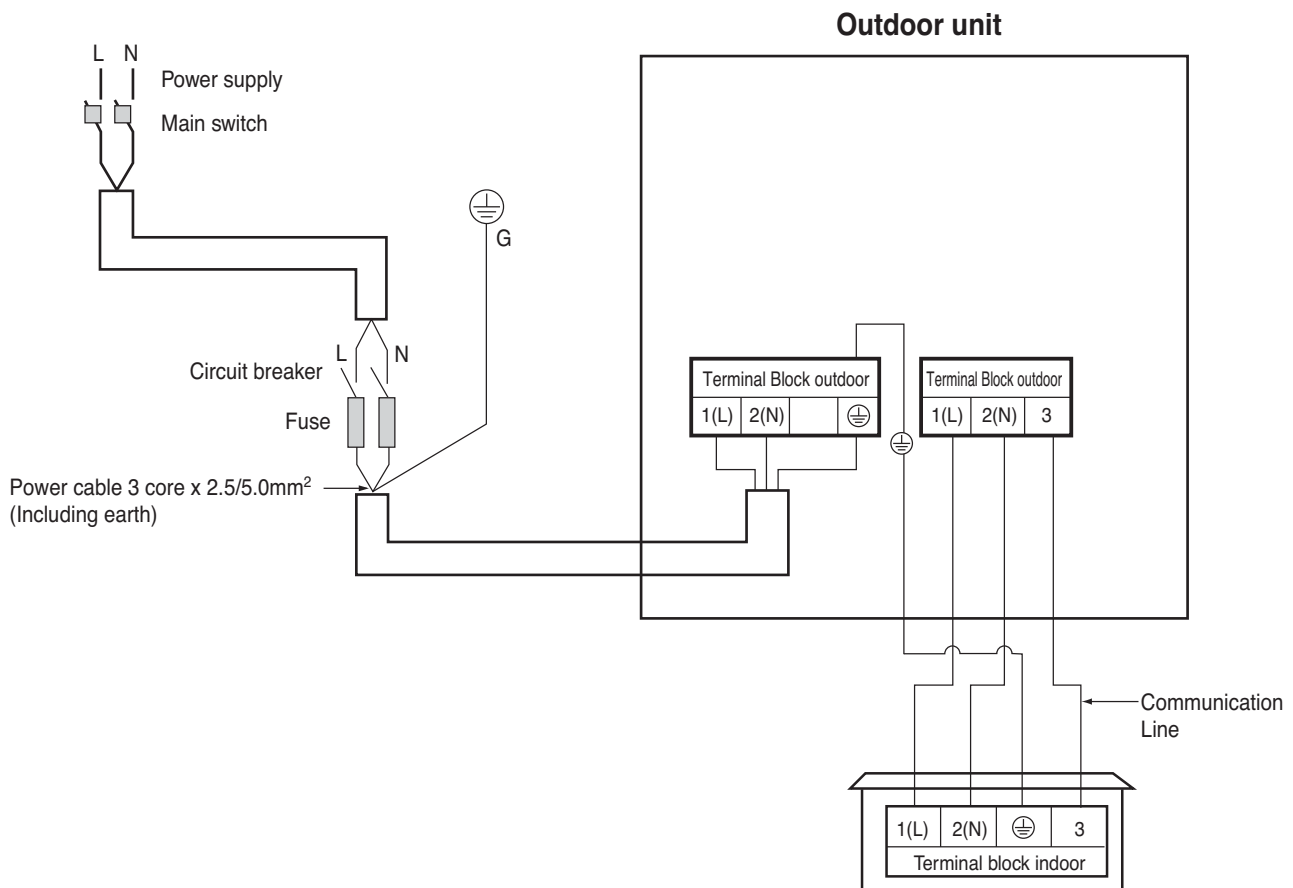
MCA : Minimum Circuit Amperes (A)
MOP : Maximum rating over current protective device
MSC : Maximum Starting Current
RLA : Rated Load Amperes (A)
OFM : Outdoor Fan Motor
kW : Fan Motor rated output (kW)
FLA : Full Load Amperes (A)

1. DC Inverter SINGLE A (1Ø, 3Ø)

1.11 Field wiring diagrams

DC Inverter SINGLE A(1Ø)

1. All wiring must comply with LOCAL REGULATIONS.
2. Select a power source that is capable of supplying the current as required by the air conditioner.
3. Feed the power source to the unit via a distribution switch board designed for this purpose.
4. The terminal screws inside the control box may be loose due to vibration during transport.
Check the screws for loose connection.
(Running the air conditioner with loose connection can overload and damage electrical components.)
5. Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.

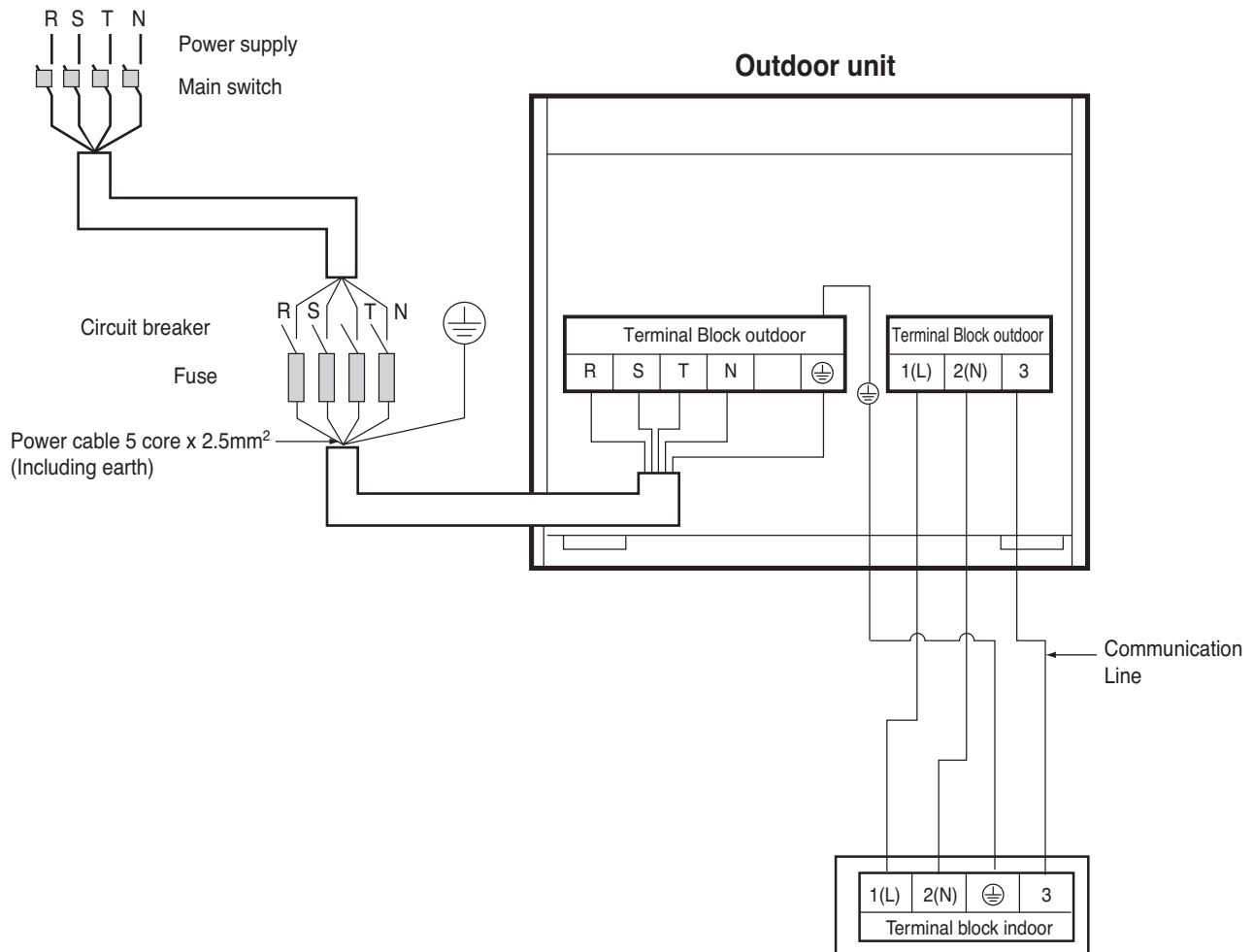


Notes:

1. All wirings, components and materials to be procured on the site should be according to the standard
2. Use copper conductor only
3. Install circuit breaker for safety
4. Unit should be grounded in compliance with the applicable local and national codes
5. Wiring cable size must comply with the applicable local and national code.

1. DC Inverter SINGLE A (1Ø, 3Ø)

DC Inverter SINGLE A(3Ø)



Notes:

1. All wirings, components and materials to be procured on the site should be according to the standard
2. Use copper conductor only
3. Install circuit breaker for safety
4. Unit should be grounded in compliance with the applicable local and national codes
5. Wiring cable size must comply with the applicable local and national code.

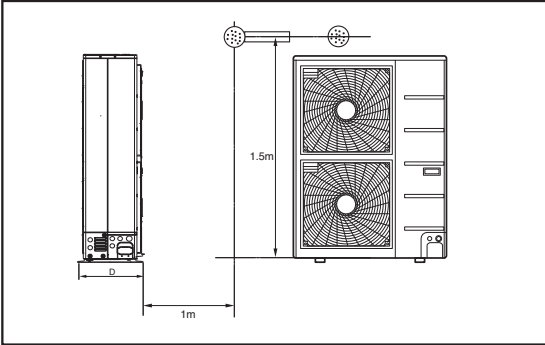
1. DC Inverter SINGLE A (1Ø, 3Ø)

1.12 Sound levels

1.12.1 Sound pressure level

DC Inverter SINGLE A(1Ø, 3Ø)

Overall



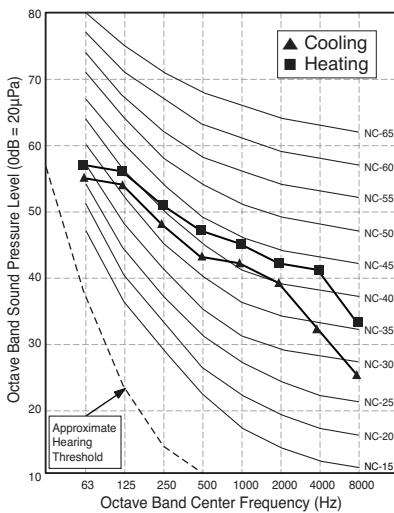
Notes:

- Sound measured at 1m away from the center of the unit.
- Data is valid at free field condition
- Data is valid at nominal operation condition
- Reference acoustic pressure 0dB = 20µPa
- 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.
- The operating conditions are assumed to be standard

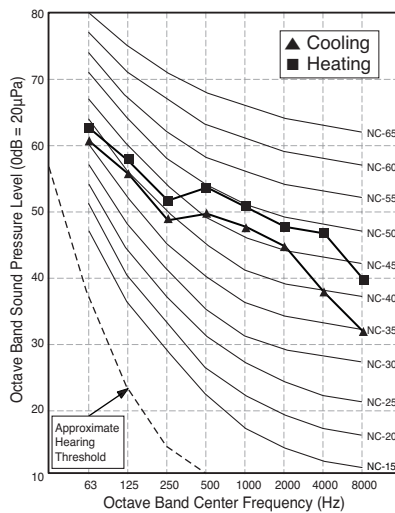
Model	220-240V , 50Hz, dB(A)	
	Cooling	Heating
AUW096D[UU09W ULD]	47	48
AUW126D[UU12W ULD]	47	48
AUW186D2 [UU18W UE2]	48	51
AUW246D2 [UU24W U42]	48	52
AUW306D2 [UU30W U42]	48	52
AUW366D2 [UU36W UO2]	53	54
AUW426D2 [UU42W U32]	52	54
AUW486D2 [UU48W U32]	52	54
AUW606D2 [UU60W U32]	52	54

Model	220-240V , 50Hz, dB(A)	
	Cooling	Heating
AUW368D2 [UU37W UO2]	53	54
AUW428D2 [UU43W U32]	52	54
AUW488D2 [UU49W U32]	52	54
AUW608D2 [UU61W U32]	52	54

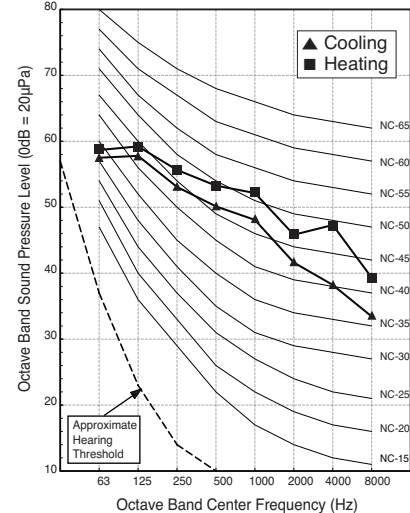
**AUW096D[UU09W ULD]
AUW126D[UU12W ULD]**



AUW186D2 [UU18W UE2]



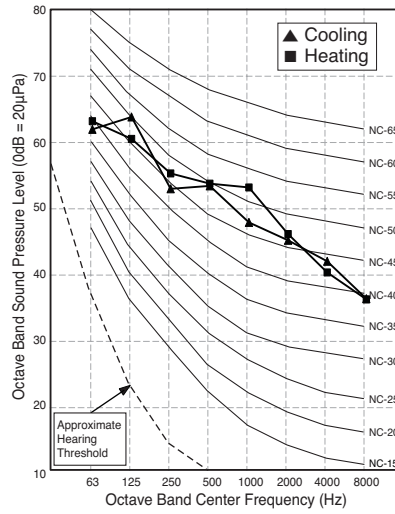
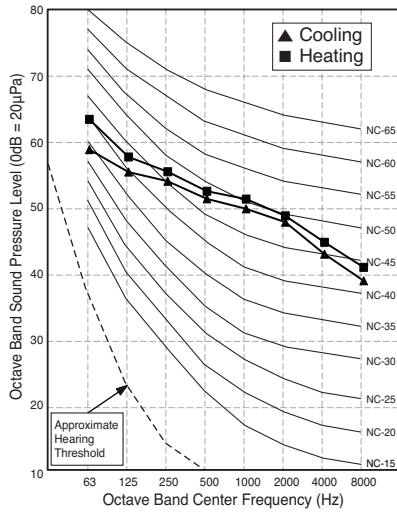
**AUW246D2 [UU24W U42]
AUW306D2 [UU30W U42]**



1. DC Inverter SINGLE A (1Ø, 3Ø)

AUW366D2 [UU36W UO2]
 AUW368D2 [UU37W OU2]

AUW426D2 [UU42W U32]
 AUW486D2 [UU48W U32]
 AUW606D2 [UU60W U32]
 AUW428D2 [UU43W U32]
 AUW488D2 [UU49W U32]
 AUW608D2 [UU61W U32]



1. DC Inverter SINGLE A (1Ø, 3Ø)

1.12.2 Sound power level

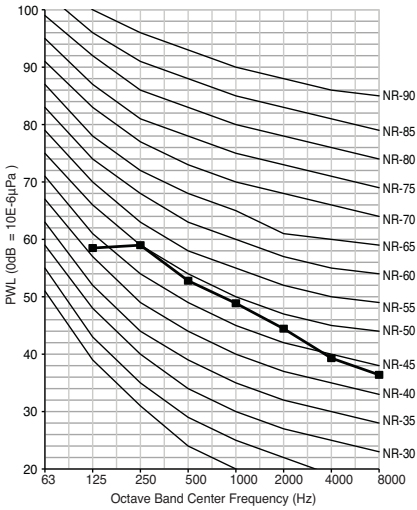
Notes:

1. Reference acoustic intensity 0dB = 10E-6μW/m²
2. 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.

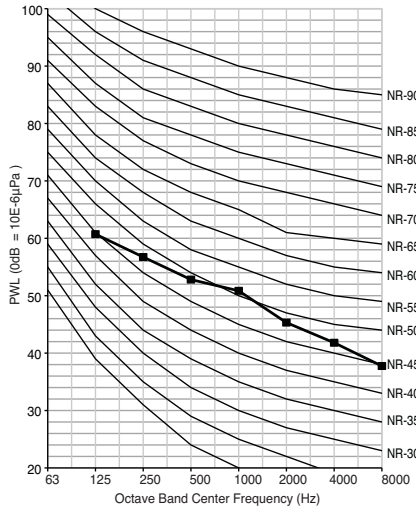
Model	Sound power level [dB(A)]	
	H	
AUW096D [UU09W ULD]	56	
AUW126D [UU12W ULD]	57	
AUW186D2 [UU18W UE2]	60	
AUW246D2 [UU24W U42]	62	
AUW306D2 [UU30W U42]	65	
AUW366D2 [UU36W UO2]	66	
AUW426D2 [UU42W U32]	67	

Model	Sound power level [dB(A)]	
	H	
AUW486D2 [UU48W U32]	68	
AUW606D2 [UU60W U32]	71	
AUW368D2 [UU37W UO2]	66	
AUW428D2 [UU43W U32]	67	
AUW488D2 [UU49W U32]	68	
AUW608D2 [UU61W U32]	71	

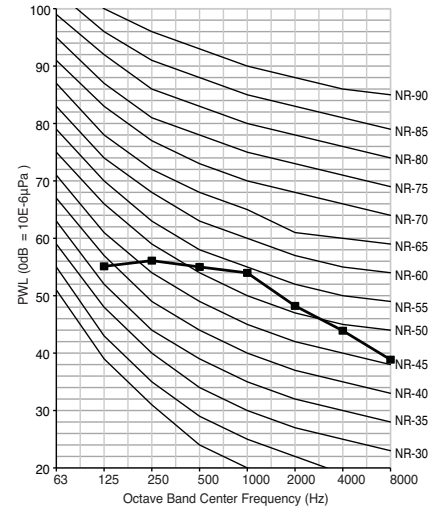
AUW096D [UU09W ULD]



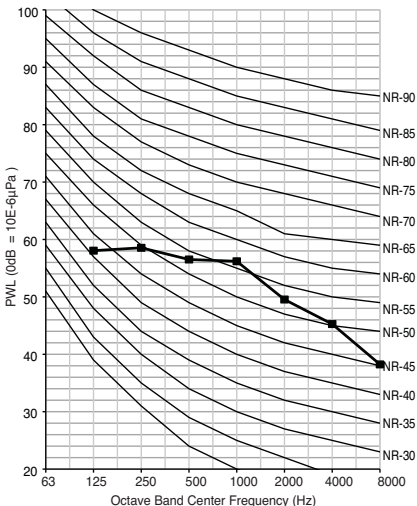
AUW126D [UU12W ULD]



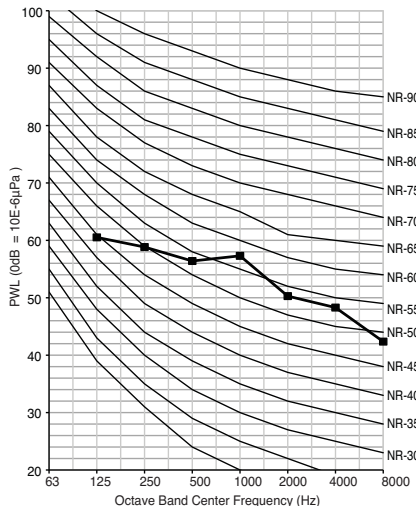
AUW186D2 [UU18W UE2]



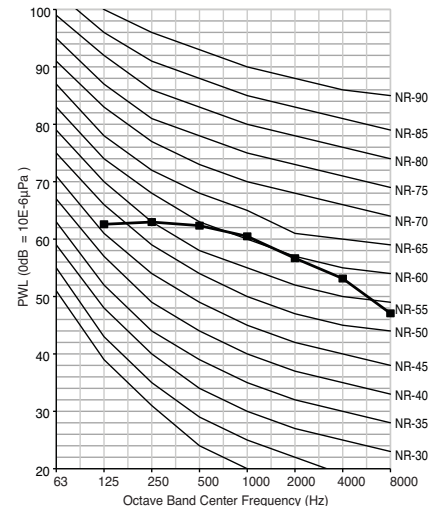
AUW246D2 [UU24W U42]



AUW306D2 [UU30W U42]

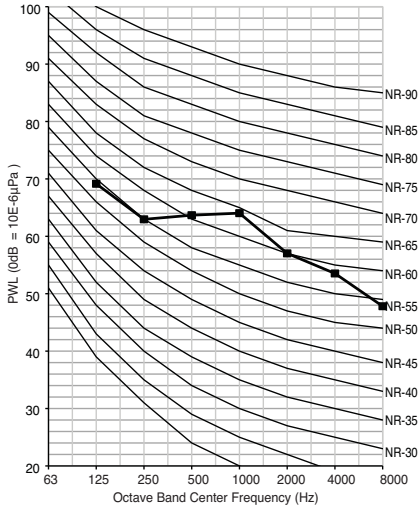


**AUW366D2 [UU36W UO2]
AUW368D2 [UU37W UO2]**

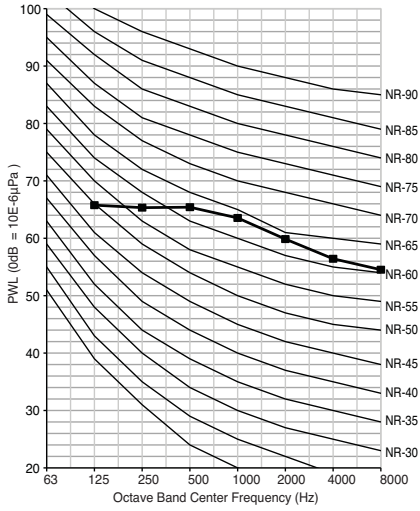


1. DC Inverter SINGLE A (1Ø, 3Ø)

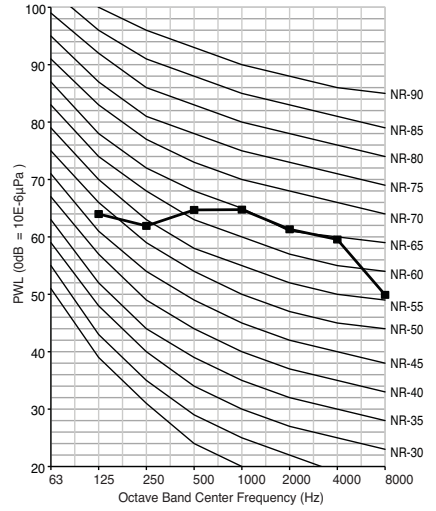
**AUUW426D2 [UU42W U32]
AUUW428D2 [UU43W U32]**



**AUUW486D2 [UU48W U32]
AUUW488D2 [UU49W U32]**



**AUUW606D2 [UU60W U32]
AUUW608D2 [UU61W U32]**





DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

- 1. Power supply**
- 2. List of functions**
- 3. Combination table**
- 4. Piping Length & Height**
- 5. Outdoor Unit PCB Setting Procedure For Simultaneous Operation System**
- 6. Piping diagrams**
- 7. Field wiring diagrams**
- 8. Accessories**

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

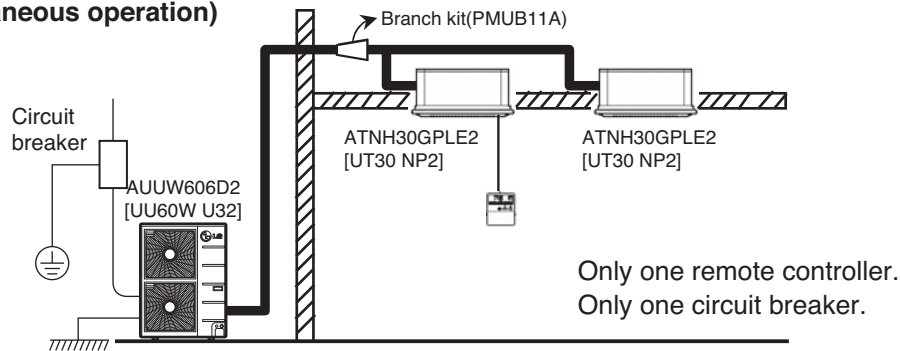
2.1 Power supply

Type	Outdoor unit	Capacity (kW)	Circuit breaker capacity	Power supply
1 Phase Inverter	AUW426D2 [UU42W U32]	12.5	40A	1Ø, 220-240 V, 50Hz
	AUW486D2 [UU48W U32]	14.0		
	AUW606D2 [UU60W U32]	15.0		
3 Phase Inverter	AUW428D2 [UU43W U32]	12.5	20A	3Ø, 380-415 V, 50Hz
	AUW488D2 [UU49W U32]	14.0		
	AUW608D2 [UU61W U32]	15.0		

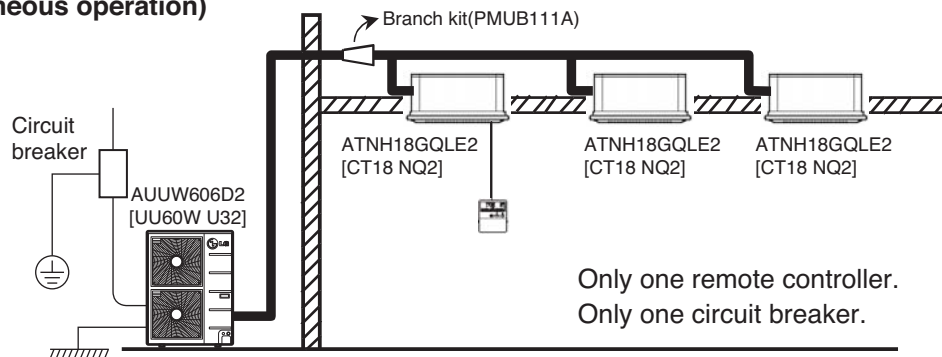
External wiring procedure

- The power supply work is needed only to the outdoor unit. The power supply to the indoor unit is conducted through the transmission wiring. Therefore, the power supply work can be carried out at just one place of the outdoor unit. It will contribute to simplify the work procedure and to save cost.
- Wiring cable size must comply with the applicable local and national code.

