

TECHNICAL DATA

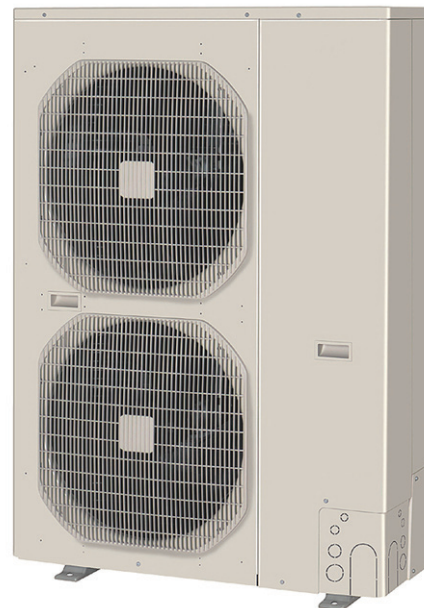
Mini VRF System



Model No. Outdoor Unit

Class	4HP	5HP	6HP
Model Name	U-4LE1E5 U-4LE1E8	U-5LE1E5 U-5LE1E8	U-6LE1E5 U-6LE1E8

HP = horsepower



Indoor Unit

	Class	22	28	36	45	56	73	90	106	140	160
U1	4-Way Cassette	S-22MU1E5	S-28MU1E5	S-36MU1E5	S-45MU1E5	S-56MU1E5	S-73MU1E5		S-106MU1E5	S-140MU1E5	S-160MU1E5
Y1	4-Way Cassette 60×60	S-22MY1E5	S-28MY1E5	S-36MY1E5	S-45MY1E5	S-56MY1E5					
L1	2-Way Cassette	S-22ML1E5	S-28ML1E5	S-36ML1E5	S-45ML1E5	S-56ML1E5	S-73ML1E5				
D1	1-Way Cassette		S-28MD1E5	S-36MD1E5	S-45MD1E5	S-56MD1E5	S-73MD1E5				
F1	Low Silhouette Ducted	S-22MF1E5	S-28MF1E5	S-36MF1E5	S-45MF1E5	S-56MF1E5	S-73MF1E5	S-90MF1E5	S-106MF1E5	S-140MF1E5	S-160MF1E5
M1	Slim Low Static Ducted	S-22MM1E5	S-28MM1E5	S-36MM1E5	S-45MM1E5	S-56MM1E5					
T1	Ceiling			S-36MT1E5	S-45MT1E5	S-56MT1E5	S-73MT1E5		S-106MT1E5	S-140MT1E5	
K1	Wall Mounted	S-22MK1E5	S-28MK1E5	S-36MK1E5	S-45MK1E5	S-56MK1E5	S-73MK1E5		S-106MK1E5		
R1	Concealed Floor Standing	S-22MR1E5	S-28MR1E5	S-36MR1E5	S-45MR1E5	S-56MR1E5	S-71MR1E5				
P1	Floor Standing	S-22MP1E5	S-28MP1E5	S-36MP1E5	S-45MP1E5	S-56MP1E5	S-71MP1E5				
E1	High Static Pressure Ducted						S-73ME1E5		S-106ME1E5	S-140ME1E5	

IMPORTANT!

Please Read Before Starting

This air conditioner must be installed by the sales dealer or installer.

This information is provided for use only by authorized persons.

For safe installation and trouble-free operation, you must:

- Carefully read this instruction booklet before beginning.
- Follow each installation or repair step exactly as shown.
- This air conditioner shall be installed in accordance with National Wiring Regulations.
- This product is intended for professional use. Permission from the power supplier is required when installing the U-4LE1E8, U-5LE1E8, U-6LE1E8, outdoor units that are connected to a 16 A distribution network.
- This equipment complies with EN/IEC 61000-3-12 provided that the short-circuit power S_{sc} is greater than or equal to the following table at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power S_{sc} greater than or equal to the value in the table.

	U-4LE1E5	U-5LE1E5	U-6LE1E5
S_{sc}	350 kVA	400 kVA	550 kVA

- This equipment complies with EN/IEC 61000-3-11 provided that the system impedance Z_{max} is less than or equal to the values corresponding to each model as shown in the table below at the interface point between the user's supply and the public system. Consult with the supply authority for the system impedance Z_{max} .

	U-4LE1E5	U-5LE1E5	U-6LE1E5
Z_{max}	0.298 Ω	0.298 Ω	0.298 Ω

- Pay close attention to all warning and caution notices given in this manual.



WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

If Necessary, Get Help

These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

In Case of Improper Installation

The manufacturer shall in no way be responsible for improper installation or maintenance service, including failure to follow the instructions in this document.

SPECIAL PRECAUTIONS

WARNING

When Wiring



ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause **accidental injury or death**.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.
- Provide a power outlet to be used exclusively for each unit.
- ELCB must be incorporated in the fixed wiring. Circuit breaker must be incorporated in the fixed wiring in accordance with the wiring regulations.

	U-4LE1E5	U-5LE1E5	U-6LE1E5
Circuit breaker	30 A	40 A	40 A

	U-4LE1E8	U-5LE1E8	U-6LE1E8
Circuit breaker	20 A	20 A	20 A

- Provide a power outlet exclusively for each unit, and full disconnection means having a contact separation in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.
- To prevent possible hazards from insulation failure, the unit must be grounded. 

When Transporting

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your fingers.

When Installing...

Select an installation location which is rigid and strong enough to support or hold the unit, and select a location for easy maintenance.

...In a Room

Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to walls and floors.



Keep the fire alarm and the air outlet at least 1.5 m away from the unit.

...In Moist or Uneven Locations

Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.

...In an Area with High Winds

Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.

...In a Snowy Area (for Heat Pump-type Systems)

Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When Connecting Refrigerant Tubing



WARNING

- When performing piping work do not mix air except for specified refrigerant (R410A) in refrigeration cycle. It causes capacity down, and risk of explosion and injury due to high tension inside the refrigerant cycle.
- Refrigerant gas leakage may cause fire.
- **Do not add or replace refrigerant other than specified type.** It may cause product damage, burst and injury etc.
- Ventilate the room well, in the event that is refrigerant gas leaks during the installation. Be careful not to allow contact of the refrigerant gas with a flame as this will cause the generation of poisonous gas.
- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Apply refrigerant lubricant to the matching surfaces of the flare and union tubes before connecting them, then tighten the nut with a torque wrench for a leak-free connection.
- Check carefully for leaks before starting the test run.
- Do not leak refrigerant while piping work for an installation or re-installation, and while repairing refrigeration parts.
Handle liquid refrigerant carefully as it may cause frostbite.

When Servicing

- Turn the power OFF at the main power box (mains) before opening the unit to check or repair electrical parts and wiring. 
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.



WARNING

- Do not clean inside the indoor and outdoor units by users. Engage authorized dealer or specialist for cleaning.
- In case of malfunction of this appliance, do not repair by yourself. Contact to the sales dealer or service dealer for a repair.
- Do not touch the air inlet or the sharp aluminum fins of the outdoor unit. You may get injured. 
- Ventilate any enclosed areas when installing or testing the refrigeration system. Escaped refrigerant gas, on contact with fire or heat, can produce dangerously toxic gas.
- Confirm after installation that no refrigerant gas is leaking. If the gas comes in contact with a burning stove, gas water heater, electric room heater or other heat source, it can cause the generation of poisonous gas.

Others



CAUTION

- Do not touch the air inlet or the sharp aluminum fins of the outdoor unit. You may get injured. 
- Do not sit or step on the unit, you may fall down accidentally. 
- Do not stick any object into the FAN CASE. You may be injured and the unit may be damaged. 


Check of Density Limit

The room in which the air conditioner is to be installed requires a design that in the event of refrigerant gas leaking out, its density will not exceed a set limit.

The refrigerant (R410A), which is used in the air conditioner, is safe, without the toxicity or combustibility of ammonia, and is not restricted by laws imposed to protect the ozone layer. However, since it contains more than air, it poses the risk of suffocation if its density should rise excessively. Suffocation from leakage of refrigerant is almost non-existent. With the recent increase in the number of high density buildings, however, the installation of multi air conditioner systems is on the increase because of the need for effective use of floor space, individual control, energy conservation by curtailing heat and carrying power, etc.

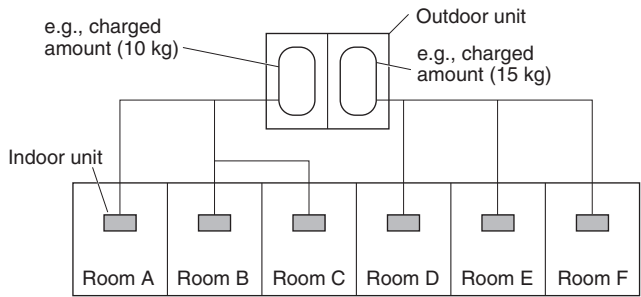
Most importantly, the multi air conditioner system is able to replenish a large amount of refrigerant compared to conventional individual air conditioners. If a single unit of the multi air conditioner system is to be installed in a small room, select a suitable model and installation procedure so that if the refrigerant accidentally leaks out, its density does not reach the limit (and in the event of an emergency, measures can be made before injury can occur).

In a room where the density may exceed the limit, create an opening with adjacent rooms, or install mechanical ventilation combined with a gas leak detection device. The density is as given below.

Total amount of refrigerant (kg)
Min. volume of the indoor unit installed room (m³) ≤ Density limit (kg/m³)
The density limit of refrigerant which is used in multi air conditioners is 0.3 kg/m³ (ISO 5149).

NOTE

- If there are 2 or more refrigerating systems in a single refrigerating device, the amount of refrigerant should be as charged in each independent device.
For the amount of charge in this example:

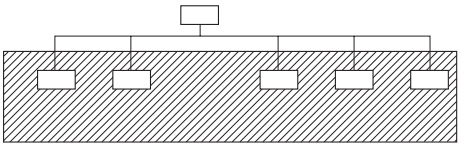


The possible amount of leaked refrigerant gas in rooms A, B and C is 10 kg.
The possible amount of leaked refrigerant gas in rooms D, E and F is 15 kg.

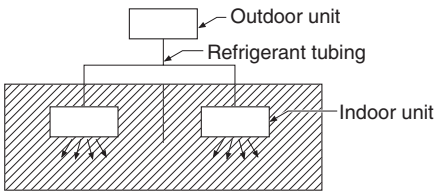
RoHS
· This product does not contain any hazardous substances prohibited by the RoHS Directive.

WARNING
· You are requested to use RoHS compliant parts for maintenance or repair.

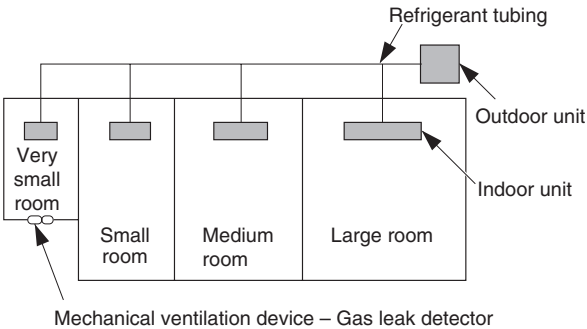
- The standards for minimum room volume are as follows.
(1) No partition (shaded portion)



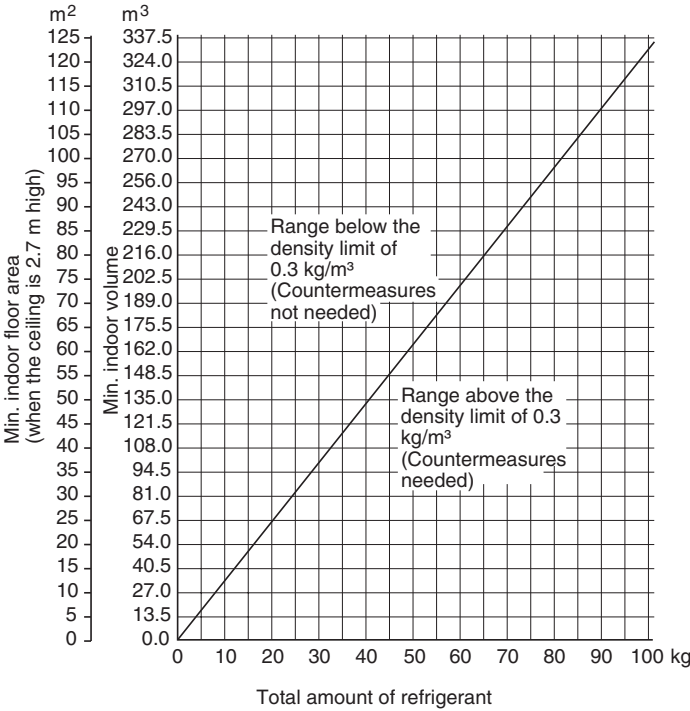
- When there is an effective opening with the adjacent room for ventilation of leaking refrigerant gas (opening without a door, or an opening 0.15% or larger than the respective floor spaces at the top or bottom of the door).



- If an indoor unit is installed in each partitioned room and the refrigerant tubing is interconnected, the smallest room of course becomes the object. But when mechanical ventilation is installed interlocked with a gas leakage detector in the smallest room where the density limit is exceeded, the volume of the next smallest room becomes the object.



- The minimum indoor floor space compared with the amount of refrigerant is roughly as follows: (When the ceiling is 2.7 m high)



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12. Seri-Para I/O unit for outdoor unit (CZ-CAPDC2)	
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2. MARKINGS FOR DIRECTIVE 97/23/EC (PED) 1-4

1. Line-up

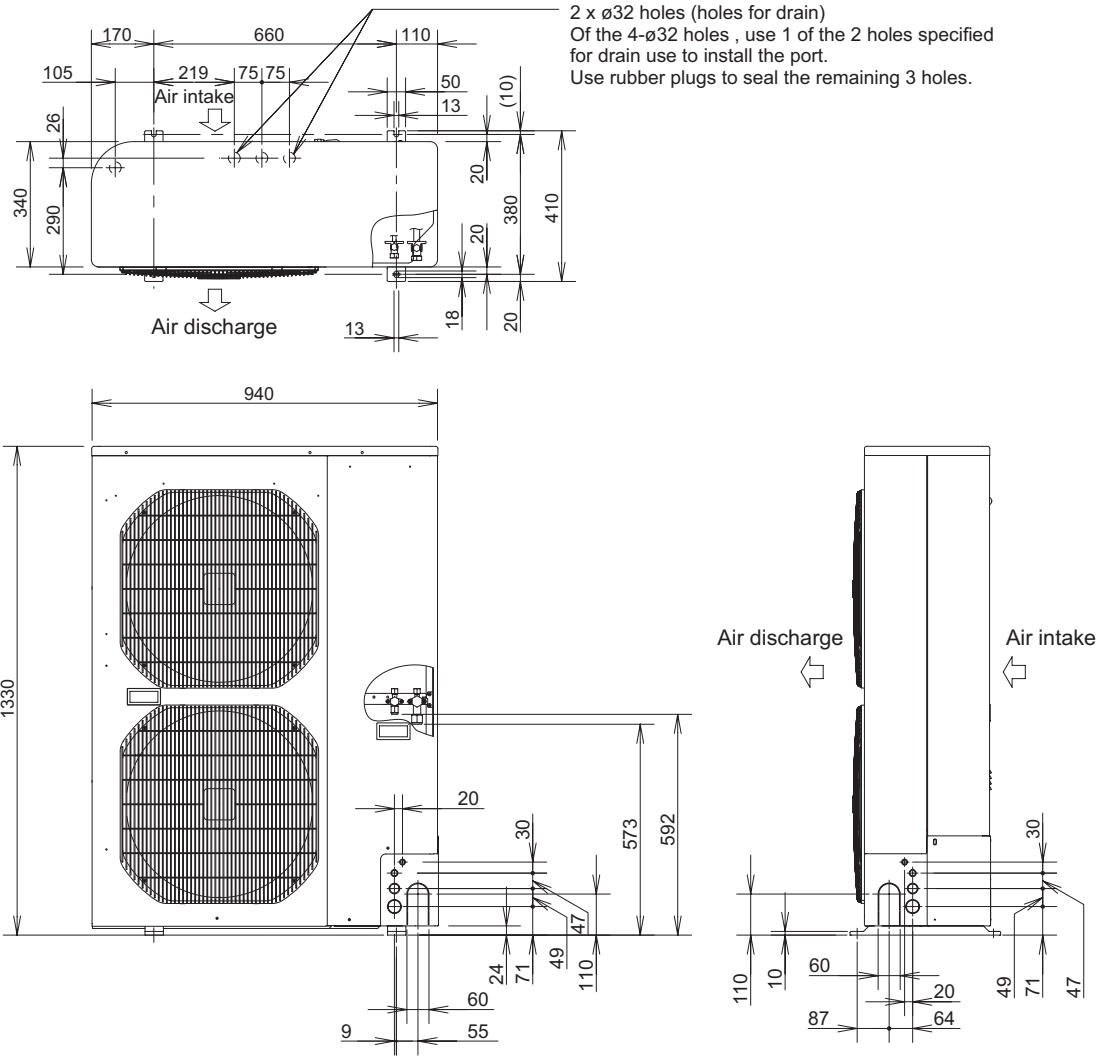
Indoor units

Type	22	28	36	45	56	73	90	106	140	160
Capacity: kW (BTU/h) Cooling Heating	2.2 (7,500) 2.5 (8,500)	2.8 (9,600) 3.2 (11,000)	3.6 (12,000) 4.2 (14,000)	4.5 (15,000) 5.0 (17,000)	5.6 (19,000) 6.3 (21,000)	7.3 (25,000) 8.0 (27,000)	9.0 (30,000) 10.0 (34,000)	10.6 (36,000) 11.4 (39,000)	14.0 (47,800) 16.0 (54,600)	16.0 (54,600) 18.0 (61,500)
4-Way Cassette Type (U1 Type)	 S-22MU1E5	 S-28MU1E5	 S-36MU1E5	 S-45MU1E5	 S-56MU1E5	 S-73MU1E5		 S-106MU1E5	 S-140MU1E5	 S-160MU1E5
4-Way Cassette 60×60 Type (Y1 Type)	 S-22MY1E5	 S-28MY1E5	 S-36MY1E5	 S-45MY1E5	 S-56MY1E5					
2-Way Cassette Type (L1 Type)	 S-22ML1E5	 S-28ML1E5	 S-36ML1E5	 S-45ML1E5	 S-56ML1E5	 S-73ML1E5				
Wall Mounted Type (K1 Type)	 S-22MK1E5	 S-28MK1E5	 S-36MK1E5	 S-45MK1E5	 S-56MK1E5	 S-73MK1E5		 S-106MK1E5		
Ceiling Type (T1 Type)			 S-36MT1E5	 S-45MT1E5	 S-56MT1E5	 S-73MT1E5		 S-106MT1E5	 S-140MT1E5	
1-Way Cassette Type (D1 Type)		 S-28MD1E5	 S-36MD1E5	 S-45MD1E5	 S-56MD1E5	 S-73MD1E5				
Low Silhouette Ducted Type (F1 Type)	 S-22MF1E5	 S-28MF1E5	 S-36MF1E5	 S-45MF1E5	 S-56MF1E5	 S-73MF1E5	 S-90MF1E5	 S-106MF1E5	 S-140MF1E5	 S-160MF1E5
Slim Low Static Ducted Type (M1 Type)	 S-22MM1E5	 S-28MM1E5	 S-36MM1E5	 S-45MM1E5	 S-56MM1E5					
Floor Standing Type (P1 Type)	 S-22MP1E5	 S-28MP1E5	 S-36MP1E5	 S-45MP1E5	 S-56MP1E5	 S-71MP1E5				
Concealed Floor Standing Type (R1 Type)	 S-22MR1E5	 S-28MR1E5	 S-36MR1E5	 S-45MR1E5	 S-56MR1E5	 S-71MR1E5				

Type	73	106	140
High Static Pressure Ducted Type (E1 Type)	 S-73ME1E5	 S-106ME1E5	 S-140ME1E5

1. Line-up

Outdoor units

Type	DC inverter unit		
	U-4LE1E5, U-4LE1E8	U-5LE1E5, U-5LE1E8	U-6LE1E5, U-6LE1E8
Capacity: kW (BTU/h)	12.1 (41,300)	14.0 (47,800)	15.5 (52,900)
Cooling / Heating	/ 12.5 (42,700)	/ 16.0 (54,600)	/ 18.0 (61,400)
Outdoor Unit	Unit: mm  2 x $\phi 32$ holes (holes for drain) Of the 4-$\phi 32$ holes, use 1 of the 2 holes specified for drain use to install the port. Use rubber plugs to seal the remaining 3 holes.		

2. MARKINGS FOR DIRECTIVE 97/23/EC (PED)

Rating nameplate figure

1








Multi Type Air Conditioner
Кондиционер Мульти-Сплит Система
Кондиціонер Мульти-спліт система

Model No. A : Model Name Various

Клас захи́сти I

POWER SOURCE : B : Various

MAX ELECTRIC INPUT C : kW A Various

TIME DELAY FUSE MAX SIZE : D : A Various

UNIT PROTECTION : IPX4

Operating Spec. Area
 Various (Not for the PED)

MAX.WORKING PRESSURE : HIGH SIDE E : MPa Various
 LOW SIDE F : MPa Various

REFRIGERANT: R410A G : kg Various

NET WEIGHT : Various (Not for the PED)

SERIAL NO. : Various
 Серийный номер. : -----
 Серійний номер. :

PROD. DATE : MM-YYYY
 Дата производства : MM-YYYY
 Дата виготовлення :

THE CAPACITY, CURRENT AND POWER INPUT ARE FOR THIS UNIT CONNECTED TO THE FOLLOWING INDOOR UNITS.
 ПРОИЗВОДИТЕЛЬНОСТЬ, ТОК И ПОТРЕБЛЯЕМАЯ МОЩНОСТЬ ДАННОГО БЛОКА ПРИ ЕГО ПОДКЛЮЧЕНИИ К СЛЕДУЮЩИМ ВНУТРЕННИМ БЛОКАМ.
 ПРОДУКТИВНІСТЬ, СТРУМ ТА СПОЖИВАНА ПОТУЖНІСТЬ ДАНОГО БЛОКУ ПРИ ЙОГО ПІДКЛЮЧЕННІ ДО НАСТУПНИХ ВНУТРІШНІХ БЛОКІВ.

4-Way Cassette, 56 type × 2 /4-сторонняя кассета, 56 тип × 2 /4-сторонняя касета, 56 тип × 2

FOR OTHER COMBINATIONS, REFER TO MANUAL.
 ИНФОРМАЦИЮ ПО ДРУГИМ КОМБИНАЦИЯМ СМОТРИТЕ В ИНСТРУКЦИИ.
 ЗА ІНФОРМАЦІЄЮ СТОСОВНО ІНШИХ КОМБІНАЦІЙ ЗВЕРТАЙТЕСЯ ДО ІНСТРУКЦІЇ.

Authorized representative in EU
 Panasonic Testing Centre

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 Winsbergring 15, 22525 Hamburg, Germany

Panasonic Corporation
 1006 Kadoma, Kadoma City Osaka, Japan

Made in China
 Сделано в Китае
 Вироблено в Китаї
 Fabricado en China

Tabulation of Various data

A	U-4LE1E5	U-5LE1E5	U-6LE1E5	U-4LE1E8	U-5LE1E8	U-6LE1E8
B	220 ~ 240 V, Single phase, 50 Hz			380 / 400 / 415 V 3N ~ 50 Hz		
C	4.84 kW, 21.0 A	5.64 kW, 24.5 A	6.45 kW, 28.0 A	5.62 kW, 8.5 A	6.61 kW, 10.0 A	7.94 kW, 12.0 A
D	25 A	35 A	35 A	20 A	20 A	20 A
E	3.80 MPa			3.80 MPa		
F	2.70 MPa			2.70 MPa		
G	3.5 kg			3.5 kg		

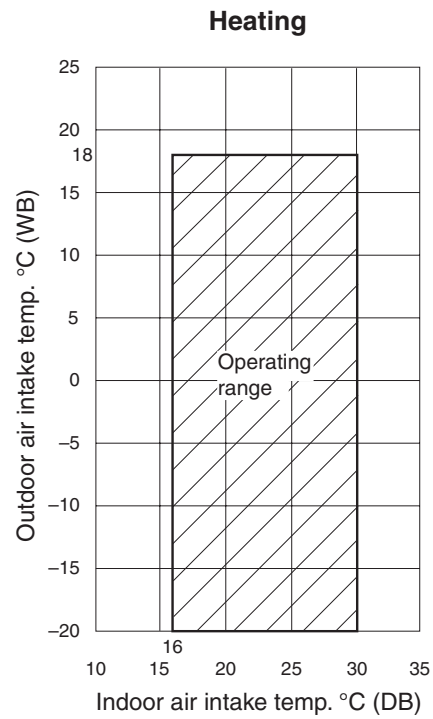
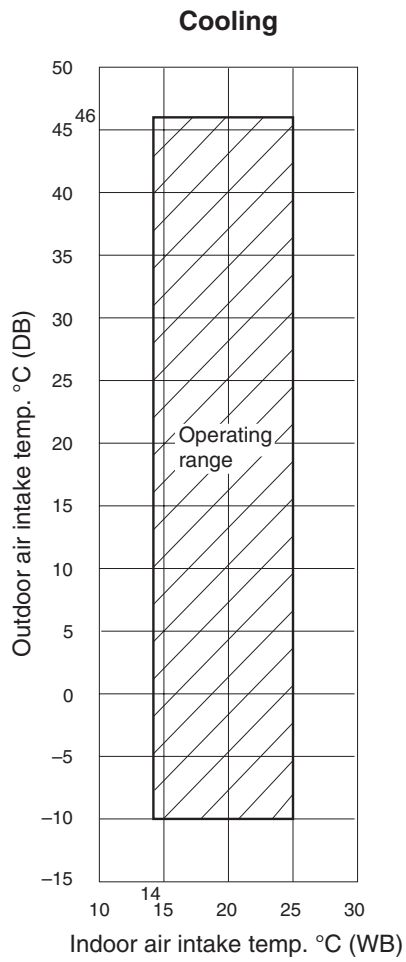
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1. Model Selecting and Capacity Calculator

1-1. Operating Range

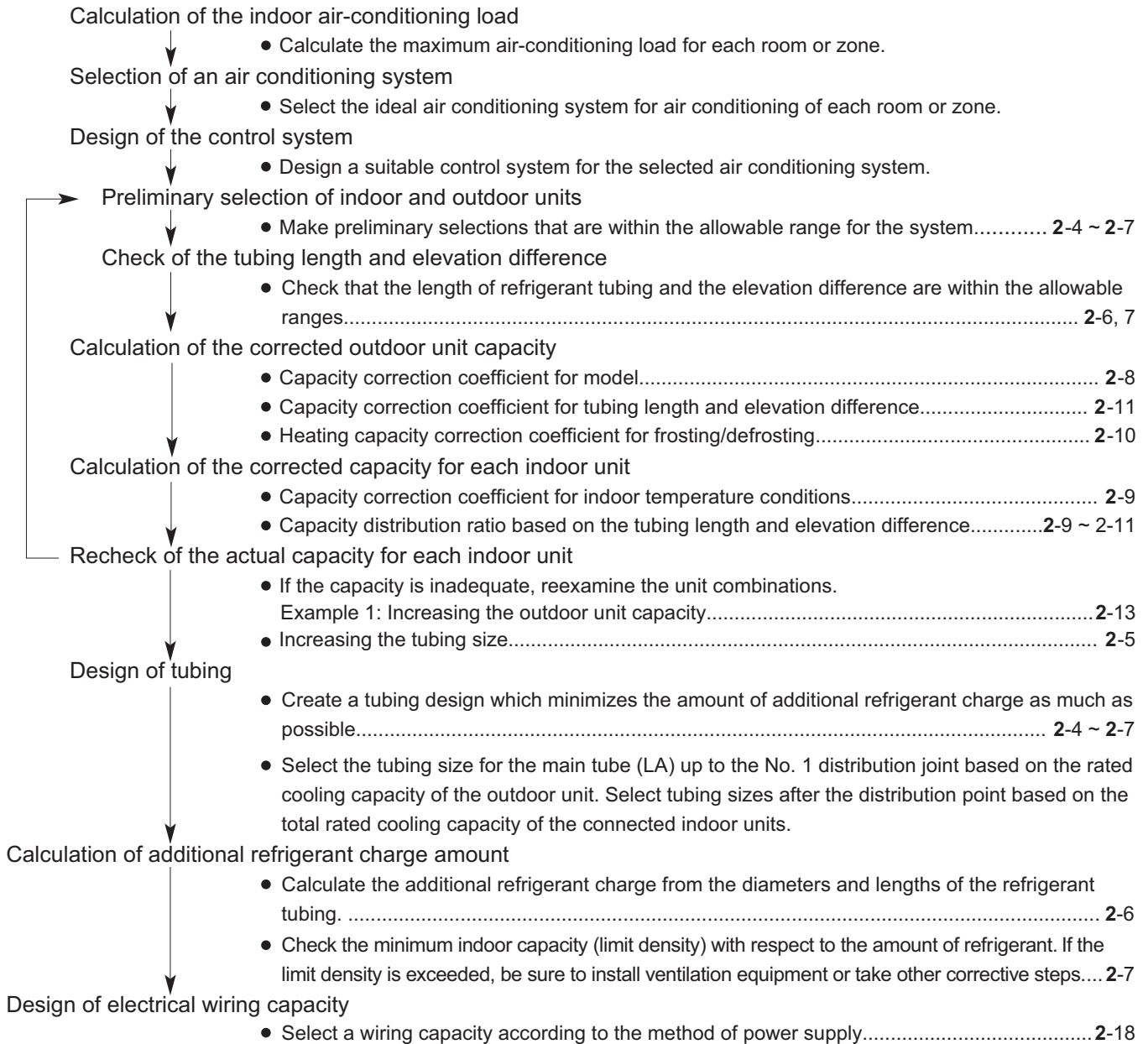


1. Model Selecting and Capacity Calculator

1-2. Procedure for Selecting Models and Calculating Capacity

■ Model Selection Procedure

Select the model and calculate the capacity for each refrigerant system according to the procedure shown below.