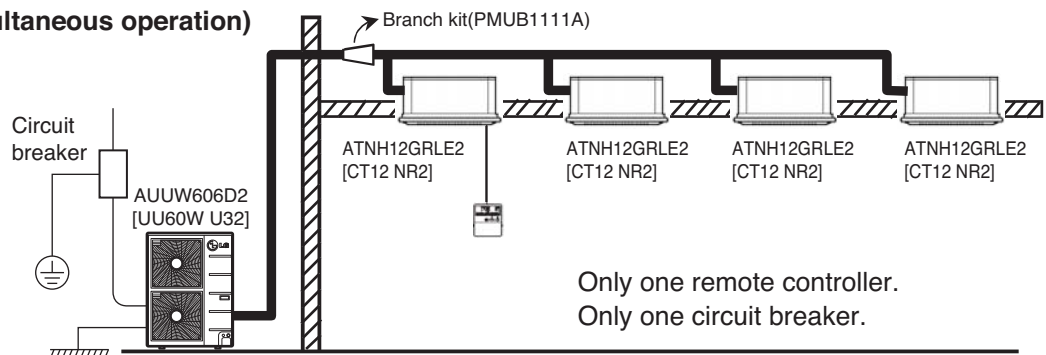
(Ex. Duo simultaneous operation)



(Ex. Trio simultaneous operation)



(Ex. Quartet simultaneous operation)



2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.2 List of functions

DC Inverter Synchro(1Ø)

Category	Functions	AUUW426D2 [UU42W U32]	AUUW486D2 [UU48W U32]	AUUW606D2 [UU60W U32]
Reliability	Defrost / Deicing	O	O	O
	High pressure switch	X	X	X
	Low pressure switch	X	X	X
	Phase protection	X	X	X
	Restart delay (3-minutes)	O	O	O
	Self diagnosis	O	O	O
	Soft start	O	O	O
	Test function	X	X	X
Convenience	Night Silent Operation	X	X	X
CAC network function	Network solution(LGAP)	O	O	O

DC Inverter Synchro(3Ø)

Device	AUUW426D2 [UU42W U32]	AUUW486D2 [UU48W U32]	AUUW606D2 [UU60W U32]	
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0	PQCSZ250S0
	AC Smart II	X	X	X
	Option Kit (SD card type)	X	X	X
	ACP(Advanced Control Platform)	X	X	X
	AC Manager	X	X	X
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
DO(Digital Output) Kit	X	X	X	
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1	PQNFB16A1	PQNFB16A1
	BACnet Gateway	PQNFB17B0	PQNFB17B0	PQNFB17B0
Installation	Y branch	Accessory	Accessory	Accessory
	Header branch	Accessory	Accessory	Accessory
	Air Guide	X	X	X
ODU Dry Contact	X	X	X	
Low Ambient Kit	O (Logical operation)	O (Logical operation)	O (Logical operation)	

[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. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

Category	Functions	AUUW428D2 [UU43W U32]	AUUW488D2 [UU49W U32]	AUUW608D2 [UU61W U32]
Reliability	Defrost / Deicing	O	O	O
	High pressure switch	X	X	X
	Low pressure switch	X	X	X
	Phase protection	O	O	O
	Restart delay (3-minutes)	O	O	O
	Self diagnosis	O	O	O
	Soft start	O	O	O
	Test function	X	X	X
Convenience	Night Silent Operation	X	X	X
CAC network function	Network solution(LGAP)	O	O	O

Device		AUUW428D2 [UU43W U32]	AUUW488D2 [UU49W U32]	AUUW608D2 [UU61W U32]
Central Controller	Simple Controller	PQCSB101S0	PQCSB101S0	PQCSB101S0
	Function controller	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0	PQCSB101S0 + PQCSC101S0
	Function Scheduler	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0	PQCSB101S0 + PQCSD130A0
	AC Ez	PQCSZ250S0	PQCSZ250S0	PQCSZ250S0
	AC Smart II	X	X	X
	Option Kit (SD card type)	X	X	X
	ACP(Advanced Control Platform)	X	X	X
	AC Manager	X	X	X
	PI485	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1	PMNFP14A0/PMNFP14A1
DO(Digital Output) Kit	X	X	X	
BNU (Building Network Unit)	LONWORKS Gateway	PQNFB16A1	PQNFB16A1	PQNFB16A1
	BACnet Gateway	PQNFB17B0	PQNFB17B0	PQNFB17B0
Installation	Y branch	Accessory	Accessory	Accessory
	Header branch	Accessory	Accessory	Accessory
	Air Guide	X	X	X
ODU Dry Contact	X	X	X	
Low Ambient Kit	O (Logical operation)	O (Logical operation)	O (Logical operation)	

[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. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.3 Combination table

Possible combinations

		Possible combination of indoor units								
		Synchro								
		Duo			Trio			Quartet		
IDU : INDOOR UNIT ODU : OUTDOOR UNIT BD : BRANACH DISTRIBUTOR UNIT REMO : WIRED REMOTE CONTROLLER										
MODEL	Cas- sette	Duct	Ceiling Suspended	Cas- sette	Duct	Ceiling Suspended	Cas- sette	Duct	Ceiling Suspended	
UU42W/UU43W	CT24 NP2*2	CB24 NH2*2 CB24L N32*2	CV24 NJ2*2	CT18 NQ2*3	CB18 NH2*3 CB18L N22*3	CV18 NJ2*3	CT12 NR2*4	CB12L N22*4	-	
UU48W/UU49W	CT24 NP2*2	CB24 NH2*2 CB24L N32*2	CV24 NJ2*2	CT18 NQ2*3	CB18 NH2*3 CB18L N22*3	CV18 NJ2*3	CT12 NR2*4	CB12L N22*4	-	
UU60W/UU61W	UT30 NP2*2	UB30 NG2*2	UV30 NJ2*2	CT18 NQ2*3	CB18 NH2*3 CB18L N22*3	CV18 NJ2*3	CT12 NR2*4	CB12L N22*4	-	
Applied Acces- sories	Branch Kit	PMUB11A			PMUB111A			PMUB1111A		
	Simple central controller**	PQCSZ250S0								

Notes :

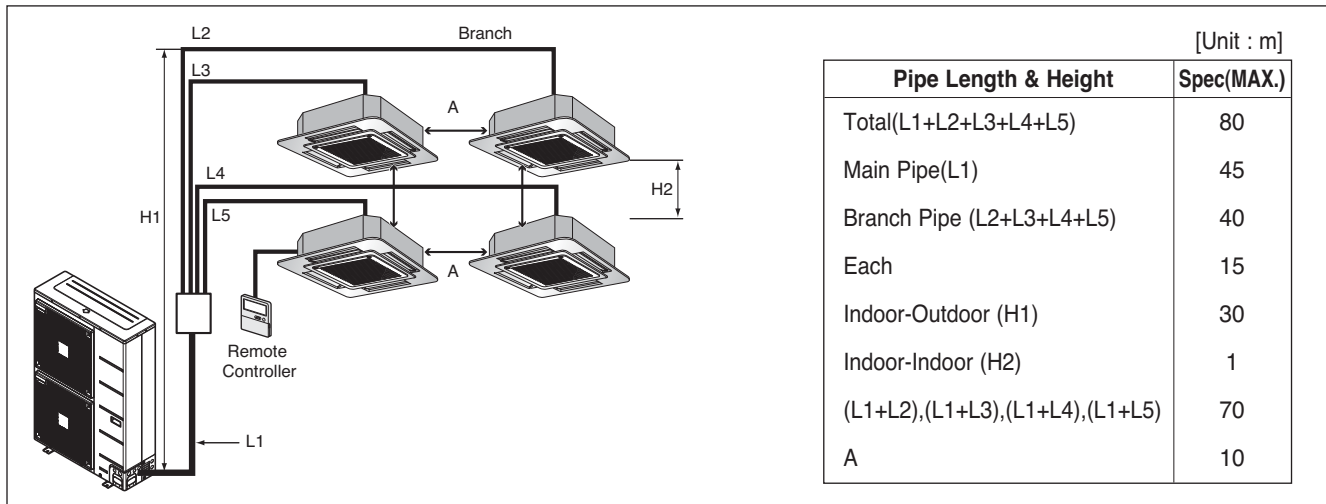
- Possible indoor units: **SINGLE A™** indoor unit series
 - Dry contact & Zone control & Auto changeover is not available which is connected with synchro.
 - When using synchro operation
 - Do not use wireless remote controller
 - Use only one wired remote controller in the indoor units.
 - Use AC Ez "PQCSZ250S0" only
- Branch kits are required for operating Synchro models.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.4 Piping Length & Height

Synchro Operation

Install the branch pipe so that pipe length and difference between high and low will not exceed below Spec.



- When installing the branch pipe, direction and angle of installation is not limited.
- Take care so that burrs and foreign material may not enter into the cutting surface when connecting.
- Connect remaining those by cutting or direct insertion to the diameter of pipe.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.5 Outdoor Unit PCB Setting Procedure For Simultaneous Operation System

1. SW01N (PIP SW2) Setting

Set the SW01N (PIP SW2) as below Table (A)

2. Auto Addressing Method

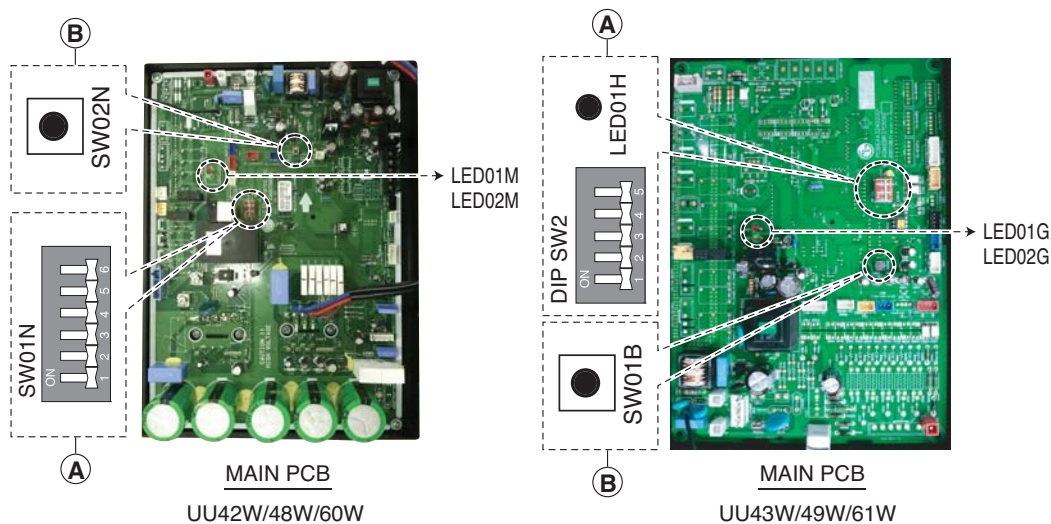
Addressing work assigns address to each indoor unit. When firstly installing product or replacing the indoor unit PCB. Auto Addressing work should be done for simultaneous operation.

* Work procedure

1) Set SW01N (PIP SW2) correctly.

2) Turn on main power.

3) Press the SW02N (SW01B) for about 3 seconds within 3 minutes After main power on.(B)



4) After step 3), the LED01M/G (red LED) and LED02M/G (green LED) rapidly flickers. When Addressing work is done, green LED is off, else LED (LED01M/G) stops flickering and lights continuously. Address of indoor unit is indicated on the wired remote control display window. (CH01, CH02, CH03, CH04)

5) Press (I) button to turn on the indoor.

6) If you fail to perform the Addressing work, repeat step 2)~5).

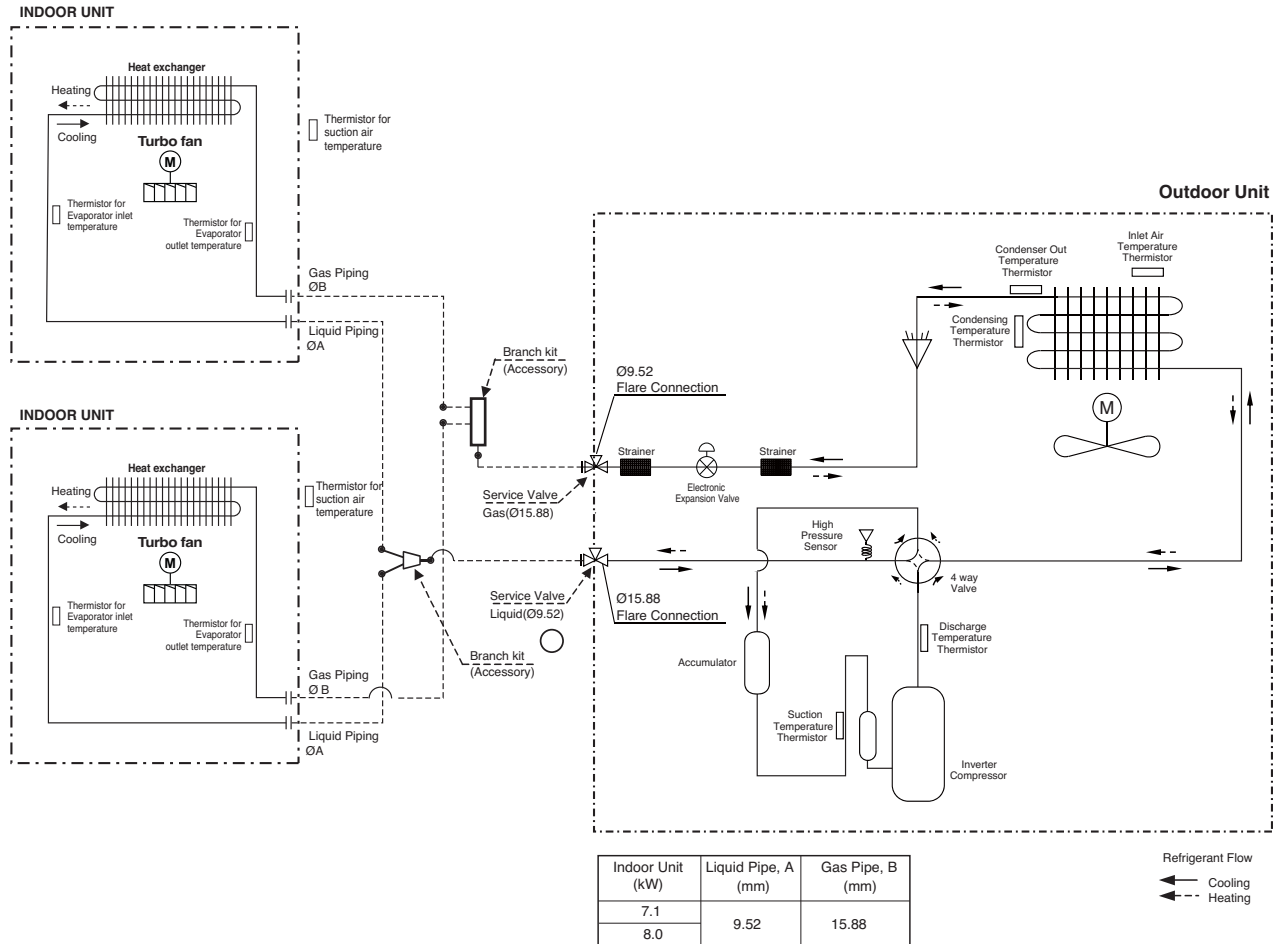
Table SW01N (PIP SW2) Setting

SW01N (PIP SW2)	Indoor Unit No.
	1 (Single) : Default
	2 (Duo)
	3 (Trio)
	4 (Quartet)

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.6 Piping diagrams

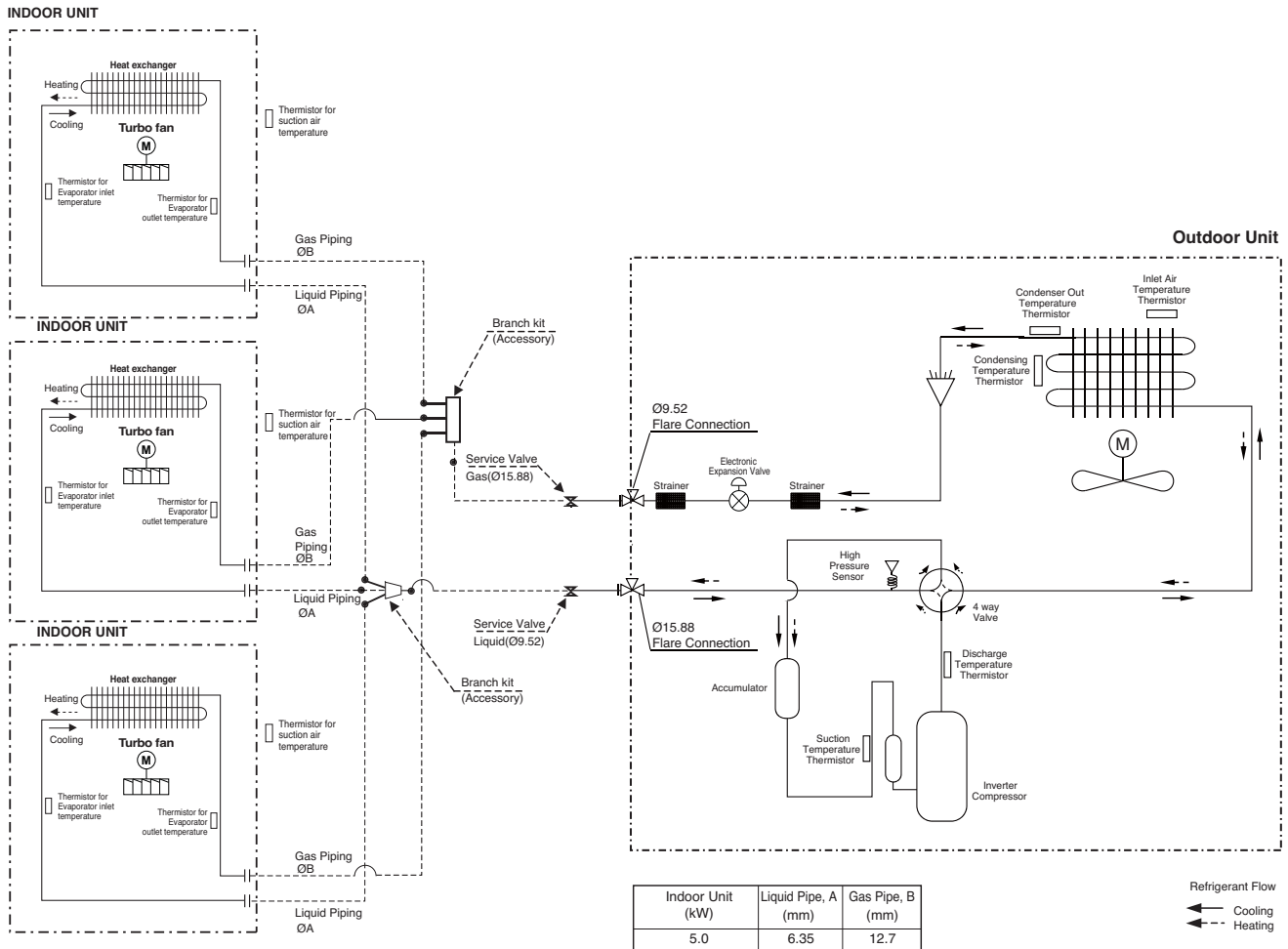
Models : "Synchro" Duo - AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32], AUUW606D2 [UU60W U32]
 AUUW428D2 [UU43W U32], AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]



Note :
 1. The pipes between the indoor units and the branch kits must have same dimensions as indoor unit connections.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

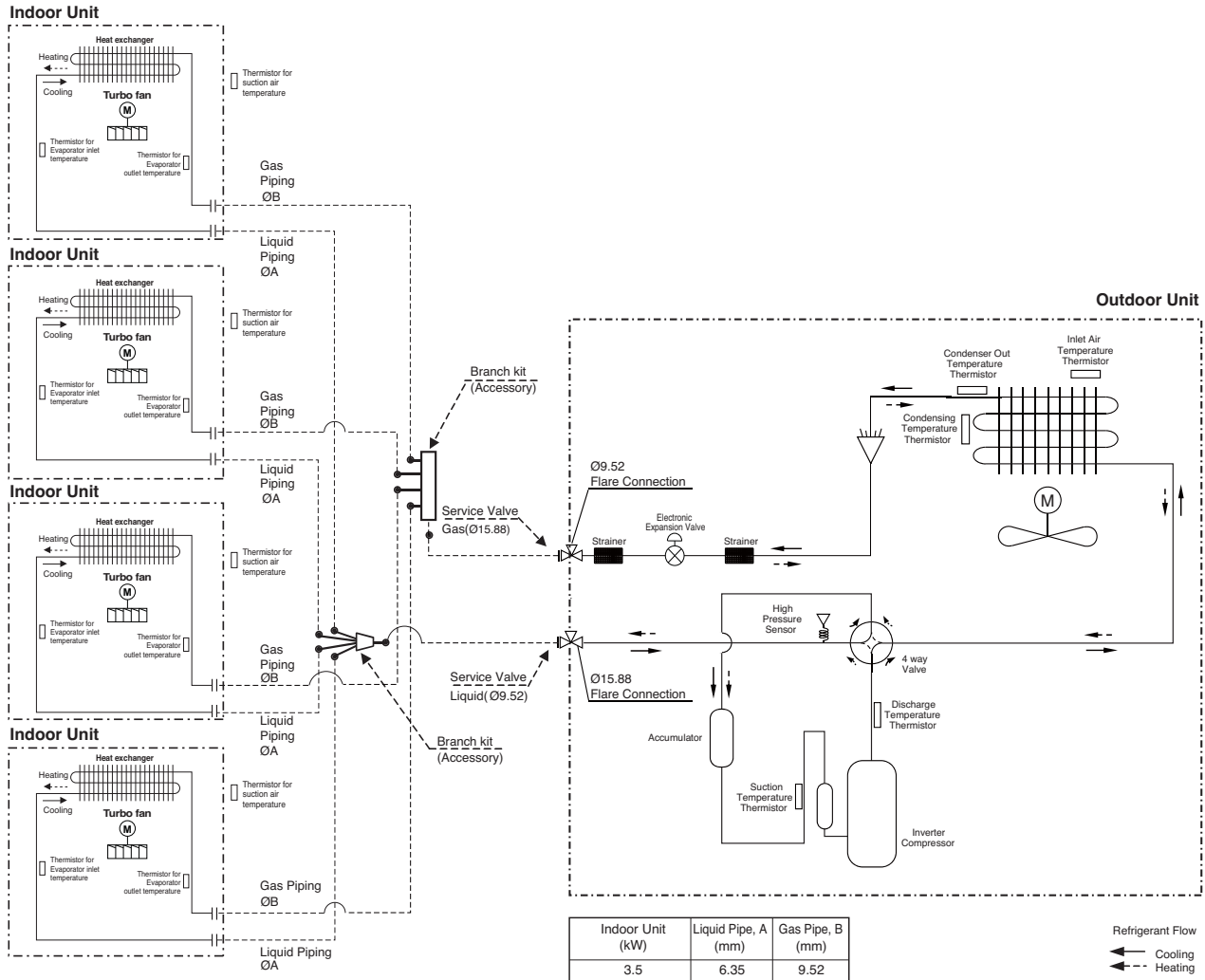
Models : "Synchro" Trio - AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32], AUUW606D2 [UU60W U32]
 AUUW428D2 [UU43W U32], AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]



Note :
 1. The pipes between the indoor units and the branch kits must have same dimensions as indoor unit connections.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

Models : "Synchro" Quartet - AUUW426D2 [UU42W U32], AUUW486D2 [UU48W U32], AUUW606D2 [UU60W U32]
 AUUW428D2 [UU43W U32], AUUW488D2 [UU49W U32], AUUW608D2 [UU61W U32]



Note :
 1. The pipes between the indoor units and the branch kits must have same dimensions as indoor unit connections.

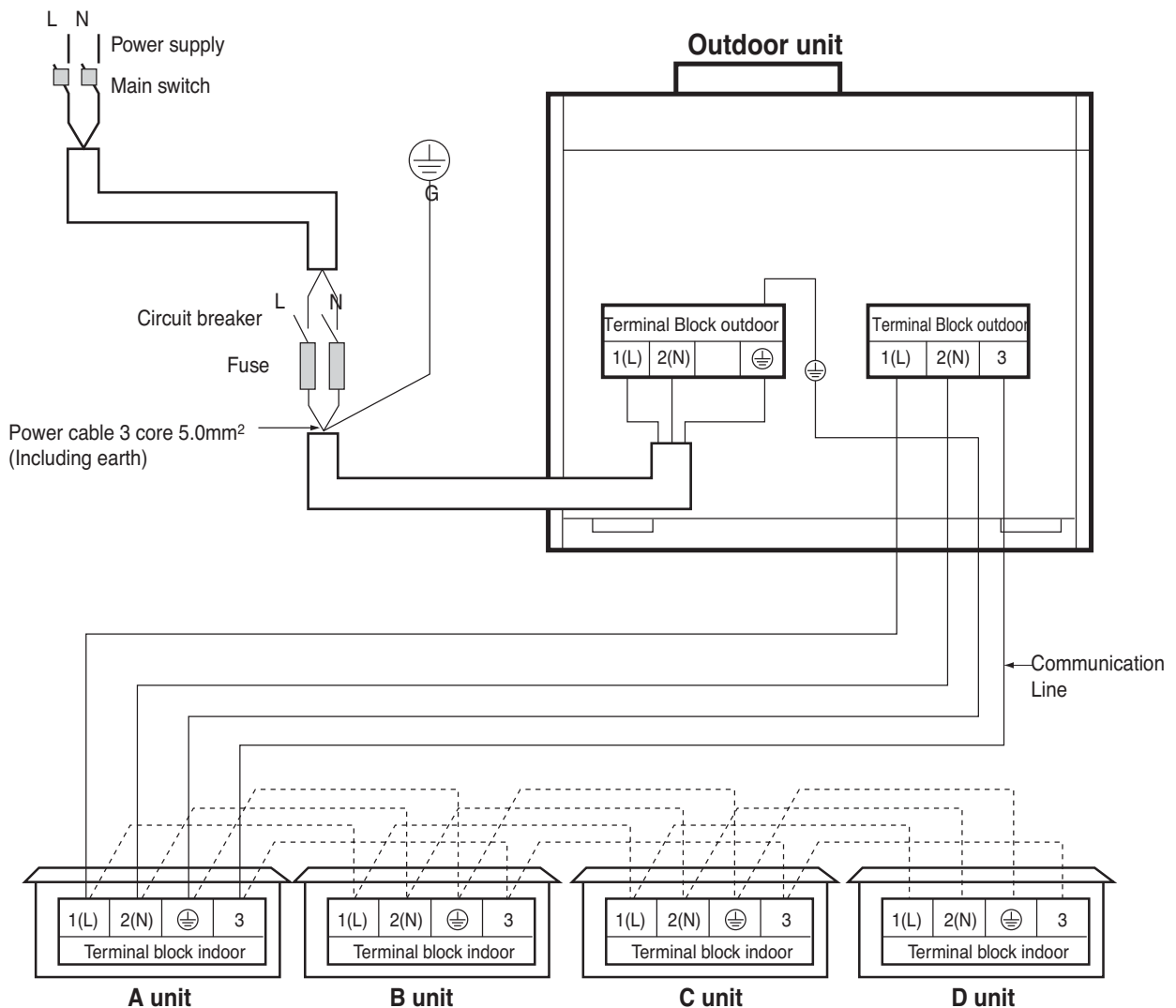
Outdoor Units

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.7 Field wiring diagrams

DC Inverter Synchro(1Ø)

1. All wiring must comply with LOCAL REGULATIONS.
2. Select a power source that is capable of supplying the current as required by the air conditioner.
3. Feed the power source to the unit via a distribution switch board designed for this purpose.
4. The terminal screws inside the control box may be loose due to vibration during transport.
Check the screws for loose connection.
(Running the air conditioner with loose connection can overload and damage electrical components.)
5. Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.



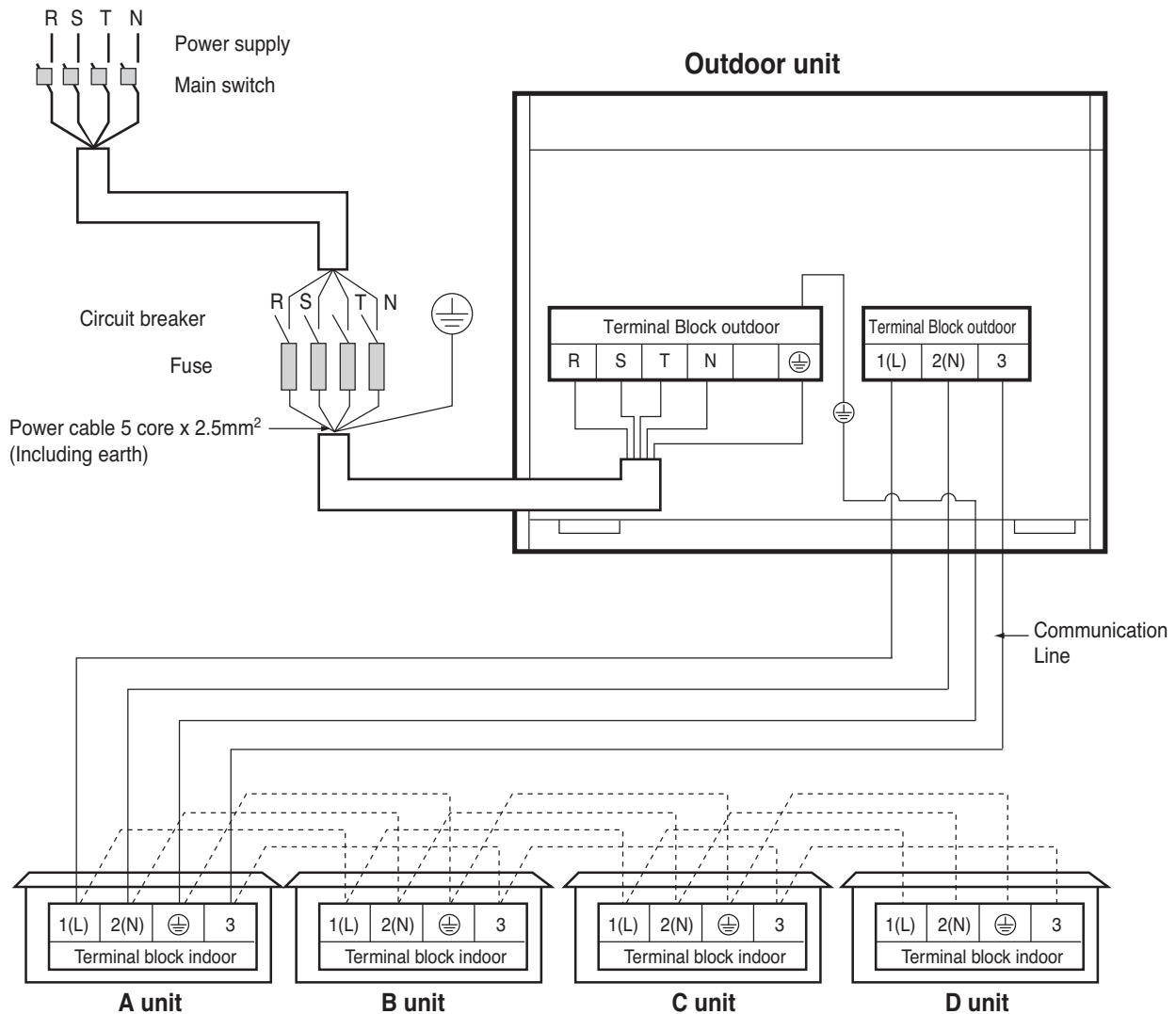
Notes:

1. All wirings, components and materials to be procured on the site should be according to the standard
2. Use copper conductor only
3. Install circuit breaker for safety
4. Unit should be grounded in compliance with the applicable local and national codes
5. Wiring cable size must comply with the applicable local and national code.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

DC Inverter Synchro(3Ø)

1. All wiring must comply with LOCAL REGULATIONS.
2. Select a power source that is capable of supplying the current as required by the air conditioner.
3. Feed the power source to the unit via a distribution switch board designed for this purpose.
4. The terminal screws inside the control box may be loose due to vibration during transport.
Check the screws for loose connection.
(Running the air conditioner with loose connection can overload and damage electrical components.)
5. Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.



Notes:

1. All wirings, components and materials to be procured on the site should be according to the standard
2. Use copper conductor only
3. Install circuit breaker for safety
4. Unit should be grounded in compliance with the applicable local and national codes
5. Wiring cable size must comply with the applicable local and national code.

2. DC Inverter SINGLE A - Synchro (1Ø, 3Ø)

2.8 Accessories

Optional accessories

Name	Model No.	Indoor classification	Capacity Ratio(%)
Branch Kit	PMUB11A	"Synchro" Duo	50:50(1:1)
	PMUB111A	"Synchro" Trio	33:33:33(1:1:1)
	PMUB1111A	"Synchro" Quartet	25:25:25:25(1:1:1:1)



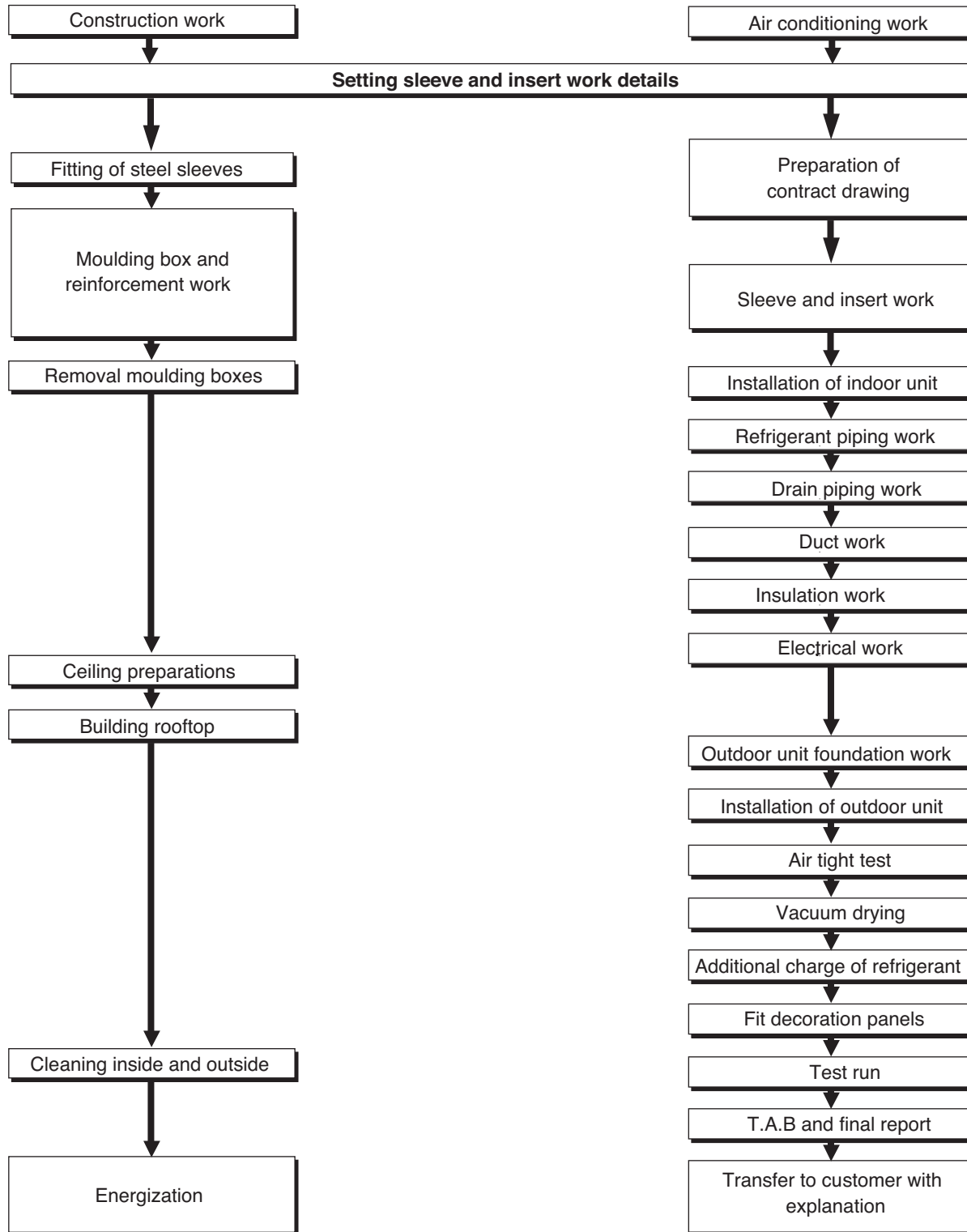
Design and installation

- 1. General installation guideline**
- 2. Guideline for each installation process**
- 3. Installation of outdoor Unit**

1. General installation guideline

1.1 Installation process & Guideline

Striking a balance between system installation & general construction work.



1. The division of the work should be thoroughly clarified.
2. Keep a constant check on the progress of the construction work to avoid deviations from the air conditioning work schedule.

1. General installation guideline

1.2 Checking the drawing

Installation procedure

Remarks

Determination of work scope	..... Check and confirm required loads calculation, model selection, drawings etc.
Preparation of contract drawings	..... Make a relationship between outdoor ,indoor controller and option connection clear. (prepare control circuit diagram)
Sleeve and insert works	..... Determine sleeve position, size and counts as required
Installation of indoor units	..... Check model name to make sure the fitting is made correctly
Refrigerant piping works	..... Special attention to dryness , cleanness and tightness
Drain pipe works	..... Make sure that the drain pipe diameter is big enough and adjust it to downward gradient
Duct works	..... Make sure airflow is sufficient
Insulation works	..... Make sure no gap is left where the insulating materials are joined
Electrical work	..... Multiple core cable must not be used (suitable cable should be selected)
Outdoor unit foundation works	..... The foundation must be vibration proof and in level
Installation of outdoor units	..... Avoid airflow short circuit and ensure sufficient space is allowed for servicing
Air tight test	..... For 24 hours at 3.8MPa(R410a) or 2.8MPa(R22) there must be no drop in pressure
Vacuum drying	..... Less than 5 Torr (At least more than 1hr)
Additional charge of refrigerant	..... Charge the refrigerant accurately by using a charging cylinder
Fit decoration panels	..... Make sure there are no gaps left between facing materials used on the ceiling
Test run	..... Follow the testing operation check sheet
Transfer to customer with explanation	..... Explain to customer or operator the manual etc

2. Guideline for each installation process

2.1 Sleeve and insert work

2.1.1 Positioning of the pipe holes

1. The through holes for the drain piping should be positioned such that pipes have a downward gradient (the gradient must be at least 1/100. The thickness of the insulating materials must also be taken into consideration.)
2. The diameter of the through holes for the refrigerant piping should include an allowance for the thickness of the heat insulation materials.
3. Attention should be paid to the construction of the beam themselves since there are sometimes parts of the beam which cannot be used to accommodate through holes.

2.1.2 Selection of sleeve

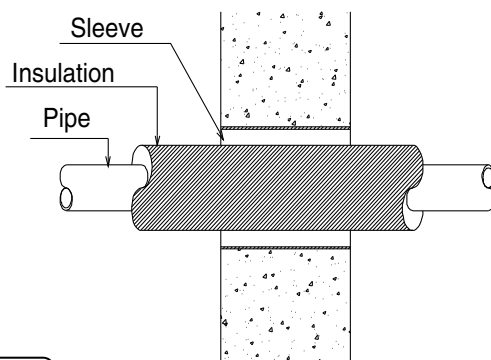
1. Sleeve work should be performed to make a space for passing pipe and wire through the wall or ground under construction.

For example if gas pipe and liquid pipe is 12.7mm , 6.35mm the sleeve diameter is minimum 79.05mm .

Gas pipe diameter	12.7mm
Liquid pipe diameter	6.35mm
Insulation thickness(gas pipe)	10mm x 2
Insulation thickness(liquid pipe)	10mm x 2
20mm surplus	20mm
Total sleeve diameter	79.05mm

* Assumption : Gas pipe insulation thickness and liquid pipe insulation thickness is 10mm and 10mm respectively

2.1.3 Sleeve type



NOTE

Sleeve type should be considered as per local regulation & laws.

CAUTION

1. In high voltage generation places, water-proof flexible conduit should be used. (in substation room, in elevator room)
2. Conduit should be chosen in accordance with electrical installation regulation.

NOTE

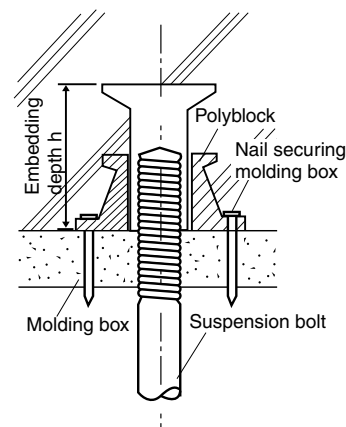
Cable conduit should be considered under the local regulation & laws.

2.1.4 Insert work and support work

An insert is a metal tool which is inserted into a floor or beam before the concrete is set such that fittings such as duct , pipes or suspension bolts for hanging units can be fitted into the place later. The positioning of the inserts must be decided early.

1. Insert work

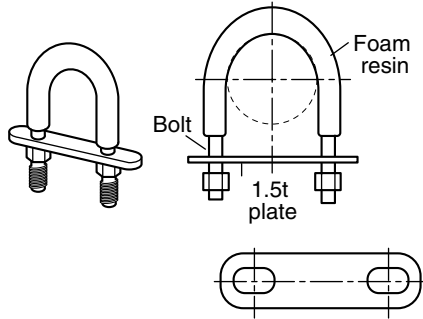
Example : Through holes in a reinforced concrete beam



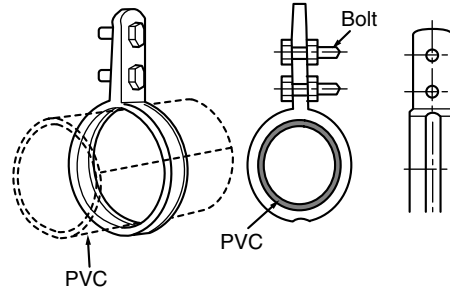
2. Guideline for each installation process

2. Support work.

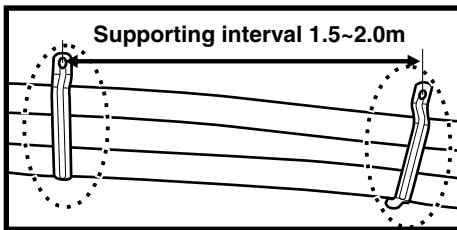
■ Insulated U-bolt type supporting



■ Insulated O-ring band type supporting



■ Saddle supporting

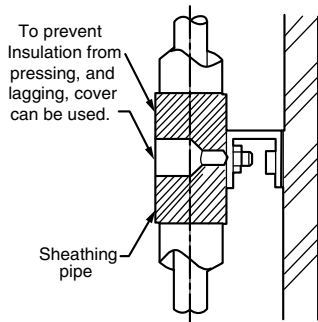


⚠ CAUTION

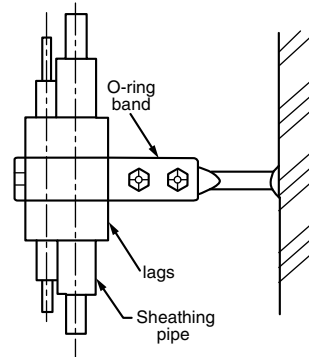
During saddle supporting work, insulation should not be pressed by saddle as this can lead to tearing of insulation and thus falling of condensed water during product operation.

a) Supporting with insulated pipe

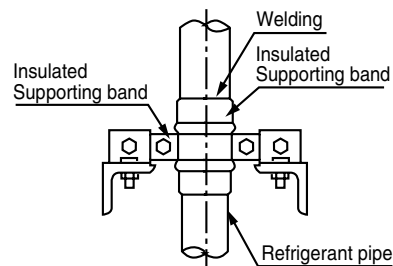
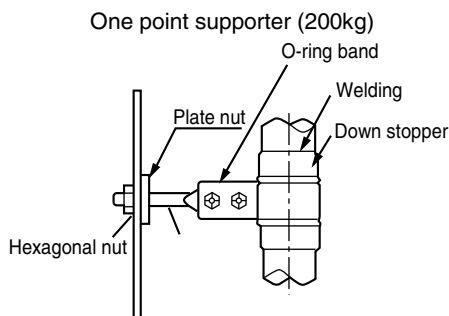
① U-bolt supporting



② O-ring band supporting



B) Down stopper supporting



2. Guideline for each installation process

2.2 Refrigerant piping work

2.2.1 Flaring work

NOTE Choice of material for refrigerant piping
Copper pipe selection

- The wall thickness of the refrigerant piping should comply with relevant local and national regulation for R410A the design pressure is 3.8MPa.(38.7kgf/cm²)
- If not, we recommend to use with phosphorus deoxidized copper type
- Generally used copper pipe specifications as follows;

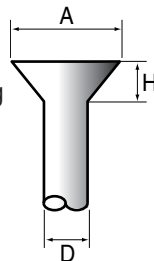
Size(ø)mm	Torque kg·f.m	Thickness	
		R22	R410A
6.35	1.80~2.50	0.7	0.8
9.52	3.40~4.20	0.8	0.8
12.70	5.50~6.60	0.8	0.8
15.88	6.30~8.20	1.0	1.0
19.05	9.90~12.1	1.0	1.0

* Never use the pipe which is mixed scrap or a pipe used somewhere else
The method how to distinguish the pipe mixed scarp : check the oxidization evidence after leaving the pipe for 24hour.

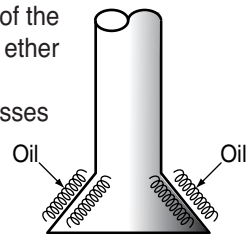
CAUTION

Flare connection and procedure

- Stiffened pipe must always be annealed at least once prior to the flaring work.
- A pipe cutter must be used to cut the pipe.
(A large pipe cutter must be used where the pipe has a large diameter. When cutting a pipe which is too big for the pipe cutter a metal saw may be used but care must be taken to ensure that the debris from sawing does not get into the pipe.)



- Set the flaring tool to make sure the flare size remains within the prescribed limits.
- Coat the inner and outer surface of the flare with refrigerator oil (Ester or ether oil).
(this ensures that the flare nut passes smoothly, preventing the pipe from twisting.)
Do not use SUNISO-4GS oil.



External diameter of pipe D		Pipe widening dimension A (mm)	Required flare height H (mm)
(in)	(mm)		
1/4	6.35	8.6~9.0	1.1~1.3
3/8	9.52	12.6~13.0	1.5~1.7
1/2	12.7	15.8~16.2	1.6~1.8
5/8	15.88	19.0~19.4	1.6~1.8
3/4	19.05	22.9~23.3	1.9~2.1

CAUTION

- Burrs should be carefully removed.
- 2 spanners should be used to grip the pipe.
- The flare nut must be inserted before starting the flaring operation.
- The appropriate amount of torque should be used to tighten the flare nut.
- Check that there is no superficial damage to the surface of the flare.

2. Guideline for each installation process

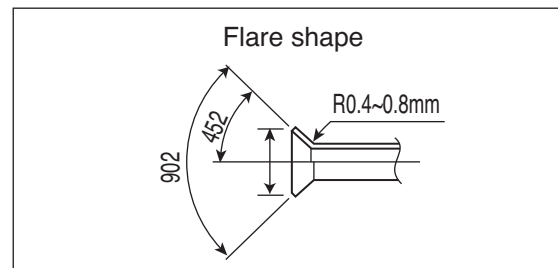
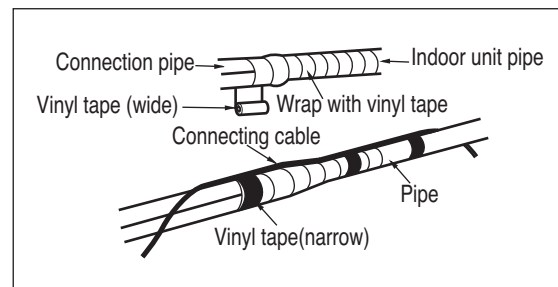
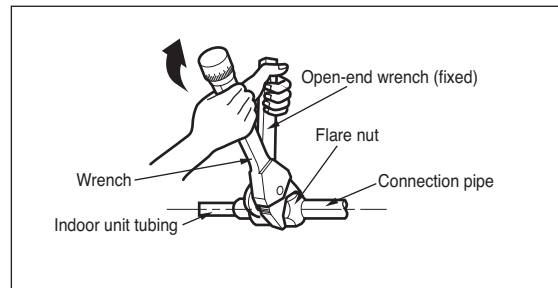
2.2.2 Pipe connection and flaring works

NOTE

1. After installation completion make sure to open the valve. operating the unit with the valve shut off will destroy the compressor (Refer to the Additional refrigerant charge detail information)
2. Use R410A to add refrigerant. All field piping must be installed by a licensed refrigeration technician
3. Must comply with local and national standard regulations.