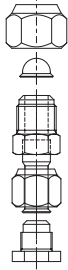
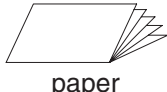
1. Model Selecting and Capacity Calculator

1-3. Tools Required for Installation (not supplied)

- | | |
|------------------------------|--------------------------------------|
| 1. Flathead screwdriver | 10. Drill |
| 2. Phillips head screwdriver | 11. Tube cutter |
| 3. Knife or wire stripper | 12. Tube flaring tool |
| 4. Tape measure | 13. Torque wrench |
| 5. Level gauge | 14. Adjustable wrench |
| 6. Sabre saw or key hole saw | 15. Reamer (for deburring) |
| 7. Hacksaw | 16. Hexagonal wrench (4 mm and 5 mm) |
| 8. Core bits | 17. Pliers |
| 9. Hammer | 18. Cutting pliers |

1-4. Accessories Supplied with Outdoor Unit

Table 1-1 Outdoor Unit

Part name	Figure	Q'ty		
		4 hp	5 hp	6 hp
Tube Discharge Assy		0	0	1
Plastic bar (L=115mm)		2	2	2
Instruction manual	 paper	1	1	1

hp = horsepower

1-5. Type of Copper Tube and Insulation Material

If you wish to purchase these materials separately from a local source, you will need:

- Deoxidized annealed copper tube for refrigerant tubing.
- Foamed polyethylene insulation for copper tubes as required to precise length of tubing. Wall thickness of the insulation should be not less than 8 mm.
- Use insulated copper wire for field wiring. Wire size varies with the total length of wiring. Refer to **3. ELECTRICAL WIRING** for details.



CAUTION

Check local electrical codes and regulations before obtaining wire. Also, check any specified instructions or limitations.

1-6. Additional Materials Required for Installation

- | | |
|--|---|
| 1. Refrigeration (armored) tape | 4. Refrigeration tubing lubricant |
| 2. Insulated staples or clamps for connecting wire (See your local codes.) | 5. Clamps or saddles to secure refrigerant tubing |
| 3. Putty | 6. Scale for weighing |

1. Model Selecting and Capacity Calculator

1-7. Tubing Size

Table 1-2 Main Tubing Size (LA)

	4 hp	5 hp	6 hp
System horsepower	4	5	6
Gas tubing (mm)	ø15.88		ø19.05
Liquid tubing (mm)	ø9.52		

Unit: mm
hp = horsepower

Note :

If the system consists of only one indoor unit with an outdoor 6HP, the main tube of the unit (LA) should be ø19.05. Convert ø19.05 to ø15.88 using a reducer (field supply) close to the indoor unit and then make the connection.

Table 1-3 Main Tubing Size After Distribution (LB, LC...)

Total capacity after distribution	Below kW	7.1 (2.5 hp)	12.1 (4 hp)	14.0 (5 hp)	15.5 (6 hp)
	Over kW	—	7.1 (2.5 hp)		
Tubing size	Gas tubing (mm)	ø12.7	ø15.88		ø19.05
	Liquid tubing (mm)	ø9.52	ø9.52		

Unit: mm
hp = horsepower

Note: In case the total capacity of connected indoor units exceeds the total capacity of the outdoor units, select the main tubing size for the total capacity of the outdoor units.

Table 1-4 Indoor Unit Tubing Connection (ℓ₁, ℓ₂... ℓ_{n-1})

Unit: mm

Indoor unit type	22	28	36	45	56	73	90	106	140	160
Gas tubing (mm)	ø12.7					ø15.88				
Liquid tubing (mm)	ø6.35					ø9.52				

1-8. Straight Equivalent Length of Joints

Design the tubing system by referring to the following table for the straight equivalent length of joints.

Table 1-5 Straight Equivalent Length of Joints

Gas tubing size (mm)		12.7	15.88	19.05
90° elbow		0.30	0.35	0.42
45° elbow		0.23	0.26	0.32
U-shape tube bend (R60 – 100 mm)		0.90	1.05	1.26
Trap bend		2.30	2.80	3.20
Y-branch distribution joint		Equivalent length conversion not needed.		
Ball valve for service		Equivalent length conversion not needed.		

Table 1-6 Required Copper Tubing Dimensions

Unit: mm

Material		O				
Copper tubing	Outer diameter	6.35	9.52	12.7	15.88	19.05
	Wall thickness	0.8	0.8	0.8	1.0	1.2

1. Model Selecting and Capacity Calculator

1-9. Additional Refrigerant Charge

Additional refrigerant charge amount is calculated from the liquid tubing total length as follows.

Table 1-7 Amount of Refrigerant Charge Per Meter, According to Liquid Tubing Size

Liquid tubing size	Amount of refrigerant charge/m (g/m)
ø6.35	26
ø9.52	56

Necessary amount of charge
 = (Amount of refrigerant charge per meter of each size of liquid tube × its tube length)
 + (...) + (...)

*Always charge accurately using a scale for weighing.

Table 1-8 Refrigerant Charge Amount at Shipment (for outdoor unit)

4 hp	5 hp	6 hp
3.5 kg	3.5 kg	3.5 kg

hp = horsepower

1-10. System Limitations

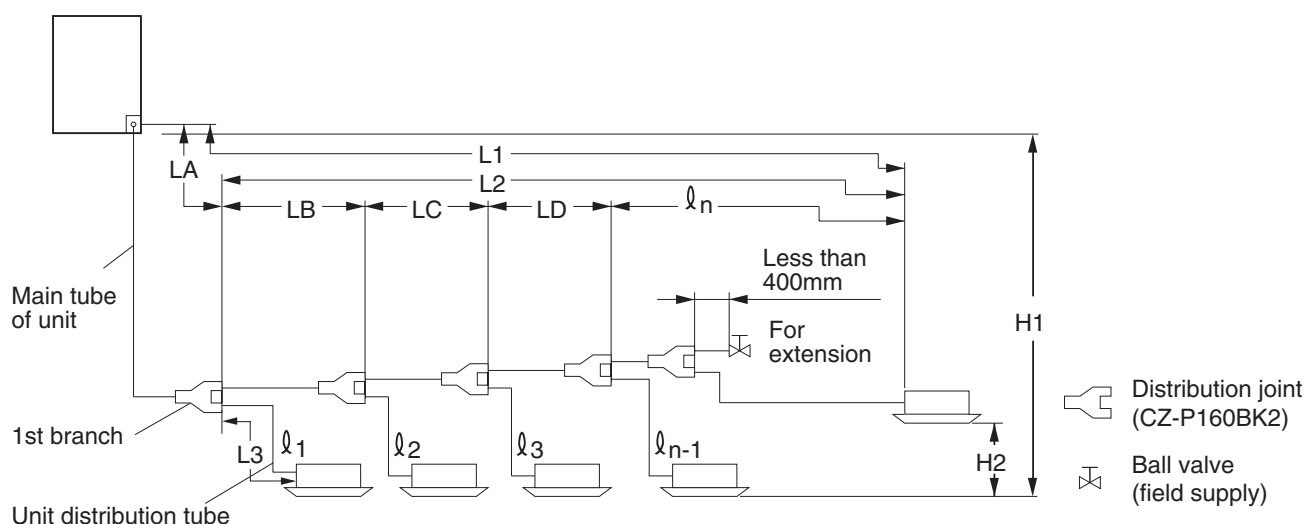
Table 1-9 System Limitations

Outdoor units	4 hp	5 hp	6 hp
Number of max. connectable indoor units	6	8	9
Max. allowable indoor/outdoor capacity ratio	50 – 130%		

hp = horsepower

1-11. Tubing Length

Select the installation location so that the length and size of refrigerant tubing are within the allowable range shown in the figure below.



Note : Do not use commercially available T-joints for the liquid tubing.

* Be sure to use special R410A distribution joints (CZ-P160BK2: optional) for outdoor unit connections and tubing branches.

R410A distribution joint CZ-P160BK2 (for indoor unit)

1. Model Selecting and Capacity Calculator

Table 1-10 Ranges that Apply to Refrigerant Tubing Lengths and to Differences in Installation Heights

Items	Marks	Contents	Length (m)
Allowable tubing length	L1	Max. tubing length	Actual length ≤ 120
			Equivalent length ≤ 140
	$\Delta L (L2 - L3)$	Difference between max. length and min. length from the No.1 distribution joint	≤ 40
	$l_1, l_2 \dots l_n$	Max. length of each distribution tube	≤ 30
	$l_1, l_2 \dots l_{n-1} + L1$	Total max. tubing length including length of each distribution tube (only narrow tubing)	≤ 150
Allowable elevation difference	H1	When outdoor unit is installed higher than indoor unit	≤ 50
		When outdoor unit is installed lower than indoor unit	≤ 40
	H2	Max. difference between indoor units	≤ 15

L = Length, H = Height



WARNING

Always check the gas density limit for the room in which the unit is installed.

1-12. Check of Limit Density

When installing an air conditioner in a room, it is necessary to ensure that even if the refrigerant gas accidentally leaks out, its density does not exceed the limit level for that room.

If the density could exceed the limit level, it is necessary to provide an opening between the unit and the adjacent room, or to install mechanical ventilation which is interlocked with the leak detector.

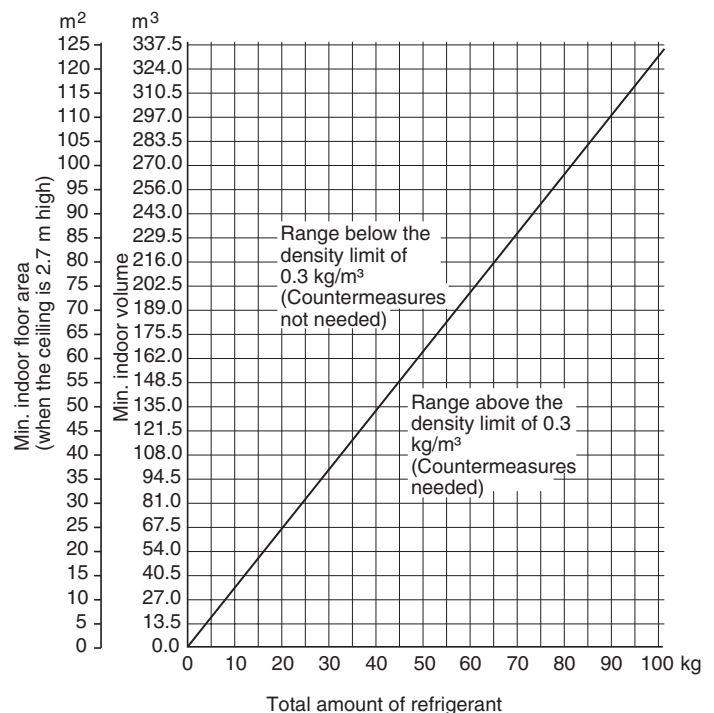
(Total refrigerant charged amount: kg)

(Min. indoor volume where the indoor unit is installed: m³)
 $\leq \text{Limit density } 0.3 \text{ (kg/m}^3\text{)}$

The limit density of refrigerant which is used in this unit is 0.3 kg/m³ (ISO 5149).

The shipped outdoor unit comes charged with the amount of refrigerant fixed for each type, so add it to the amount that is charged in the field. (For the refrigerant charge amount at shipment, refer to the unit's nameplate.)

Minimum indoor volume & floor area as against the amount of refrigerant is roughly as given in the following table.



CAUTION

Pay special attention to any location, such as a basement, etc., where leaking refrigerant can accumulate, since refrigerant gas is heavier than air.

1. Model Selecting and Capacity Calculator

1-13. Calculation of Actual Capacity of Indoor Unit

■ Calculating the actual capacity of each indoor unit

Because the capacity of a multi air-conditioner changes according to the temperature conditions, tubing length, elevation difference and other factors, select the correct model after taking into account the various correction values.

When selecting the model, calculate the corrected capacities of the outdoor unit and each indoor unit.

Use the corrected outdoor unit capacity and the total corrected capacity of all the indoor units to calculate the actual final capacity of each indoor unit.

1. Outdoor unit capacity correction

$$\text{Outdoor unit capacity correction (kW)} = \text{Rated capacity} \times (A) \times (B) \times (C) \times (D)$$

(A) Capacity correction for the outdoor unit temperature conditions (%)

Read the capacity correction for outdoor unit temperature, indoor unit temperature and indoor/ outdoor ratio as shown in the section "8. CAPACITY TABLE".

* Indoor unit temperature is indoor unit rated capacity - weighted average temperature.

Example

Cooling operation

No.	(a) Rated capacity	(b) Intake temperature	(a) × (b)
1	2.2 kW	19 WB	41.8
2	2.8 kW	18 WB	50.4
3	4.5 kW	17 WB	76.5
4	5.6 kW	16 WB	89.6

$$\text{Rated capacity-weighted average temperature} = \frac{\sum ((a) \times (b))}{\sum (a)} = 17.1 \text{WB}$$

* The indoor/ outdoor ratio should be selected according to the real rated capacity.

Example

There are 4 indoor units for class 22, 28, 45, 56 and the outdoor unit HP is 6 (15.5kW in the cooling-mode, 18.0kW in the heating-mode).

No.	Rated cooling capacity	Rated heating capacity
1	2.2 kW	2.5 kW
2	2.8 kW	3.2 kW
3	4.5 kW	5.0 kW
4	5.6 kW	6.3 kW
Total	15.1 kW	17.0 kW
I/O ratio	97.4%	94.4 %

(B) Capacity correction coefficient for outdoor unit tubing length (%)

From the graph of capacity change characteristics resulting from tubing length and elevation difference on page "2-11", read the capacity correction coefficient.

* Use the lowest capacity changing ratio. Usually, the furthest and highest or the lowest indoor unit is used.

(C) Surplus capacity correction coefficient for outdoor unit temperature conditions (%)

From the graph of surplus capacity characteristics resulting from outdoor temperature on page "2-10", read the capacity correction coefficient.

(D) Capacity correction coefficient for outdoor unit frosting and defrosting during heating operation (%)

From the outdoor unit heating capacity correction coefficient during frosting / defrosting on page "2-10", read the capacity correction coefficient.

1. Model Selecting and Capacity Calculator

2. Indoor unit capacity correction coefficient

$$\text{Indoor unit capacity correction (kW)} = (G) \times (H) \times (C) \times (D)$$

$$* \text{ Indoor unit capacity correction} \leq (G)$$

(E) Capacity correction for the indoor unit temperature conditions (kW)

From the graph of indoor capacity characteristics on page “ 2-11 ”, read the capacity correction coefficient for indoor unit temperature conditions.

$$(E) = \text{Capacity correction coefficient for indoor unit temperature conditions} \times \text{Rated capacity}$$

(F) Calculate the Capacity distribution ratio (%)

$$(F) = \frac{(E)}{\sum(E)}$$

(G) Distribute the outdoor unit capacity among each indoor unit (kW)

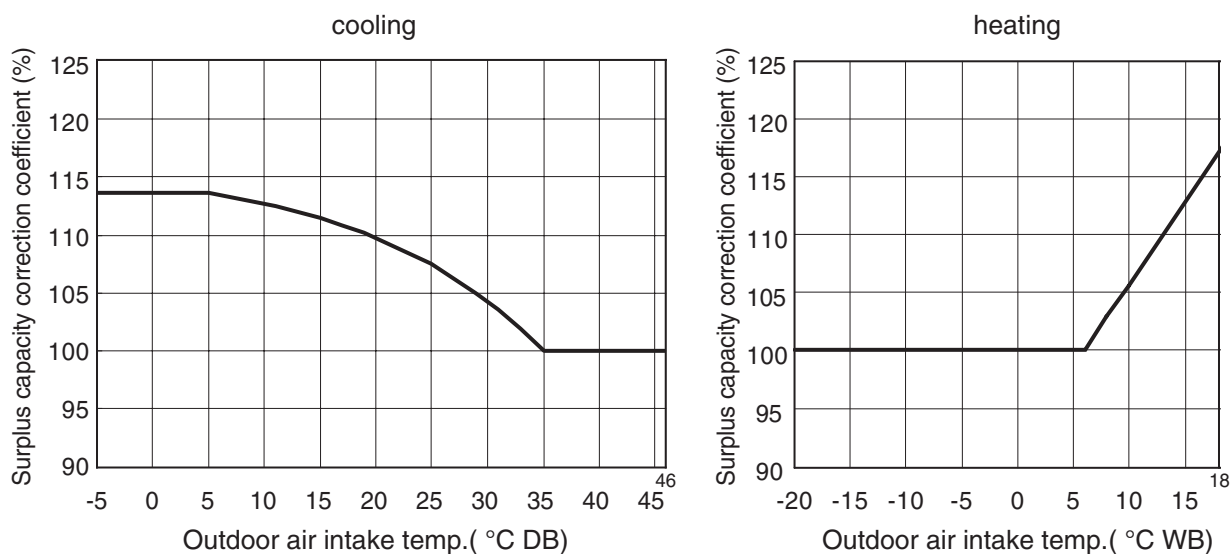
$$(G) = (A) \times (F)$$

(H) Capacity correction coefficient for tubing length and elevation difference (%)

From the graph of capacity change characteristics resulting from tubing length and elevation difference on page “ 2-11 ”, read the capacity correction coefficient.

1. Model Selecting and Capacity Calculator

Surplus capacity correction coefficient (%)



Note :

This capacity graph is used for the calculation of the tubing length correction.
Therefore, this is different from the outdoor unit's capacity graph.

5. Graph of capacity correction coefficients

■ Outdoor unit heating capacity correction coefficient during frosting/defrosting (1 – (4))

Outdoor intake air temp. (°CWB, RH85%)	-20	-15	-10	-8	-6	-5	-4	-2	-1	0	1	2	3	4	5	6
Correction coefficient	0.97	0.97	0.97	0.96	0.94	0.91	0.89	0.87	0.87	0.87	0.88	0.89	0.91	0.92	0.95	1.0

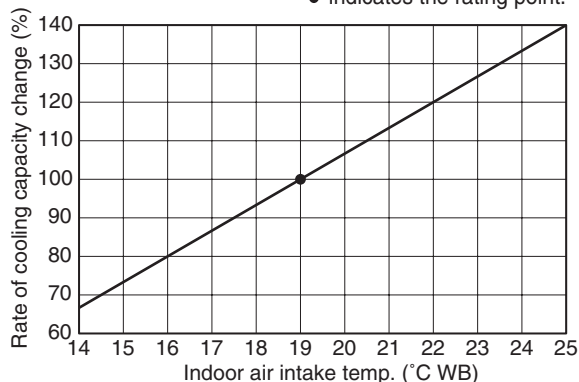
* To calculate the heating capacity with consideration for frosting/defrosting operation, multiply the heating capacity found from the capacity graph by the correction coefficient from the table above.

1. Model Selecting and Capacity Calculator

■ Graph of indoor unit capacity characteristics (2 – (2))

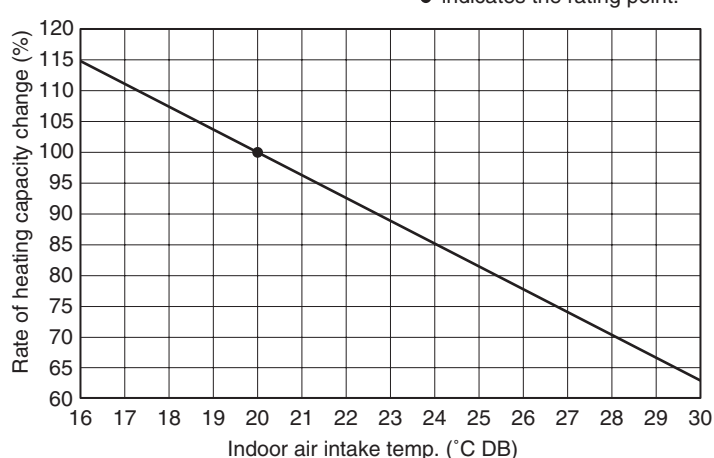
Indoor unit cooling capacity characteristics

● indicates the rating point.



Indoor unit heating capacity characteristics

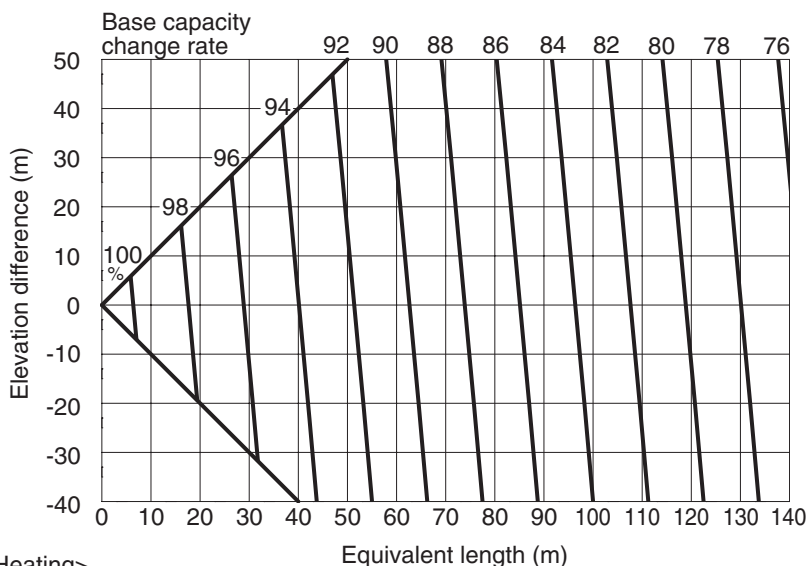
● indicates the rating point.



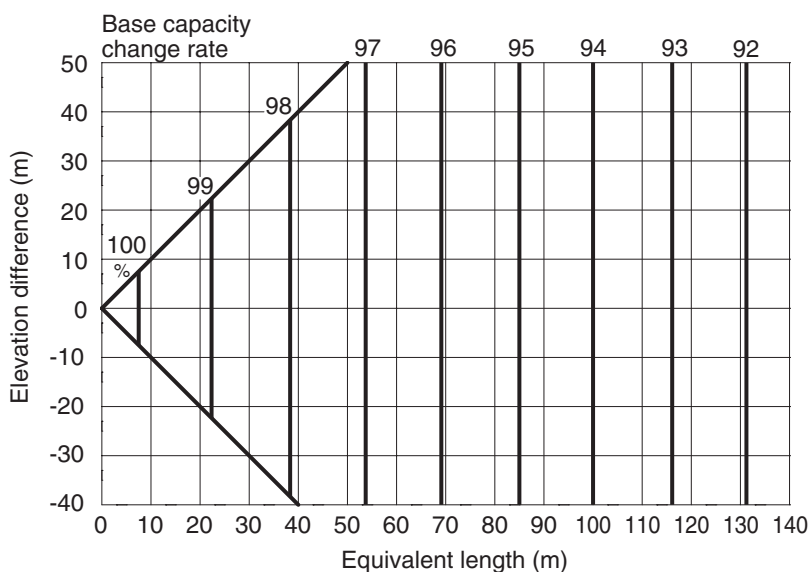
■ Graph of capacity change characteristics resulting from tubing length and elevation difference (1 / 2 – (3))

(Performance correction coefficients by elevation difference of refrigerant tube length [performance change rate ÷ 100] is calculated by the following line map.)

<Cooling>



<Heating>



1. Model Selecting and Capacity Calculator

For 4hp, 5hp units

- Increasing the tubing size of the gas tubes can reduce the loss of capacity caused by longer tubing lengths. Refer to Table 1-11 to increase the tubing size. However, the maximum allowable tubing length must not be exceeded.
- * The size increase is applied to the LA gas tube (main tube) only, and is limited to the cases shown in Table 1-11. In addition, the amount of additional refrigerant charge is determined from the liquid tube size only.
- * In case of 6HP, increasing the size of the gas tube is not possible.

Table 1-11 Correction coefficient for equivalent length when the size of the gas tube (LA) is increased

Standard tube diameter (gas tube, mm)	ø15.88
Tube diameter after change (gas tube, mm)	ø19.05
Equivalent length correction coefficient	0.4

- * When increasing the size of the gas tubing (LA), multiply by the correction coefficient from Table 1-11 and calculate the equivalent length for section LA.

Tubing equivalent length after size increase = Standard tubing equivalent length × Equivalent length correction coefficient

2



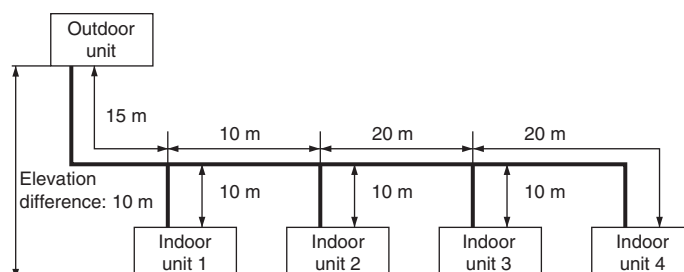
WARNING

The upper limit for tubing size is ø19.05. Tubing above that size cannot be used.

2. System Design

2-1. System Example

(1) Below are the tables created using “System Diagram Software.” Details of the calculations are shown in (2).



Selection conditions

Assumes that installation is in a 50 Hz region.

		Outdoor unit	Room 1 (indoor unit 1)	Room 2 (indoor unit 2)	Room 3 (indoor unit 3)	Room 4 (indoor unit 4)
Cooling	Air condition (DB/WB)	33.0 / 22.5	26.0 / 18.0	26.0 / 18.0	26.0 / 18.0	26.0 / 18.0
	Max. load (kW)	—	5.3	2.1	2.4	2.3
Heating	Air condition (DB/WB)	3.0 / 2.0	21.0 / 16.0	21.0 / 16.0	21.0 / 16.0	21.0 / 16.0
	Max. load (kW)	—	5.6	3.0	3.0	2.9
Actual tubing length			25 m	35 m	55 m	65 m
Equivalent length (with consideration for curves, etc.)		78 m	30 m	42 m	66 m	78 m

Preliminary selection

		Outdoor unit	Room 1 (indoor unit 1)	Room 2 (indoor unit 2)	Room 3 (indoor unit 3)	Room 4 (indoor unit 4)
Selected model		U-5LE1E5	Type 56	Type 28	Type 28	Type 28
Load (cooling/heating) (kW)		—	5.3 / 5.6	2.1 / 3.0	2.4 / 3.0	2.3 / 2.9
Rated capacity (cooling/heating) (kW)		14.0 / 16.0	5.4 / 5.6	2.8 / 3.2	2.8 / 3.2	2.8 / 3.2
Corrected capacity (cooling/heating) (kW)		13.1 / 15.3	5.1 / 6.0	2.5 / 3.0	2.4 / 3.0	2.3 / 2.9
Actual capacity (cooling/heating) (kW)		—	5.1 / 6.0	2.5 / 3.0	2.4 / 3.0	2.3 / 2.9

Indoor unit changes

Increase by one rank because the capacity of the indoor unit 1 is lower than the maximum load.

		Outdoor unit	Room 1 (indoor unit 1)	Room 2 (indoor unit 2)	Room 3 (indoor unit 3)	Room 4 (indoor unit 4)
Selected model		U-5LE1E5	Type 73	Type 28	Type 28	Type 28
Load (cooling/heating) (kW)		—	5.3 / 5.6	2.1 / 3.0	2.4 / 3.0	2.3 / 2.9
Rated capacity (cooling/heating) (kW)		14.0 / 16.0	7.3 / 8.0	2.8 / 3.2	2.8 / 3.2	2.8 / 3.2
Corrected capacity (cooling/heating) (kW)		14.4 / 16.4	6.5 / 7.3	2.5 / 2.9	2.3 / 2.9	2.3 / 2.8
Actual capacity (cooling/heating) (kW)		—	6.5 / 7.3	2.5 / 2.9	2.3 / 2.9	2.3 / 2.8

2. System Design

Outdoor unit changes

The capacity of the indoor units 2 and 3 is lower than the maximum load.

	Outdoor unit	Room 1 (indoor unit 1)	Room 2 (indoor unit 2)	Room 3 (indoor unit 3)	Room 4 (indoor unit 4)
Selected model	U-6LE1E5	Type 73	Type 28	Type 28	Type 28
Load (cooling / heating) (kW)	———	5.3 / 5.6	2.1 / 3.0	2.4 / 3.0	2.3 / 2.9
Rated capacity (cooling/heating) (kW)	15.5 / 18.0	7.3 / 8.0	2.8 / 3.2	2.8 / 3.2	2.8 / 3.2
Corrected capacity (cooling/heating) (kW)	14.7 / 17.0	6.7 / 7.6	2.5 / 3.0	2.4 / 3.0	2.3 / 2.9
Actual capacity (cooling/heating) (kW)	———	6.7 / 7.6	2.5 / 3.0	2.4 / 3.0	2.3 / 2.9

2. System Design

2-2. Example of Tubing Size Selection and Refrigerant Charge Amount

Additional refrigerant charging

Based on the values in Tables 1-2, 1-3, 1-4 and 1-7, use the liquid tubing size and length, and calculate the amount of additional refrigerant charge using the formula below.

$$\text{Necessary additional refrigerant charge (kg)} = [56 \times (a) + 26 \times (b)] \times 10^{-3}$$

(a): Liquid tubing Total length of ø9.52 (m) (b): Liquid tubing Total length of ø6.35 (m)

● Charging procedure

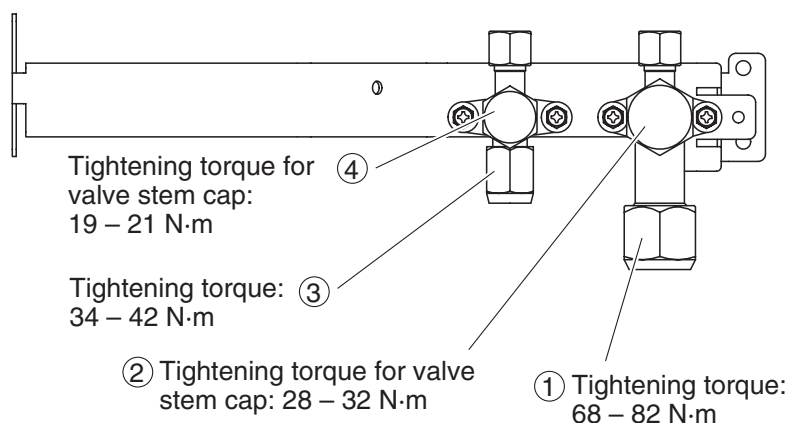
Be sure to charge with R410A refrigerant **in liquid form**

1. After performing a vacuum, charge with refrigerant from the liquid tubing side. At this time, all valves must be in the “fully closed” position.
2. If it was not possible to charge the designated amount, operate the system in Cooling mode while charging with refrigerant from the gas tubing side. (This is performed at the time of the test run. For this, all valves must be in the “fully open” position.)

Charge with R410A refrigerant in liquid form.

With R410A refrigerant, charge while adjusting the amount being fed a little at a time in order to prevent liquid refrigerant from backing up.

- After charging is completed, turn all valves to the “fully open” position.
- Replace the tubing covers as they were before.

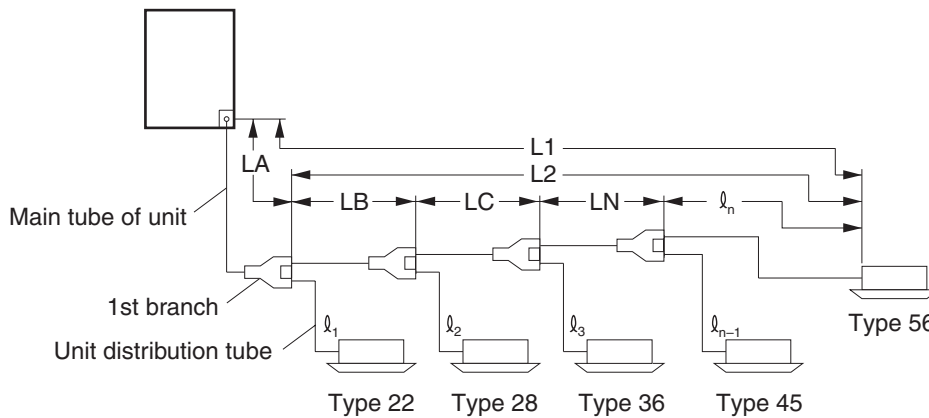


CAUTION

1. R410A additional charging absolutely must be done through liquid charging.
2. The R410A refrigerant cylinder has a gray base color, and the top part is pink.
3. The R410A refrigerant cylinder includes a siphon tube. Check that the siphon tube is present. (This is indicated on the label at the top of the cylinder.)
4. Due to differences in the refrigerant, pressure, and refrigerant oil involved in installation, it is not possible in some cases to use the same tools for R22 and for R410A.

2. System Design

Example:



● Example of each tubing length

Main tubing Distribution joint tubing

LA = 40 m	Indoor side	
LB = 5 m	l ₁ = 5 m	l ₄ = 6 m
LC = 5 m	l ₂ = 5 m	l ₅ = 5 m
LD = 15 m	l ₃ = 2 m	

● Obtain charge amount for each tubing size

Note that the charge amounts per 1 meter are different for each liquid tubing size.

ø9.52 → LA + LB + LC + LD : 65 m × 0.056 kg/m = 3.64 kg

ø6.35 → l₁ + l₂ + l₃ + l₄ + l₅ : 23 m × 0.026 kg/m = 0.598 kg

Total 4.238 kg

Additional refrigerant charge amount is 4.238 kg.



CAUTION

Be sure to check the limit density for the room in which the indoor unit is installed.

Checking of limit density

Density limit is determined on the basis of the size of a room using an indoor unit of minimum capacity.

For instance, when an indoor unit is used in a room (floor area 7.43 m² × ceiling height 2.7 m = room volume 20.06 m³), the minimum room volume should be 25.8 m³ (7.738 kg ÷ 0.3 kg/m³) for refrigerant of 7.738 kg (3.5 kg + 4.238 kg).

Accordingly, openings such as louvers are required for this room.

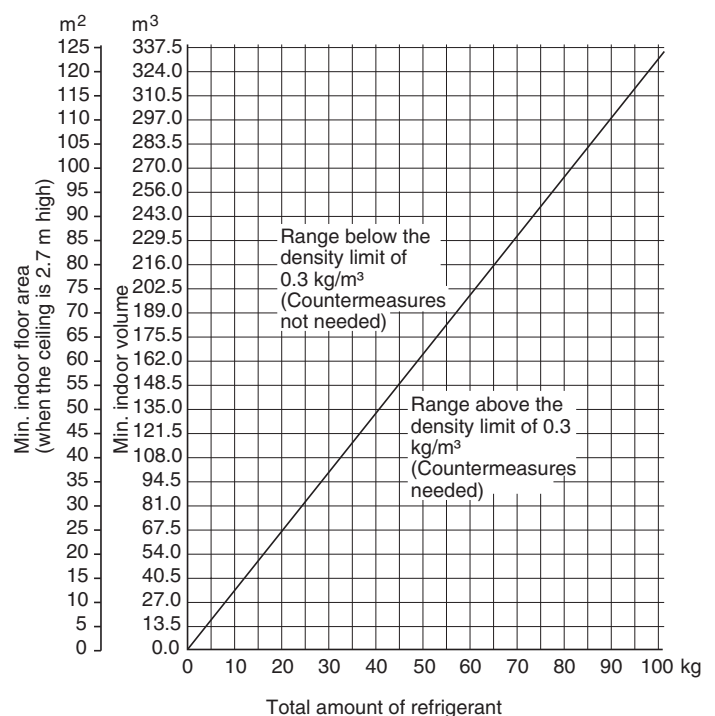
<Determination by calculation>

Overall refrigerant charge amount for the air conditioner: kg

(Minimum room volume for indoor unit: m³)

$$= \frac{4.238 \text{ (kg)} + 3.5 \text{ (kg)}}{20.06 \text{ (m}^3\text{)}} = 0.39 \text{ (kg/m}^3\text{)} > 0.3 \text{ (kg/m}^3\text{)}$$

Therefore, openings such as louvers are required for this room.



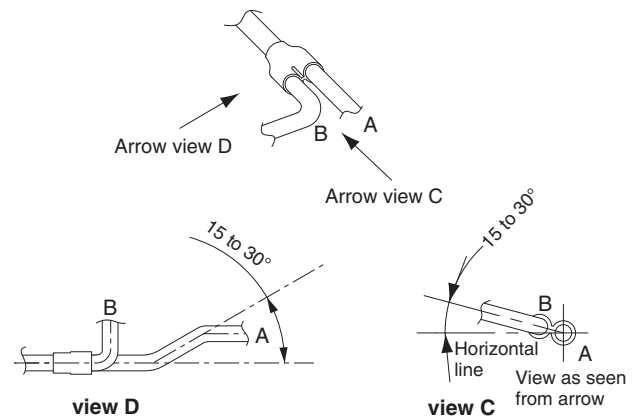
2. System Design

2-3. Installing Distribution Joint

- (1) Refer to "HOW TO ATTACH DISTRIBUTION JOINT" enclosed with the optional distribution joint kit (CZ-P160BK2).
- (2) In order to prevent accumulation of refrigerant oil in stopped units, if the main tubing is horizontal then each branch tubing length should be at an angle that is greater than horizontal. If the main tubing is vertical, provide a raised starting portion for each branch.
- (3) If there are height differences between indoor units or if branch tubing that follows a distribution joint is connected to only 1 unit, a trap or ball valve (field supply) must be added to that distribution joint. (When adding the ball valve (field supply), locate it within 40 cm of the distribution joint.)

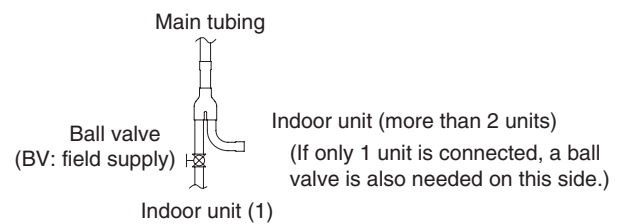
If a trap or ball valve (field supply) is not added, do not operate the system before repairs to a malfunctioning unit are completed. (The refrigerant oil sent through the tubing to the malfunctioning unit will accumulate and may damage the compressor.)

Tube branching methods (horizontal use)

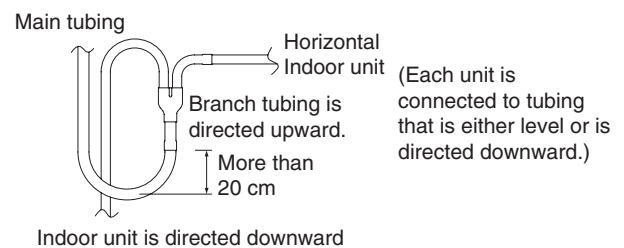


Types of vertical trap specifications

(When using ball valve (field supply))



(When not using ball valve)



3. Electrical Wiring

3-1. General Precautions on Wiring

- (1) Before wiring, confirm the rated voltage of the unit as shown on its nameplate, then carry out the wiring closely following the wiring diagram.
- (2) Provide a power outlet to be used exclusively for each unit, and a power supply disconnect, circuit breaker and earth leakage breaker for overcurrent protection should be provided in the exclusive line.
- (3) To prevent possible hazards from insulation failure, the unit must be grounded.
- (4) Each wiring connection must be done in accordance with the wiring system diagram. Wrong wiring may cause the unit to disorder or become damaged.
- (5) Do not allow wiring to touch the refrigerant tubing, compressor, or any moving parts of the fan.
- (6) Unauthorized changes in the internal wiring can be very dangerous. The manufacturer will accept no responsibility for any damage or misoperation that occurs as a result of such unauthorized changes.
- (7) Regulations on wire diameters differ from locality to locality. For field wiring rules, please refer to your LOCAL ELECTRICAL CODES before beginning.

You must ensure that installation complies with all relevant rules and regulations.

- (8) To prevent malfunction of the air conditioner caused by electrical noise, care must be taken when wiring as follows:
 - The remote control wiring and the inter-unit control wiring should be wired apart from the inter-unit power wiring.
 - Use shielded wires for inter-unit control wiring between units and ground the shield on both sides.
- (9) If the power supply cord of this appliance is damaged, it must be replaced by a repair shop appointed by the manufacturer, because special purpose tools are required.

3-2. Recommended Wire Length and Wire Diameter for Power Supply System

Outdoor unit

(Single-phase)

	(A) Power supply		Time delay capacity	
	Wire size	Max. length	Fuse	Circuit breaker
U-4LE1E5	4 mm ²	21 m	25 A	30 A
U-5LE1E5	6 mm ²	24 m	35 A	40 A
U-6LE1E5	6 mm ²	20 m	35 A	40 A

(3-phase)

	(A) Power supply		Time delay capacity	
	Wire size	Max. length	Fuse	Circuit breaker
U-4LE1E8	2.5 mm ²	58 m	20 A	20 A
U-5LE1E8	2.5 mm ²	49 m	20 A	20 A
U-6LE1E8	2.5 mm ²	41 m	20 A	20 A

Indoor unit

Type	(B) Power supply	Time delay fuse or circuit capacity
	2.5 mm ²	
K1	Max. 150 m	10 – 16 A
D1, L1, U1, Y1, T1, F1, M1, P1, R1	Max. 130 m	10 – 16 A
E1	Max. 60 m	10 – 16 A

Control wiring

(C) Inter-unit (between outdoor and indoor units) control wiring
0.75 mm ² (AWG #18) Use shielded wiring*
Max. 1,000 m

NOTE * With ring-type wire terminal.

(D) Remote control wiring	(E) Control wiring for group control
0.75 mm ² (AWG #18)	0.75 mm ² (AWG #18)
Max. 500 m	Max. 200 m (Total)

3. Electrical Wiring

3-3. Wiring System Diagrams

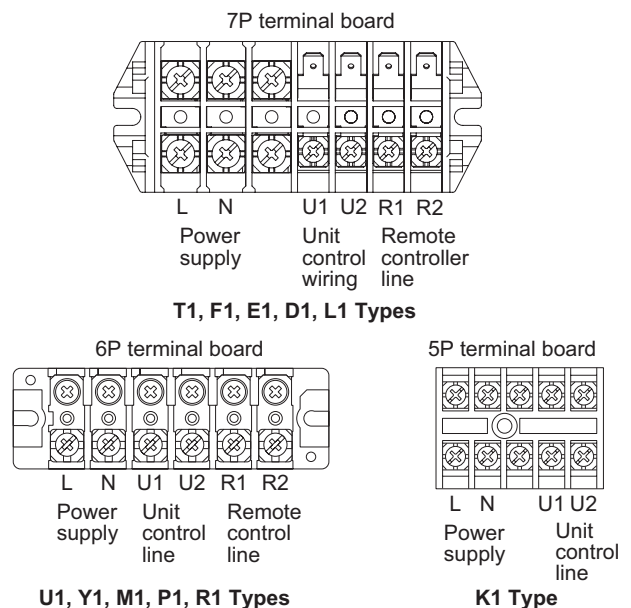
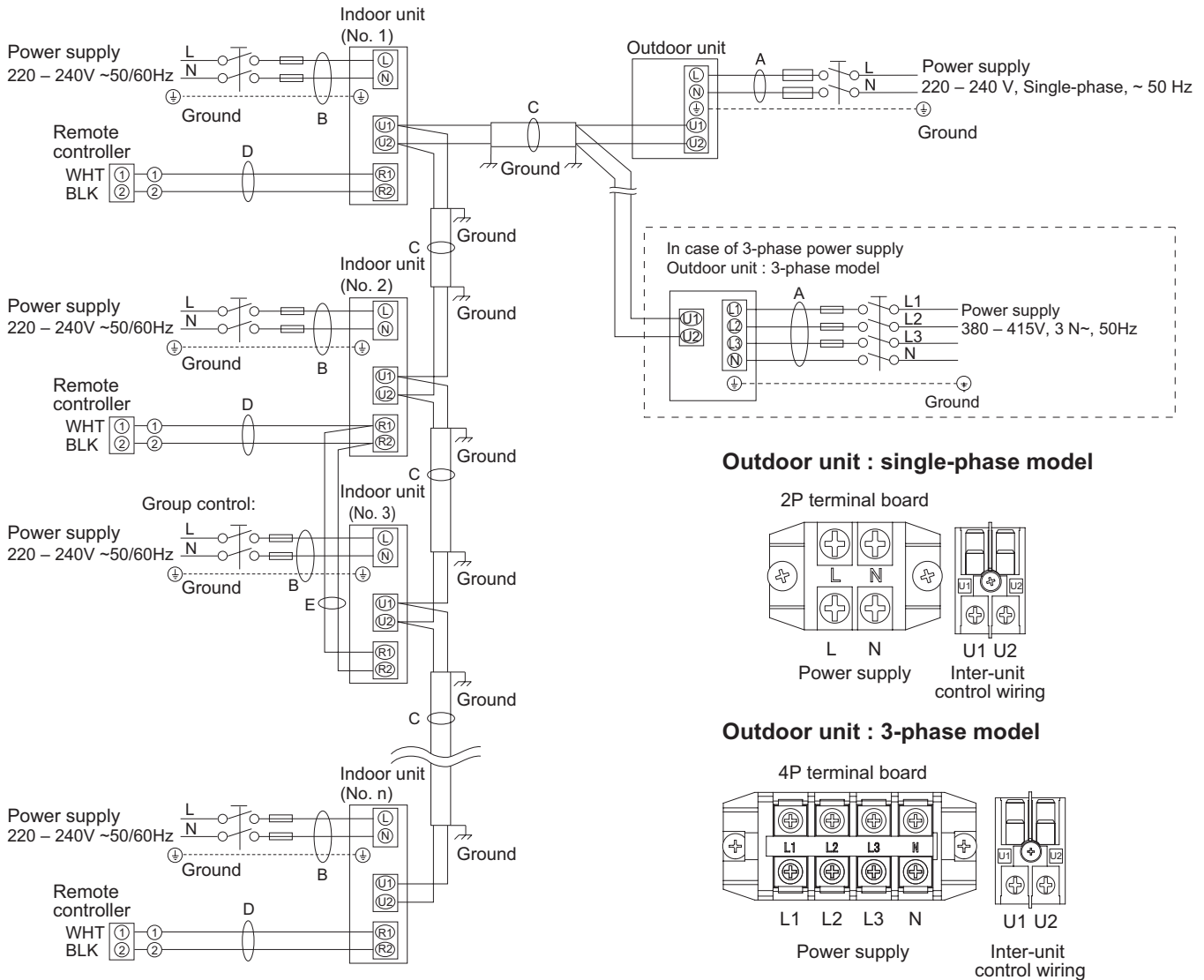


Fig. 2-1

3. Electrical Wiring



CAUTION

- (1) When linking outdoor units in a network, disconnect the terminal extended from the short plug (CN-TERMINAL, 2P Black, location: right bottom on the outdoor main control PCB) from all outdoor units except any one of the outdoor units.
(When shipping: In shorted condition.)

For a system without link (no connection wiring between outdoor units), do not remove the short plug.

- (2) Do not install the inter-unit control wiring in a way that forms a loop. (Fig. 2-2)

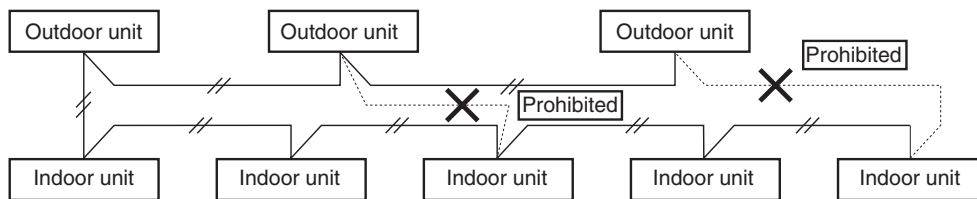


Fig. 2-2

- (3) Do not install inter-unit control wiring such as star branch wiring. Star branch wiring causes mis-address setting.

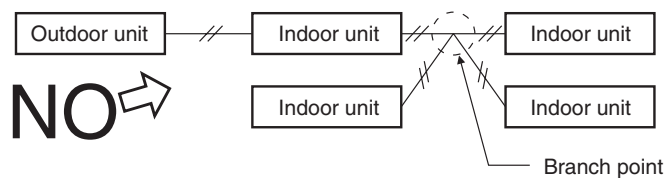


Fig. 2-3

- (4) If branching the inter-unit control wiring, the number of branch points should be 16 or fewer.
(Branches less than 1 m are not included in the total branch number.) (Fig. 2-4)

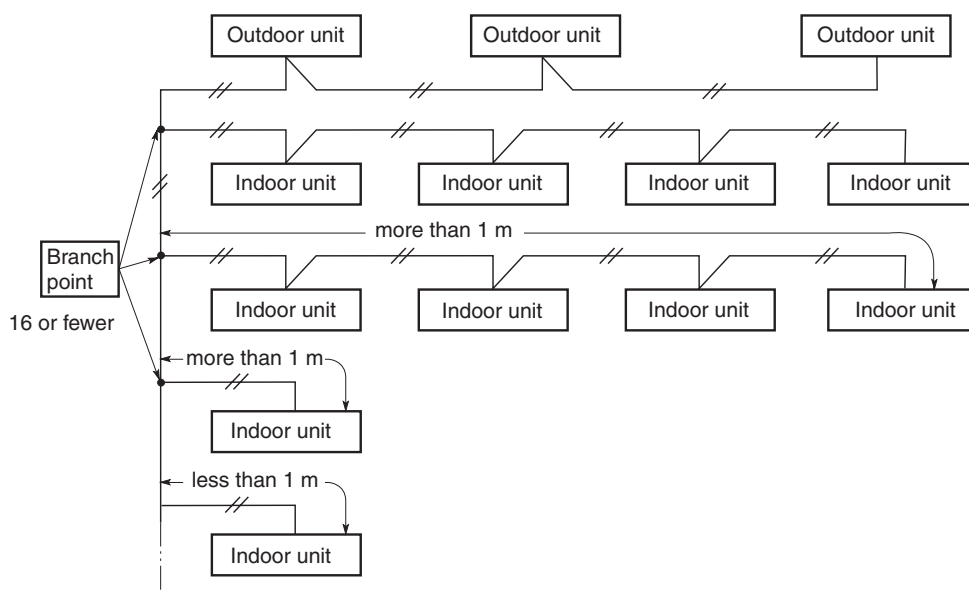


Fig. 2-4

3. Electrical Wiring

(5) Use shielded wires for inter-unit control wiring (c) and ground the shield on both sides, otherwise misoperation from noise may occur. (Fig. 2-5)
Connect wiring as shown in Section “3-3. Wiring System Diagram.”

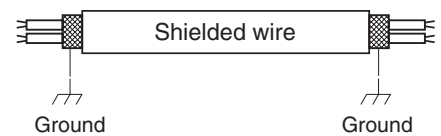


Fig. 2-5

(6) Use the standard power supply cables for Europe (such as H05RN-F or H07RN-F which conform to CENELEC (HAR) rating specifications) or use the cables based on IEC standard. (code designation, 60245 IEC 57, 60245 IEC 66)



WARNING

Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist.

Therefore, ensure that all wiring is tightly connected.

When connecting each power wire to the terminal, follow the instructions on “How to connect wiring to the terminal” and fasten the wire securely with the fixing screw of the terminal plate.

How to connect wiring to the terminal

■ For stranded wiring

- (1) Cut the wire end with cutting pliers, then strip the insulation to expose the stranded wiring about 10 mm and tightly twist the wire ends. (Fig. 2-6)
- (2) Using a Phillips head screwdriver, remove the terminal screw(s) on the terminal plate.
- (3) Using a ring connector fastener or pliers, securely clamp each stripped wire end with a ring pressure terminal.
- (4) Place the ring pressure terminal, and replace and tighten the removed terminal screw using a screwdriver. (Fig. 2-7)

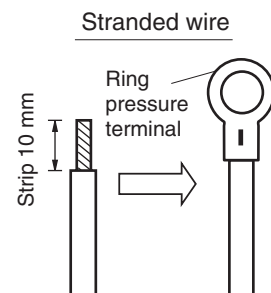


Fig. 2-6

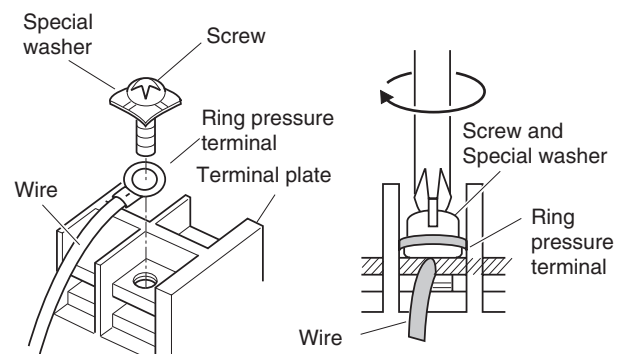


Fig. 2-7

■ Examples of shield wires

- (1) Remove cable coat not to scratch braided shield. (Fig. 2-8)
- (2) Unbraid the braided shield carefully and twist the unbraided shield wires tightly together. Insulate the shield wires by covering them with an insulation tube or wrapping insulation tape around them. (Fig. 2-9)
- (3) Remove coat of signal wire. (Fig. 2-10)
- (4) Attach ring pressure terminals to the signal wires and the shield wires insulated in Step (2). (Fig. 2-11)



Fig. 2-8

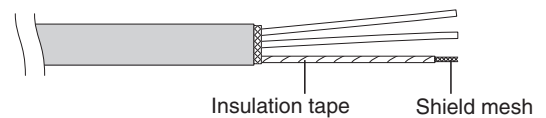


Fig. 2-9

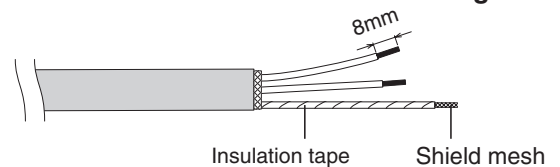


Fig. 2-10

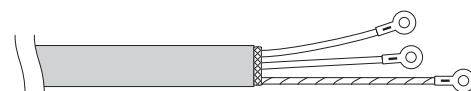


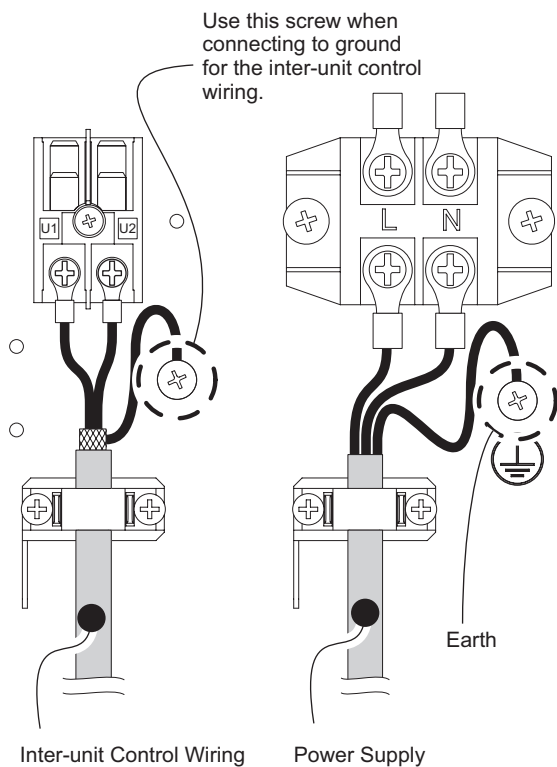
Fig. 2-11

3. Electrical Wiring

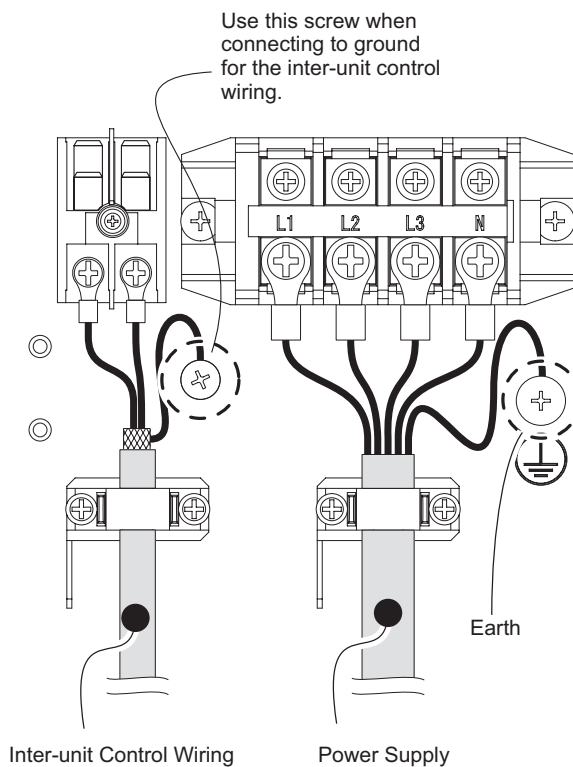
■ Wiring sample

Outdoor Unit : Mini VRF

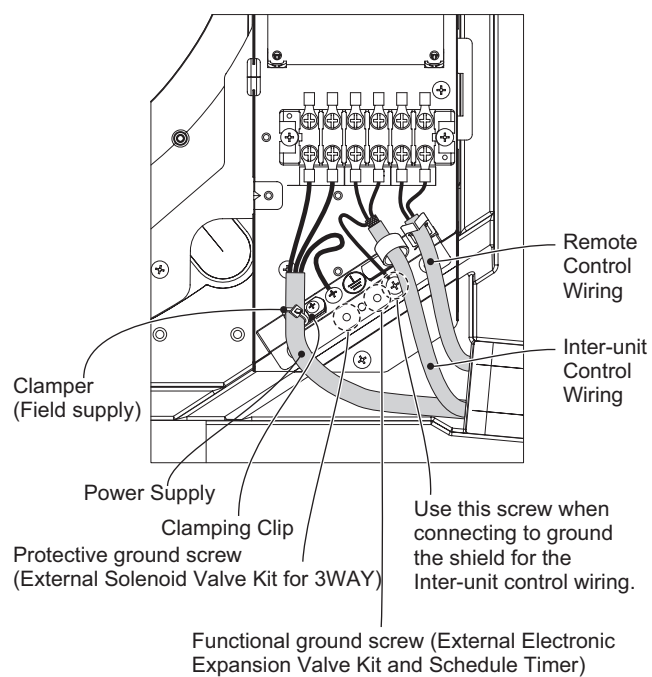
For single-phase : U-4LE1E5, U-5LE1E5, U-6LE1E5