1) Connecting the piping to the indoor unit and drain hose to drain pipe

- ① Align the center of the piping and sufficiently tighten the flare nut by hand.
- ② Tighten the flare nut with a wrench. Wrap the insulation material around the connecting portion.

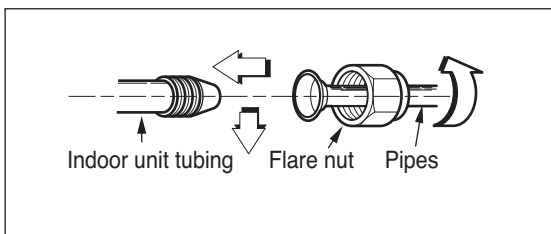


2) Wrap the insulation material around the connecting portion.

- ① Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there is no gap.
- ② Wrap the area which accommodates the rear piping housing section with vinyl tape.
- ③ When the piping is passed through a tray, duct work or a sleeve the insulation wrapping on the pipe is not required.

3) Close up a socket out of use with a brass cap.

- ① Align the center of the piping and sufficiently tighten the brass cap by hand.
- ② Tighten the brass cap with a wrench.
- ③ Wrap the area contacted with insulation.



2.2.3. SVC valve fitting

Cautions on handling SVC valve

- The figure below shows the name of each part required in handling SVC valve. At the time of shipment, SVC valve is closed.
- If only a torque wrench is used to loosen or tighten the flare nut, the side plate may be distorted. Make sure to fix SVC valve with a spanner, then loosen or tighten the flare nut with a torque wrench.
- When it is expected that the operating pressure will be low (for example, when cooling will be performed while the outside air temperature is low), seal sufficiently the flare nut in SVC valve on the gas line with silicon sealant to prevent freezing.

[Valve operation method]

Prepare hexagon wrenches (whose size is 4 mm).

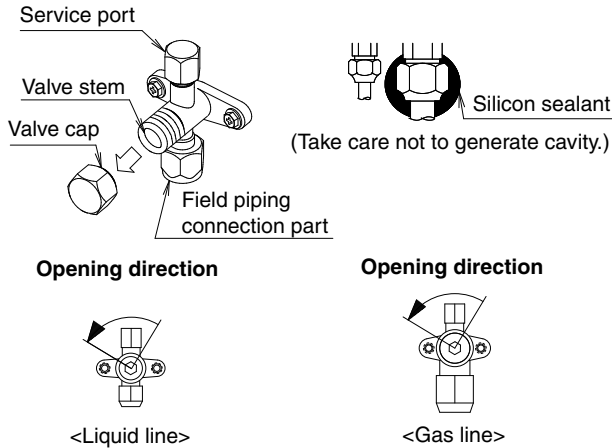
How to open the stop valve

1. Insert a hexagon wrench into the valve stem, and turn the valve stem counterclockwise.
2. When the valve stem cannot be turned any more, stop turning. Now, the valve is open.

2. Guideline for each installation process

How to close the stop valve

1. Insert a hexagon wrench into the valve stem, and turn the valve stem clockwise.
2. When the valve stem cannot be turned any more, stop turning. Now, the valve is closed.

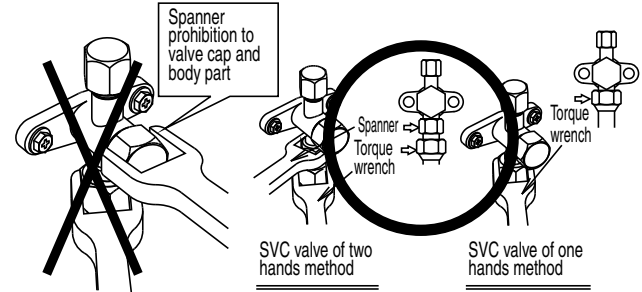


Cautions on handling the service port

- Use charge hose equipped with push in the work.
- After the work, make sure to tighten the valve cap securely. Tightening torque.....8.5~10.3 ft-lbf

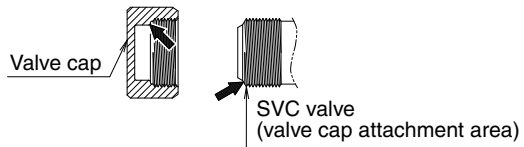
Do not apply any force to the valve cap

Using a spanner on the valve cap and the valve body could cause a refrigerant leak.



Cautions on handling the valve cap

- The valve is sealed in the arrow area. Take care not to damage the arrow area.

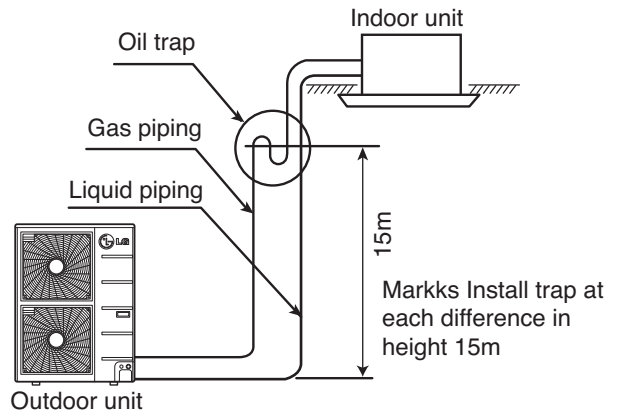


- After handling the valve, make sure to tighten the valve cap securely.

Liquid line	Gas line
3.4~4.2 m-kgf	6.3~8.2 m-kgf

Oil Trap

- Necessity of trap
Since there is fear of the oil held inside the riser piping flowing back into the compressor when stopped and causing liquid compression phenomenon, or cases of deterioration of oil return, it will be necessary to provide a trap at an appropriate place in the riser gas piping.
- Trap installation spacing



NOTE

A trap is not necessary when the outdoor unit is installed in a higher position than the indoor unit.

2. Guideline for each installation process

2.2.4 Brazing work

CAUTION

Brazing of refrigerant piping :

The following precaution should be taken.

1. Do not use flux when brazing copper to copper refrigerant piping.

(Particularly for the HFC refrigerant piping)

Therefore, use the phosphor copper brazing filler metal (BCuP) which does not require flux.

(Flux has extremely harmful influence on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil.)

If brazing work is carried out without passing nitrogen gas through the pipes then it allows the formation of oxidation bubbles on the inside surface of the pipes.

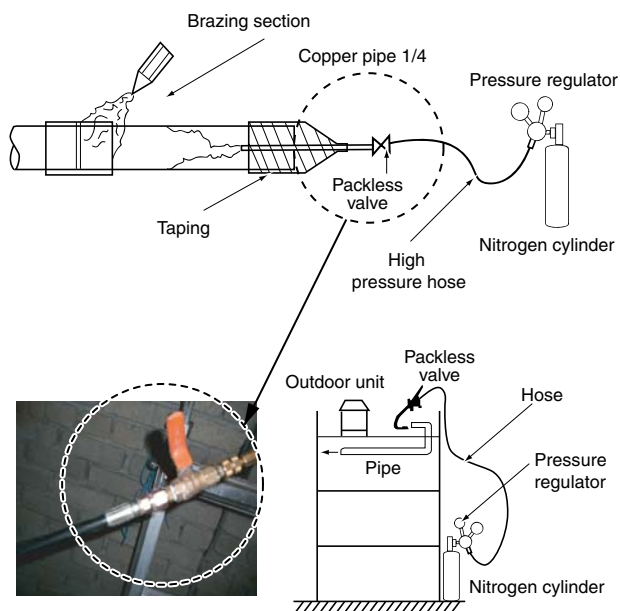
These oxidation bubbles are then carried along inside the pipes to cause damage to various members of the system such as valve or compressors and the system ceases to function properly.

In order to avoid this problem nitrogen is passed through the pipe while the soldering work is being carried out.

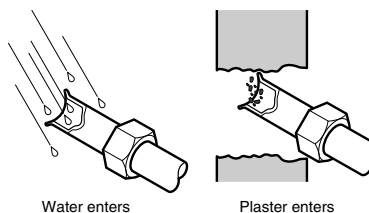
This operation work is known as nitrogen replacement. (Air is replaced by nitrogen)

This is standard work during all brazing works.

1. Nitrogen flushing method (During brazing)



CAUTION



Make sure to keep the connecting piping dry (away from water), clean (away from dust), and air tight (avoid refrigerant leakage)

CAUTION

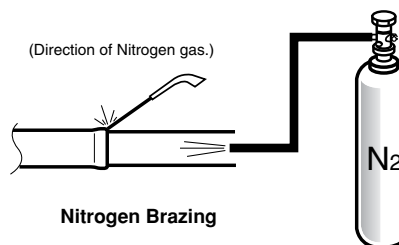
Pipe bending

Annealed copper pipe with small diameter ($\text{Ø}6.35$ or $\text{Ø}9.52$) can be easily bent manually. In this case, secure large R (radius) for the bend section and gradually bend pipe. If annealed copper pipe is large in diameter ($\text{Ø}15.88$ or over), bend pipe with bender. Use bender appropriate for the pipe diameter.

CAUTION

Nitrogen Brazing

- a. This procedure is designed to prevent formation of oxidation film by filling piping with inert gas. Note that excessive gas pressure will generate pinholes at brazed points. (Nitrogen gas: Supply pressure $0.05\sim 0.1\text{kg/cm}^2\text{G}$)
- b. When supplying inert gas, be sure to open one end of piping.



2. Guideline for each installation process

Brazing work should be carried out either downwards or sideways.
An upward direction should be avoided wherever possible(to prevent leakage).

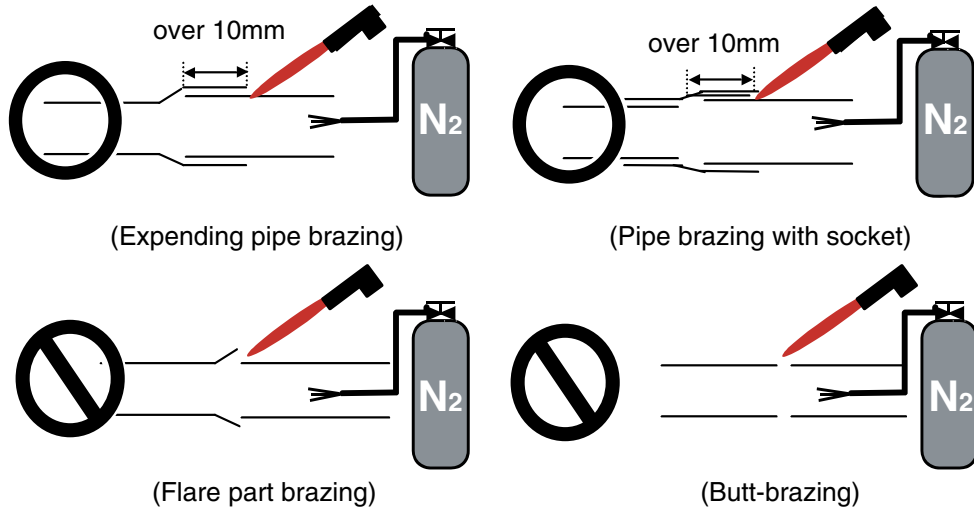


Table 1: Correlation of nozzle tip and size of refrigeration piping

	Piping size	Nozzle tip No.						Brazing filler diameter Ø			
		# 200	# 225	# 250	# 315	# 400	# 450	# 500	1.6	2.4	3.2
	6.35										
	9.52										
	12.7										
	15.9										
	19.1										
	22.2										
	25.4										
	31.8										
	38.1										
	44.5										

CAUTION

1. Generally expending pipe brazing is performed with pan-coil type copper pipe, and socket blazing is performed with straight copper pipe.
2. Do not perform flare part brazing or butt-brazing.
3. Brazing should be performed on welding table.
4. Any dust should enter in the pipe while brazing.
5. Distance of copper pipe support spacing is within 1~2m
6. The copper pipe should not be secured directly by metal brackets.

2. Guideline for each installation process

2.2.5 Refrigerant pipe flushing

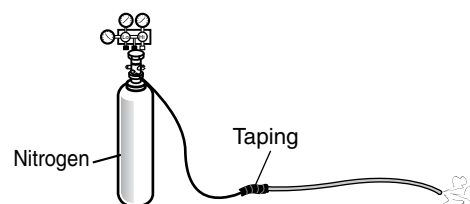
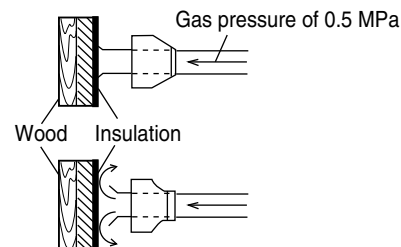
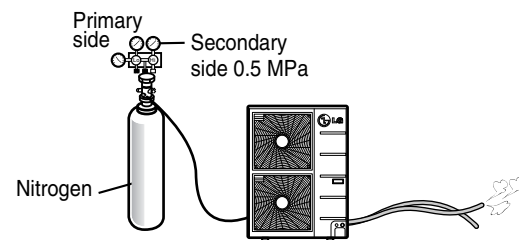
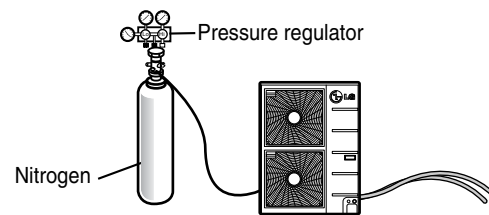
Flushing is a method of cleaning extraneous matter out of pipes using pressurized gas.

NOTE

Refrigerant pipe flushing of 3 major effects

1. Removal of oxidation bubbles formed inside copper pipes when “nitrogen replacement is insufficient” during soldering work
2. Removal of extraneous material and moisture from pipes when covering has been insufficient
3. Checks connections in pipes linking outdoor and indoor units (Both liquid and gas pipes)

- ① Set pressure regulator on nitrogen cylinder.
- ② Connect the charge hose from pressure regulator to service port on the liquid pipe side of the outdoor unit before its connection to BD unit or indoor unit.
- ③ Open the main valve on the nitrogen cylinder and set the pressure regulator to 0.5MPa.
- ④ Ensure that nitrogen is flowing through the pipe properly.
- ⑤ For flushing block the end of the pipe with wood insulation block.
- ⑥ When the pressure becomes great remove the block quickly.
- ⑦ Do step 6 & 7 repeatedly till cleanness is ensured.
- ⑧ Connect the charge hose from pressure regulator to service port on the gas pipe side of outdoor unit before its connection to BD unit or indoor unit.
- ⑨ Flow the steps 3, 4, 5, 6, 7.
- ⑩ In case of BD unit system, before connecting to indoor units, each pipe should be flushed individually.
- ⑪ Flow the steps 3, 4, 5, 6, 7.



CAUTION

After welding the pipe, nitrogen flushing is strongly recommended.

2. Guideline for each installation process

2.3 Drain piping work

The purpose of drain piping is to prevent damage of products and ceiling materials by proper draining of dew condensation which is generated from the evaporator of indoor unit when the hot vapors come in contact with the evaporator.

1. Application

Pipes for draining water generated from indoor unit on cooling operation

Specification for drain piping

Type		Drain pipe diameter (External/Internal)	Drain pump	Drain pump discharge head (mm)	Drain amount (at 10mm height)
					cm ³ /min (lpm)
Single A	Cassette 4 way	Ø32/25mm, Ø35.5/31.5mm	Standard	850(TM / TN / TP) 700	400 (0.4)
	Duct	Ø25.4/20.4mm, Ø25.4/19.4mm	Accessory	700	400 (0.4)
	Ceiling and floor	-	-	-	-
	Ceiling Suspended	-	-	-	-
	Condole	-	-	-	-

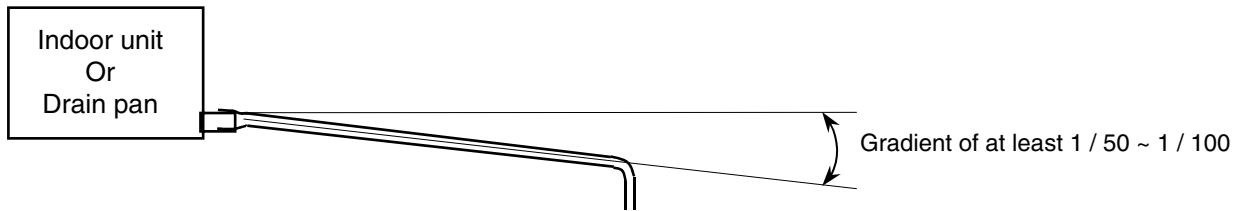
[Reference Table] Drain amount per capacity

kW	Air flow rate (CMH)	Drain amount (lpm)	Remark
2.04	8	0.128	Indoor temp. : 26C DB Indoor humidity RH : 85% Outlet temp. :14C DB Outlet temp. RH: 50%
2.33	8.5	0.137	
2.91	10.5	0.169	
4.36	11.5	0.185	
5.82	17	0.273	
7.28	19	0.305	
8.73	21	0.337	
10.2	23	0.369	
11.6	25	0.402	
14.6	34	0.546	

2. Guideline for each installation process

2.3.1 Drain pipe slope and support

- Slope gradient for drain should be (1/50~1/100mm) and PVC pipes should be used.
- Support hanger should be at 1~1.5m interval to prevent from loosening and dropping.
- Drain pipe insulation
: The inside temperature of drain pipe is about 10°C. When high temperature and humidity air touches the surface of pipe, dew condensation occurs. To prevent that, drain pipe keeps warm using insulation with polyethylene 10mm thickness.



1. Application

Refrigerant pipe length contracts and expands on heating and cooling repeatedly. So supporting work is needed not to hinder each copper pipe connection part.

2. Supporting distance for common drain pipe

[Table]The interval of the supporting hanger for drainage pipe

Pipe diameter (mm)	Ø20~40	Ø40~50	Ø65~125
Max. interval(m)	Below 1.0	Below 1.2	Below 1.5

3. Anchor bolt supporting work

Anchor bolt supporting work should be used for supporting a heavy indoor unit to ceiling.

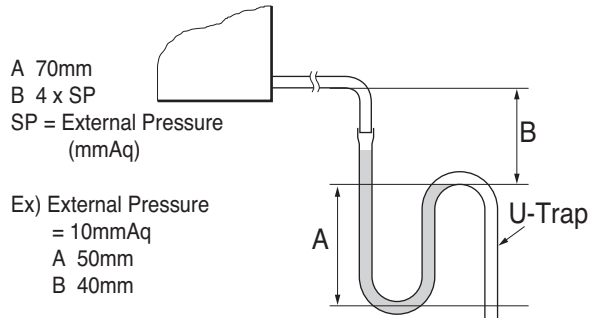
Clamp hanger supporting work is for hanging refrigerant pipe, drain pipe and cables.

It can prevent vibrating noise from passing through pipe.

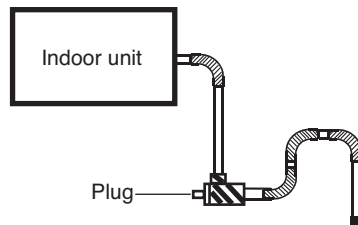
We recommend set anchor bolt for supporting indoor unit and strong anchor bolt for supporting pipes and cables

2. Guideline for each installation process

2.3.2 Drain pipe trap (only for high static duct)

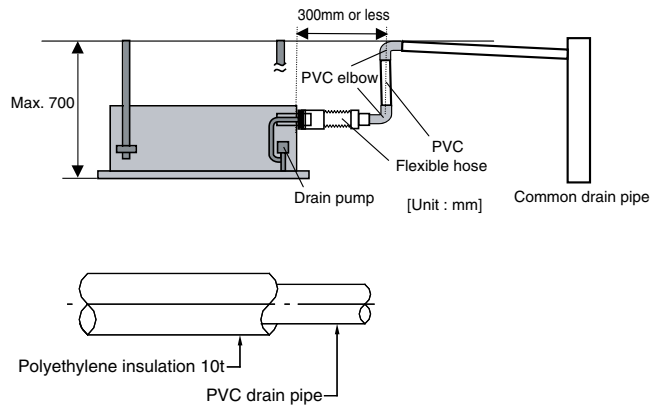


<U-trap size calculations>

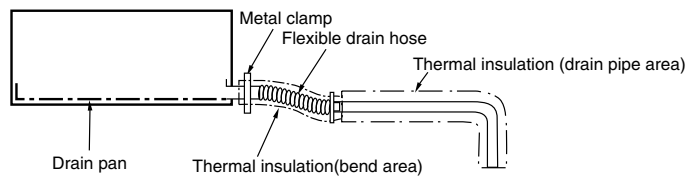


- In case of duct high static pressure, the U trap maintains a positive pressure on the indoor side of the unit.

Models with drain pump:



Models without drain pump



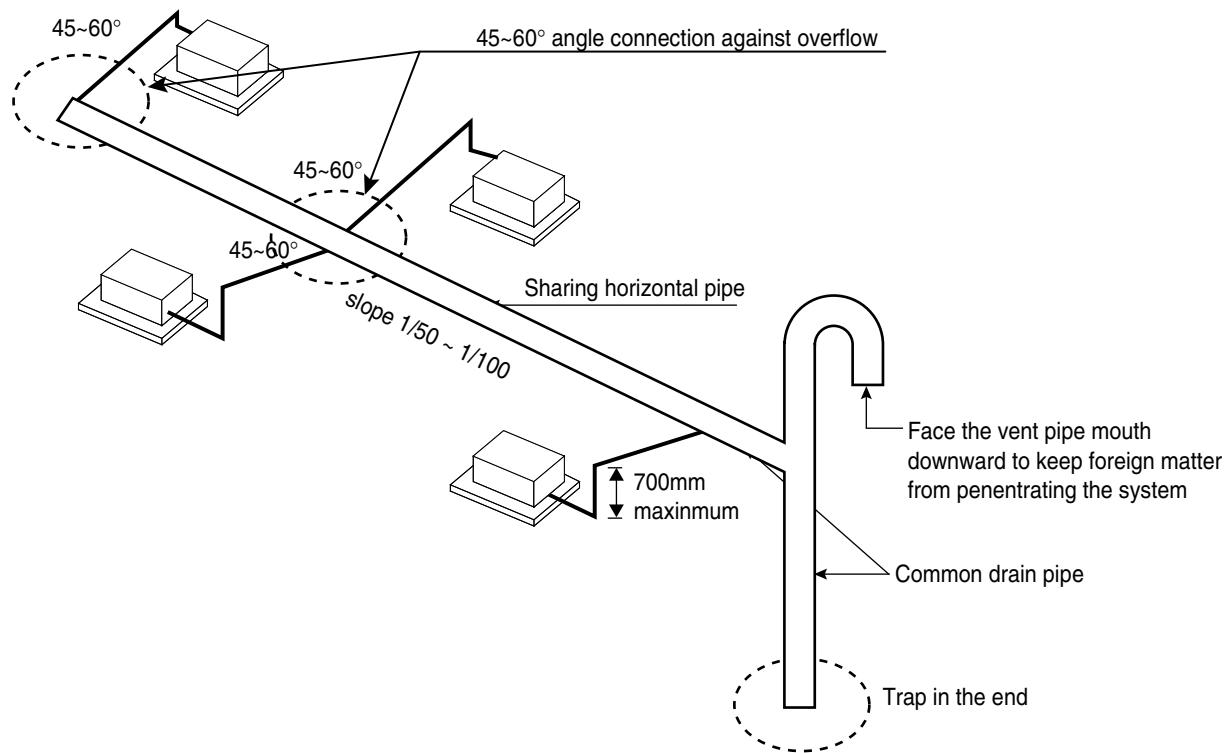
2. Guideline for each installation process

2.3.3 Grouped drain pipes

It is standard work practice to make connections to the main pipe from above.

The pipe down from the combination should be as large as possible.

The diameter of ventilation pipe should be same or larger than drain pipe diameter.



NOTE

1. Trap is required if the pipe is open towards sewage to prevent bad smell from coming to indoor.
2. Do not connect drain pipe with building common drain pipe in heavy snow area. It might block the pipe with ice and remaining collected water can get back to indoor unit.
Provide separate air conditioner drain pipe.

Grouped drain piping standard

- For drain pipe diameter selection, refer to the following table.
- The drainpipe should be used for only air conditioners. If you share it for rainwater drain, you should be careful of a back flow, leakage, bad odor and so on.
- Use separate drain pipe for polluted water or wasted water

[Table] Drain pipe diameter selection standard

Sum of the capacity of indoor units (Btu/h)	~80,000	~200,000	~400,000	~600,000	~1000,000
Internal diameter (External)	25(32)	32(40)	40(50)	50(60)	65(75)

NOTE

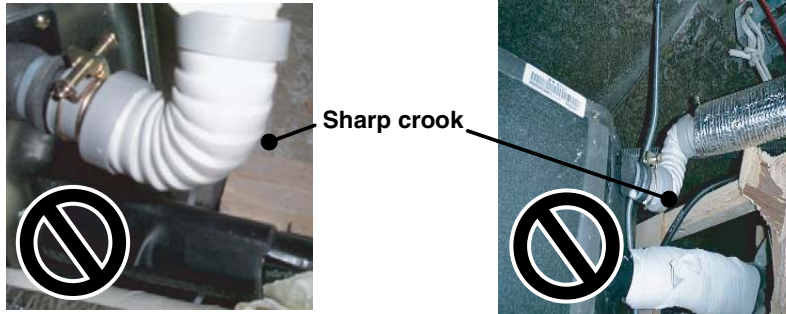
Select the diameter of the horizontal pipe bigger than vertical.

2. Guideline for each installation process

2.3.4 Caution for drain piping work

Notice on drain working

1. Drain pipe should be insulated all connected joints and ends.



CAUTION

Flexible tube should be connected with clamp concentrically.
If not, water will leak from the connection.



<clamp connection>

2. No reverse slope for drain connection

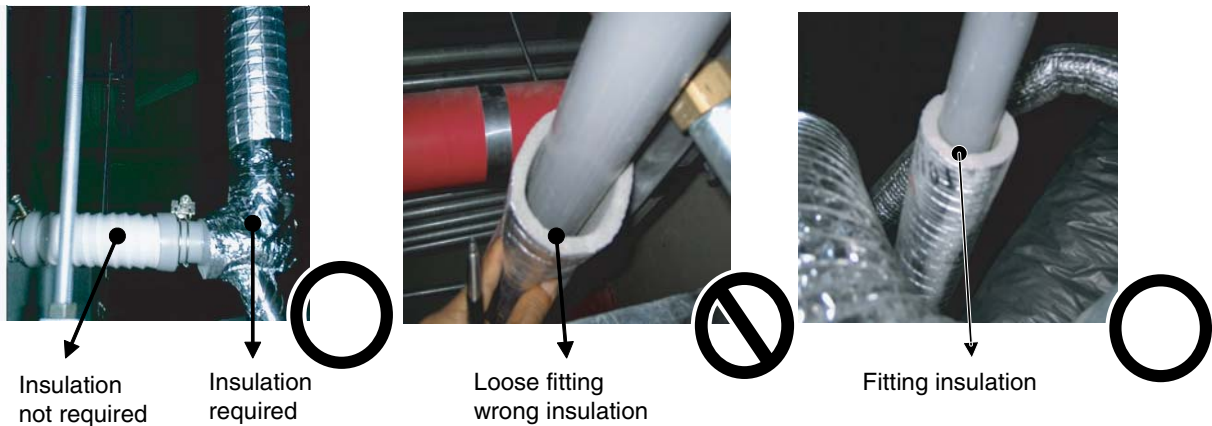


<Reverse slope>

2. Guideline for each installation process

Drain pipe insulation

- Drain pipe should be insulated all connected joints and ends.



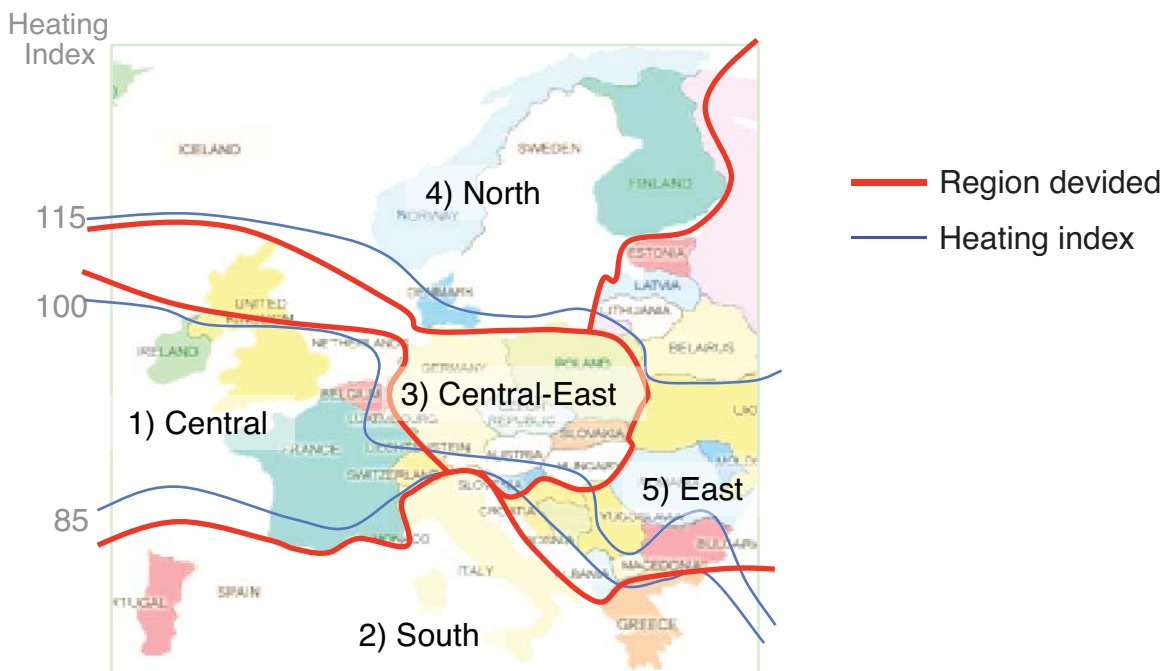
- Do not use the loose fitting insulation.

Drain water leakage test

- Water leakage test should be performed 24 hours later after drain work finishing.
- In the test, only water should be used. Other liquids are unacceptable.

2.3.5. Outdoor unit drain (recommendation)

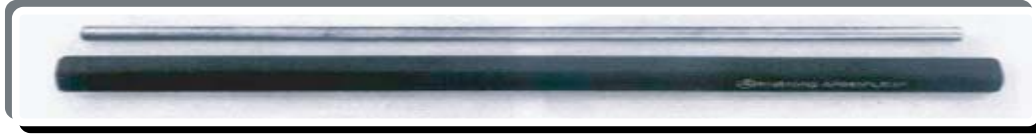
- Mild heating region : 2) South EU use drain hose recommended (drain hole diameter 20mm)
- Intermediate heating : 1) central,3) central-east,5) east EU outdoor unit Drain pan(local) recommended.
- Hard heating region : 4) North EU super extreme heat pump model



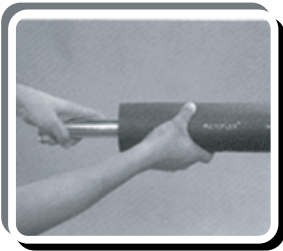
2. Guideline for each installation process

2.4 Insulation work

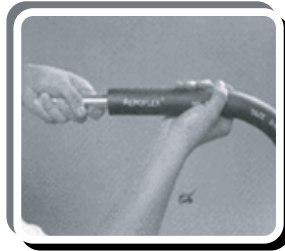
2.4.1 Insulation



1) Operational steps



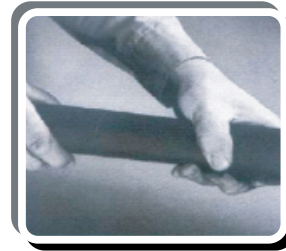
- ① EPDM length should be more longer than pipe length. Do not extend EPDM by force.



- ② Put the pipe in EPDM insulation carefully so that the pipe will not get damaged with EPDM.



- ③ Bond on both side of cut surfaces of move sure to use the correct type of bond for EPDM cut surface attaching.

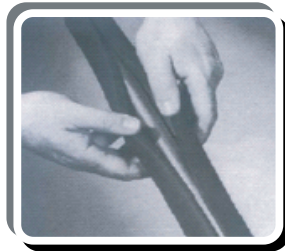


- ④ Dry it until it becomes thick, sticky and does not get detached.

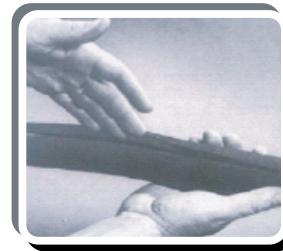
2) Bending vertical side of insulation



- ① Use the original uncut insulation material.



- ② Only in specialcase is the vertical cutting of the insulation allowed.



- ③ Bond both sides of the surface of EPDM and press them together for long lasting bonding.



- ④ Dry it until it becomes thick and sticky.

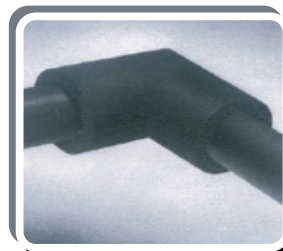
3) ' L ' Fitting connection part insulation



- ① All of the fitting connecting parts should be insulated. Bring face to face the each end of EPDM on fitting connection part.



- ② Make fitting cover to fit the EPDM insulation fitting cover should be overlapped with insulation min 1 inch (2.5cm).



- ③ Bond the both cutting sides of fitting cover.

2. Guideline for each installation process

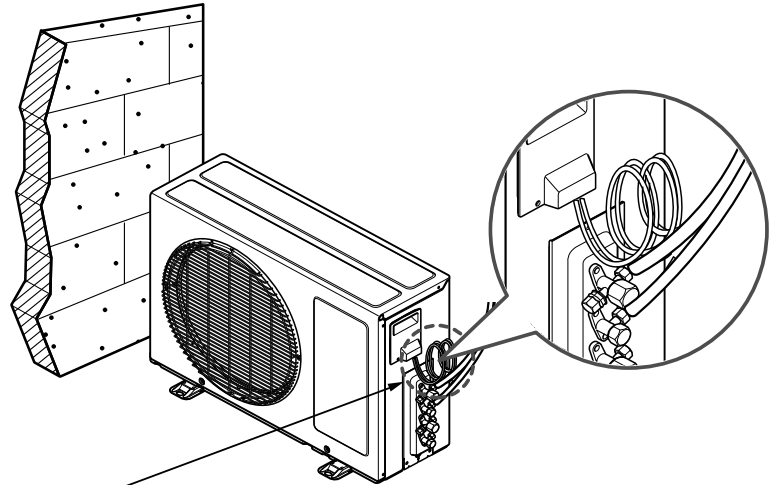
2.4.2 Forming the piping

1) Form the piping by wrapping the connecting portion of the indoor unit with insulation material and secure it with two kinds of vinyl tape.

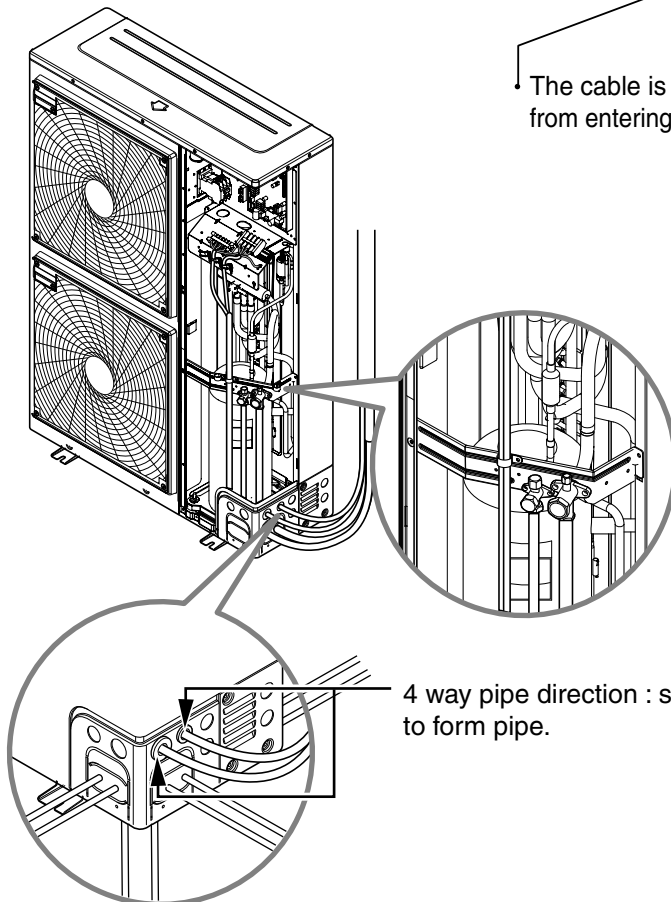
• If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. Secure the drain hose appropriately.

2) In cases where the outdoor unit is installed below the indoor unit perform the following.

- ① Tape the piping, drain hose and transmission cable from down to up.
- ② Secure the tapped piping along the exterior wall using saddle or equivalent.



The cable is required to prevent rain water from entering into electrical parts of outdoor unit.



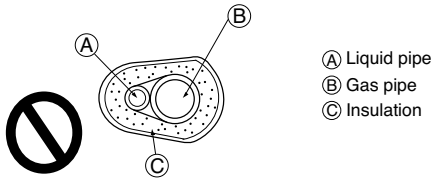
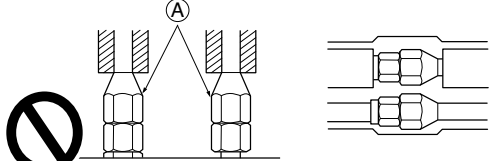
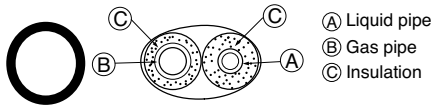
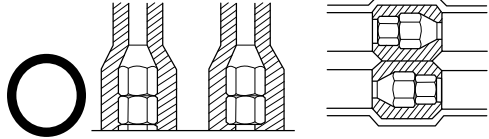
4 way pipe direction : select what you want to form pipe.

2. Guideline for each installation process

2.4.3 Essential points of thermal insulation

1) Thermal insulation of refrigerant piping

Be sure to give insulation work to refrigerant piping by covering liquid pipe and gas pipe separately with enough thickness heat-resistant insulation materials, so that no gap is observed in the joint between indoor unit and insulating material, and insulating materials themselves. When insulation work is insufficient, there is a possibility of condensation drip, etc. pay special attention to insulation work to ceiling plenum.

<p>Wrong method</p>	<ul style="list-style-type: none"> Do not insulate gas or low pressure pipe and liquid or high pressure pipe together.  <p> (A) Liquid pipe (B) Gas pipe (C) Insulation </p>	<ul style="list-style-type: none"> Be sure to fully insulate connecting portion.  <p>(A) These parts are not insulated.</p>
<p>Correct method</p>	 <p> (A) Liquid pipe (B) Gas pipe (C) Insulation </p>	

2) Caution during insulation work

- In case the cables are installed in the conduit, a finishing tape is not required.
- Defect and insufficient insulation can cause condensation drops.
- Binding the insulation too tight may result in dew drops.
- Be sure not to tie rap the insulation but put special taping or the clamp at the connecting portion.
- The insulation overlapping part at the piping connection must be a distance from the flaring part at the pipe connection.

3) Insulation tube thickness

- Thickness decision of insulation tube
 - Insulation material: EPDM or polyethylene foam
 - Thermal conductivity 0.035 kcal~0.040kcal/mh°C
 - Heat resistance=85°C(Cooling only) or more
100°C(Heat pump) or over
- The thickness of the thermal insulation material must be determined in the light of the pipe sizes.

Pipe size	Thickness of insulation material
6.35 ~ 25.4 mm	10mm or more
25.4 ~	15mm

- It will be necessary to increase the thickness of insulation in the above table when conditions are hot and humid.
- Where a customer supplies his own specifications then these must be adhered to.

CAUTION

Outdoor temperature and humidity around the cooling piping might exceed 30°C and RH80%, reinforce the insulation on the cooling piping (at least 20mm thick)

2. Guideline for each installation process

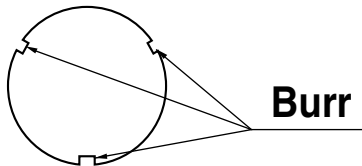
2.5 Electrical work

2.5.1 Precautions

⚠ CAUTION

When knocking out knock holes

- To punch a knock hole, hit on it with a hammer.
- After knocking out the holes, we recommend you paint the edges and areas around the edges using paint to prevent rusting.
- When passing electrical wiring through the knock holes, remove any burrs from the knock holes and wrap the wiring with protective tape to prevent damage.



If there are any possibilities that small animals or insects enter the system through the knock holes, plug the holes with packing materials (to be prepared onsite).

Use a conduit for the cable

- Outside the unit, make sure the thin signal cable (i.e. for the remote control, between units, etc.) and the thick electric wiring do not pass near each other and use of the shield signal cable is recommended. Otherwise, the outdoor unit may be affected by electrical noise (external noise), and malfunction or fail.
- Secure the wiring with the accessory clamps so that it does not touch the piping.
- Make sure the wiring and the electric parts box cover do not stick up above the structure, and close the cover firmly.

⚠ CAUTION

Do not operate the air conditioner until the refrigerant piping work is completed.

(Operating the air conditioner before the refrigerant piping work is completed may damage the compressor.)

- Install an earth leakage circuit breaker. Since this is an inverter air conditioner. In order to prevent malfunction of the earth leakage breaker itself, use a breaker resistant to higher harmonics.
- After finishing the electric work, confirm that each electric part and terminal inside the electric parts box is connected securely.

NOTE

- Only professional electricians having sufficient knowledge should perform the electrical wiring work. Perform the electrical wiring work in accordance with the electrical wiring diagram. Make sure to set OFF the branch switch and over current breaker before starting the work.
- Install an earth leakage breaker.
- Perform grounding to the indoor units and outdoor units.
 - Do not connect the ground wire to gas pipes, sewage pipes, lightning rods telephone ground wires.
 - Gas pipes Can explode or catch fire if gas leaks.
 - Sewage pipes.... Provides no grounding effect if hard plastic pipes are used.
 - Telephone ground wires and lightning rods dangerous when struck by lightning due to abnormal rise in the electrical potential in the ground.
- Use only copper wires.
- Make sure to shut down the power before starting the electric wiring work. Do not set ON any switch until the work is completed.
- The outdoor unit has an inverter compressor which generates noise and charges the outer casing with the leakage current. The outdoor unit should be grounded so that the effect of the generated noise on other equipment can be reduced, and that the outer casing can be discharged.
- Never install a phase advancing capacitor for power factor improvement. (Even if it is installed, the power factor is not improved. And if it is installed, the outdoor unit is abnormally overheated.)
- Use specified electric wires in the wiring, and connect them securely. Fix them in such a way that external force is not applied at the terminals (transmission wiring in the local field and ground terminal).
- Never push excessive electric wires into the units.
- Protect electric wires with conduit tubes or other proper tubes so that they will not be damaged by edges of knock holes.
- Do not use multi conductor cable which have more than 5 wires in one core.

2. Guideline for each installation process

2.5.2 Control wiring / power supply

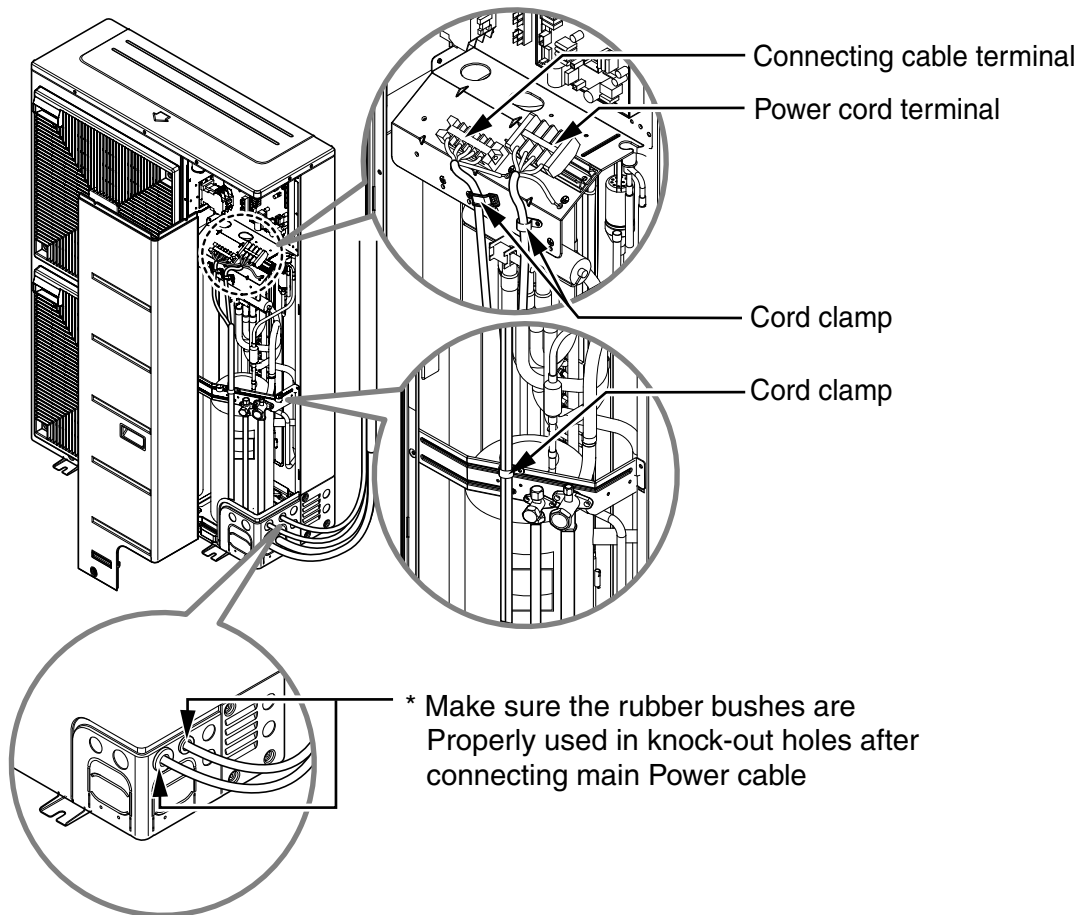
- 1) All wiring must comply with LOCAL REGULATIONS.
- 2) Select a power source that is capable of supplying the current as required by the air conditioner.
- 3) Feed the power source to the unit via a distribution switch board designed for this purpose.
- 4) The terminal screws inside the control box may be loose due to vibration during transport.
Check the screws for loose connection.
(Running the air conditioner with loose connection can overload and damage electrical components.)
- 5) Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.

2. Guideline for each installation process

Connecting the cable to Outdoor Unit

- Remove the side panel for wiring connection.
- Use the cord clamp to fix the cord.
- Earthing work
 - Connect the cable of diameter more to the earthing terminal provided in the control box and do earthing.

* Please check !!



⚠ CAUTION

- The circuit diagram is not subject to change without notice.
- Be sure to connect wires according to the wiring diagram.
- Connect the wires firmly, so that not to be pulled out easily.
- Connect the wires according to color codes by referring the wiring diagram.

2. Guideline for each installation process

2.6 Air tight test

2.6.1 Air purging

Air and moisture remaining in the refrigerant system have undesirable effects as indicated below.

- ① Pressure in the system rises.
- ② Operating current rises.
- ③ Cooling (or heating) efficiency drops.
- ④ Moisture in the refrigerant circuit may freeze and block capillary tubing.
- ⑤ Water may lead to corrosion of parts in the refrigeration system. Therefore, the indoor/outdoor unit and connecting tube must be checked for leak tight, and vacuumed to remove incondensable gas and moisture in the system.

Checking method

1) Preparation

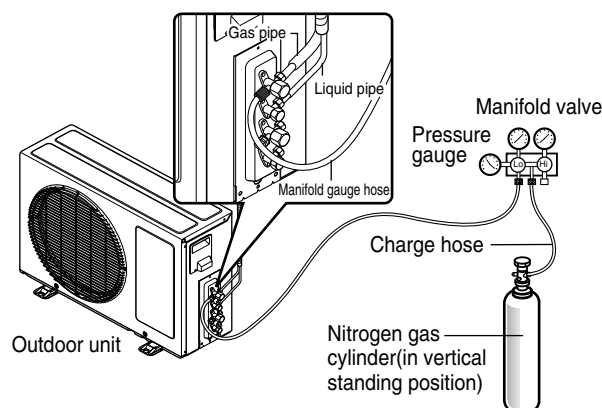
- Check that each pipe (both liquid and gas side pipes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed. Remove the service valve caps from both the gas and the liquid side on the outdoor unit. Check that both the liquid and the gas side service valves on the outdoor unit are kept closed at this stage.

2) Leakage test

- Connect the manifold valve (with pressure gauges) and dry nitrogen gas cylinder to this service port with charge hoses.

CAUTION

Be sure to use a manifold valve for leakage test. If it is not available, use a stop valve for this purpose. The "Hi" knob of the manifold valve must always be kept close.