For 3-phase : U-4LE1E8, U-5LE1E8, U-6LE1E8

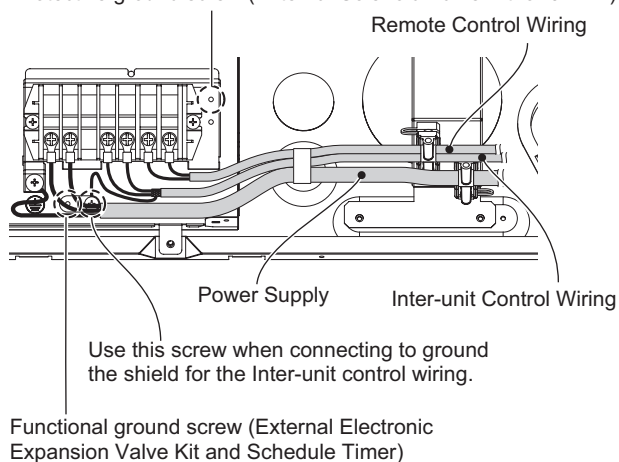


Indoor Unit : U1 Type



Indoor Unit : T1 type

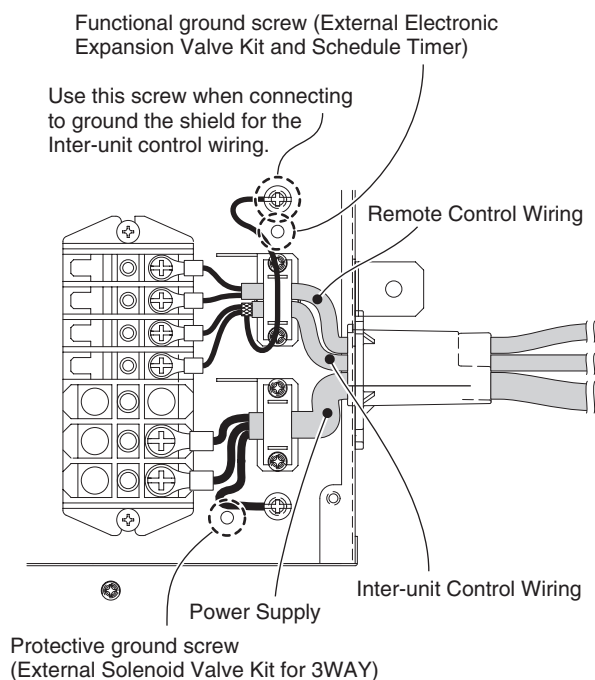
Protective ground screw (External Solenoid Valve Kit for 3WAY)



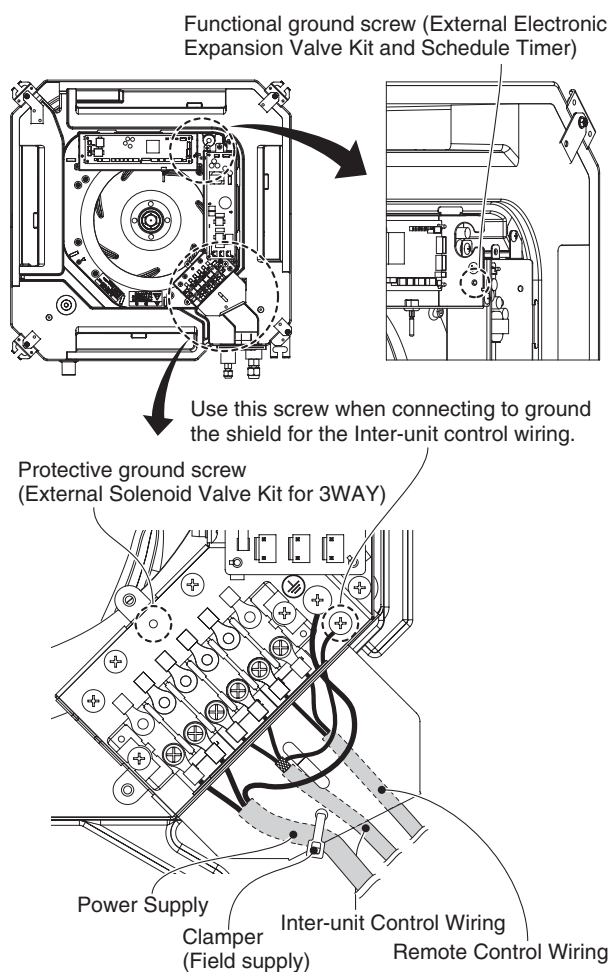
3. Electrical Wiring

■ Wiring sample

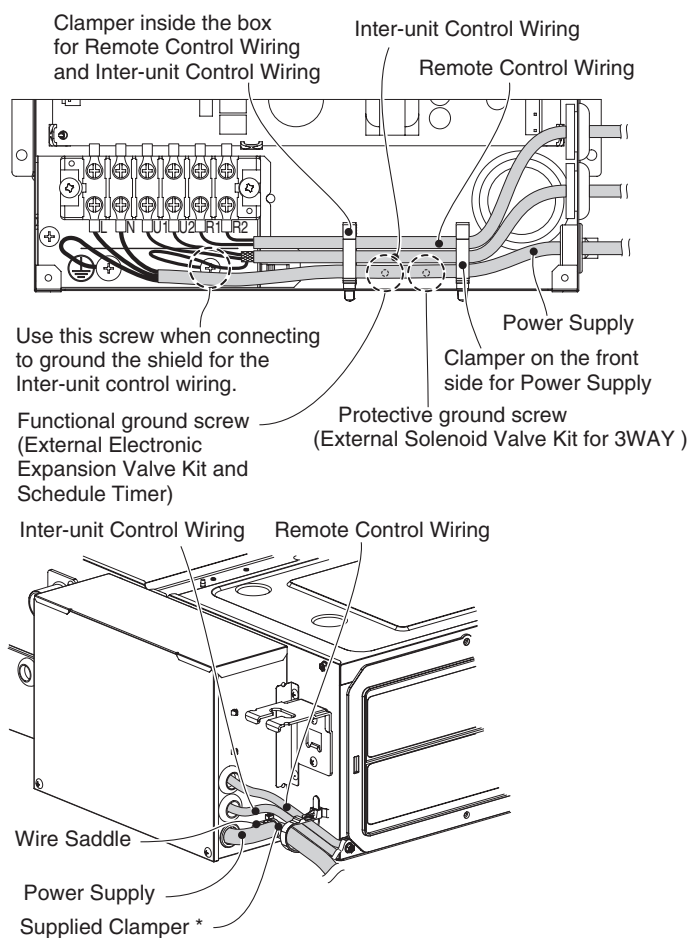
Indoor Unit : E1 Type (73, 106, 140)



Indoor Unit : Y1 Type



Indoor Unit : M1 Type



* Route the power supply cord through the ring of the supplied wire saddle and clamp the cord.

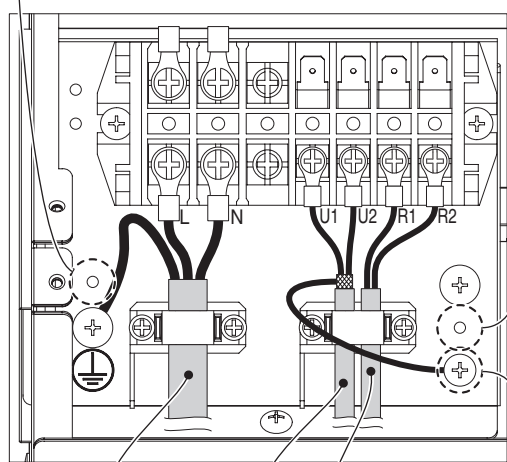
3. Electrical Wiring

■ Wiring sample

Indoor Unit : F1 Type

Protective ground screw (External Solenoid Valve Kit for 3WAY)

Functional ground screw (External Electronic Expansion Valve Kit and Schedule Timer)



Power Supply

Remote Control Wiring

Inter-unit Control Wiring

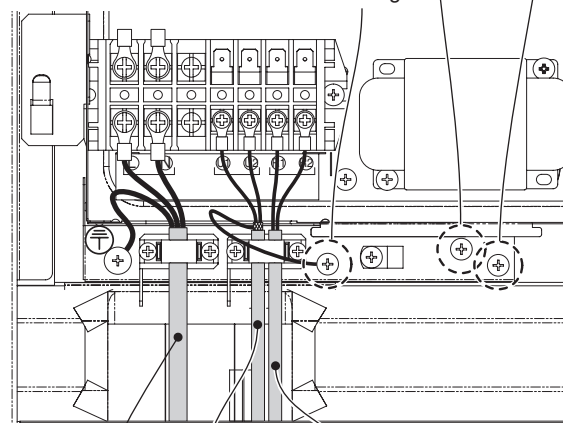
Use this screw when connecting to ground the shield for the Inter-unit control wiring.

Indoor Unit : L1 Type

Protective ground screw (External Solenoid Valve Kit for 3WAY)

Functional ground screw (External Electronic Expansion Valve Kit and Schedule Timer)

Use this screw when connecting to ground the shield for the Inter-unit control wiring.



Power Supply

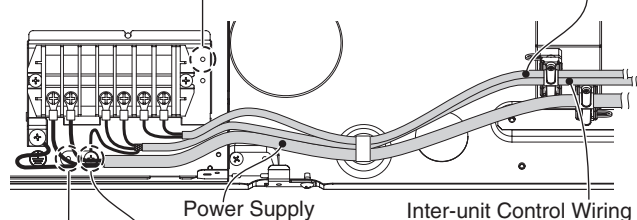
Inter-unit Control Wiring

Remote Control Wiring

Indoor Unit : D1 Type

Protective ground screw (External Solenoid Valve Kit for 3WAY)

Remote Control Wiring



Power Supply

Inter-unit Control Wiring

Use this screw when connecting to ground the shield for the Inter-unit control wiring.

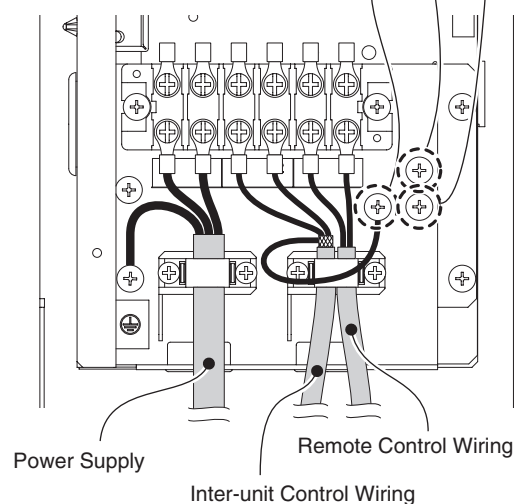
Functional ground screw (External Electronic Expansion Valve Kit and Schedule Timer)

Indoor Unit : P1 and R1 Types

Protective ground screw (External Solenoid Valve Kit for 3WAY)

Functional ground screw (External Electronic Expansion Valve Kit and Schedule Timer)

Use this screw when connecting to ground the shield for the Inter-unit control wiring.



Power Supply

Inter-unit Control Wiring

Remote Control Wiring

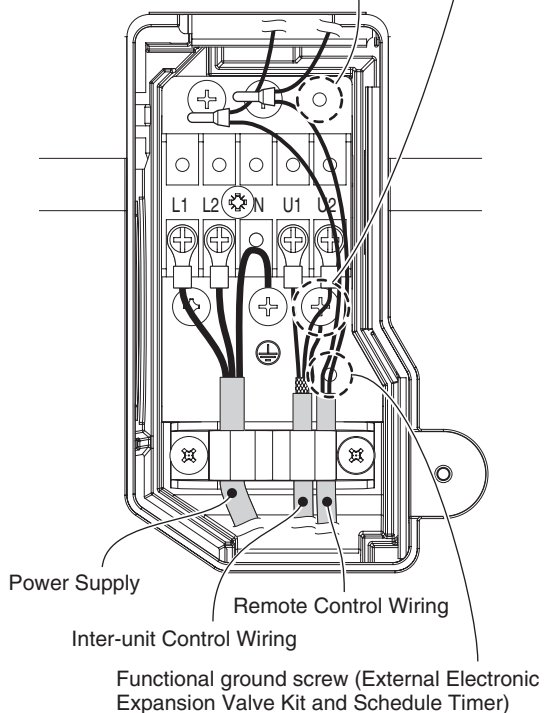
3. Electrical Wiring

■ Wiring sample

Indoor Unit : K1 Type (22, 28, 36)

Use this screw when connecting to ground the shield for the Inter-unit control wiring.

Protective ground screw (External Solenoid Valve Kit for 3WAY)



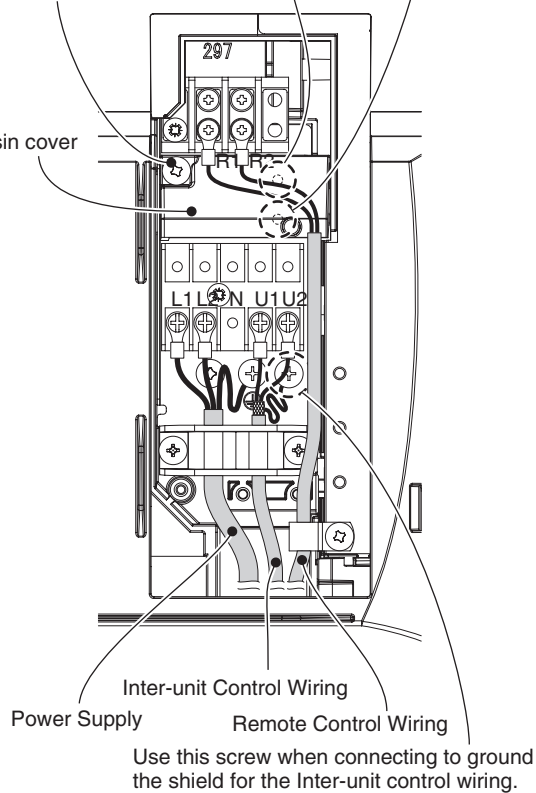
Indoor Unit : K1 Type (45, 56, 73, 106)

Functional ground screw (External Electronic Expansion Valve Kit and Schedule Timer) *

Protective ground screw (External Solenoid Valve Kit for 3WAY) *

Fixture screw for resin cover

Resin cover



* As to functional ground screw and protective ground screw, remove the fixture screw and resin cover. Then, carry out earth ground work.

4. Installation Instructions

4-1. Selecting the Installation Site for Outdoor Unit

AVOID:

- heat sources, exhaust fans, etc.
- damp, humid or uneven locations
- indoors (no-ventilation location)

DO:

- choose a place as cool as possible.
- choose a place that is well ventilated and outside air temperature does not exceed maximum 45°C constantly.
- allow enough room around the unit for air intake/exhaust and possible maintenance. (Figs. 2-13, 2-14, 2-15)
- use lug bolts or equal to bolt down unit, reducing vibration and noise.

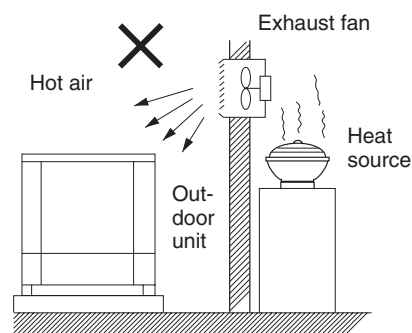


Fig. 2-12

Installation space for outdoor unit

Install the outdoor unit with a sufficient space around the outdoor unit for operation and maintenance.

- (1) Obstructions on the left side, right side and rear side (Front side and above the unit are opened).

(Fig. 2-13)

A	*B	C
15 cm or more	25 cm or more	20 cm or more

- * The outdoor units require necessary space to unscrew on the rear side for maintenance and if a sufficient maintenance space is provided on the rear side (40 cm), the space of over 15 cm is enough at the right side.

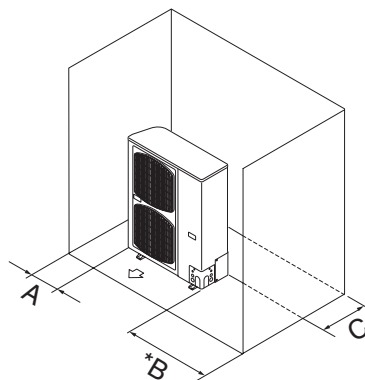


Fig. 2-13

- (2) Obstructions on the front side and rear side (Left side, right side and above the unit are opened). (Fig. 2-14)

*A	B
50 cm or more	15 cm or more

- * For compressor replacement, 50 cm or more is required on the front side even when using the air discharge chamber.

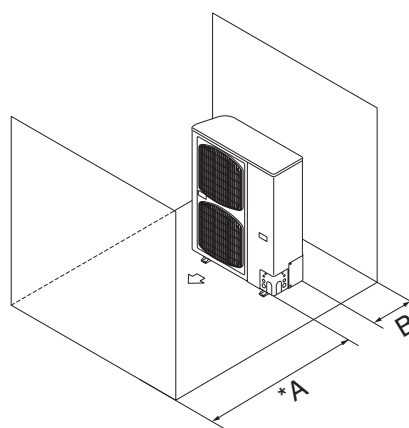


Fig. 2-14

- (3) Obstructions on the front side and above the unit (Left side, right side and rear side are opened). (Fig. 2-15)

A	B
50 cm or more	30 cm or more

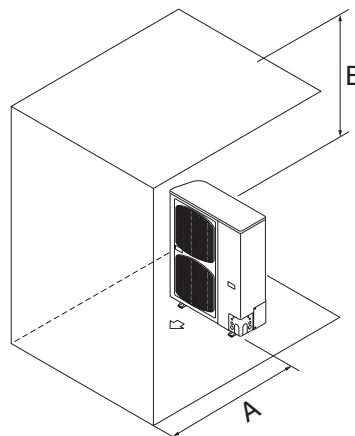


Fig. 2-15

4. Installation Instructions

In case of multiple installations

- Provide a solid base (concrete block, 10 × 40 cm beams or equal), a minimum of 15 cm above ground level to reduce humidity and protect the unit against possible water damage and decreased service life. (Fig. 2-16)
- Use lug bolts or equal to bolt down unit, reducing vibration and noise.

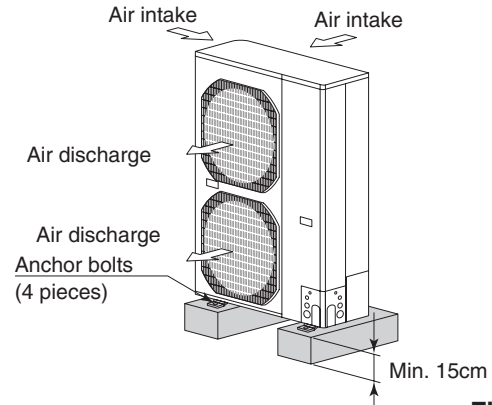


Fig. 2-16

4-2. Air Discharge Chamber for Top Discharge

Be sure to install an air-discharge chamber in the field when:

- It is difficult to keep a space of min. 50 cm between the air discharge outlet and an obstacle.
- The air discharge outlet is facing a sidewalk and discharged hot air may annoy passers-by. Refer to Fig. 2-17.

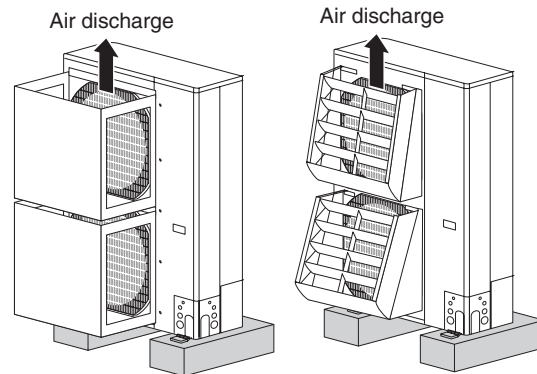


Fig. 2-17

4-3. Installing the Unit in Heavy Snow Areas

In locations with strong wind, snow-proof ducting should be fitted and direct exposure to the wind should be avoided as much as possible.

■ Countermeasures against snow and wind

In regions with snow and strong wind, the following problems may occur when the outdoor unit is not provided with a platform and snow-proof ducting:

- The outdoor fan may not run and damage to the unit may occur.
- There may be no air flow.
- The tubing may freeze and burst.
- The condenser pressure may drop because of strong wind, and the indoor unit may freeze.

In regions with significant snowfall, the outdoor unit should be provided with a platform and snow-proof duct.

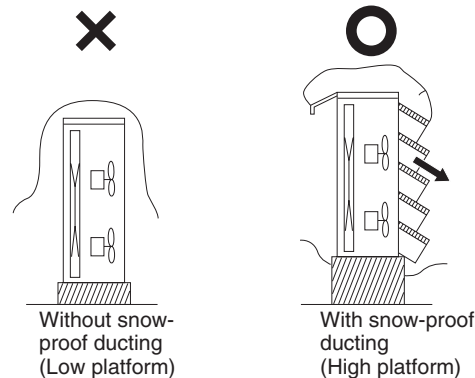


Fig. 2-18

4-4. Precautions for Installation in Heavy Snow Areas

- (1) The platform should be higher than the max. snow depth. (Fig. 2-18)
- (2) The 2 anchoring feet of the outdoor unit should be used for the platform, and the platform should be installed beneath the air intake side of outdoor unit.
- (3) The platform foundation must be firm and the unit must be secured with anchor bolts.
- (4) In case of installation on a roof subject to strong wind, countermeasures must be taken to prevent the unit from being blown over.

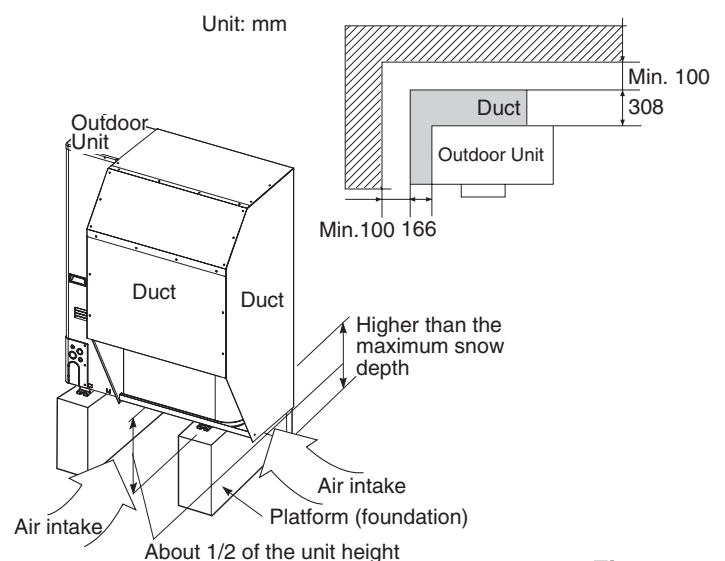


Fig. 2-19

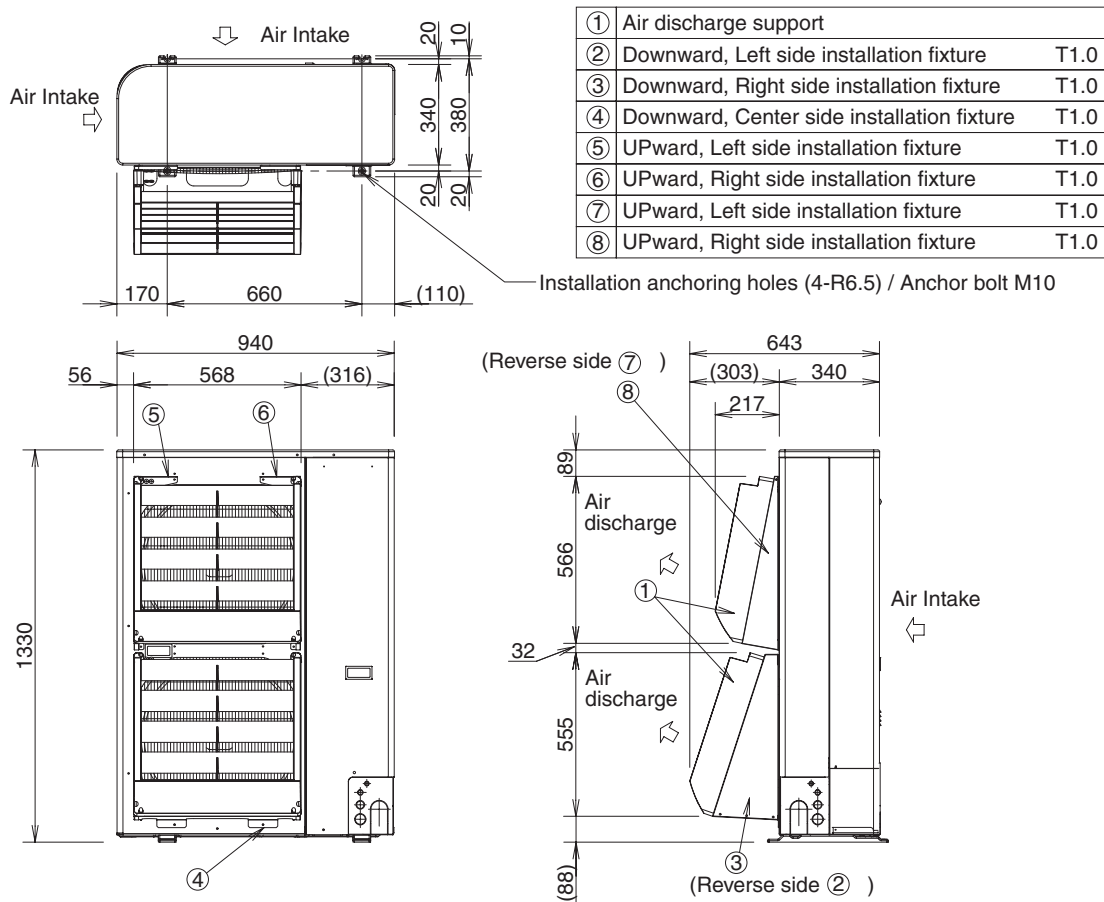
4. Installation Instructions

4-5. Dimensions of Air-Discharge Chamber

In snowy regions, if there is concern that snow may enter the air discharge chamber, remove the base of the chamber before using.