CAUTION

To avoid nitrogen entering the refrigerant system in a liquid state, the top of the cylinder must be higher than its bottom when you pressurize the system. Usually, the cylinder is used in a vertical standing position.

1. Do a leakage test of all joints of the Tubing (both indoor and outdoor) and both gas and liquid side service valves. Bubbles indicate a leak. Be sure to wipe off the soap with a clean cloth.
2. After the system is found to be free of leaks, relieve the nitrogen pressure by loosening the charge hose connector at the nitrogen cylinder. When the system pressure is reduced to normal, disconnect the hose from the cylinder.

2.6.2 Essential points of testing

The key to successful testing is strict adherence to the following procedure:

- a) The liquid and gas piping in each refrigerant system should be pressurized in turn in accordance with the following steps. (Nitrogen gas must be used.)

Step 1: increase pressure to 0.3MPa
for 3 minutes or more

Step 1: increase pressure to 1.5MPa
for 3 minutes or more

Step 3: increase pressure to 3.8MPa
for approximate 24 hours

Indicates existence
of major leaks

Indicates existence
of major leaks

Increasing the system pressure to 3.8MPa does not guarantee the identification of minor leaks if pressure is maintained for only a short time. It is therefore recommended that the system remain pressurized in accordance with Step 3 above for at least 24 hours.

NOTE

Piping should not be pressured more than 3.8MPa.

- b) Check for pressure drop

If there is no drop in pressure then the test is deemed a success. If the pressure drops then the leak must be located. See following page. However, if there is a change in the ambient temperature between the pressurizing stage and the time when you check for a drop in pressure then you will have to adjust your calculations accordingly since a change of 1°C can account for a pressure change of approximately 0.01MPa.

Compensating adjustment value:

(temperature at time of pressurizing – temperature at time of checking) × 0.01

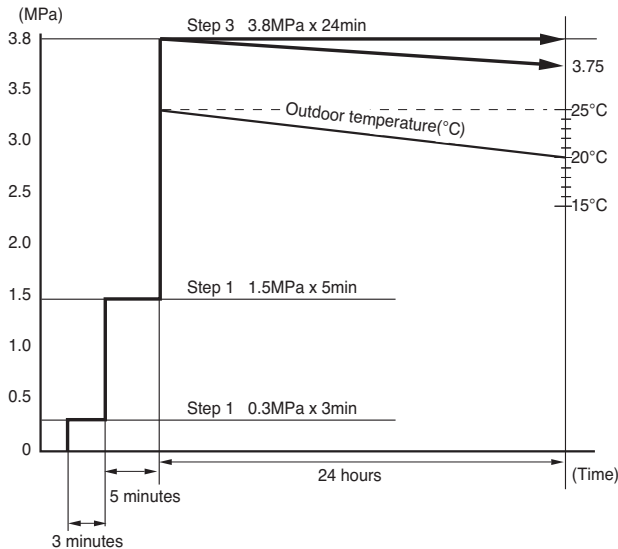
2. Guideline for each installation process

Example:

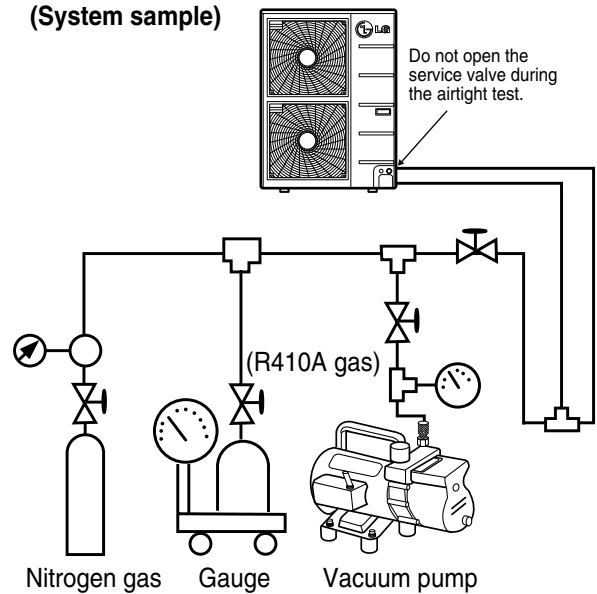
During of pressurizing: 3.8MPa 25°C

24 hours later: 3.75MPa 20°C

Although the gauge pressure is dropped from 3.8MPa to 3.75MPa, it can be safely assumed that there is no leakage because the gauge pressure can also drop due to the change in outdoor temperature.



(System sample)



Important points

1. Where the lengths of piping involved are particularly long then the air tight test should be carried out block by block.

- 1) Indoor side
- 2) Indoor side + vertical pipes
- 3) Indoor side + vertical pipes + outdoor side

CAUTION

Soap water method

1. Remove the caps from the 2-way and 3-way valves.
2. Remove the service-port cap from the 3-way valve.
3. To open the 2-way valve turn the valve stem counter-clockwise approximately 90°, wait for about 2~3 sec, and close it.
4. Apply a soap water or a liquid neutral detergent on the indoor unit connection or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping.
5. If bubbles appear then those points have leakage.

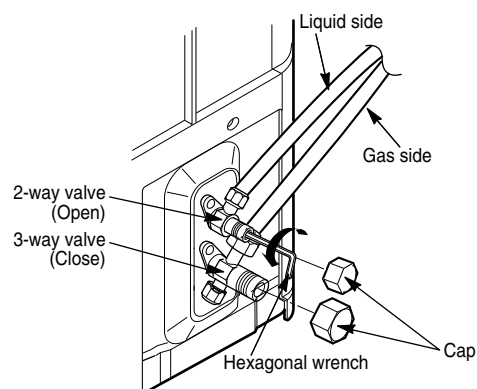
2.6.3 Checking for leakage

[Check 1] (Where pressure falls while carrying out Steps 1 to 3 described on previous page)

- ▶ Check by measure gage.....gas detector.
- ▶ Check by ear.....Listen for the sound of a major leakage.
- ▶ Check by hand.....Check for leak by feeling around jointed sections with hand.
- ▶ Bubble checkBubbles will reveal the presence of a leakage.

[Check 2] (When searching for a minor leak or when there has been a fall in pressure while the system has been fully pressurized but the source of the leak cannot be traced.)

1. Release the nitrogen until the pressure reaches 0.3MPa.
2. Increase pressure to 1.5MPa using gaseous refrigerant(R410).
3. Search for the source of the leakage using a leakage detector such as a halide torch or a propane or electronic detector.
4. If the source of the leakage still cannot be traced then repressurize with nitrogen up to 3.8MPa and check again. (The pressure must not be increased to more than 3.8MPa.)



2. Guideline for each installation process

2.7 Vacuum drying works

2.7.1 What is Vacuum drying?

Vacuum drying is : The use of a vacuum pump to vaporize(gasify) the moisture (liquid) inside the pipe and expel it leaving the pipes completely dry inside.
At 1 atm(760mmHg) the boiling point (evaporating temperature) of water is 100°C but if a vacuum is created inside the pipes using a vacuum pump then the boiling point is rapidly reduced as the degree of the vacuum is increased.
If the boiling point is reduced to a level below that of the ambient temperature then the moisture in the pipes will evaporate.

Example

When outside temperature is 11.7°C as shown in the table on the right , the degree of vacuum must be lowered below -750mmHg

Boiling point of water(°C)	The degree of a vacuum mmHg	Pressure	
		Pa	Torr
40	-705	7333	55
30	-724	4800	36
26.7	-735	3333	25
24.4	-738	3066	22
22.2	-740	2666	20
20.6	-742	2400	18
17.8	-745	2000	15
15.0	-747	1733	13
11.7	-750	1333	10
7.2	-752	1066	8
0	-755	667	5

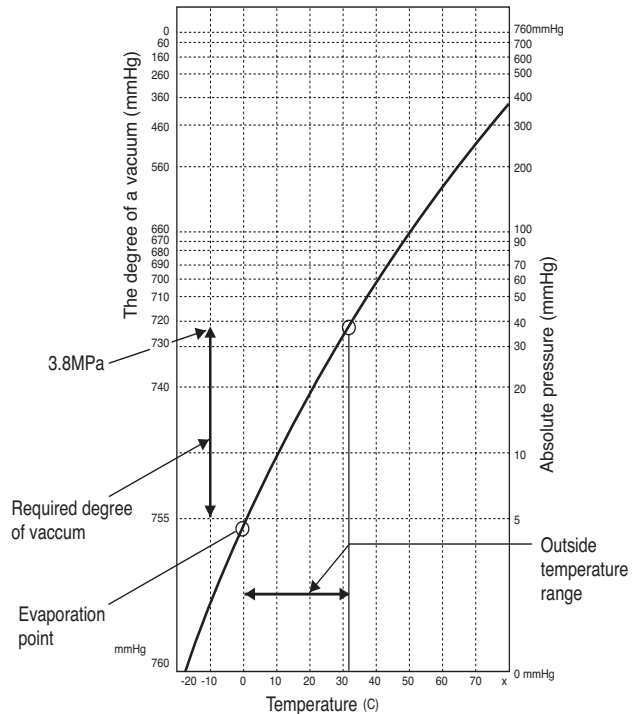
The evacuation of air conditioner piping provides the following effects.

1. Vacuum drying
2. Removes air and nitrogen(used in air-tightness test) from the inside of pipes.

Therefore , it is necessary to ensure that both purposes have been achieved in the vacuum drying operation.

NOTE

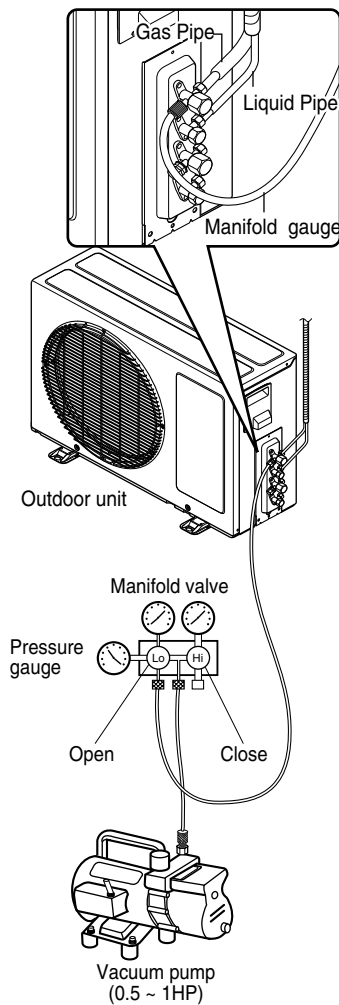
Key point: Maintain a vacuum level of -755mmHg



2.7.2 Evacuation

1. Connect the manifold hose end described in the preceding steps to the vacuum pump to evacuate the tubing and indoor unit. Confirm the "Lo" knob of the manifold valve is open. Then, run the vacuum pump. The operation time for evacuation varies with tubing length and capacity of the pump. The following table shows the time required for evacuation.
2. When the desired vacuum is reached, close the "Lo" knob of the manifold valve and stop the vacuum pump.

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CAUTION

Finishing the job

1. With a service valve wrench, turn the valve stem of liquid side valve counter-clockwise to fully open the valve.
2. Turn the valve stem of gas side valve counter-clockwise to fully open the valve.
3. Loosen the charge hose connected to the gas side service port slightly to release the pressure, then remove the hose.
4. Replace the flare nut and fasten the flare nut securely with an adjustable wrench. This process is very important to prevent leakage from the system.
5. Replace the valve caps at both gas and liquid side service valves and fasten them tight. This completes air purging with a vacuum pump. The air conditioner is now ready for test run.

2.7.3 Choosing a vacuum pump

The necessity for counter flow prevention

After the vacuum process of the refrigerant cycle, the inside of the hose will be vacuumed after stopping the vacuum pump, the oil of vacuum pump may flow back. Moreover, if the vacuum pump stops during the operation for some reason.

Therefore, in order to prevent the counter flow from the vacuum pump, a check valve is required.

1) Vacuum pump performance

The 2 most important things for determining vacuum pump performance are as follows:

- (1) Exhaust velocity
- (2) Degree of vacuum

(1) Exhaust velocity

Exhaust volume is usually expressed as l/min or m³/hr. The larger the number, the faster the vacuum is achieved. Generally speaking, the faster the exhaust velocity, the larger and heavier the vacuum pump itself is. Commercially available vacuum pumps (exhaust velocity of 20 - 30 l/min) usually take an extremely long time to achieve vacuum. (We recommend a vacuum pump of approx. 60 - 100 l/min.)

(2) Degree of vacuum

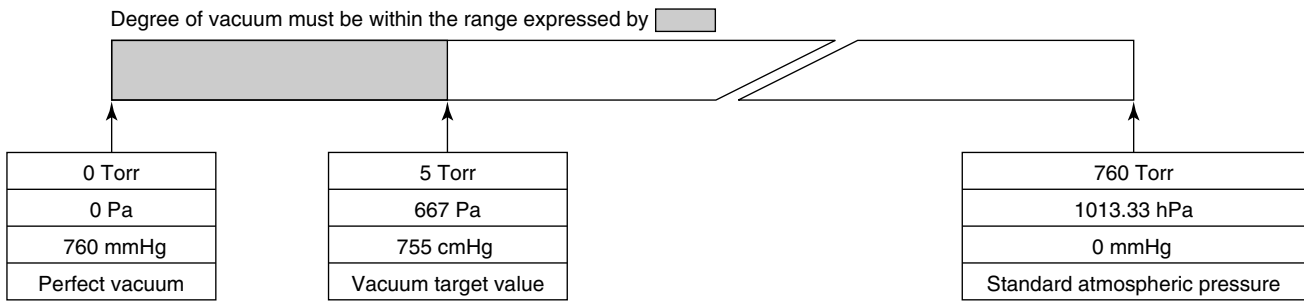
Ultimate vacuum varies largely according to use of the vacuum pump. Vacuum pumps used for vacuum forming cannot be used for vacuum drying. (A vacuum pump with a high degree of vacuum is required.)

When selecting a vacuum, you should select one which is capable of achieving 0.2 Torr of ultimate vacuum.

Degree of vacuum is expressed in Torr, micron, mmHg, and Pascal (Pa). The units correlate as follows:

	Unit	Standard atmospheric pressure	Perfect vacuum
Gauge Pressure	kg/cm ²	0	-1.033
Absolute Pressure	kg/cm ² abs	1.033	0
Torr	Torr	760	0
Micron	Micron	760000	0
mmHg	mmHg	0	760
Pa	Pa	1013.33	0

2. Guideline for each installation process

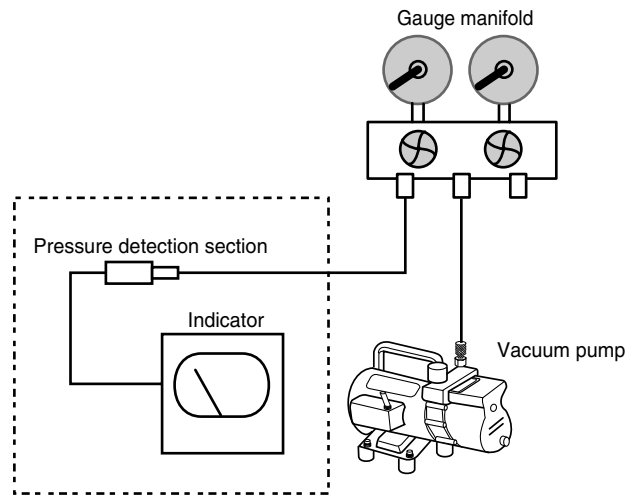


2) Vacuum pump maintenance

Because of their nature, most vacuum pumps contain large amounts of oil which lubricates bearings, etc., and functions to enhance airtightness of pistons. When using a vacuum pump to discharge air from refrigerant piping, moisture in the air tends to get mixed in with the oil. You must therefore change oil periodically and make sure the proper oil level is maintained. (Perform periodic inspections in accordance with the operating instructions.)

3) Degree of vacuum measurement

An extremely accurate vacuum gauge is required to test degree of vacuum. You cannot accurately measure degree of vacuum with the compound gauge on the gauge manifold. A Pirani vacuum gauge is required to measure degree of vacuum accurately. Because Pirani gauges are very sensitive and require extreme care when using, they are not very suitable for use in the field. You should therefore use the Pirani gauge to calibrate the attached vacuum gauge on the gauge manifold and the degree of vacuum of the vacuum pump.



(Reference) Types of vacuum pump with respect to maximum degree of vacuum

Type	Maximum degree of vacuum		Use	
	Expulsion capacity		Vacuum drying	Air expulsion
Oil rotary (Oil using)	0.02 mmHg	100 l/min	Suitable	Suitable
Oilless rotary (No need of oil)	10 mmHg	50 l/min	Unsuitable	Suitable
	0.02 mmHg	40 l/min	Suitable	Suitable

↑
Many handy pumps fall into this category

4) Calibration method

1. Connect a Pirani vacuum gauge and the gauge manifold vacuum gauge (760 mmHg) to the vacuum pump at the same time, and run the pump for about 3 minutes.
2. Make sure the reading of the Pirani vacuum gauge is 5 Torr (667 Pa) or less. The reading of conventional vacuum pumps lowers to about 0.2 Torr. If the reading is not 5 Torr or less, check the vacuum pump oil. (Oil is low in many cases.)
3. Check the attached gauge on the gauge manifold. Adjust the gauge if the reading is not exactly correct.
4. Adjust the gauge manifold valve so that the Pirani vacuum gauge reads 5 Torr.
5. Mark the position indicated by the gauge manifold gauge with an oil based ink pen.
6. Use the mark of the gauge manifold as a target when vacuuming in the field.

2. Guideline for each installation process

2.7.4 Vacuum drying procedure

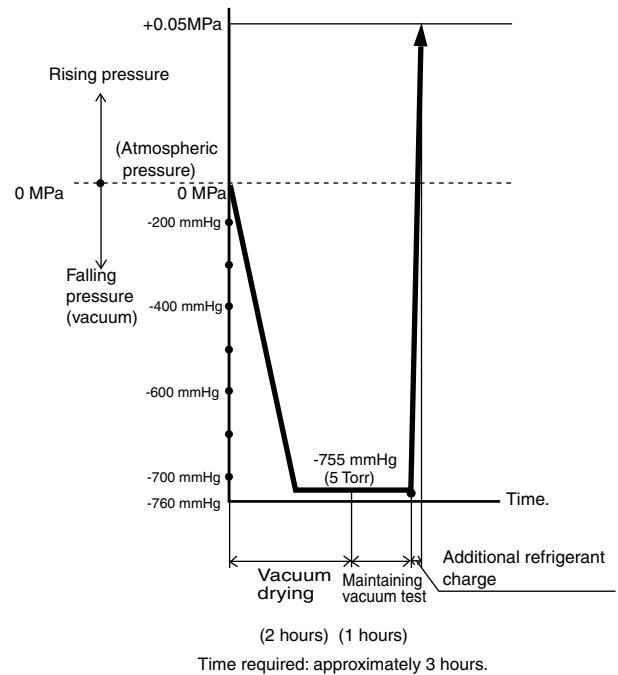
There are two vacuum drying methods and the appropriate one should always be chosen to confirm with individual local conditions. [Normal vacuum drying].....The standard method

[Operational steps]

1. Vacuum drying (1st time): Connect a manifold gauge to the service port of the liquid or gas pipe and operate the vacuum pump for at least 2 hours.
(The degree of vacuum produced should be in excess of 5 Torr)
If after 2 hours the vacuum produced has not exceeded 5 Torr then either there is moisture in the pipe or there is a leak.
Operate the vacuum pump for further one more hour.
If, even after 3 hours, the vacuum has not reached 5 Torr then check the system for a leak.
2. Carry out vacuum test.
Produce a vacuum in excess of 5 Torr and do not release it for an hour or more. Check the vacuum gauge to make sure that it has not risen. (If the gauge rise then there is still moisture in the pipe or there is a leak somewhere.)
3. Additional charge of refrigerant.
Connect the charging cylinder to the liquid pipe service port and charge with the required amount of refrigerant.
4. Open stop valve to the full.
Open the stop valve on the liquid and the gas pipes to the full.

NOTE

Vacuums should be produced in both the liquid and the gas pipes. (Because there are a large number of functional components in the indoor unit which cut off the vacuum mid-way through)



2. Guideline for each installation process

2.8 Additional charge of refrigerant

2.8.1 Refrigerant charging instructions

Refrigerant charging

1. The results of all calculations must be recorded. (make a list)
2. The refrigerant will need to be additionally charged when the distance between the outdoor Unit and the most distant indoor unit is more than length (refer to section 8 outdoor unit installation condition)
3. The additional charging operation should be carried out by input of liquid into the liquid pipes from a charging cylinder following completion of the Vacuum drying operation.
4. When the additional charging operation cannot be satisfactorily completed, use the action of the compressor to complete the additional charging during the test run.

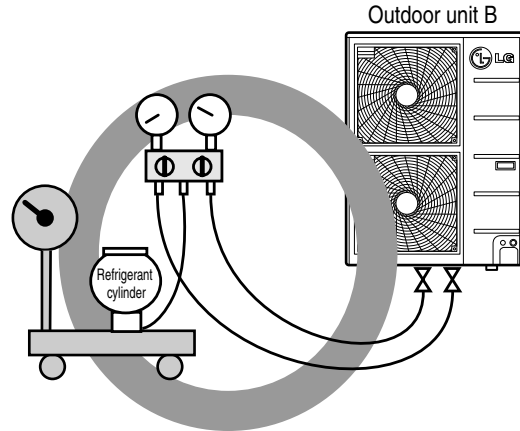
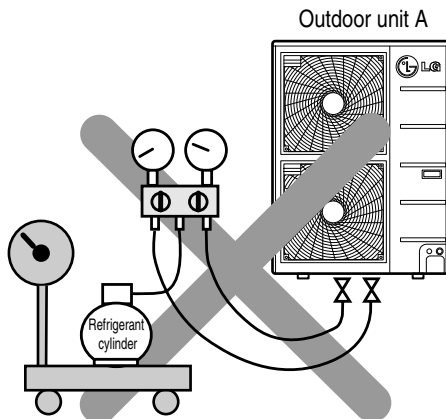
R-410A is a non-azeotrope refrigerants. Therefore, these refrigerants must be charged in the Liquid state.

When charging the refrigerant into equipment from the cylinder, turn the refrigerant cylinder upside down.

NOTE

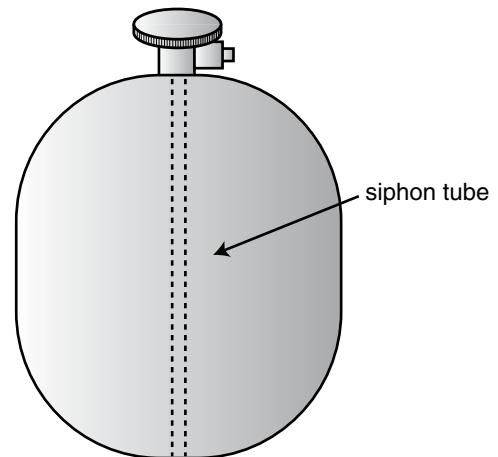
Make sure that the refrigerant (liquid) is taken out from the bottom part of the refrigerant cylinder.

Do not take out the refrigerant (gas) at the upper of the refrigerant cylinder for charging.



CAUTION

- Since some refrigerant cylinders differ in the internal mechanism, it is necessary to examine the cylinder carefully. (Some cylinders have a siphon tube to eliminate the need for turning it upside down)

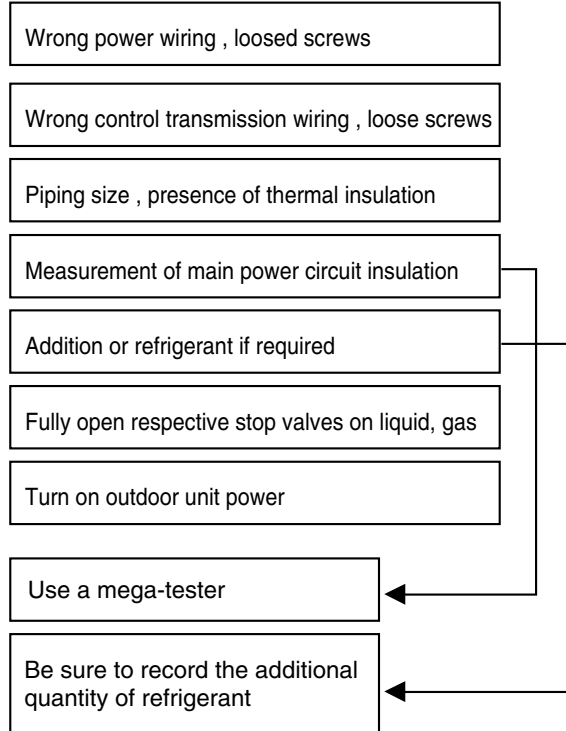


2. Guideline for each installation process

2.9 Trial test run operation

2.9.1 Test run procedure

Check the following before turning power on

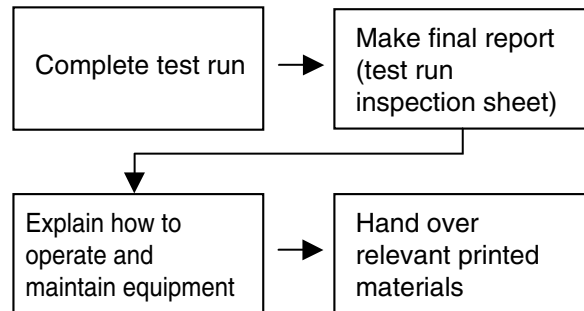


NOTE

: If the actual pressure is higher than shown, the system is most likely overcharged so extra refrigerant should be removed. If the actual pressure is lower than shown, the system is most likely undercharged so extra refrigerant should be added.
The air conditioner is now ready for use.

2.9.3 Transfer to customer with explanation

1. Operational step

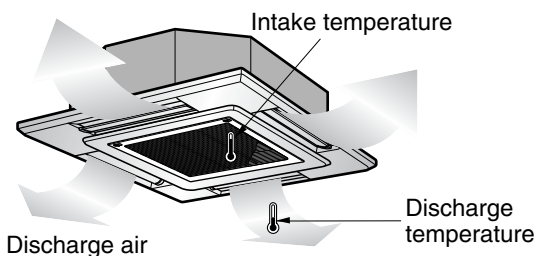


- The measurements taken during the test run should be recorded and kept on a test run inspection sheet.
- Do not forget to record the length of the refrigerant piping and the refrigerant additional charging volume on the plate on the back of the outdoor unit external notice board, as this information will be required for servicing the system.
- Explain to the customer how to operate and maintain the equipment and let him try it.
- Assemble all the relevant diagrams and other printed matter which is required to operate the system and hand over to the customer (on the spot) and request him to keep it handy.
- Service contact address.

2.9.2 Evaluation performance

Evaluation of the performance
Operate unit for 15~20 minutes, then check the system refrigerant charge:

- Measure the pressure of the gas side service valve.
- Measure the temperature of the intake and discharge of air.
- Ensure the difference between the intake temperature and the discharge is more than 8°C



- For reference, the gas side pressure of optimum condition is as below. (Cooling)

Refrigerant	Outside ambient Temp.	The pressure of the gas side service valve.
R410A	35°C (95°F)	8.0~10.0kg/cm ² G

- List of equipment which has been delivered
- Installation drawing
- It is essential to prepare a control wiring diagram which clarifies the refrigerant system and the control system.
- 1 set of operation manuals
- Names of those responsible for the work (emergency contact address)
- Equipment guarantees.

3. Installation of outdoor unit

3.1 Safety Precautions

Please strictly follow the instructions given in the Installation manual. Improper installation by ignoring the instructions can lead to damage to life and property.

Make sure to read the following safety instructions very carefully and thoroughly.

⚠ WARNING: This symbol indicates the possibility of death or serious injury.

⚠ CAUTION: This symbol indicates the possibility of injury or damage to properties.

■ The meanings of the symbols used in this manual are as shown below.

⊘: Be sure not to do.

!: Be sure to follow the instruction.

⚠ WARNING

Do not use a defective or underrated circuit breaker.

- There is risk of fire or electric shock.

Do not use a multi consent. Always use this appliance on a dedicated circuit and breaker.

- Otherwise it can cause electric shock or fire.

For electrical work, contact the dealer, seller, a qualified electrician, or an authorized service center. Do not disassemble or repair the product by yourself.

- There is risk of fire or electric shock.

Always ground the product as per the wiring diagram.

Do not connect the ground wire to gas or water pipes lightning rod or telephone ground wire.

- There is risk of fire or electric shock.

Install the panel and the cover of control box securely.

- There is risk of fire or electric shock due to dust, water etc.

Use the correctly rated breaker or fuse.

- There is risk of fire or electric shock.

If the power cable or cord has scratches or skin peeled off or deteriorated then immediately replace it.

- There is risk of fire or electric shock.

For installation, removal or reinstall, always contact the dealer or an authorized service center.

- There is risk of fire, electric shock, explosion, or injury.

Do not install the product on a defective foundation. Be sure that the installation area does not deteriorate with age.

- If the foundation collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.

Never install the outdoor unit at a place from where it can fall down.

- The falling outdoor unit can cause damage or injury or even death of a person and also damage or malfunctioning of the product itself.

When the product is soaked (flooded or submerged) in water, contact an authorized service center for repair before using it again.

- There is risk of fire or electric shock.

In outdoor units the the step up capacitor supplies high voltage electricity to the electrical components. Be sure to discharge the capacitor completely before conducting the repair work.

- An charged capacitor can cause electrical shock.

Be sure to use only those parts which are listed in the svc parts list. Never attempt to modify the equipment.

- The use of inappropriate parts can cause an electrical shock, excessive heat generation or fire.

Indoor/outdoor wiring connections must be secured tightly and the cable should be routed properly so that there is no force pulling the cable at the connection terminals.

- Improper or loose connections can cause excessive heat heat generation or fire.

Safely dispose off the packing materials.

- Things like screws, nails, batteries, broken things etc after installation or svc can cause injury to small kids. Tear away and throw away the plastic packaging bags so that children will not play with them.

Make sure to check that the power cable plug is not dirty, loose or broken, then only insert the plug completely.

- Dirty, loose or broken power plug can cause electric shock or fire.

During svc be sure to check the refrigerant to be used.

- Incorrect refrigerant used can prevent the normal operation of the unit.

When installing the unit, use the installation kit provided with the product.

- Otherwise the unit may fall and cause severe injury.

Do not touch, operate, or repair the product with wet hands.

- There is risk of electric shock or fire.

Do not place a heater or other appliances near the power cable.

- There is risk of fire and electric shock.

Do not allow water to run into electric parts. Install the unit away from water sources

- There is risk of fire, failure of the product, or electric shock.

Do not store or use or even allow flammable gas or combustibles near the product.

- There is risk of fire or failure of product.

3. Installation of outdoor unit

If strange sounds, smell or smoke comes from the product, immediately turn the breaker off or disconnect the power supply cable.

- There is risk of electric shock or fire.

Do not open the front grill of the product during operation. (Do not touch the electrostatic filter, if the unit is so equipped.)

- There is risk of physical injury, electric shock, or product failure.

Turn the main power off when cleaning or repairing the product.

- There is risk of electric shock.

When the product is not to be used for a long time, turn off the circuit breaker.

- There is risk of product damage or failure, or unintended operation.

Take care to ensure that nobody especially kids could step on or fall onto the outdoor unit.

- This could result in personal injury and product damage.



Use two or more people to lift and transport the product.

- Avoid personal injury.

Do not install the product where it will be exposed to sea wind (salt spray) directly.

- It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.

Keep level even when installing the product.

- To avoid vibration or noise.

Do not install the product where the noise or hot air from the outdoor unit could damage or disturb the neighborhoods.

- It may cause a problem for your neighbors and hence dispute.

Always check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.

Do not block the inlet or outlet of air flow.

- It may cause product failure.

Do not step on or put anything on the product.

- There is risk of personal injury and failure of product.

Do not insert hands or other objects through the air inlet or outlet while the product is operating.

- There are sharp and moving parts that could cause personal injury.

Be cautious when unpacking and installing the product.

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.

If the refrigerant gas leaks during the repair, do not touch the leaking refrigerant gas.

- The refrigerant gas can cause frostbite (cold burn).

Do not tilt the unit when removing or uninstalling it.

- The condensed water inside can cause spill and wet the furniture and the floor.

Do not mix air or gas other than the specified refrigerant used in the system.

- If air enters the refrigerant system, an excessively high pressure results, causing equipment damage or injury.

If the refrigerant gas leaks during the installation or operation ventilate the area immediately.

- Otherwise it can be harmful for your health.

Do not expose your skin or kids or plants to the cool or hot air draft.

- This could harm to your health.

Use a firm stool or ladder when cleaning, maintaining or repairing the product at an height.

- Be careful and avoid personal injury.

Dismantling the unit, treatment of the refrigerant oil, oil and eventual parts should be done in accordance with local and national standards.

3.1.1 Points for explanation about operations

The items with WARNING and CAUTION marks in the operation manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the operation manual.

3.1.2 Note to the installer

Be sure to instruct customers how to properly operate the unit (especially cleaning filters, operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the manual.

3.1.3 Selecting installation site for outdoor units

Select an installation site where the following conditions are fulfilled and that meets with your customer's approval.

1. Location strong enough to bear the weight of the unit.
2. Location accessible and having enough clearance for inspection and service in the future.
3. Location allowing easy condensate drainage suitable gradient of the unit and the drain pipe.
4. Piping between the indoor and outdoor unit is possible within the allowable limits.

3. Installation of outdoor unit

5. Location free from electrical noise.
6. Location allowing optimum air distribution without any blocking to air flow.
7. Location having no risk of flammable gas leakage.
8. Location free from mineral oil mist or an oil spray or vapor eg in kitchen .It could result in leakage .
9. Location free from corrosive gases such as sulphurous acid gas because it corrodes the copper pipes or soldered parts resulting in leakage .
10. Location free from any machinery emitting electromagnetic waves which may disturb the control system thus causing malfunction of the unit .
11. Location free from flammable gases , carbon fibre , or ignitable dust suspensions in the air or where volatile flames are handled like gasoline or thinner. Operating in such conditions may result in fire.
12. Install the indoor and outdoor units, power supply wiring and connecting wires at least 1m. away from televisions or radios in order to prevent image interference or noise. (Depending on the radio waves, a distance of 1m. may not be sufficient enough to eliminate the noise.)
13. Consider whether the place where the unit will be installed can support the full weight of the unit, and reinforce it with boards and beams, etc. if needed before proceeding with the installation. Also, reinforce the place to prevent vibration and noise before installing. (The installation pitch can be found on the paper pattern for installation (3), so refer to it when considering the necessity for reinforcing the location.)
14. Obey the local and national regulations and limits regarding airconditioner installation.
15. Location free from lavatory (NH3.etc.). NH3 gas will cause corrosion of outdoor unit metallic parts.

3.1.4 For the following items, take special care during construction and check after installation is finished

1. Items to be checked after completion of work

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor and outdoor unit fixed firmly?	The units may drop, vibrate or make noise.	
Is the gas leak test finished?	It may result in insufficient cooling.	
Is the unit fully insulated?	Condensate water may drip.	
Does drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components burn out.	
Are wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the unit safely grounded?	It may be dangerous at electric leakage.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling.	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

CAUTION

- **Be very careful about product transportation.**
Some products use PP bands for packaging. Do not use any PP bands for a means of transportation. It is dangerous.
- **Safely dispose of the packing materials.**
Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.
Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

NOTE

- **Install the indoor and outdoor units, power supply wiring and connecting wires at least 1m. away from televisions or radios in order to prevent image interference or noise.**
(Depending on the radio waves, a distance of 1m. may not be sufficient enough to eliminate the noise.)

3. Installation of outdoor unit

3.1.5 Before installation

- **During product unpacking and removing it from the packing case, be sure to lift it without exerting any pressure on other parts, especially, horizontal flaps, the refrigerant piping, drain piping, and other resin parts.**
- Be sure to remove a cushion (corrugated paper) located between the heat exchanger and the right air filter.
- Be sure to check the type of R410A refrigerant to be used before installing the unit. (Using an incorrect refrigerant will prevent normal operation of the unit.)
- The accessories needed for installation must be retained in your custody until the installation work is completed. Do not discard them!
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.
- For the installation of an outdoor unit, refer to the installation manual attached to the outdoor unit.
- When using the wireless remote controller, refer to the installation manual attached to the wireless remote controller.
- Entrust installation to the place of purchase or an authorized serviceman. Improper installation could lead to leaks and in worst cases, electric shock or fire.
- Use only parts provided with the unit or parts satisfying required specifications. Unspecified parts could cause the unit to fall out of place, or could lead to leaks and, in the worst cases, electric shock or fire.

3. Installation of outdoor unit

3.2 Introduction

This installation guidance describes the procedures for outdoor unit installation, piping, wiring, and control between outdoor units, indoor units and controller.

Installation of the indoor units is not described in this part. Please refer to the installation guidance manual which supplied with indoor units for their respective installation.

3.2.1 Lifting method

1. When carrying the unit suspended, pass the ropes under the unit and use the two fork lift slots each at the front and rear.
2. Always lift the unit with ropes attached at four points so that impact is not applied to the unit.
3. Attach the ropes to the unit at an angle of 40° or less.
4. Use two ropes at least 7 m long.

CAUTION**Be very careful when carrying the product.**

- 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.
- 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 of it.

3.2.2 Inspecting and handling the unit

At the time of delivery, the package should be checked for any damage from out side and inside, If damaged then it should be reported to the carrier claims agent immediately . When handling the unit refer to following cautions:

1. Handle the unit with care. Keep the unit upright in order to avoid inside components damage.
2. If a forklift is to be used it should pass the forklift arms through the openings at the bottom of the unit.
3. If a crane is used, lift the unit preferably with 2 ropes of at least 7m length.
4. When lifting the unit with a crane, always use protectors to prevent belt damage and pay attention to the position of the unit's center of gravity.
5. Bring the unit in original package to prevent damage during local transport.

3. Installation of outdoor unit

3.3. Foundation

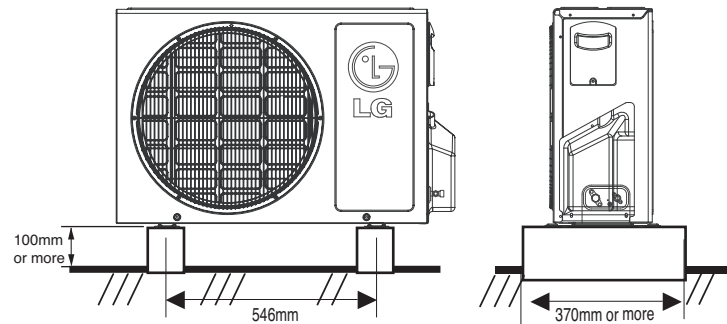
For good drain of outdoor unit, keep the bottom height from icing upward.

AUW096D [UU09W ULD]

AUW126D [UU12W ULD]

<Basic intensity>

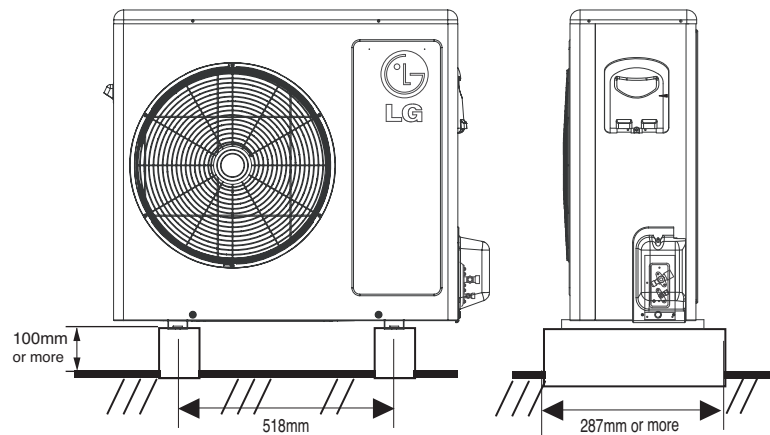
Bolt Factor	M10-J type
Concrete height	100mm or more
Bolt inserted depth	70mm or more



AUW186D2 [UU18W UE2]

<Basic intensity>

Bolt Factor	M10-J type
Concrete height	100mm or more
Bolt inserted depth	70mm or more

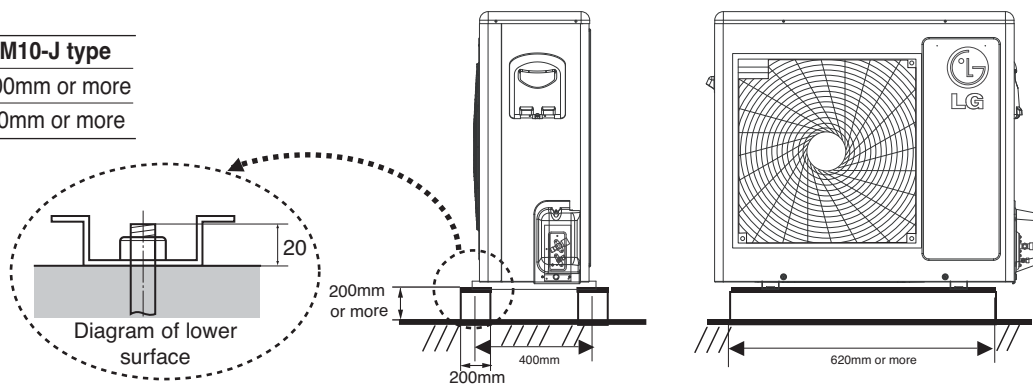


AUW246D2 [UU24W U42]

AUW306D2 [UU30W U42]

<Basic intensity>

Bolt Factor	M10-J type
Concrete height	200mm or more
Bolt inserted depth	70mm or more

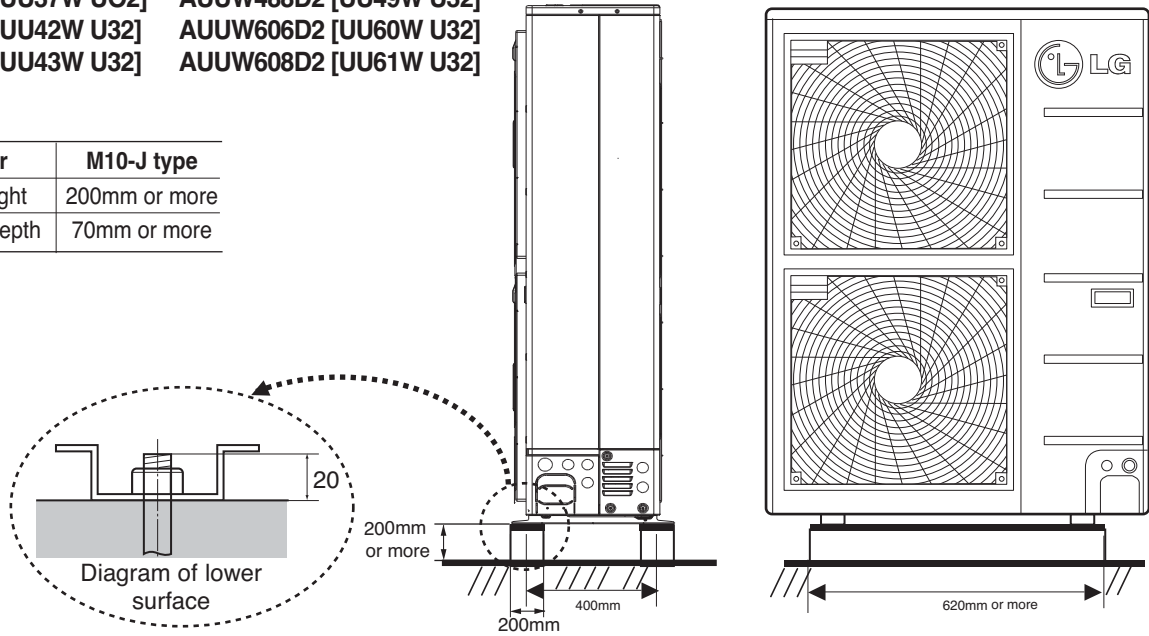


3. Installation of outdoor unit

AUW366D2 [UU36W UO2] AUW486D2 [UU48W U32]
 AUW368D2 [UU37W UO2] AUW488D2 [UU49W U32]
 AUW426D2 [UU42W U32] AUW606D2 [UU60W U32]
 AUW428D2 [UU43W U32] AUW608D2 [UU61W U32]

<Basic intensity>

Bolt Factor	M10-J type
Concrete height	200mm or more
Bolt inserted depth	70mm or more

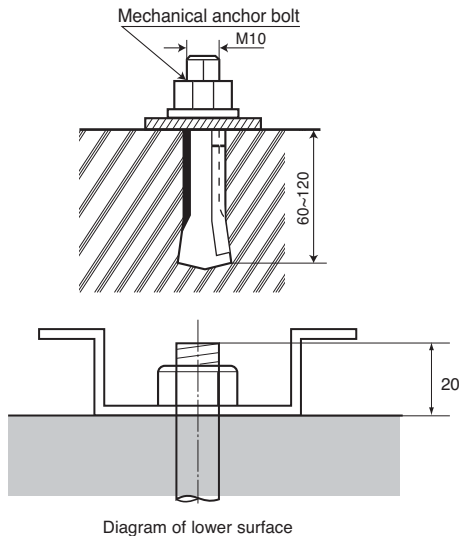


3. Installation of outdoor unit

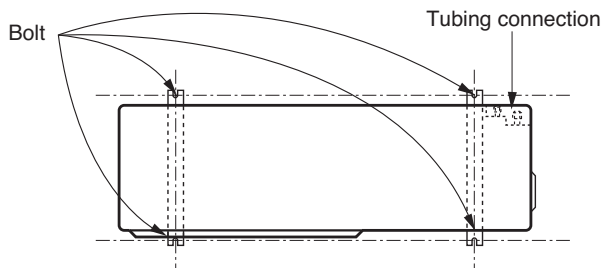
3.4 Settlement of the outdoor unit

- Anchor the outdoor unit with a bolt and nut tightly and horizontally on a concrete or rigid mount.
- When installing on the wall, roof or rooftop, anchor the mounting base securely with a nail or wire assuming the influence of wind and earthquake.
- In the case when the vibration of the unit is conveyed to the house, secure the unit with an anti-vibration rubber.

Bolt construction work



Settlement draw of outdoor units



CAUTION

- The ingredients of foundation : Cement : Sand : Gravel for the concrete should 1 : 2 : 4 ratio
- The foundation surface should be finished with mortar.
- The edges of foundation should be rounded.
- A drain passage should be made around the foundation to thoroughly drain water away from the equipment installation area.
- If installing the outdoor units on the roof, the roof's strength have to be checked.
- Care should be taken for weather - proofing
- Blocking all gaps of outdoor unit, for passing piping and wiring, using sealing material (Field supply)
(Animals and bugs might enter in the machine.)

3.5 Selection of the best location

This Single A unit is suitable for installation in a residential and commercial environmental situation.

If installed near a household appliance it can cause electro-magnetic interference.

The units should be installed in a location that meets the following requirements:

1. A robust and strong base which can support the weight of the unit and will not degrade easily
2. If an awning is built over the unit to prevent direct sunlight or rain exposure, make sure that the discharge air of the condenser is not restricted.
3. It is recommended that the outdoor unit should be fenced to avoid animals or plants being exposed in the direct path of the discharged air .
4. Ensure proper spaces between the unit and its surrounding as given in the figure.
5. Ensure that the water shall not cause any damage by overflowing in case of water condensation
6. The noise, vibration and hot discharged air of the outdoor unit should not annoy the surrounding environment.
7. Ensure that there is no damage to the pipes in long run as it may cause the refrigerant leakage.
8. In case the outdoor may have heavy snow :
 - a. Make foundation at a suitable height not for ice to grow upward.
 - b. Fit a suitable hood or a awning over the unit not to attach outdoor unit heat exchanger directly.
 - c. In very cold snowing area, please consult with your consultant.
9. Rooftop Installations : If the outdoor unit is installed on a roof structure, be sure to level the unit. Ensure the roof structure and anchoring method are adequate for the unit location. Consult local codes regarding rooftop mounting.

CAUTION

An inverter air conditioner can cause electronic noise generated from broadcasting frequency. Make sure to maintain proper distances between the products and electric wires keeping away from stereo, TV set or other appliances

1. Branch switch, over current breaker
2. Remote controller
3. Cool/heat selector
4. Radio or TV set
5. Wireless microphone

If frequency signal of AM broadcasting or TV Set is non stable, keep distances of 3m or more from product and use electric wire along with conduit tubes for power and transmission cable.

3. Installation of outdoor unit

⚠ CAUTION

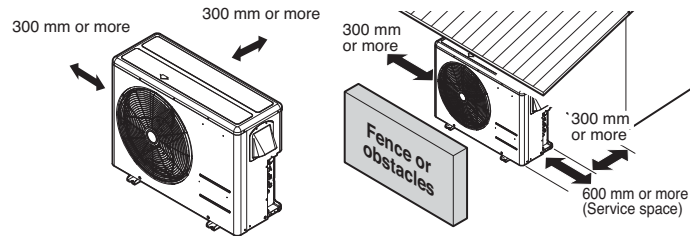
1. Actually the R410A refrigerant is not toxic, nonflammable and odor free. Any how if the refrigerant is leaked then its concentration may exceed the allowable limit depending on the related space volume.
Due to this, it is necessary to take measures for the volume size against leakage.
2. Do not install unit in following locations.
 - Locations where sulfurous acids or this kind of other corrosive gases might be help to corrode of copper piping and soldered joints, and can cause refrigerant leakage.
 - Locations such as kitchens or cuisine which contain a lot of hot oil or steam or where oil may splatter to the product. Can cause the unit to make leak or other serious problem.
 - Locations where electromagnetic waves is prevalent. The electromagnetic waves may cause the control system to malfunction or causing an abnormal operation.
 - Locations where inflammable gas might leak, where combined gasoline, methane or other volatile substances, carbon dust and other incendiary substances are found in the atmosphere. Leaked gas may accumulate around the unit, can cause an serious explosion.