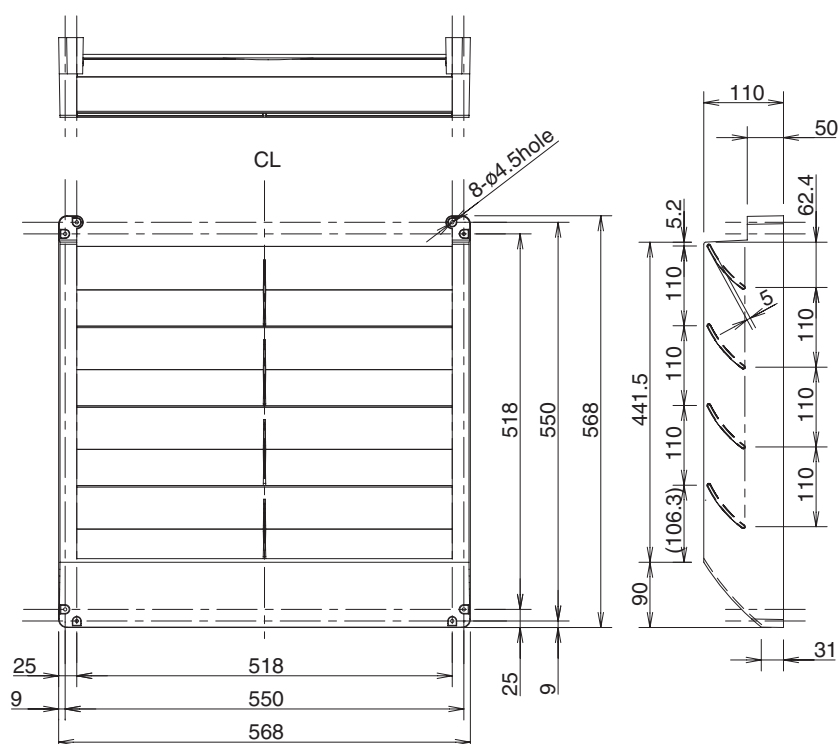
Reference diagram

Unit: mm



① Reference diagram for air-discharge support (field supply)

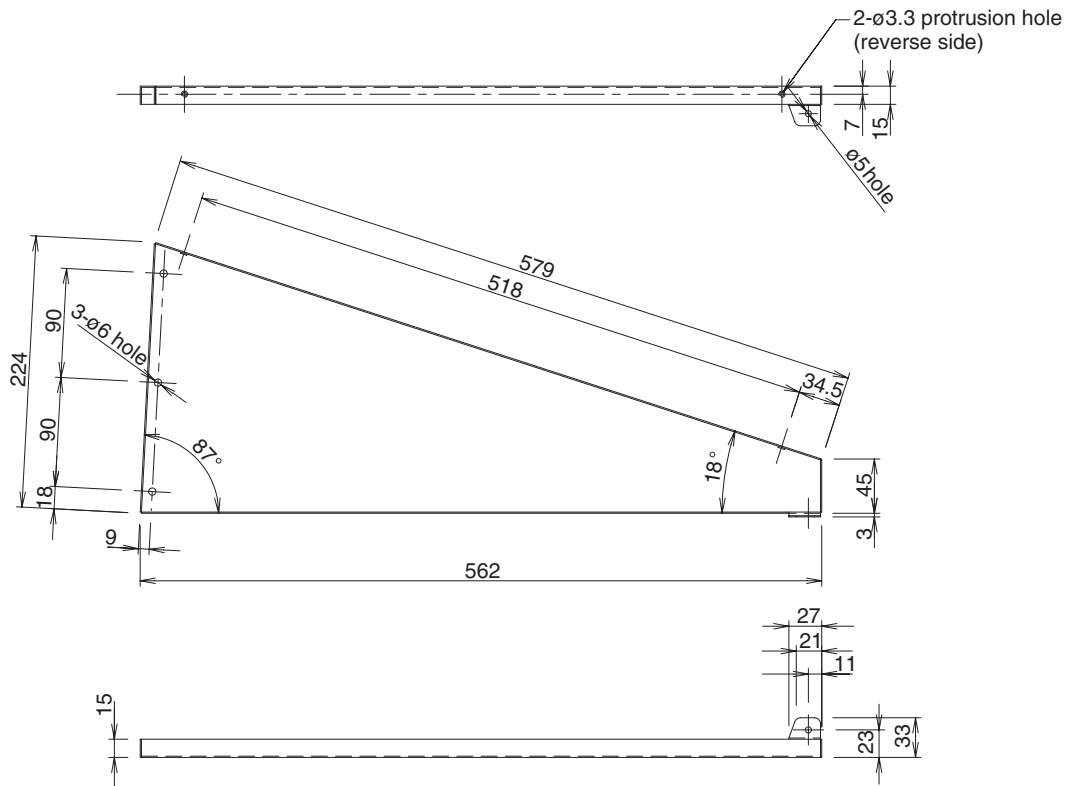
Unit: mm



4. Installation Instructions

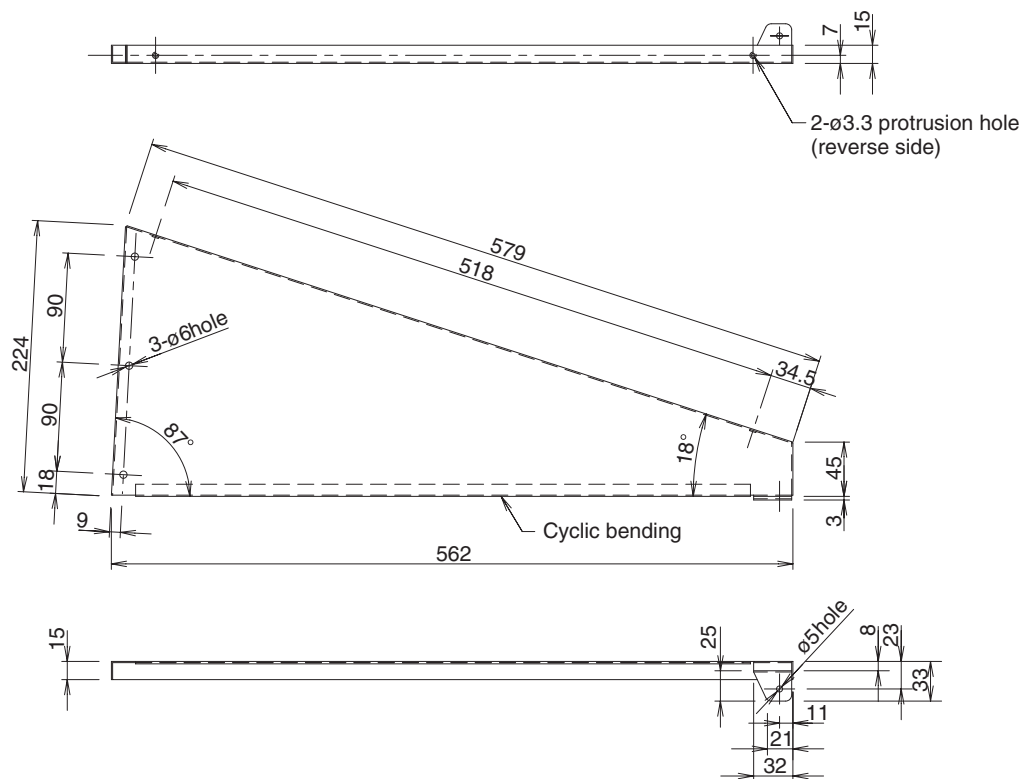
② Reference diagram for downward left side installation fixture (field supply)

Unit: mm



③ Reference diagram for downward right side installation fixture (field supply)

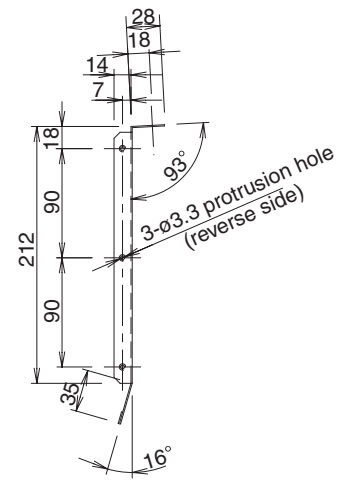
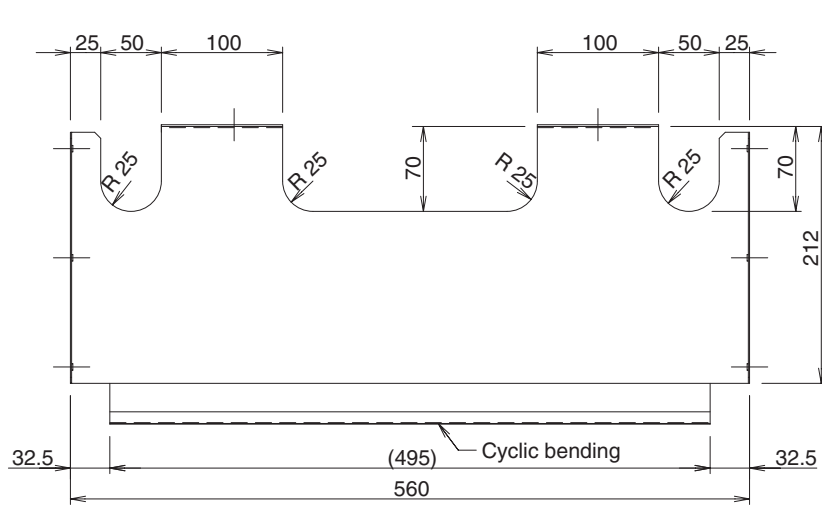
Unit: mm



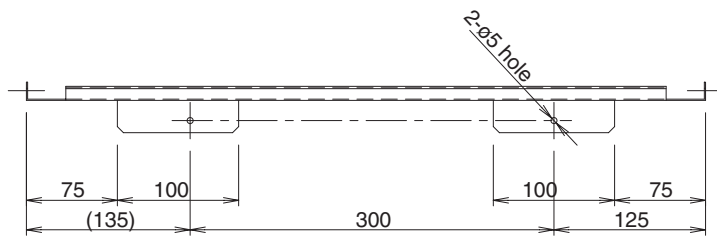
4. Installation Instructions

④ Reference diagram for downward center side installation fixture (field supply)

Unit: mm



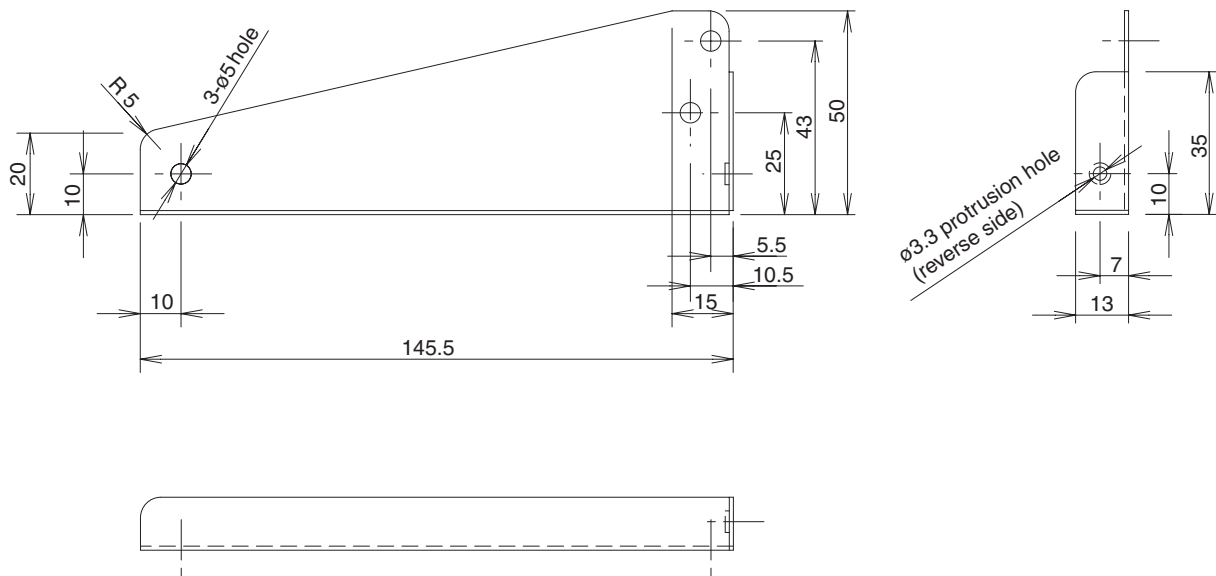
Same on reverse side



4. Installation Instructions

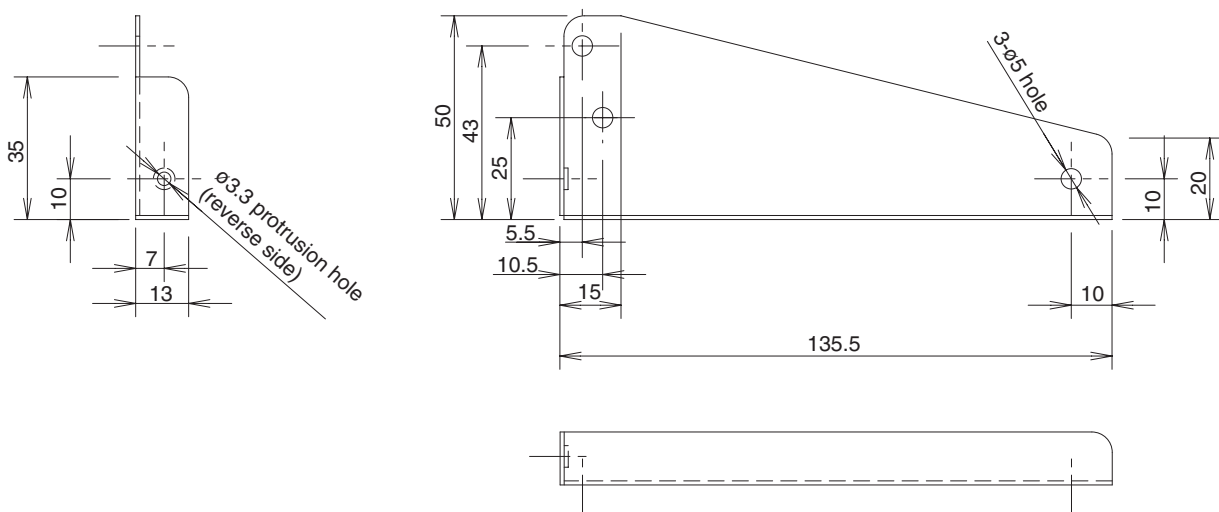
⑤ Reference diagram for upward left side installation fixture (field supply)

Unit: mm



⑥ Reference diagram for upward right side installation fixture (field supply)

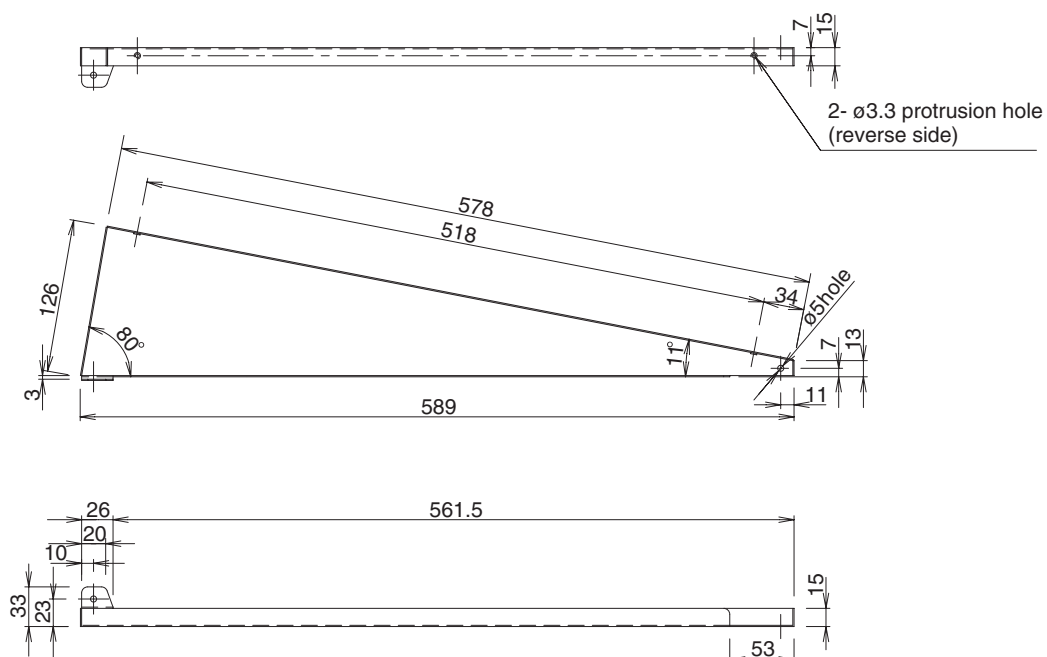
Unit: mm



4. Installation Instructions

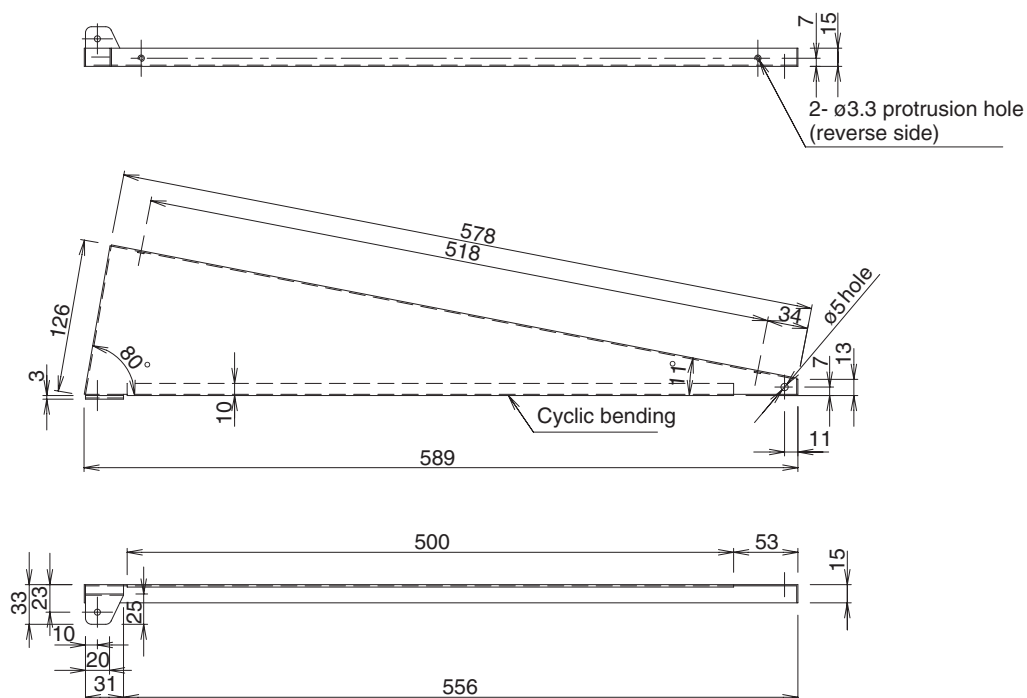
⑦ Reference diagram for upward left side installation fixture (field supply)

Unit: mm



⑧ Reference diagram for upward right side installation fixture (field supply)

Unit: mm



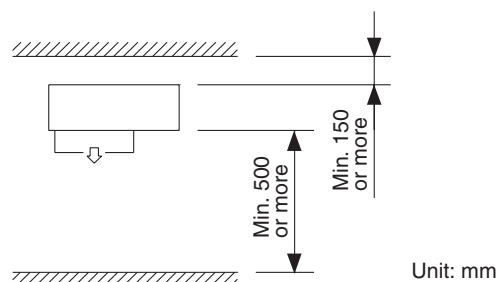
4. Installation Instructions

Required space around outdoor unit

If the air discharge chamber is used, the space shown below must be secured around the outdoor unit.

If the unit is used without the required space, a protective device may activate, preventing the unit from operating.

(1) Single-unit installation



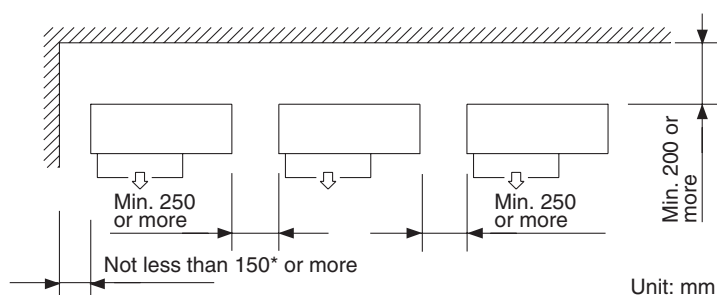
CAUTION

The top and both sides must remain open.

If there are obstacles to the front and rear of the outdoor unit, the obstacle at either the front or rear must be no taller than the height of the outdoor unit.

(2) Multiple-unit installation

Installation in lateral rows



NOTE

- The amount of space is required for removing the screws on the rear of the unit.
If in case the sufficient space for maintenance is ensured on the rear of the outdoor unit, installation is possible with the space of both sides of not less than 150mm where marked with * mark.



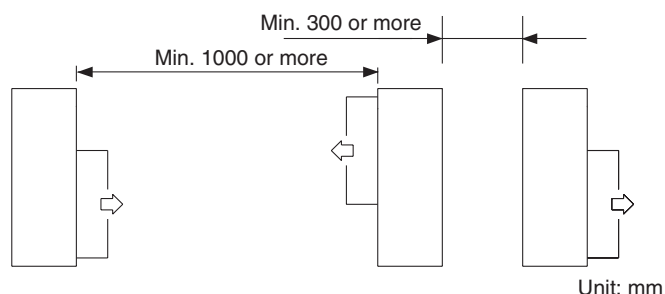
CAUTION

The front and top must remain open.

The obstacles must be no taller than the height of the outdoor unit.

Installation in front-rear rows

Installation with intakes facing
intakes or outlets facing outlets



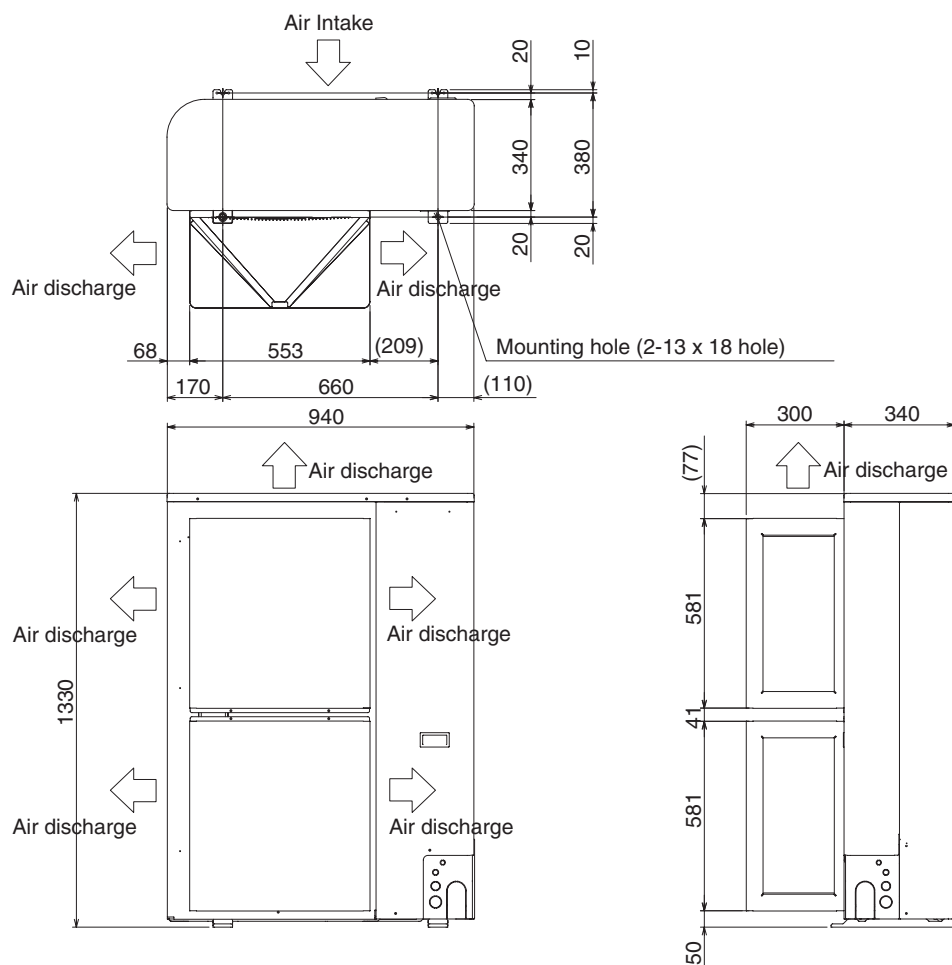
CAUTION

The front and both sides must remain open.

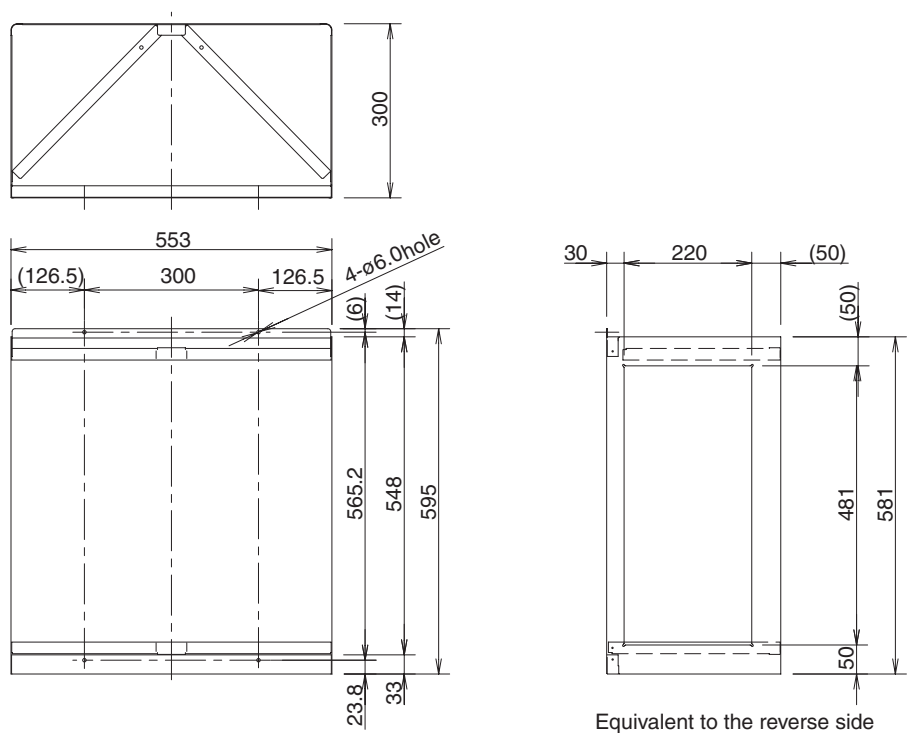
4. Installation Instructions

4-6. Dimensions of Wind-proof Duct

Reference diagram



Reference diagram for wind-proof duct (field supply)



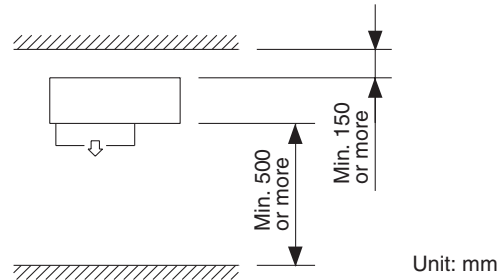
4. Installation Instructions

Required space around outdoor unit

If the wind-proof duct is used, the space shown below must be secured around the outdoor unit.

If the unit is used without the required space, a protective device may activate, preventing the unit from operating.

(1) Single-unit installation



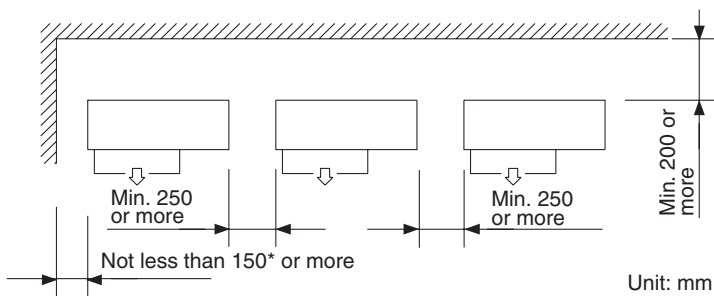
CAUTION

The top and both sides must remain open.

If there are obstacles to the front and rear of the outdoor unit, the obstacle at either the front or rear must be no taller than the height of the outdoor unit.

(2) Multiple-unit installation

Installation in lateral rows



CAUTION

The front and top must remain open.

The obstacles must be no taller than the height of the outdoor unit.

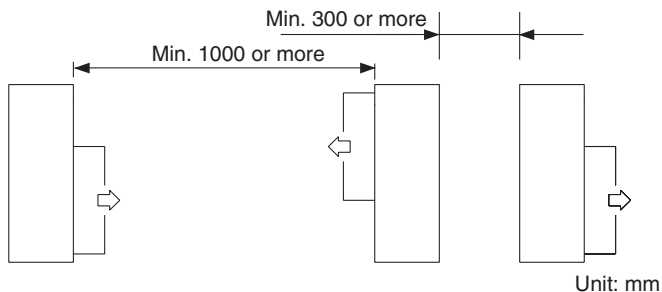
NOTE

- The amount of space is required for removing the screws on the rear of the unit.

If in case the sufficient space for maintenance is ensured on the rear of the outdoor unit, installation is possible with the space of both sides of not less than 150mm where marked with * mark.

Installation in front-rear rows

Installation with intakes facing
intakes or outlets facing outlets



CAUTION

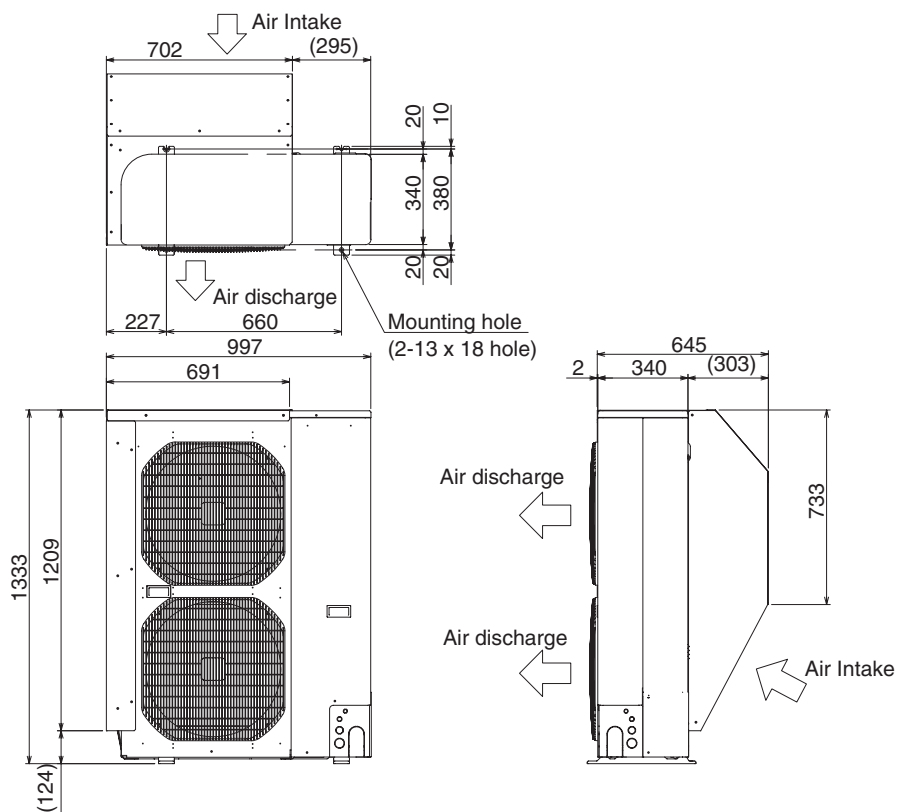
The front and both sides must remain open.

4. Installation Instructions

4-7. Dimensions of Snow-Proof Vents

Reference diagram

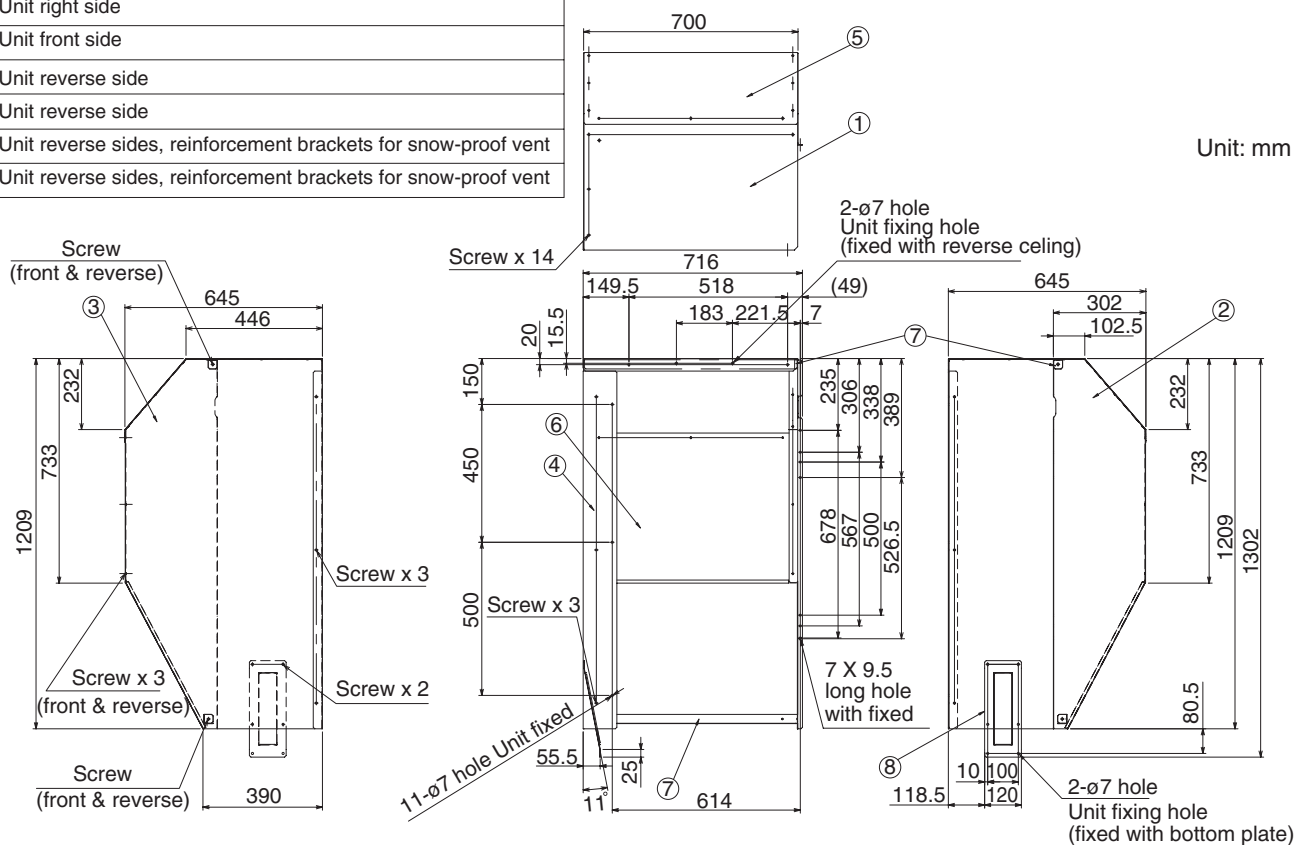
Unit: mm



Dimensions of Snow-Proof Vents (field supply)

①	Unit top, snow-proof vent
②	Unit left side
③	Unit right side
④	Unit front side
⑤	Unit reverse side
⑥	Unit reverse side
⑦	Unit reverse sides, reinforcement brackets for snow-proof vent
⑧	Unit reverse sides, reinforcement brackets for snow-proof vent

Unit: mm



4. Installation Instructions

Required space around outdoor unit

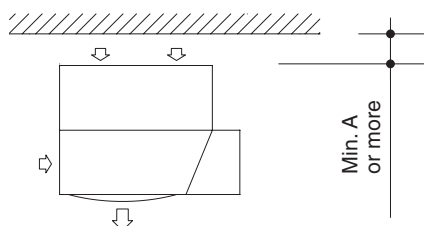
If the snow-proof vents is used, the space shown below must be secured around the outdoor unit.

If the unit is used without the required space, a protective device may activate, preventing the unit from operating.

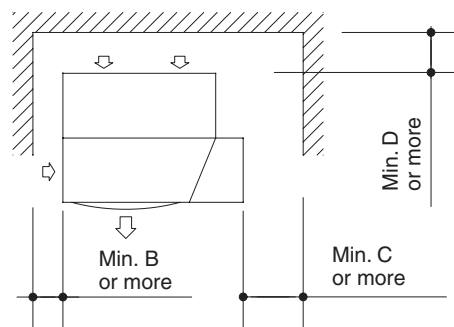
[Obstacle to the rear of unit]

● Top is open:

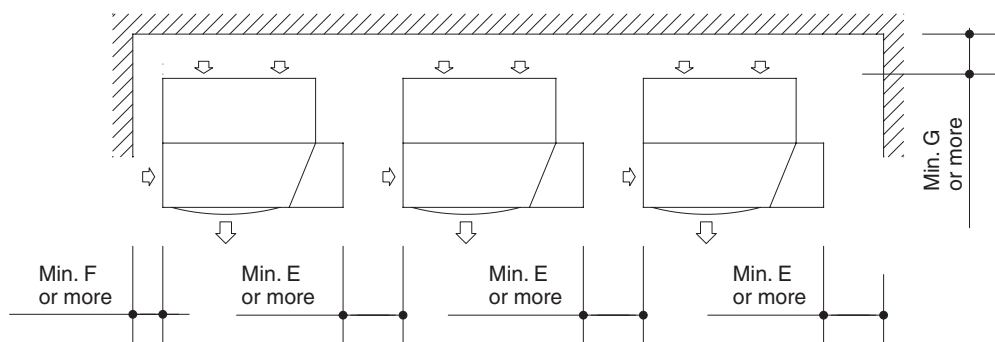
(1) Single-unit installation



(2) Obstacles on both sides



(3) Multiple-unit installation (2 or more units)



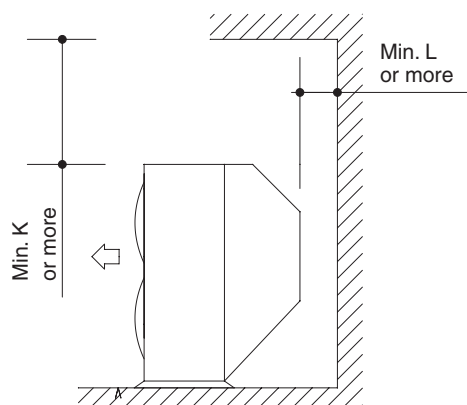
Unit: mm

A	B	C	D	E	F	G
150	150	250*	200	250	150	200

NOTE

1. In cases 2 and 3 the height of the obstacle must be no taller than the height of the outdoor unit.
2. The amount of space is required for removing the screw on the rear of the unit.
If in case the sufficient space for maintenance is ensured on the rear of the outdoor unit, installation is possible with the space of both sides of not less than 150mm where marked with * mark.

● Top is blocked by an obstacle:



Unit: mm

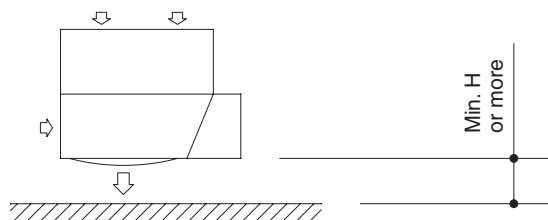
K	L
500	150

4. Installation Instructions

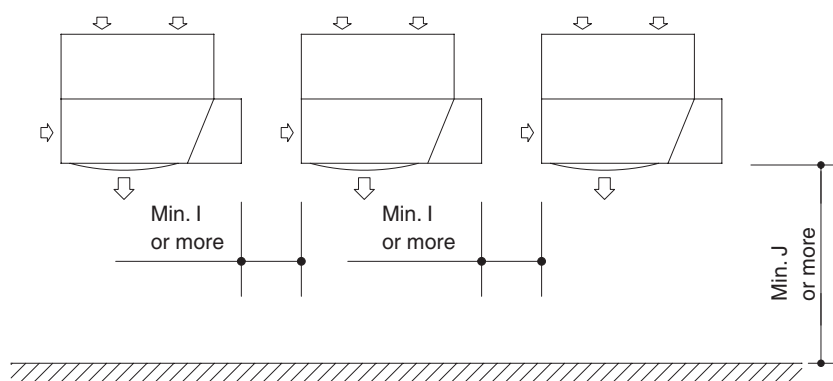
[Obstacle to the front of unit]

● Top is open:

(1) Single-unit installation



(2) Multiple-unit installation (2 or more units)



Unit: mm

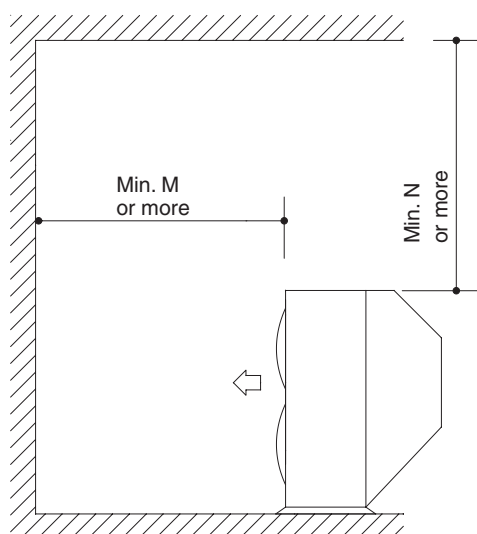
H	I	J
500	250*	1000

NOTE

The amount of space is required for removing the screw on the rear of the unit.

If in case the sufficient space for maintenance is ensured on the rear of the outdoor unit, installation is possible with the space of both sides of not less than 150mm where marked with * mark.

● Top is blocked by an obstacle:



Unit: mm

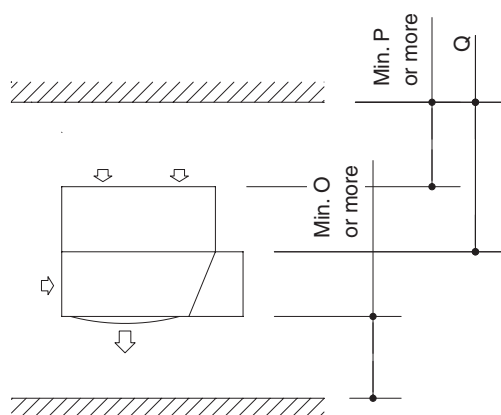
M	N
500	300

4. Installation Instructions

[Obstacle to the front and rear of unit]

- The top and both sides must remain open. Either the obstacle to the front or the obstacle to the rear must be no taller than the height of the outdoor unit.

(1) Single-unit installation



Dimension Q

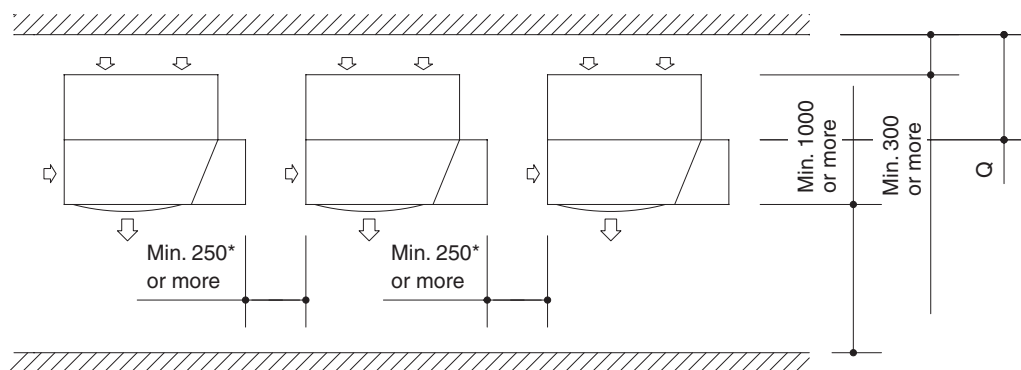
If a snow protection duct is attached after the unit is installed, verify that dimension Q is 500 mm or more.

Unit: mm

O	P
500	150

(2) Obstacles on both sides

Installation is possible with the maximum 3 outdoor units.



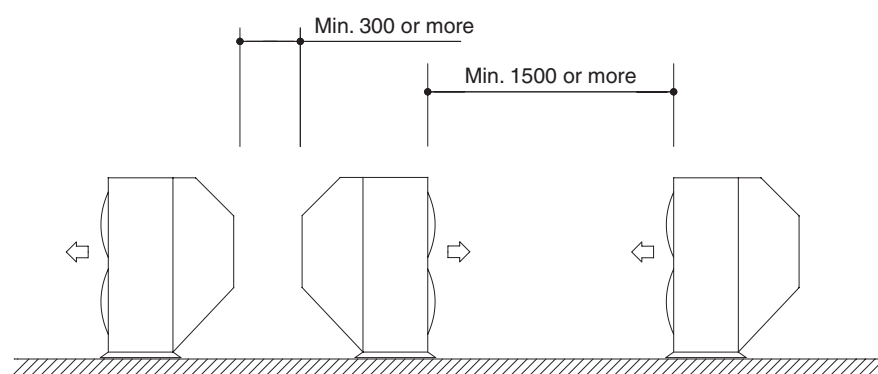
NOTE

The amount of space is required for removing the screws on the rear of the unit.

If in case the sufficient space for maintenance is ensured on the rear of the outdoor unit, installation is possible with the space of both sides of not less than 150mm where marked with * mark.

[Installation in front-rear rows]

- The top and both sides must remain open. Either the obstacle to the front or the obstacle to the rear must be no taller than the height of the outdoor unit.



4. Installation Instructions

4-8. Installing the Outdoor Unit

- Use concrete or a similar material to create the base, and ensure good drainage.
- Ordinarily, ensure a base height of 5 cm or more.
If a drain pipe is used, or for use in cold-weather regions, ensure a height of 15 cm or more at the feet on both sides of the unit. (In this case, leave clearance below the unit for the drain pipe, and to prevent freezing of drainage water in cold-weather regions.)
- Refer to Fig. 2-20 for the anchor bolt dimensions.
- Be sure to anchor the feet with anchor bolts (M10). In addition, use anchoring washers on the top side. (Use large square 32 × 32 SUS washers with JIS nominal diameter of 10.) (Field supply)

4-9. Drainage Work

Follow the procedure below to ensure adequate draining for the outdoor unit.

- For the drain port dimensions, refer to Fig. 2-20.
- Ensure a base height of 15 cm or more at the feet on both sides of the unit.
- When using a drain pipe, install the drain socket (field supply) onto the drain port. Seal the other drain port with the rubber cap supplied with the drain socket.
- For details, refer to the instruction manual of the drain socket (field supply).
- After completing the installation work of the drain socket, make sure that the water does not leak from any part of connection.

4-10. Routing the Tubing and Wiring

- The tubing and wiring can be extended out in 4 directions (front, rear, right and down) :
 - The service valves are housed inside the unit.
To access them, remove the inspection panel.
(To remove the inspection panel, remove the 3 screws, then slide the panel downward and pull it toward you.)
- (1) If the routing direction is through the front, rear, or right, use a nipper or similar tool to cut out the knockout holes for the inter-unit control wiring outlet, power wiring outlet, and tubing outlet from the appropriate covers A and B. When routing the wiring, be sure to attach each supplied plastic bar to the edges around the wiring outlet holes in order to protect the wiring from scratches by the cutting burr.
 - (2) If the routing direction is down, use a nipper or similar tool to cut out the lower flange from cover A.

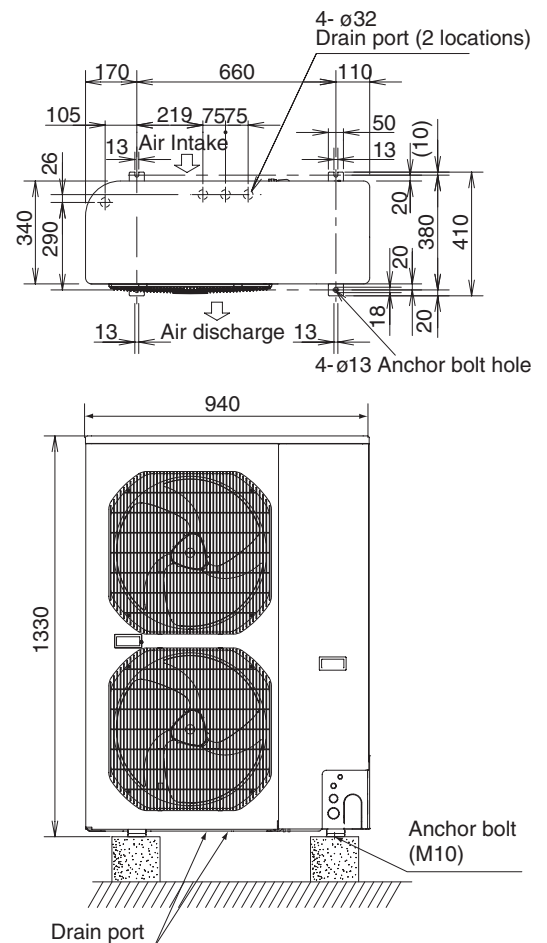


Fig. 2-20

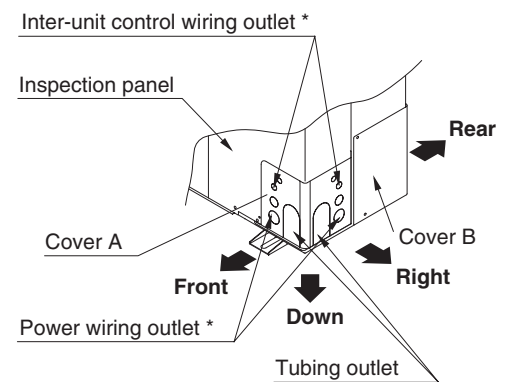


Fig. 2-21

NOTE

- * When not using a conduit material or existing materials, measure and cut the supplied plastic bar according to the size of the wiring outlet hole. Then attach the plastic bar to the edges around the hole. Use sealing putty to seal off the hole to prevent the dust and insects from entering the wiring outlet holes.



CAUTION

- Route the tubing so that it does not contact the compressor, panel, or other parts inside the unit. Increased noise will result if the tubing contacts these parts.
- When routing the tubing, use a tube bender to bend the tubes.

5. HOW TO PROCESS TUBING

5. HOW TO PROCESS TUBING

Both the liquid tubing and gas tubing sides are connected by a flare nut.

5-1. Connecting the Refrigerant Tubing

Use of the Flaring Method

Many of conventional split system air conditioners employ the flaring method to connect refrigerant tubes which run between indoor and outdoor units. In this method, the copper tubes are flared at each end and connected with flare nuts.

Flaring Procedure with a Flare Tool

- (1) Cut the copper tube to the required length with a tube cutter. It is recommended to cut approx. 30 – 50 cm longer than the tubing length you estimate.
- (2) Remove burrs at the end of the copper tube with a tube reamer or file. This process is important and should be done carefully to make a good flare. (Fig. 2-22)

NOTE

When reaming, hold the tube end downward and be sure that no copper scraps fall into the tube. (Fig. 2-23)

- (3) Remove the flare nut from the unit and be sure to mount it on the copper tube.
- (4) Make a flare at the end of the copper tube with a flare tool. (Fig. 2-24)

NOTE

A good flare should have the following characteristics:

- inside surface is glossy and smooth
- edge is smooth
- tapered sides are of uniform length

Caution Before Connecting Tubes Tightly

- (1) Apply a sealing cap or water-proof tape to prevent dust or water from entering the tubes before they are used.
 - (2) Be sure to apply refrigerant lubricant to the matching surfaces of the flare and union before connecting them together. This is effective for reducing gas leaks. (Fig. 2-25)
 - (3) For proper connection, align the union tube and flare tube straight with each other, then screw in the flare nut lightly at first to obtain a smooth match. (Fig. 2-26)
- Adjust the shape of the liquid tube using a tube bender at the installation site and connect it to the liquid tubing side valve using a flare.

Cautions During Brazing

- Replace air inside the tube with nitrogen gas to prevent copper oxide film from forming during the brazing process. (Oxygen, carbon dioxide and Freon are not acceptable.)
- Do not allow the tubing to get too hot during brazing. The nitrogen gas inside the tubing may overheat, causing refrigerant system valves to become damaged. Therefore allow the tubing to cool when brazing.
- Use a reducing valve for the nitrogen cylinder.
- Do not use agents intended to prevent the formation of oxide film. These agents adversely affect the refrigerant and refrigerant oil, and may cause damage or malfunctions.

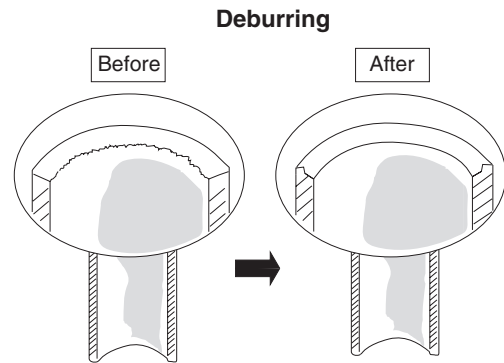


Fig. 2-22

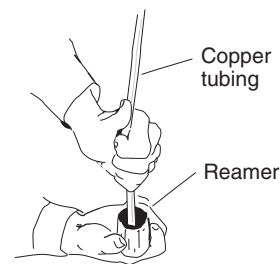


Fig. 2-23

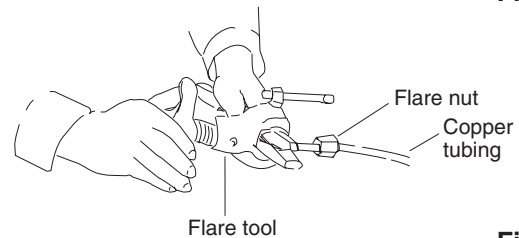


Fig. 2-24

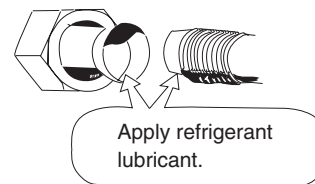


Fig. 2-25

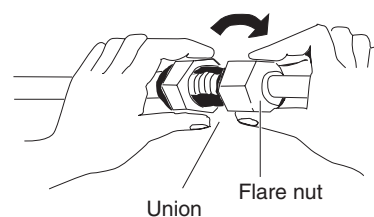


Fig. 2-26

5. HOW TO PROCESS TUBING

5-2. Connecting Tubing Between Indoor and Outdoor Units

- (1) Tightly connect the indoor-side refrigerant tubing extended from the wall with the outdoor-side tubing.
- (2) To fasten the flare nuts, apply specified torque as at right:
 - When removing the flare nuts from the tubing connections, or when tightening them after connecting the tubing, be sure to use 2 adjustable wrenches or spanners. (Fig. 2-27)
If the flare nuts are over-tightened, the flare may be damaged, which could result refrigerant leakage and cause injury or asphyxiation to room occupants.

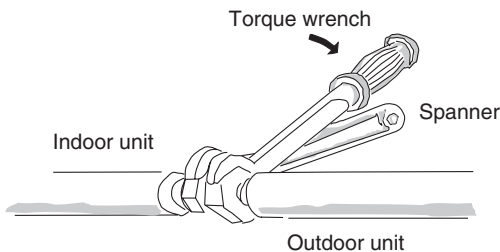


Fig. 2-27

Tube diameter	Tightening torque (approximate)	Tube thickness
ø6.35 (1/4")	14 – 18 N · m (140 – 180 kgf · cm)	0.8 mm
ø9.52 (3/8")	34 – 42 N · m (340 – 420 kgf · cm)	0.8 mm
ø12.7 (1/2")	49 – 55 N · m (490 – 550 kgf · cm)	0.8 mm
ø15.88 (5/8")	68 – 82 N · m (680 – 820 kgf · cm)	1.0 mm
ø19.05 (3/4")	100 – 120 N · m (1000 – 1200 kgf · cm)	1.2 mm

Because the pressure is approximately 1.6 times higher than conventional refrigerant pressure, the use of ordinary flare nuts (type 1) or thin-walled tubes may result in tube rupture, injury, or asphyxiation caused by refrigerant leakage.

- For the flare nuts at tubing connections, be sure to use the flare nuts that were supplied with the unit, or else flare nuts for R410A (type 2).
The refrigerant tubing that is used must be of the correct wall thickness as shown in the table above.
- In order to prevent damage to the flare caused by over-tightening of the flare nuts, use the table on this page as a guide when tightening.
- When tightening the flare nut on the liquid tube, use an adjustable wrench with a nominal handle length of 200 mm.

5-3. Insulating the Refrigerant Tubing

Tubing Insulation

- Standard Selection of Insulation Material
Under the environment of the high temperature and high humidity, the surface of the insulation material is easy to become condensation. This will result in leakage and dew drop. Refer to the chart shown below when selecting the insulation material. In case that the ambient temperature and relative humidity are placed above the line of the insulation thickness, the condensation may occasionally make a dew drop on the surface of the insulation material. In this case, select the better insulation efficiency.

* However, since the condition will be different due to the sort of the insulation material and the environmental condition of the installation place, see the chart shown below as a reference when making a selection.

Standard Selection of Tubing Insulation

Calculating condition	
Sort of insulation material	Polyethylene heat resisting material
Thermal conductivity of insulation material	Based on JIS A9501
Calculating formula used when calculating thickness	Based on JIS A9501
Refrigerant temperature	2°C

Two tubes arranged together

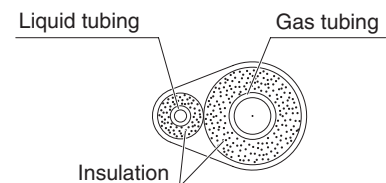
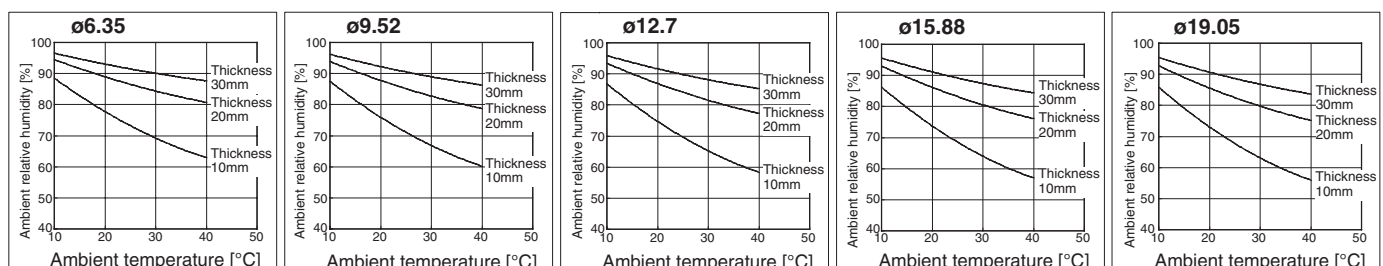


Fig. 2-28



5. HOW TO PROCESS TUBING



CAUTION

If the exterior of the outdoor unit valves has been finished with a square duct covering, make sure you allow sufficient space to use the valves and to allow the panels to be attached and removed.

Taping the flare nuts

Wind the white insulation tape around the flare nuts at the gas tube connections. Then cover up the tubing connections with the flare insulator, and fill the gap at the union with the supplied black insulation tape. Finally, fasten the insulator at both ends with the supplied vinyl clamps. (Fig. 2-29)

Insulation material

The material used for insulation must have good insulation characteristics, be easy to use, be age resistant, and must not easily absorb moisture.



CAUTION

After a tube has been insulated, never try to bend it into a narrow curve because it can cause the tube to break or crack.

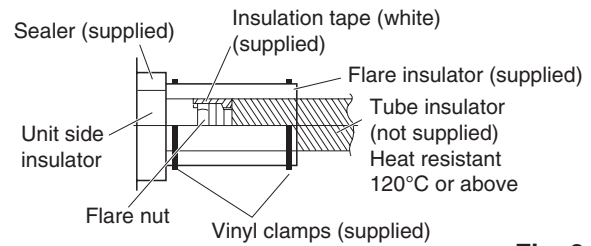


Fig. 2-29

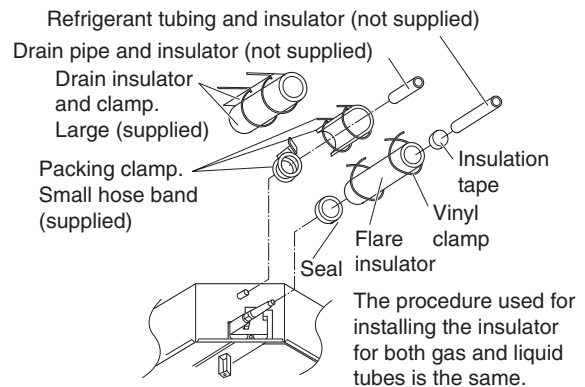


Fig. 2-30

Never grasp the drain or refrigerant connecting outlets when moving the unit.

5-4. Taping the Tubes

- (1) At this time, the refrigerant tubes (and electrical wiring if local codes permit) should be taped together with armoring tape in 1 bundle. To prevent condensation from overflowing the drain pan, keep the drain hose separate from the refrigerant tubing.
- (2) Wrap the armoring tape from the bottom of the outdoor unit to the top of the tubing where it enters the wall. As you wrap the tubing, overlap half of each previous tape turn.
- (3) Clamp the tubing bundle to the wall, using 1 clamp approx. each meter. (Fig. 2-31)

NOTE

Do not wind the armoring tape too tightly since this will decrease the heat insulation effect. Also ensure that the condensation drain hose splits away from the bundle and drips clear of the unit and the tubing.

5-5. Finishing the Installation

After finishing insulating and taping over the tubing, use sealing putty to seal off the hole in the wall to prevent rain and draft from entering. (Fig. 2-32)

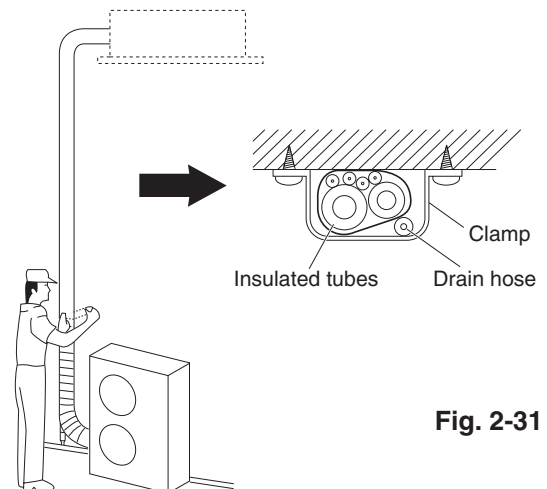


Fig. 2-31

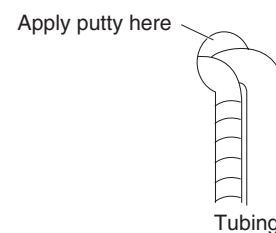


Fig. 2-32

6. AIR PURGING

6. AIR PURGING

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

- pressure in the system rises
- operating current rises
- cooling (or heating) efficiency drops
- moisture in the refrigerant circuit may freeze and block capillary tubing
- water may lead to corrosion of parts in the refrigerant system

Therefore, the indoor unit and tubing between the indoor and outdoor unit must be leak tested and evacuated to remove any noncondensables and moisture from the system. (Figs. 2-33 and 2-34)

Manifold gauge

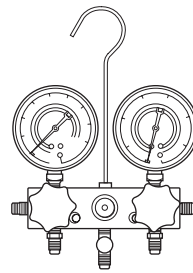


Fig. 2-33

Vacuum pump

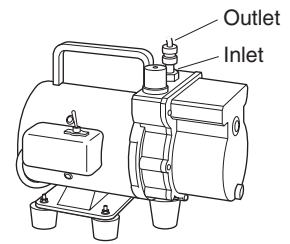


Fig. 2-34

■ Air Purging with a Vacuum Pump (for Test Run) Preparation

Check that each tube (both liquid and gas tubes) between the indoor and outdoor units has been properly connected and all wiring for the test run has been completed.