3. Installation of outdoor unit

3.6 Clearance space

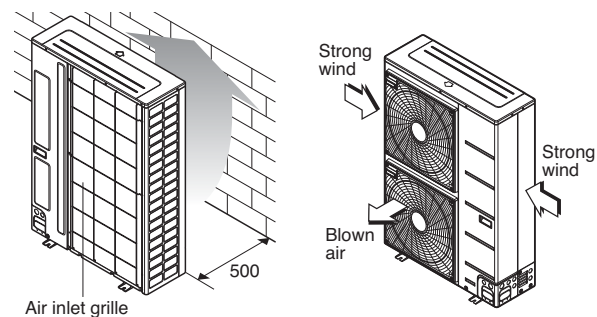
3.6.1 Clearance around outdoor unit

- Ensure that the space around the back is more than 300 mm on the opposite to the PCB side and secure 600 mm space near the compressor and PCB side of the air conditioner for service.



* Outdoor unit is representative. Actual appearance of outdoor unit may be different but clearances will stay the same.

- Install the unit so that its discharge port faces to the wall of the building. Keep a distance 500mm 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.

* Outdoor unit is representative. Actual appearance of outdoor unit may be different but clearances will stay the same.

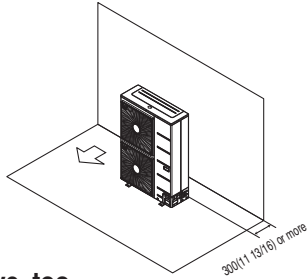
3. Installation of outdoor unit

Clearance of side discharge unit [Unit:mm(inch)]

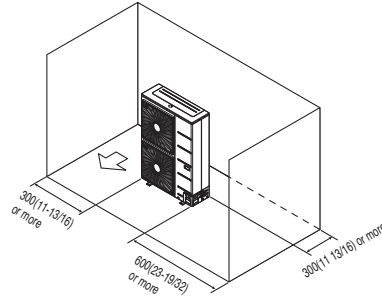
1) Where there is an obstacle on the air intake side:

■ No obstacle above

- Obstacle on the suction side only

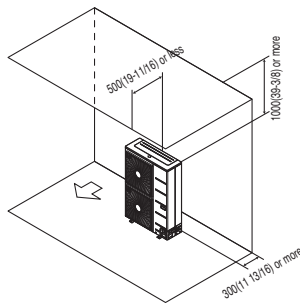


- Obstacle on the both sides

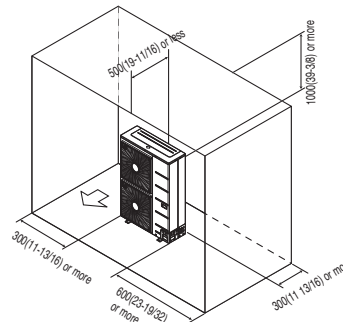


■ Obstacle above, too

- Obstacle on the air intake side, too

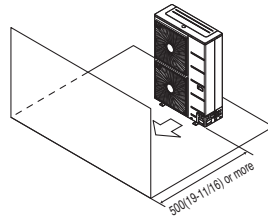


- Obstacle on the air intake side, and both sides

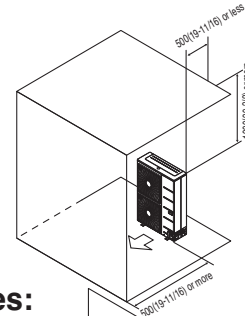


2) Where there is an obstacle on the discharge side:

■ No obstacle above



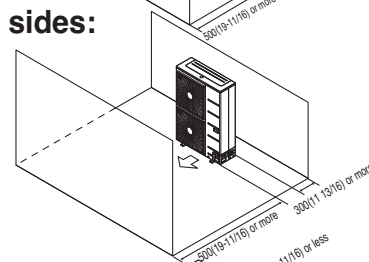
■ Obstacle above, too



3) Where there are obstacles on both suction and discharge sides:

■ Where the obstacles on the discharge side is higher than the unit:

- No obstacle above

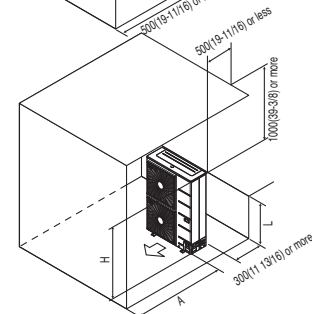


- Obstacle above, too

The relations between H, A and L are as follows:

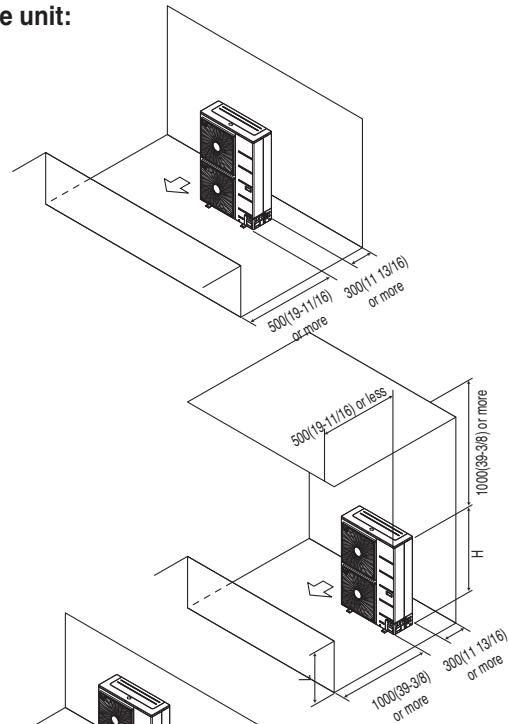
	L	A[mm(inch)]
L ≤ H	0 < L ≤ 1/2H	750(29 1/32)
	1/2H < L	1 000(39 3/8)
H < L	Set the stand as: L ≤ H	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



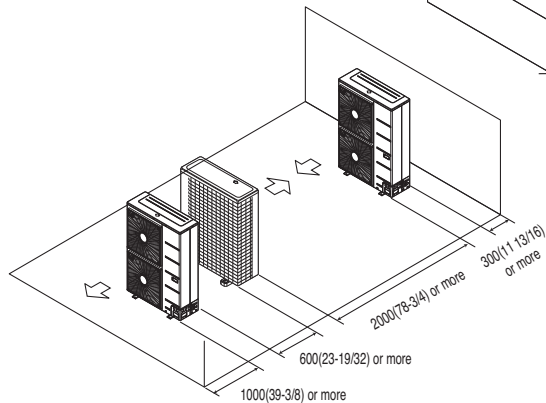
3. Installation of outdoor unit

- Where the obstacles on the discharge side is lower than the unit:
 - No obstacle above



- Obstacle above, too
'L' should be lower than 'H'.
Close the bottom of the installation frame to prevent the discharged air from being bypassed.

4) Series installation



[Example]



3.6.2 Air guide work

In case of out door unit is located outdoor cabin of apartment or flats, then the efficiency can drop and system pressure increases thus finally damaging the compressor or other components in the system by heat short circuit.

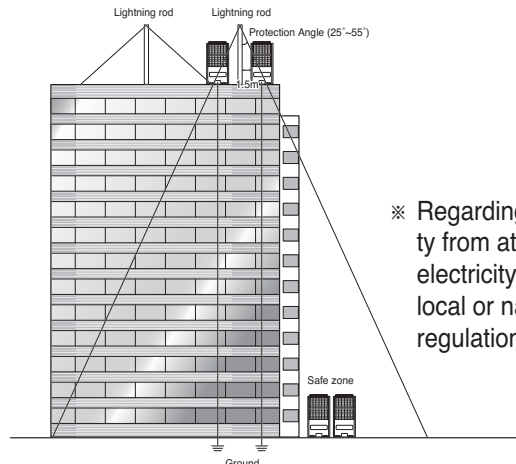
3.6.3 Lightning safety zone

- 1) To protect outdoor unit from lightning, it should be placed within lightning safety zone.

Safety zone

Building Height [m]	20	30	45	60
Protection Angle [°]	55	45	35	25

- 2) Power cable and communication cable should be 1.5m away from lightning rod.
- 3) High resistance grounded system should be performed against induced lightning or indirect stroke.
- 4) If the building has no lightning protection, outdoor may be damage from lightning. This should be informed to customer or building owner in advance.



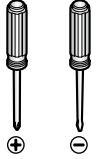
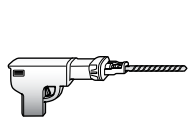
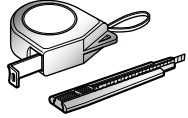
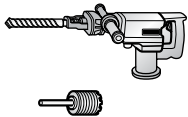

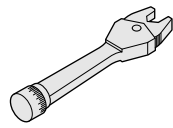
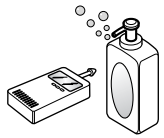
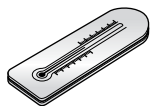

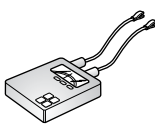
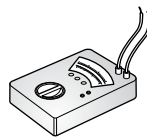
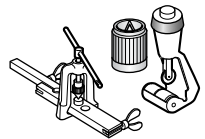
※ Regarding the safety from atmosphere electricity, follow the local or national regulations

3. Installation of outdoor unit

3.7 Outdoor unit piping

3.7.1 Outdoor unit piping

Required tools

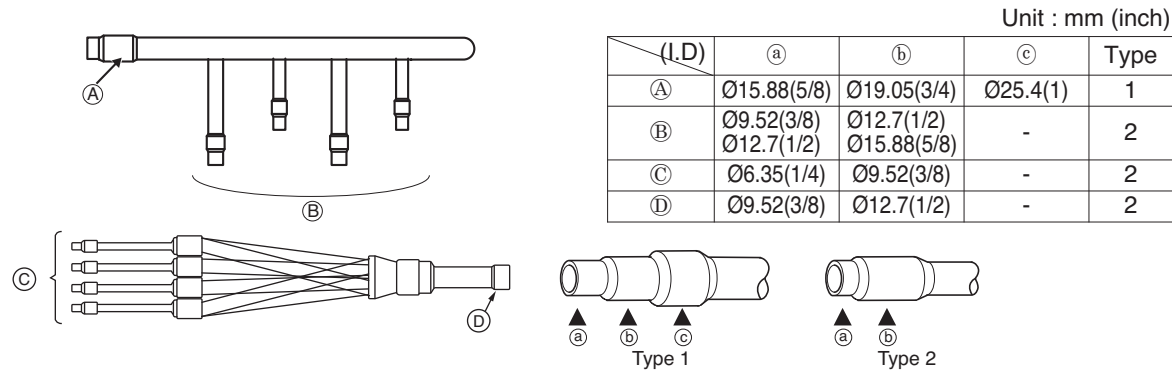
					
Screw Driver	Drill M/C f 3.5/F14.5	Measuring Tape, Blade	Core drill	Spanner	Torque Wrench
					
Soap Foam	Thermometer	Hexagonal wrench(4mm, 5mm)	Hook Meter	Multi Tester	Flare Set

3.7.2 Connecting piping

1) Connecting socket must be used when connecting the piping to the indoor and outdoor units

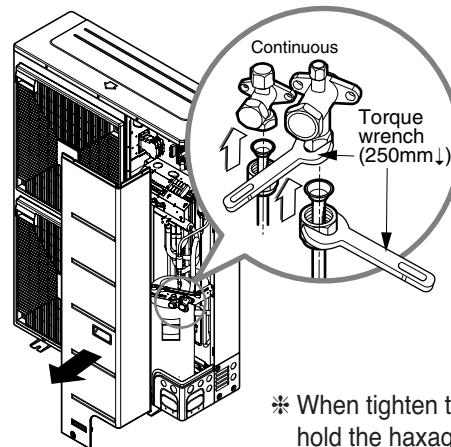
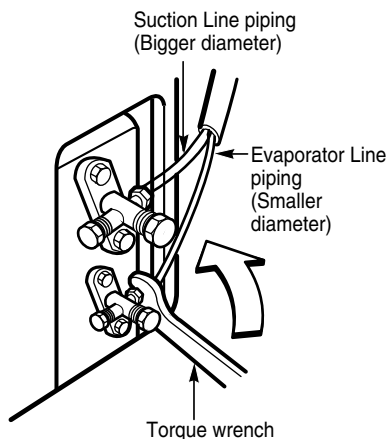
■ Branching kit

Indoor Classification	Model Name	Capacity Ratio(%)
2 Units	PMUB11A	50:50 (1:1)
3 Units	PMUB111A	33:33:33 (1:1:1)
4 Units	PMUB1111A	25:25:25:25(1:1:1:1)



2) Finally, tighten the flare nut with torque wrench until the wrench clicks.

- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.



3. Installation of outdoor unit

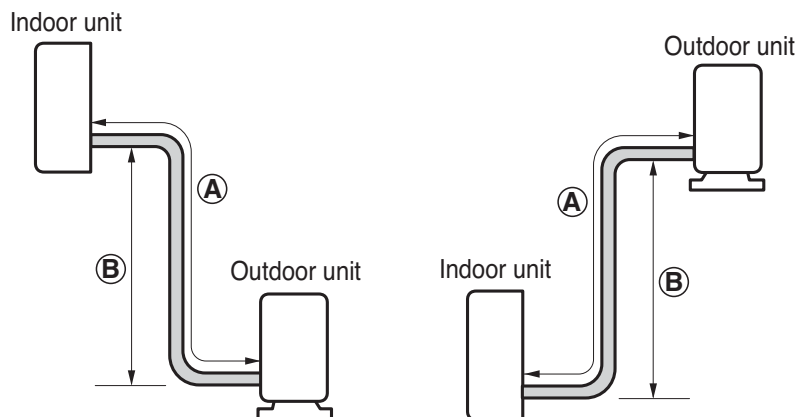
3.8 Outdoor unit installation requirements

3.8.1 Piping elevation and length

Model	Capacity	Pipe Size mm(inch)		Length A(m)		Elevation B(m)		Additional refrigerant (g/m)
		Gas	Liquid	Standard	Max.	Standard	Max.	
UU09W	2.5 kW	Ø9.52(3/8)	Ø6.35(1/4)	7.5	15	5	10	20
UU12W	3.0 kW	Ø9.52(3/8)	Ø6.35(1/4)	7.5	15	5	10	20
UU18W	5.0 kW	Ø12.7(1/2)	Ø6.35(1/4)	7.5	40	5	30	20
UU24W	7.1 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	50	5	30	40
UU30W	8.0 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	50	5	30	40
UU36W/UU37W	10.0 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	50	5	30	40
UU42W/UU43W	12.5 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	75	5	30	40
UU48W/UU49W	14.0 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	75	5	30	40
UU60W/UU61W	15.0 kW	Ø15.88(5/8)	Ø9.52(3/8)	7.5	75	5	30	40

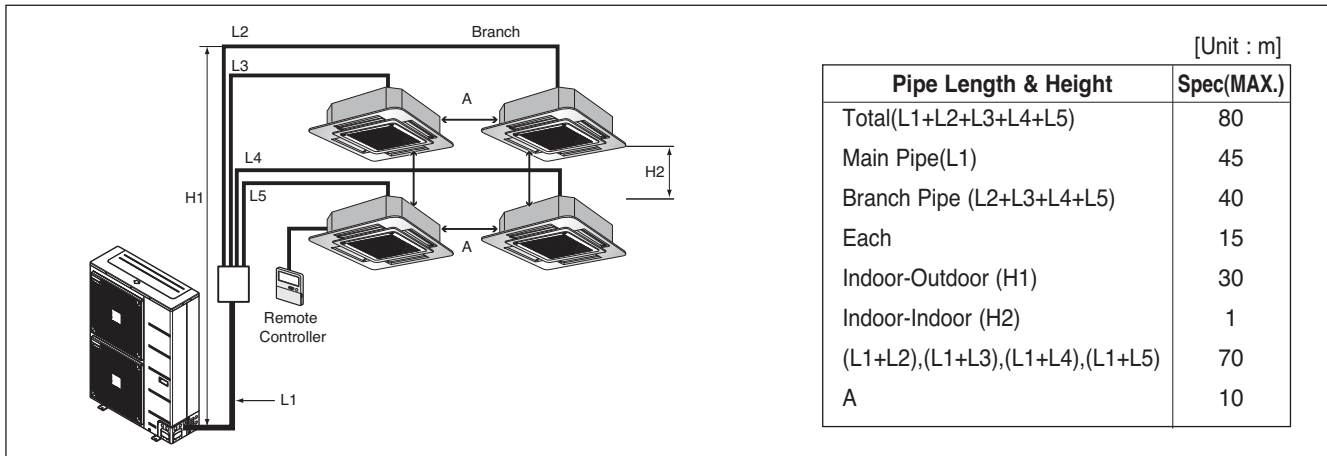
If installed tube is shorter than 7.5 m, additional charging is not necessary.

Additional Refrigerant = (A - 7.5) x Additional refrigerant (g)



3. Installation of outdoor unit

DC inverter Single A - synchro



- When installing the branch pipe, direction and angle of installation is not limited.
- Take care so that burrs and foreign material may not enter into the cutting surface when connecting.
- Connect remaining those by cutting or direct insertion to the diameter of pipe.

Refrigerant Additional Charging Method

For additional charging method, see below table.

Indoor Unit	Refrigerant Additional charging (g)	Pipe Diameter. (mm)	C (g/m)
Duo	Refrigerant = (L1-b) x B + (L2 + L3) x C	Ø 6.35	35
Trio	Refrigerant = (L1-b) x B + (L2 + L3 + L4) x C		
Quartet	Refrigerant = (L1-b) x B + (L2 + L3 + L4 + L5) x C		
		Ø 9.52	40

Model	b (m)	B (g/m)
UU42W/UU43W UU48W/UU49W UU60W/UU61W	7.5	40

NOTE

If total additional charge value after calculation comes out to be negative, then do not consider additional charge.

b	Rated performance for refrigerant line length.
C	Additional charging Refrigerant of Branch Liquid Pipe.
B	Additional charging Refrigerant of Main Liquid Pipe.

CAUTION

- Capacity is based on standard length and maximum allowance length is on the basis of reliability.
- Improper refrigerant charge may result in abnormal cycle.

NOTE

If the total additional charge value after calculation comes out to be negative, then do not consider additional charge.

3. Installation of outdoor unit

⚠ CAUTION

1. Regulation for refrigerant leakage
: the amount of refrigerant leakage should satisfy the following equation for human safety.

$$\frac{\text{Total amount of refrigerant in the system}}{\text{Volume of the room at which indoor unit of the least capacity is installed}} \leq 0.3 \text{ (kg / m}^3 \text{)}$$

2. If the above equation can not be satisfied, then follow the following steps.

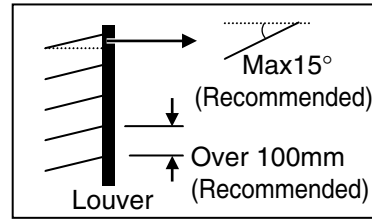
- ① Selection of air conditioning system: select one of the followings.
 - Effective opening part Installation
 - Reconfirmation of outdoor unit capacity and piping length
 - Reduction of the amount of refrigerant
 - 2 or more security device installation of alarm for gas leakage
- ② Change indoor unit type
: installation position should be over 2m from the floor (Wall mounted type Cassette type)
- ③ Adoption of ventilation system
: choose ordinary ventilation system or building ventilation system
- ④ Limitation in piping work
: design for earthquake-proof and prevention against thermal stress

3. Installation of outdoor unit

3.9 Outdoor unit cabin

3.9.1 Outdoor Cabin louver requirement

1. Outdoor cabin type : Manual door open type
2. Louver angle : less than 15° on the horizontal base
3. Louver interval: over 100mm (recommend)
4. Louver shape : wing type or plane type

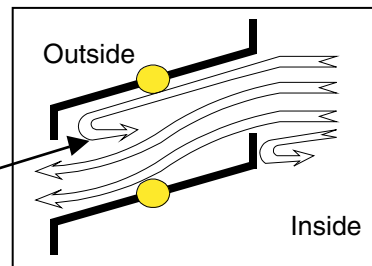


Section

CAUTION

- Opening rate and suction should be considered for louvered outdoor room.
- Do not use 'S' type louver.

Noise can occur due to the backward flow of the air passing through the louver blade

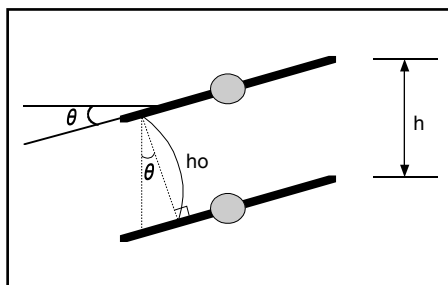


NOTE

The problem in case the louver opening rate is small.

1. Noise can occur due to the increased velocity of the air passing through louver blade.
2. Noise can occur due to the louver blade vibrations.
3. Drop in outdoor fan performance (Excess static pressure damage can cause drop in the performance as well as outdoor heat exchange efficiency).
4. In case the louver opening rate is small or there is insufficient air flow exchange, it might stop the air conditioner.

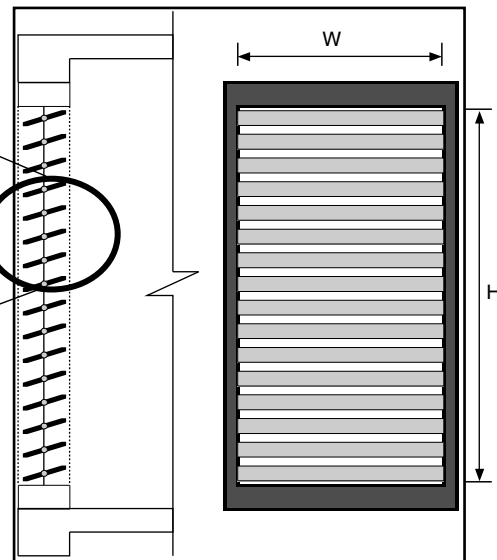
Opening rate by louver radian



$\theta \leq 15^\circ$
 $h_o = h \cdot \cos \theta$
 Total face area(A) = H * W
 Number of open space (N) = (number of louver - 1)
 Effective face area(Af) = $h_o \cdot W \cdot N$
 Louver opening rate (n) = A_f/A

$\therefore Af = A \cdot n$

Effective face area of cross section



[Side view]

[Front view]

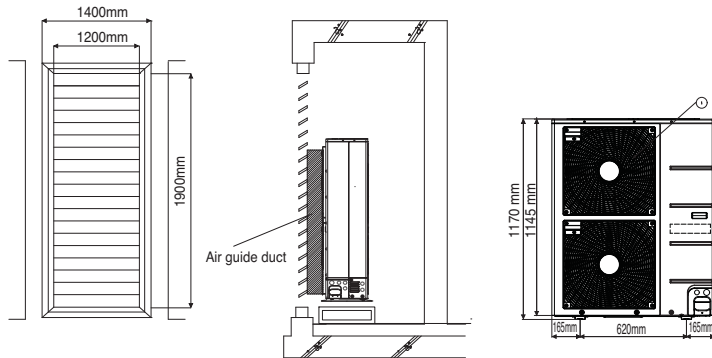
3. Installation of outdoor unit

3.9.2 Air flow rate confirmation

Example. 1

■ Application Model : AUUW366D2[UU36W UO2] Airflow rate 90 m³/min

[Total opening rate]



- Case : velocity of discharging air: 5m/s,
velocity of suction air: 2.5m/s
- Openness rate = 80% or more
- * Openness rate = $\frac{\text{Effective face area}(A_f)}{\text{Total face area}(A)}$
- Air guide of discharging air part should be equipped.

- | | |
|---|--|
| ■ Louver total dimension (excluding frame) | (A) = 1.2 m x 1.9 m = 2.28 m ² |
| ■ Louver shielding dimension by product | (B) = 0.95 m x 1.17 m = 1.11 m ² |
| ■ Suction able louver dimension | (A-B) = 1.17 m ² |
| ■ Equivalent suction dimension (Opening rate 80%) | = 1.17 m ² x 0.8 = 0.94 m ² |
| ■ Equivalent suction air volume | = 0.94 m ² x 2.5 m/s x 60s = 141 m ³ /min |
| ■ Required air volume / equivalent volume | = 141 m ³ /min / 90 m ³ /min(product airflow rate) = 157 % |
| | → OK |



P/No.: MFL67502801



Air Conditioner

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