Remove the valve caps from both the gas tube and liquid tube service valves on the outdoor unit. Note that both liquid and gas tube service valves on the outdoor unit are kept closed at this stage. (Fig. 2-35)

Leak test

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



CAUTION

Use a manifold valve for air purging. If it is not available, use a stop valve for this purpose. The “Hi” knob of the manifold valve must always be kept closed.

- (2) Pressurize the system to no more than 3.80MPa with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 3.80MPa. Then, test for leaks with liquid soap.



CAUTION

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

- (3) Do a leak test of all joints of the tubing (both indoor and outdoor) and both gas tube and liquid tube service valves. Bubbles indicate a leak. Wipe off the soap with a clean cloth after the leak test.
- (4) 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.

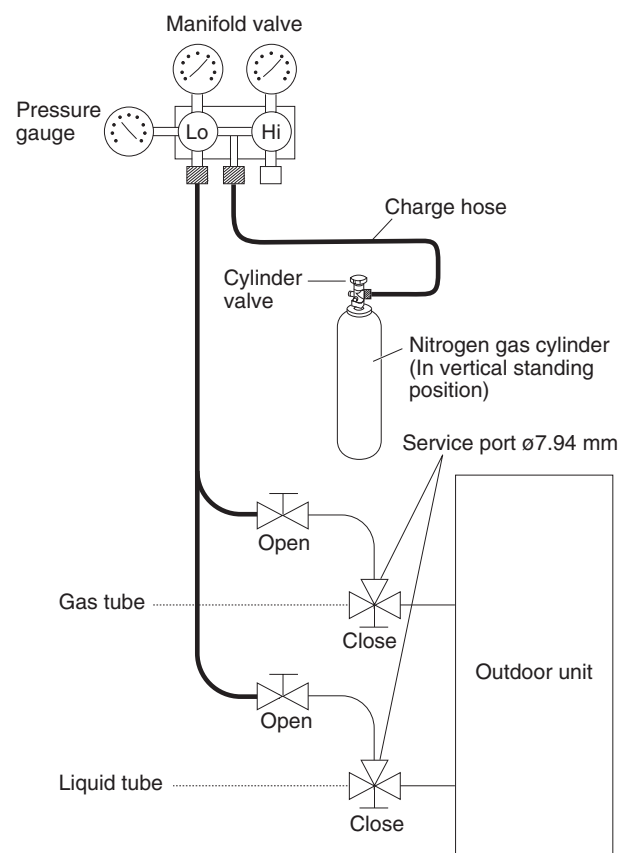


Fig. 2-35

6. AIR PURGING

Evacuation

- Attach the charge hose end described in the preceding steps to the vacuum pump to evacuate the tubing and indoor unit. Confirm that the “Lo” knob of the manifold valve is open. Then, run the vacuum pump. The operation time for evacuation varies with the tubing length and capacity of the pump. The following table shows the amount of time for evacuation:

Required time for evacuation when 30 gal/h vacuum pump is used	
If tubing length is less than 15 m	If tubing length is longer than 15 m
45 min. or more	90 min. or more

NOTE

The required time in the left table is calculated based on the assumption that the ideal (or target) vacuum condition is less than -101 kPa (-755 mmHg, 5 Torr).

- When the desired vacuum is reached, close the “Lo” knob of the manifold valve and turn off the vacuum pump. Confirm that the gauge pressure is under -101 kPa (-755 mmHg, 5 Torr) after 4 to 5 minutes of vacuum pump operation. (Fig. 2-36)



CAUTION

Use a cylinder designed for use with R410A respectively.

Charging additional refrigerant

- Charging additional refrigerant (calculated from the liquid tube length as shown in Section 1-9 “Additional Refrigerant Charge”) using the liquid tube service valve. (Fig. 2-37)
- Use a balance to measure the refrigerant accurately.
- If the additional refrigerant charge amount cannot be charged at once, charge the remaining refrigerant in liquid form by using the gas tube service valve with the system in cooling operation mode at the time of test run. (Fig. 2-38)

Finishing the job

- With a hex wrench, turn the liquid tube service valve stem counterclockwise to fully open the valve.
- Turn the gas tube service valve stem counterclockwise to fully open the valve.



CAUTION

To avoid gas from leaking when removing the charge hose, make sure the stem of the gas tube is turned all the way out.

- Loosen the charge hose connected to the gas tube service port (for $\varnothing 7.94$ mm tube) slightly to release the pressure, then remove the hose.
- Replace the service port cap on the gas tube service port and fasten the cap securely with an adjustable wrench or box wrench. This process is very important to prevent gas from leaking from the system.
- Replace the valve caps at both gas tube and liquid tube service valves and fasten them securely.

This completes air purging with a vacuum pump. The air conditioner is now ready for a test run. Refer to Section “5. TEST RUN”.

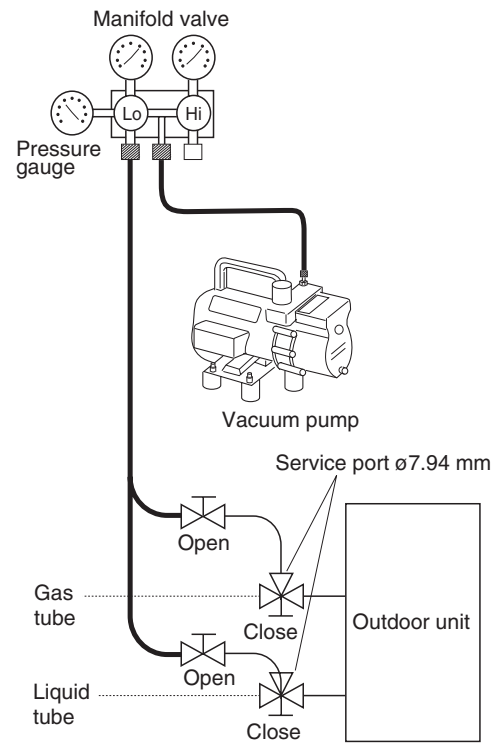


Fig. 2-36

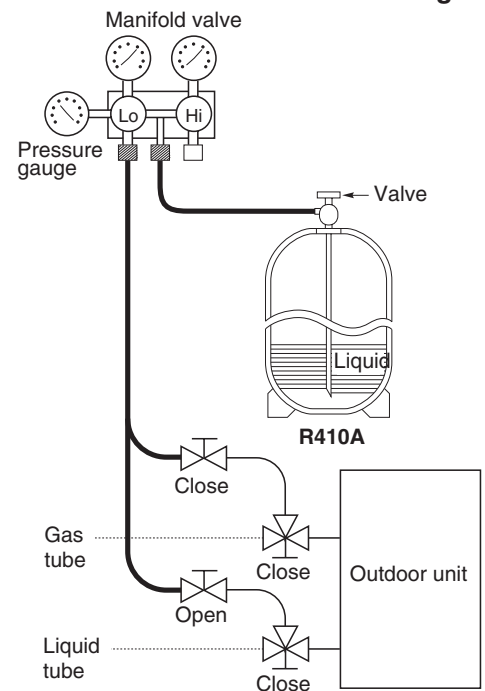


Fig. 2-37

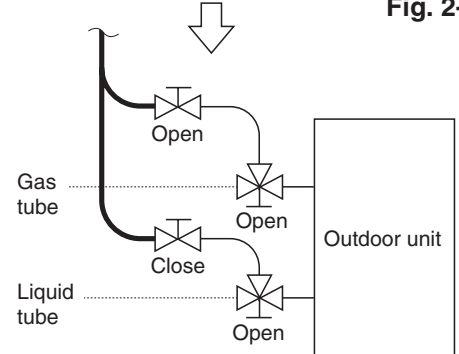


Fig. 2-38

7. Optional Parts

7-1. Optional Distribution Joint Kit

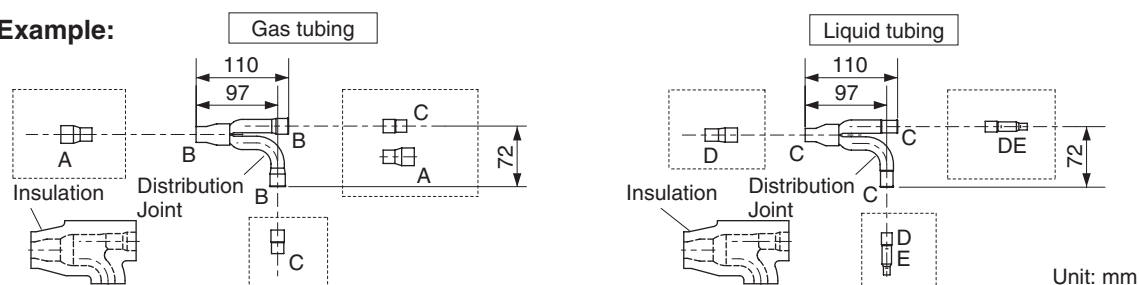
See the installation instructions packaged with the distribution joint kit for the installation procedure.

Model name	Cooling capacity after distribution	Remarks
CZ-P160BK2	16.0 kW or less	For indoor unit

CZ-P160BK2

Use: For indoor unit (Capacity after distribution joint is 16.0 kW or less.)

Example:



Size of connection point on each part (Shown are inside diameters of tubing)

Size	Part A	Part B	Part C	Part D	Part E
mm	ø19.05	ø15.88	ø12.7	ø9.52	ø6.35

Contents

3. CONTROL OF MINI VRF SYSTEM

1. Main Operating Functions
 2. Wireless Remote Controller
 3. Timer Remote Controller (CZ-RTC2)
 4. Simplified Remote Controller (CZ-RE2C2)
 5. System Controller (CZ-64ESMC2)
 6. Schedule Time (CZ-ESWC2)
 7. ON/OFF Controller (CZ-ANC2)
 8. Intelligent Controller (CZ-256ESMC2)
 9. Communication Adaptor (CZ-CFUNC2)
 10. Remote Sensor (CZ-CSRC2)
 11. LonWorks Interface (CZ-CLNC2)
 12. Seri-Para I/O unit for outdoor unit (CZ-CAPDC2)
 13. MINI Seri-para I/O Unit (CZ-CAPBC2)
 14. Local Adaptor for ON/OFF Controller (CZ-CAPC2)
 15. Web Interface (CZ-CWEBC2)
- * Refer to the 2WAY SYSTEM TECHNICAL DATA (TD831151)

Contents

4. MINI VRF SYSTEM UNIT SPECIFICATIONS

1. Outdoor Unit	4-2
1-1. Specifications	4-2
1-2. Dimensional Data	4-8
1-3. Refrigerant Flow Diagram	4-9
1-4. Sound Data	4-10
2. Indoor Unit	
* Refer to the 2WAY SYSTEM TECHNICAL DATA (TD831151)	

1. Outdoor Unit

1-1. Specifications

Unit specifications (A)

Model No.		Outdoor Unit		U-4LE1E5		
Power Source				220 - 230 - 240 V, Single-phase, 50Hz		
Performance						
	Cooling capacity		kW (BTU / h)	12.1 (41,300)		
	Heating capacity		kW (BTU / h)	12.5 (42,700)		
	COP	Cooling standard	-	4.30		
		Heating standard	-	4.62		
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)		
		Width	mm (in.)	940 (37)		
		Depth	mm (in.)	340 (13-25 / 64)		
	Net weight		kg (lbs.)	104 (229)		
Color (Munsell code)			Munsell 1Y 8.5 / 0.5			
Electrical Ratings						
	Voltage rating		V	220	230	240
	Cooling	Running amperes	A	13.9	13.3	12.7
		Power input	kW	2.81		
		Power factor	%	92		
		Heating	Running amperes	A	13.2	12.7
	Power input		kW	2.71		
	Power factor		%	93		
	Starting amperes		A	1	1	1
	Max. amperes		A	21.0	21.0	21.0
	Max. power input		kW	4.44	4.64	4.84
Max. number of connectable Indoor Units				6		
Compressor						
	Type - Q'ty			Hermetic type x 1		
	Motor output		kW	2.3		
	Refrigeration oil	Type		FV50S (Ether oil)		
		Charge amount	L	1.3		
	Crankcase heater		W	28		
	Refrigerant amount at shipment		kg	R410A - 3.5		
	Refrigerant control			Electronic expansion valve		
	Defrost method			Reverse cycle, microprocessor control		
	Heat exchanger			Tube with plate fins		
Fan Device						
	Type - Q'ty			Propeller fan x 2		
	Air circulation		m ³ / min	95		
	External static pressure		Pa	-		
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)		
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge		
Tubing						
	Refrigerant tubing	Gas tube	mm (in.)	ø15.88 (5 / 8) (Flare nut)		
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)		
Drain Port				ø32		
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)		
Pressure sound	Cooling mode	dB-A	50 (silent mode 47)			
	Heating mode	dB-A	52 (silent mode 49)			
Power sound	Cooling mode	dB-A	68			
	Heating mode	dB-A	70			
Primary Accessories				None		

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

Unit specifications (B)

Model No.		Outdoor Unit		U-5LE1E5			
Power Source				220 - 230 - 240 V, Single-phase, 50Hz			
Performance							
	Cooling capacity		kW (BTU / h)	14.0 (47,800)			
	Heating capacity		kW (BTU / h)	16.0 (54,600)			
	COP	Cooling standard	-	4.20			
		Heating standard	-	4.30			
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)			
		Width	mm (in.)	940 (37)			
		Depth	mm (in.)	340 (13-25 / 64)			
	Net weight		kg (lbs.)	104 (229)			
Color (Munsell code)			Munsell 1Y 8.5 / 0.5				
Electrical Ratings							
	Voltage rating		V	220	230	240	
	Cooling	Running amperes	A	16.3	15.6	14.9	
		Power input	kW	3.33			
		Power factor	%	93			
	Heating	Standard	Running amperes	A	18.0	17.2	16.5
			Power input	kW	3.72		
			Power factor	%	94		
	Starting amperes		A	1	1	1	
	Max. amperes		A	24.5	24.5	24.5	
Max. power input		kW	5.17	5.41	5.64		
Max. number of connectable Indoor Units				8			
Compressor							
	Type - Q'ty			Hermetic type x 1			
	Motor output		kW	3.0			
	Refrigeration oil	Type		FV50S (Ether oil)			
		Charge amount	L	1.3			
	Crankcase heater		W	28			
	Refrigerant amount at shipment		kg	R410A - 3.5			
	Refrigerant control			Electronic expansion valve			
	Defrost method			Reverse cycle,microprocessor control			
Heat exchanger			Tube with plate fins				
Fan Device							
	Type - Q'ty			Propeller fan x 2			
	Air circulation		m ³ / min	104			
	External static pressure		Pa	-			
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)			
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge			
Tubing							
	Refrigerant tubing	Gas tube	mm (in.)	ø15.88 (5 / 8) (Flare nut)			
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)			
Drain Port				ø32			
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)			
Pressure sound	Cooling mode	dB-A	51 (silent mode 48)				
	Heating mode	dB-A	53 (silent mode 50)				
Power sound	Cooling mode	dB-A	69				
	Heating mode	dB-A	71				
Primary Accessories				None			

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

Unit specifications (C)

Model No.		Outdoor Unit		U-6LE1E5		
Power Source				220 - 230 - 240 V, Single-phase, 50Hz		
Performance						
	Cooling capacity		kW (BTU / h)	15.5 (52,900)		
	Heating capacity		kW (BTU / h)	18.0 (61,400)		
	COP	Cooling standard	-	3.45		
		Heating standard	-	3.95		
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)		
		Width	mm (in.)	940 (37)		
		Depth	mm (in.)	340 (13-25 / 64)		
	Net weight		kg (lbs.)	104 (229)		
Color (Munsell code)			Munsell 1Y 8.5 / 0.5			
Electrical Ratings						
	Voltage rating		V	220	230	240
	Cooling	Running amperes	A	21.5	20.5	19.7
		Power input	kW	4.49		
		Power factor	%	95		
	Heating	Running amperes	A	21.6	20.7	19.8
		Power input	kW	4.56		
		Power factor	%	96		
	Starting amperes		A	1	1	1
	Max. amperes		A	28.0	28.0	28.0
	Max. power input		kW	5.91	6.18	6.45
Max. number of connectable Indoor Units				9		
Compressor						
	Type - Q'ty			Hermetic type x 1		
	Motor output		kW	3.6		
	Refrigeration oil	Type		FV50S (Ether oil)		
		Charge amount	L	1.3		
	Crankcase heater		W	28		
	Refrigerant amount at shipment		kg	R410A - 3.5		
	Refrigerant control			Electronic expansion valve		
	Defrost method			Reverse cycle,microprocessor control		
	Heat exchanger			Tube with plate fins		
Fan Device						
	Type - Q'ty			Propeller fan x 2		
	Air circulation		m ³ / min	104		
	External static pressure		Pa	-		
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)		
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge		
Tubing						
	Refrigerant tubing	Gas tube	mm (in.)	ø19.05 (3 / 4) (Flare nut)		
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)		
Drain Port				ø32		
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)		
Pressure sound	Cooling mode	dB-A	52 (silent mode 49)			
	Heating mode	dB-A	55 (silent mode 52)			
Power sound	Cooling mode	dB-A	70			
	Heating mode	dB-A	73			
Primary Accessories				Tube Discharge Assy x 1		

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

Unit specifications (D)

Model No.		Outdoor Unit		U-4LE1E8			
Power Source				380 - 400 - 415 V, 3N, 50Hz			
Performance							
	Cooling capacity		kW (BTU / h)	12.1 (41,300)			
	Heating capacity		kW (BTU / h)	12.5 (42,700)			
	COP	Cooling standard	-	4.30			
		Heating standard	-	4.62			
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)			
		Width	mm (in.)	940 (37)			
		Depth	mm (in.)	340 (13-25 / 64)			
	Net weight		kg (lbs.)	103 (227)			
	Color (Munsell code)			Munsell 1Y 8.5 / 0.5			
	Electrical Ratings						
	Voltage rating		V	380	400	415	
	Cooling	Running amperes	A	4.9	4.7	4.5	
		Power input	kW	2.81			
		Power factor	%	87			
	Heating	Standard	Running amperes	A	4.7	4.5	4.3
			Power input	kW	2.71		
			Power factor	%	87		
	Starting amperes		A	1	1	1	
	Max. amperes		A	8.5	8.5	8.5	
	Max. power input		kW	5.15	5.42	5.62	
Max. number of connectable Indoor Units				6			
Compressor							
	Type - Q'ty			Hermetic type x 1			
	Motor output		kW	2.3			
	Refrigeration oil	Type		FV50S (Ether oil)			
		Charge amount	L	1.3			
	Crankcase heater		W	28			
	Refrigerant amount at shipment		kg	R410A - 3.5			
	Refrigerant control			Electronic expansion valve			
	Defrost method			Reverse cycle,microprocessor control			
	Heat exchanger			Tube with plate fins			
Fan Device							
	Type - Q'ty			Propeller fan x 2			
	Air circulation		m ³ / min	95			
	External static pressure		Pa	-			
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)			
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge			
Tubing							
	Refrigerant tubing	Gas tube	mm (in.)	ø15.88 (5 / 8) (Flare nut)			
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)			
Drain Port				ø32			
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)			
Pressure sound	Cooling mode	dB-A	50 (silent mode 47)				
	Heating mode	dB-A	52 (silent mode 49)				
Power sound	Cooling mode	dB-A	68				
	Heating mode	dB-A	70				
Primary Accessories				None			

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

Unit specifications (E)

Model No.		Outdoor Unit		U-5LE1E8		
Power Source				380 - 400 - 415 V, 3N, 50Hz		
Performance						
	Cooling capacity		kW (BTU / h)	14.0 (47,800)		
	Heating capacity		kW (BTU / h)	16.0 (54,600)		
	COP	Cooling standard	-	4.20		
		Heating standard	-	4.30		
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)		
		Width	mm (in.)	940 (37)		
		Depth	mm (in.)	340 (13-25 / 64)		
	Net weight		kg (lbs.)	103 (227)		
Color (Munsell code)			Munsell 1Y 8.5 / 0.5			
Electrical Ratings						
	Voltage rating		V	380	400	415
	Cooling	Running amperes	A	5.7	5.4	5.2
		Power input	kW	3.33		
		Power factor	%	89		
		Heating	Running amperes	A	6.3	6.0
	Power input		kW	3.72		
	Power factor		%	90		
	Starting amperes		A	1	1	1
	Max. amperes		A	10.0	10.0	10.0
	Max. power input		kW	6.06	6.37	6.61
Max. number of connectable Indoor Units				9		
Compressor						
	Type - Q'ty			Hermetic type x 1		
	Motor output		kW	3.0		
	Refrigeration oil	Type		FV50S (Ether oil)		
		Charge amount	L	1.3		
	Crankcase heater		W	28		
	Refrigerant amount at shipment		kg	R410A - 3.5		
	Refrigerant control			Electronic expansion valve		
	Defrost method			Reverse cycle,microprocessor control		
	Heat exchanger			Tube with plate fins		
Fan Device						
	Type - Q'ty			Propeller fan x 2		
	Air circulation		m ³ / min	104		
	External static pressure		Pa	-		
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)		
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge		
Tubing						
	Refrigerant tubing	Gas tube	mm (in.)	ø15.88 (5 / 8) (Flare nut)		
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)		
Drain Port				ø32		
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)		
Pressure sound	Cooling mode	dB-A	51 (silent 48)			
	Heating mode	dB-A	53 (silent 50)			
Power sound	Cooling mode	dB-A	69			
	Heating mode	dB-A	71			
Primary Accessories				None		

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

Unit specifications (F)

Model No.		Outdoor Unit		U-6LE1E8			
Power Source				380 - 400 - 415 V, 3N, 50Hz			
Performance							
	Cooling capacity		kW (BTU / h)	15.5 (52,900)			
	Heating capacity		kW (BTU / h)	18.0 (61,400)			
	COP	Cooling standard	-	3.45			
		Heating standard	-	3.95			
	UNIT DIMENSIONS	Height	mm (in.)	1,330 (52 -23/64)			
		Width	mm (in.)	940 (37)			
		Depth	mm (in.)	340 (13-25 / 64)			
	Net weight		kg (lbs.)	103 (227)			
Color (Munsell code)			Munsell 1Y 8.5 / 0.5				
Electrical Ratings							
	Voltage rating		V	380	400	415	
	Cooling	Running amperes	A	7.5	7.1	6.9	
		Power input	kW	4.49			
		Power factor	%	91			
	Heating	Standard	Running amperes	A	7.5	7.2	6.9
			Power input	kW	4.56		
			Power factor	%	92		
	Starting amperes		A	1	1	1	
	Max. amperes		A	12.0	12.0	12.0	
	Max. power input		kW	7.27	7.65	7.94	
Max. number of connectable Indoor Units				9			
Compressor							
	Type - Q'ty			Hermetic type x 1			
	Motor output		kW	3.6			
	Refrigeration oil	Type		FV50S (Ether oil)			
		Charge amount	L	1.3			
	Crankcase heater		W	28			
	Refrigerant amount at shipment		kg	R410A - 3.5			
	Refrigerant control			Electronic expansion valve			
	Defrost method			Reverse cycle,microprocessor control			
	Heat exchanger			Tube with plate fins			
Fan Device							
	Type - Q'ty			Propeller fan x 2			
	Air circulation		m ³ / min	104			
	External static pressure		Pa	-			
	Motor output (No. of poles)		kW	0.09 (8P) + 0.09 (8P)			
Protective Devices				High pressure switch, overcurrent (CT method), thermistor by refrigerant gas discharge			
Tubing							
	Refrigerant tubing	Gas tube	mm (in.)	ø19.05 (3 / 4) (Flare nut)			
		Liquid tube	mm (in.)	ø9.52 (3 / 8) (Flare nut)			
Drain Port				ø32			
External Air Temperature Operation Range			°C	Cooling: -10 ~ 46 °C (DB) Heating: -20 ~ 24 °C (DB) -20 ~ 18 °C (WB)			
Pressure sound	Cooling mode	dB-A	52 (silent mode 49)				
	Heating mode	dB-A	55 (silent mode 52)				
Power sound	Cooling mode	dB-A	70				
	Heating mode	dB-A	73				
Primary Accessories				Tube Discharge Assy x 1			

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Tested to JIS B8616 based on package A/C, electrical characteristics values and operating sound.

Also test to EN14511.

Rated conditions

(Cooling: Indoor intake air temp. 27°C DB / 19°C WB. Outdoor intake air temp. 35°C DB.)

(Heating [standard]: Indoor intake air temp. 20°C DB. Outdoor intake air temp. 7°C DB / 6°C WB.)

1. Outdoor Unit

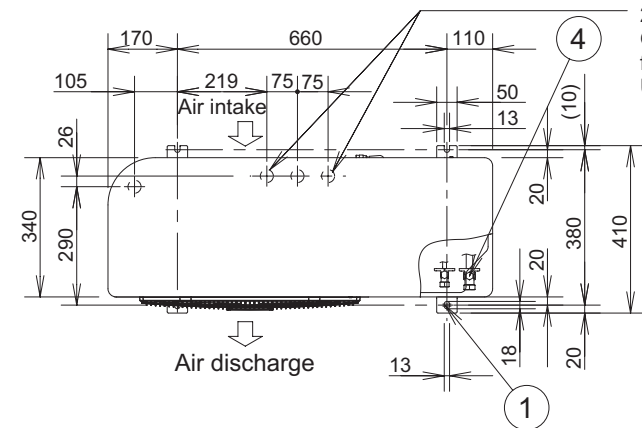
1-2. Dimensional Data

U-4LE1E5, U-4LE1E8

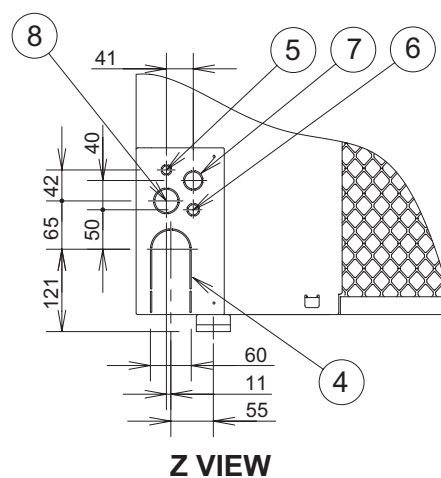
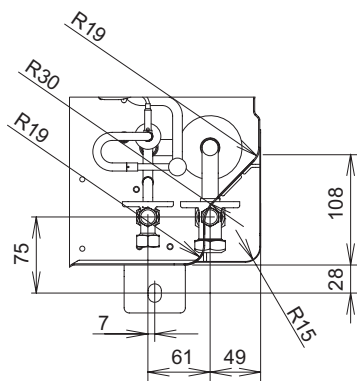
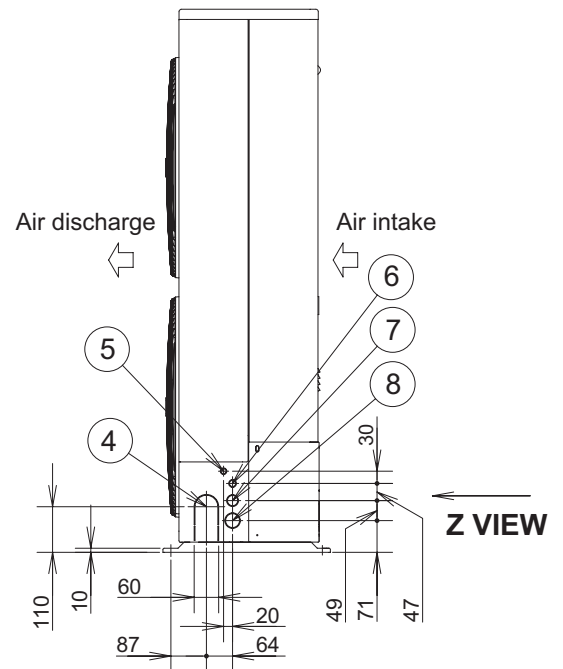
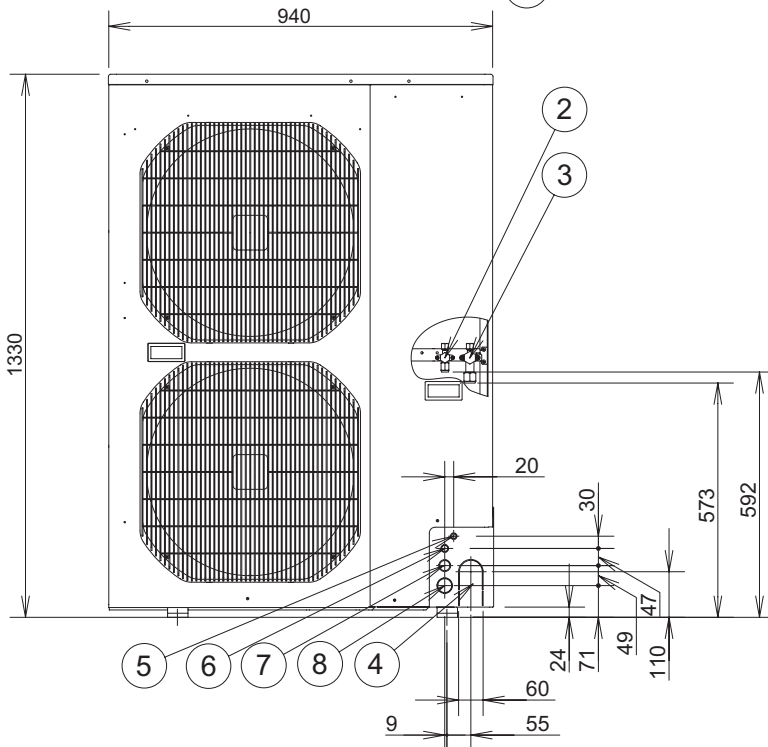
U-5LE1E5, U-5LE1E8

U-6LE1E5, U-6LE1E8

Unit: mm



①	Mounting hole (4-R6.5), anchor bolt : M10
②	Refrigerant tubing (liquid tube), flared connection ($\phi 9.52$)
③	Refrigerant tubing (gas tube), flared connection ($\phi 15.88$)
④	Refrigerant tubing port
⑤	Electrical wiring port ($\phi 16$)
⑥	Electrical wiring port ($\phi 19$)
⑦	Electrical wiring port ($\phi 29$)
⑧	Electrical wiring port ($\phi 38$)



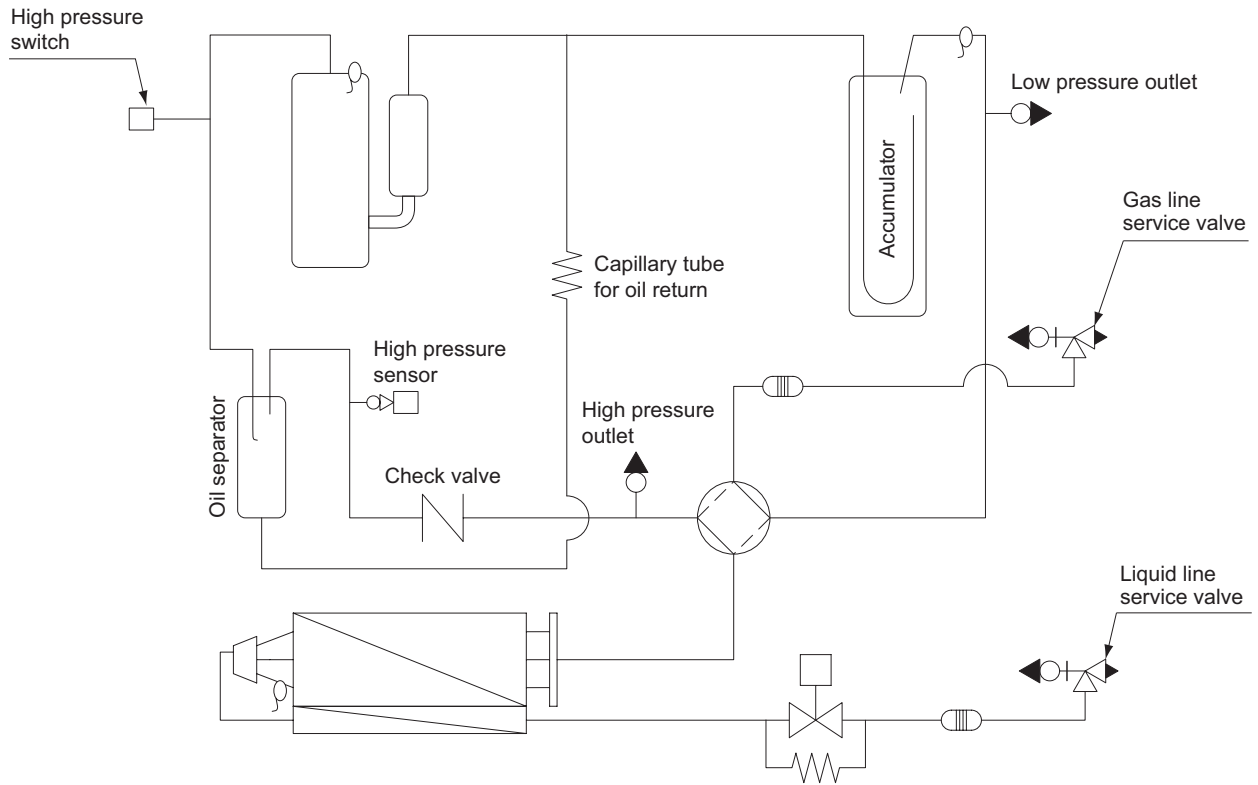
1. Outdoor Unit

1-3. Refrigerant Flow Diagram

U-4LE1E5, U-4LE1E8

U-5LE1E5, U-5LE1E8

U-6LE1E5, U-6LE1E8



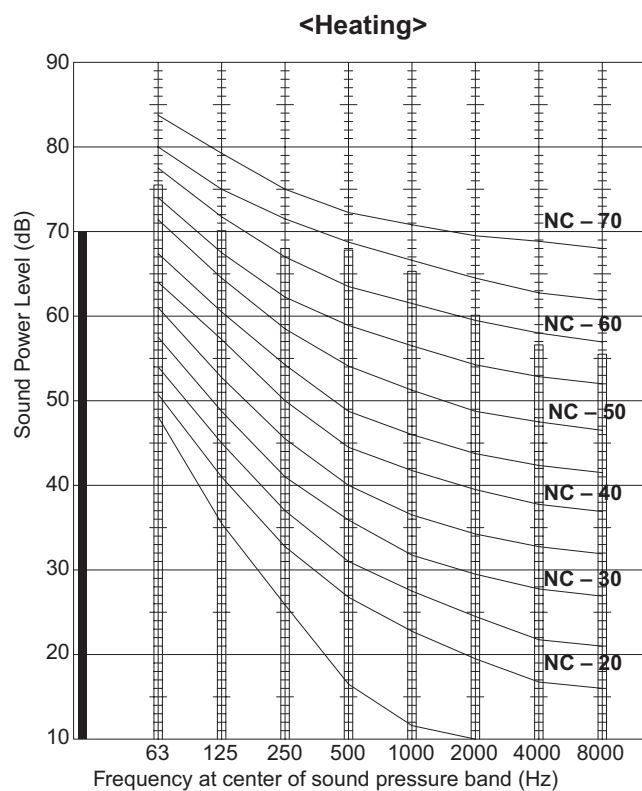
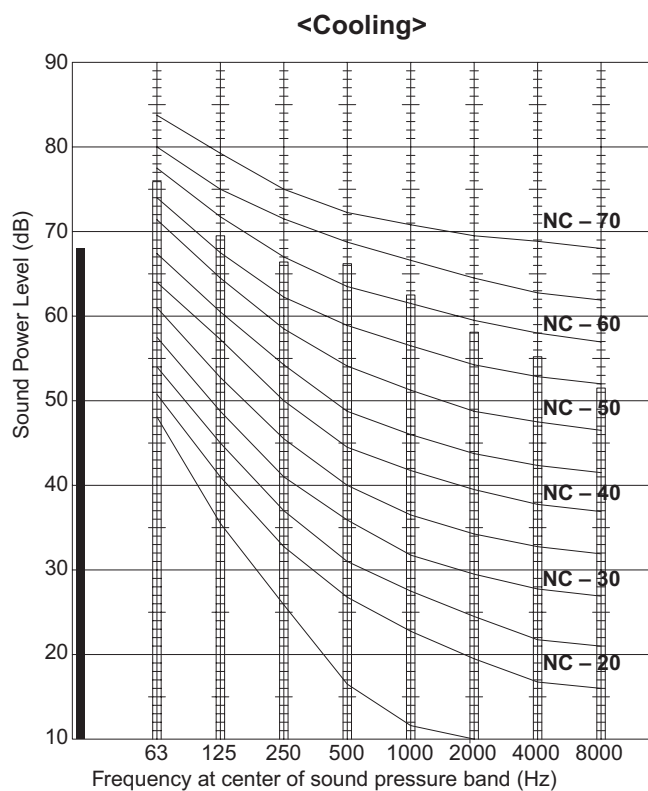
1. Outdoor Unit

1-4. Sound Data

(1) Sound Power Level

U-4LE1E5, U-4LE1E8

Model	U-4LE1E5 U-4LE1E8
Sound Power Level	Cooling : 68 dB (A) Heating : 70 dB (A)
Condition	1 m in front at height of 1.5 m



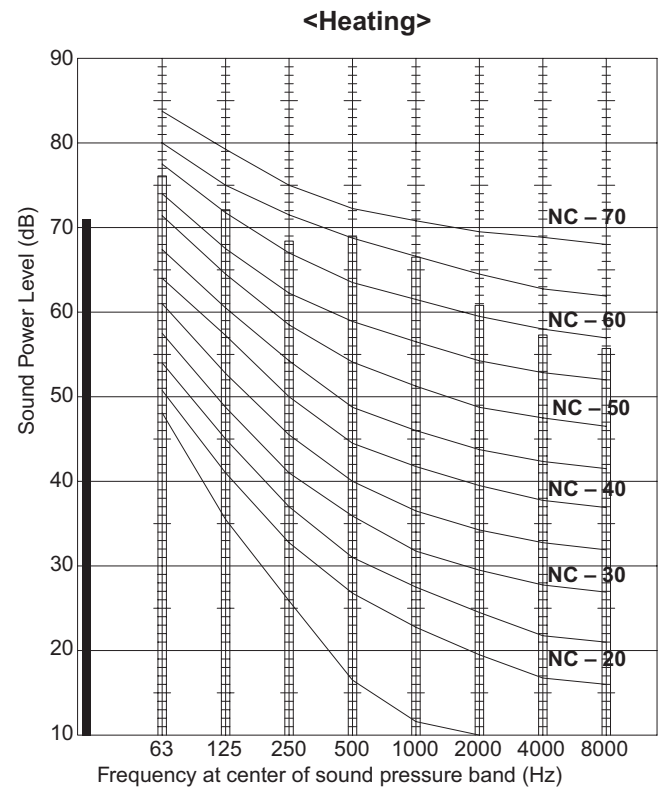
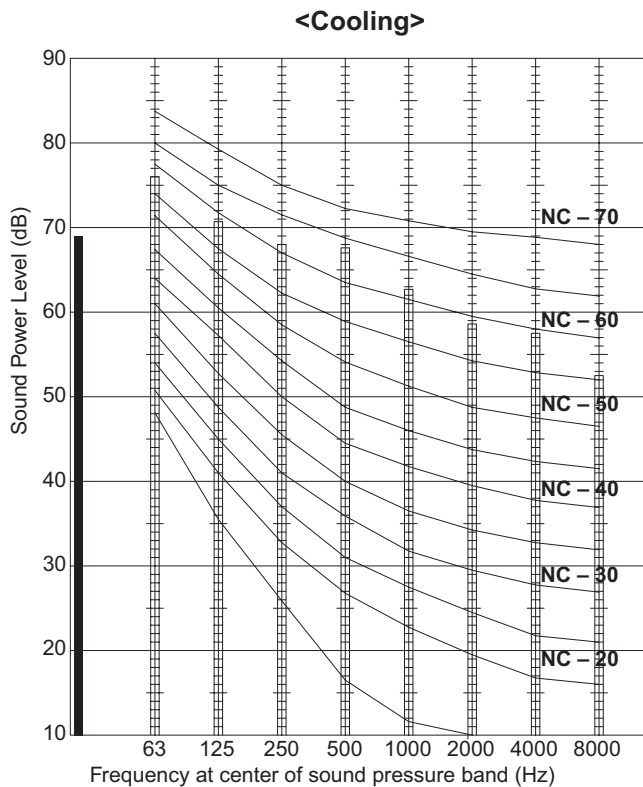
NOTE

1. dBA = A – weighted sound power level (A – scale according to IEC)
2. Reference acoustic intensity 0 dB = 10^{-12} W/m²

1. Outdoor Unit

U-5LE1E5, U-5LE1E8

Model	U-5LE1E5 U-5LE1E8
Sound Power Level	Cooling : 69 dB (A) Heating : 71 dB (A)
Condition	1 m in front at height of 1.5 m



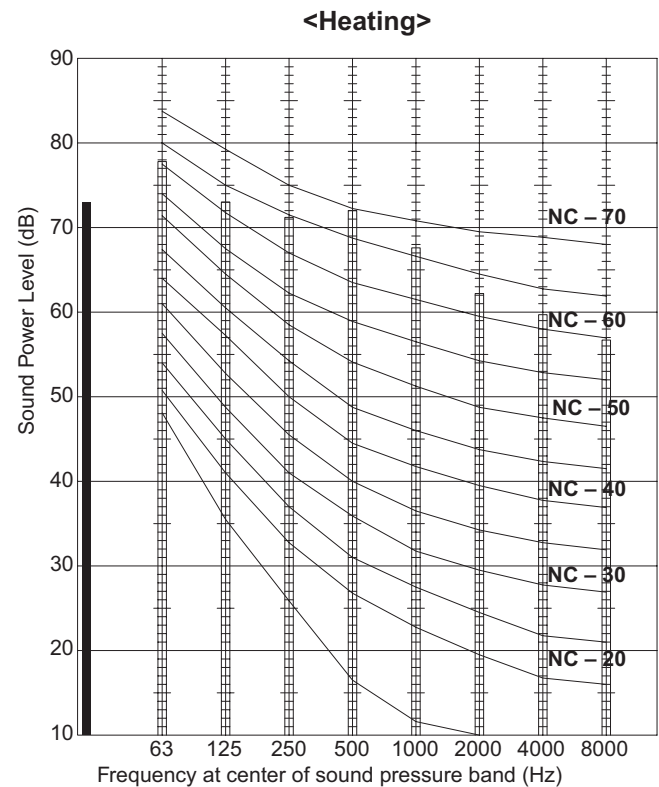
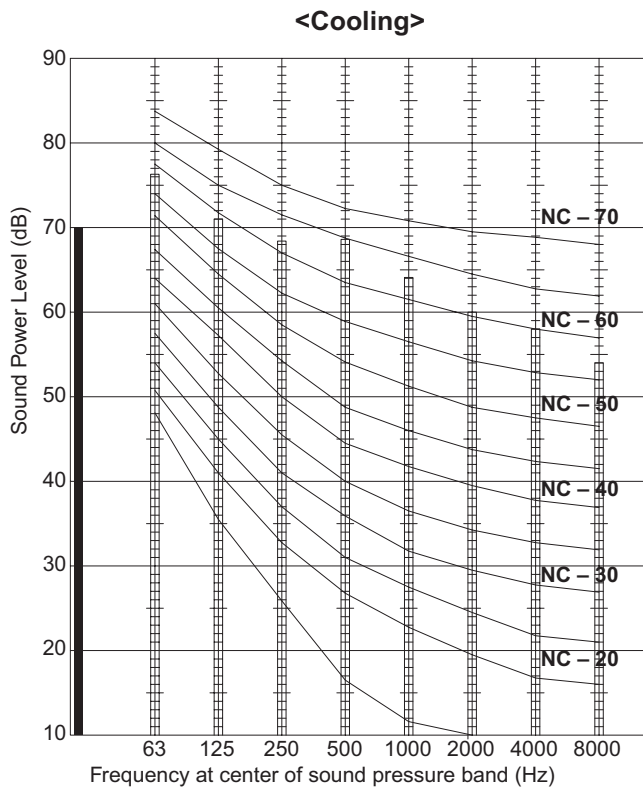
NOTE

1. dBA = A – weighted sound power level (A – scale according to IEC)
2. Reference acoustic intensity 0 dB = 10^{-12} W/m²

1. Outdoor Unit

U-6LE1E5, U-6LE1E8

Model	U-6LE1E5 U-6LE1E8
Sound Power Level	Cooling : 70 dB (A) Heating : 73 dB (A)
Condition	1 m in front at height of 1.5 m



NOTE

1. dBA = A – weighted sound power level (A – scale according to IEC)
2. Reference acoustic intensity 0 dB = 10^{-12} W/m²

1. Outdoor Unit

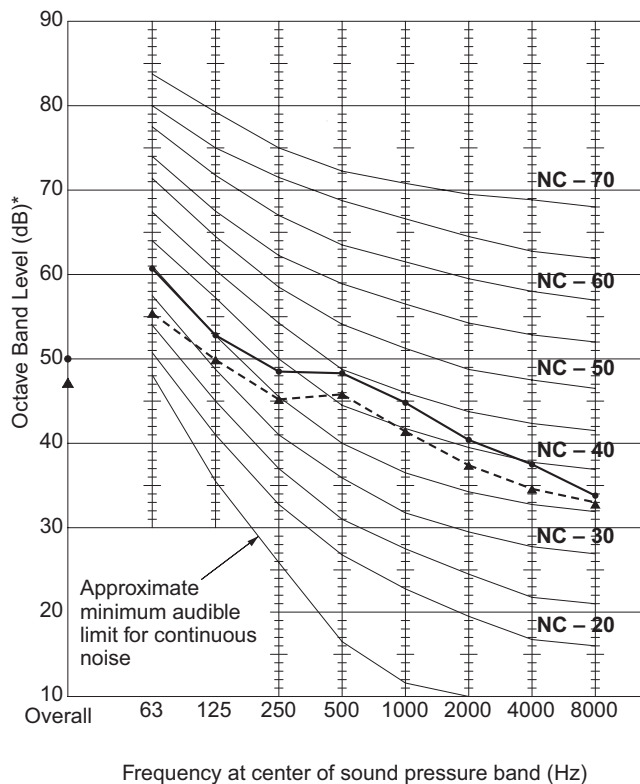
(2) Sound Pressure Level

U-4LE1E5, U-4LE1E8

<Cooling>

Model	U-4LE1E5 U-4LE1E8
Sound Pressure Level	Standard mode : 50 dB (A) Silent Mode : 47 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode

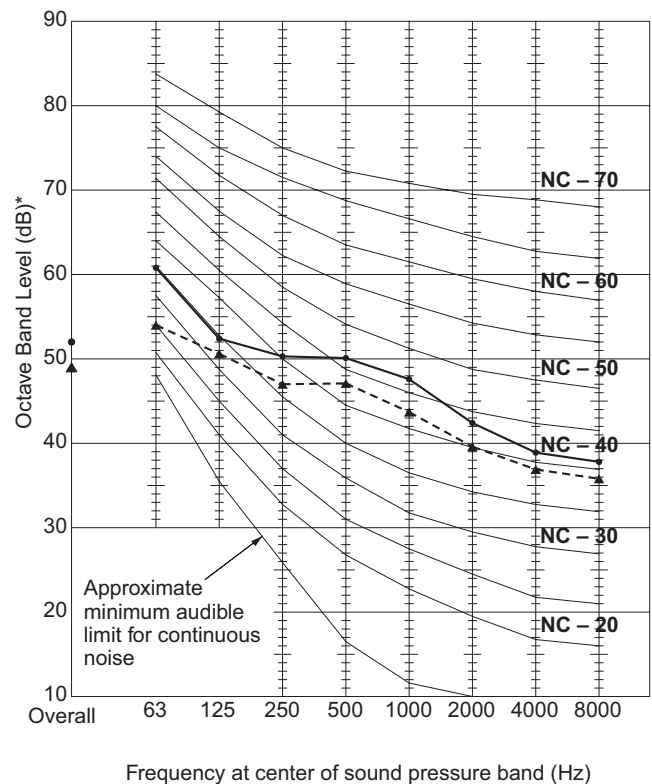


* 0 dB = 0.0002 bar

<Heating>

Model	U-4LE1E5 U-4LE1E8
Sound Pressure Level	Standard mode : 52 dB (A) Silent Mode : 49 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode



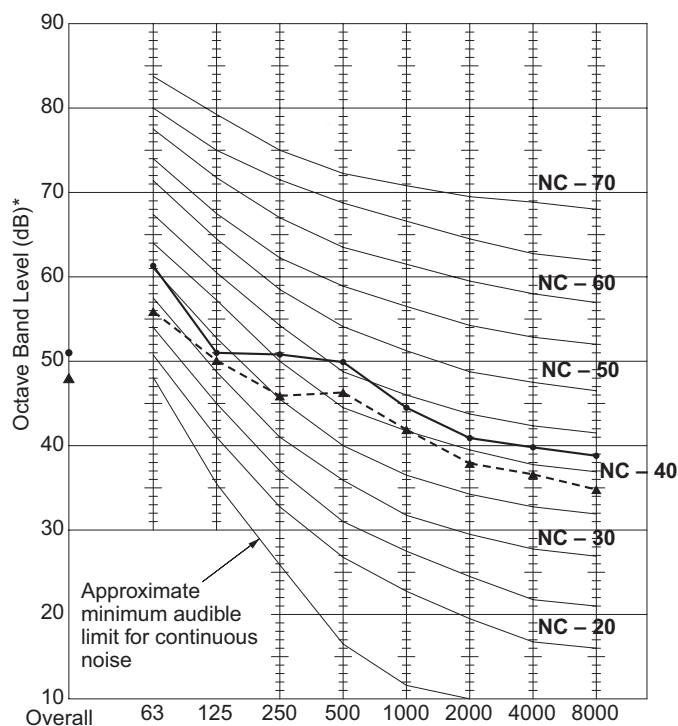
1. Outdoor Unit

U-5LE1E5, U-5LE1E8

<Cooling>

Model	U-5LE1E5 U-5LE1E8
Sound Pressure Level	Standard mode : 51 dB (A) Silent Mode : 48 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode



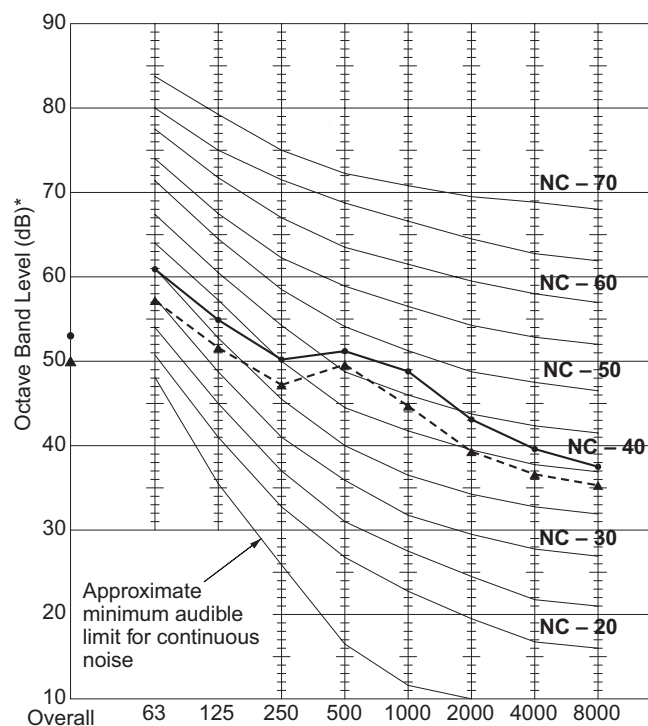
Frequency at center of sound pressure band (Hz)

* 0 dB = 0.0002 bar

<Heating>

Model	U-5LE1E5 U-5LE1E8
Sound Pressure Level	Standard mode : 53 dB (A) Silent Mode : 50 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode



Frequency at center of sound pressure band (Hz)

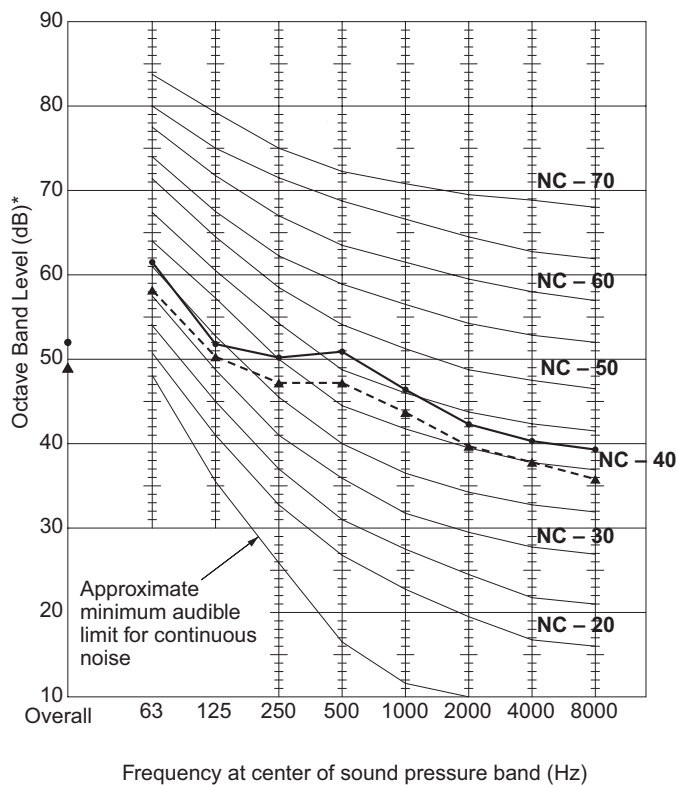
1. Outdoor Unit

U-6LE1E5, U-6LE1E8

<Cooling>

Model	U-6LE1E5 U-6LE1E8
Sound Pressure Level	Standard mode : 52 dB (A) Silent Mode : 49 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode

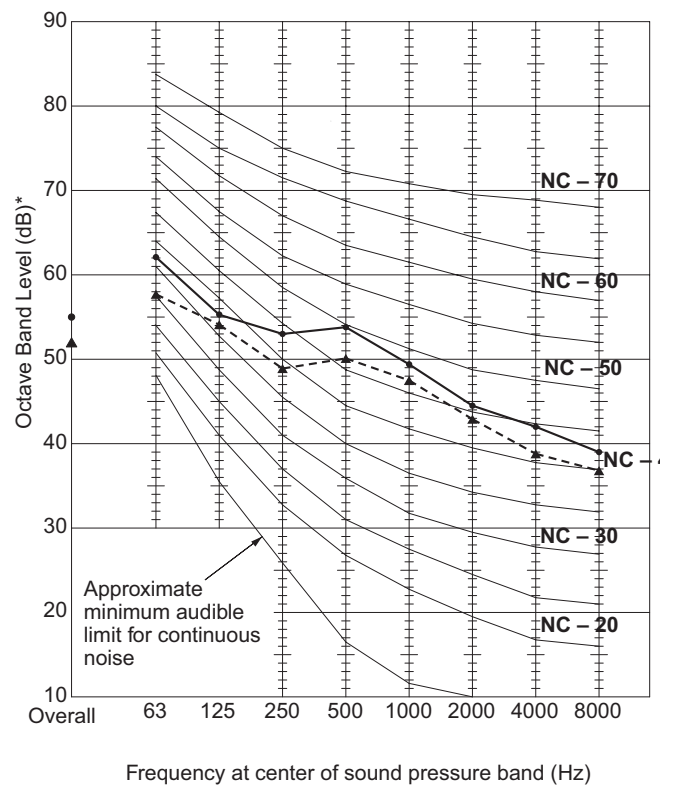


* 0 dB = 0.0002 bar

<Heating>

Model	U-6LE1E5 U-6LE1E8
Sound Pressure Level	Standard mode : 55 dB (A) Silent Mode : 52 dB (A)
Condition	1 m in front at height of 1.5 m

—●— Standard mode
- - -▲- - - Silent Mode



5. TEST RUN

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1. Preparing for Test Run

1. Preparing for Test Run

- Before attempting to start the air conditioner, check the following points.

- (1) All loose matter is removed from the cabinet especially steel filings, bits of wire, and clips.
- (2) The control wiring is correctly connected and all electrical connections are tight.
- (3) The transportation pads for the indoor fan have been removed. If not, remove them now.
- (4) The power has been supplied to the unit for at least 5 hours before starting the compressor.
The bottom of the compressor should be warm to the touch and the crankcase heater around the feet of the compressor should be hot to the touch. (Fig. 5-1)
- (5) Both the gas and liquid tube service valves are open.
If not, open them now. (Fig. 5-2)
- (6) Request that the customer be present for the test run.
Explain the contents of the instruction manual, and then have the customer actually operate the system.
- (7) Be sure to give the instruction manual and warranty certificate to the customer.
- (8) When replacing the control PCB, be sure to make all the same settings on the new PCB as were in use before replacement.
The existing EEPROM is not changed, and is connected to the new control PCB.

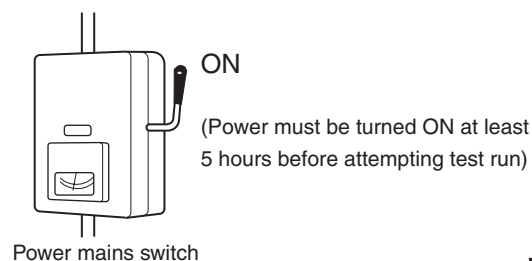


Fig. 5-1

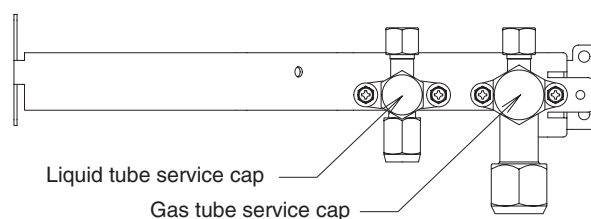


Fig. 5-2

2. Test Run Procedure

2. Test Run Procedure

Items to Check Before the Test Run

1. Turn the remote power switch on at least 5 hours before the test, in order to energize the crankcase heater.
2. Turn the outdoor service valves (2 locations) to the full-open positions.
 - Use caution when making the settings.
If there are duplicated system addresses, or if the settings for the Nos. of the indoor units are not consistent, an alarm will occur and the system will not start.
 - These settings are not made on the indoor unit PCB.

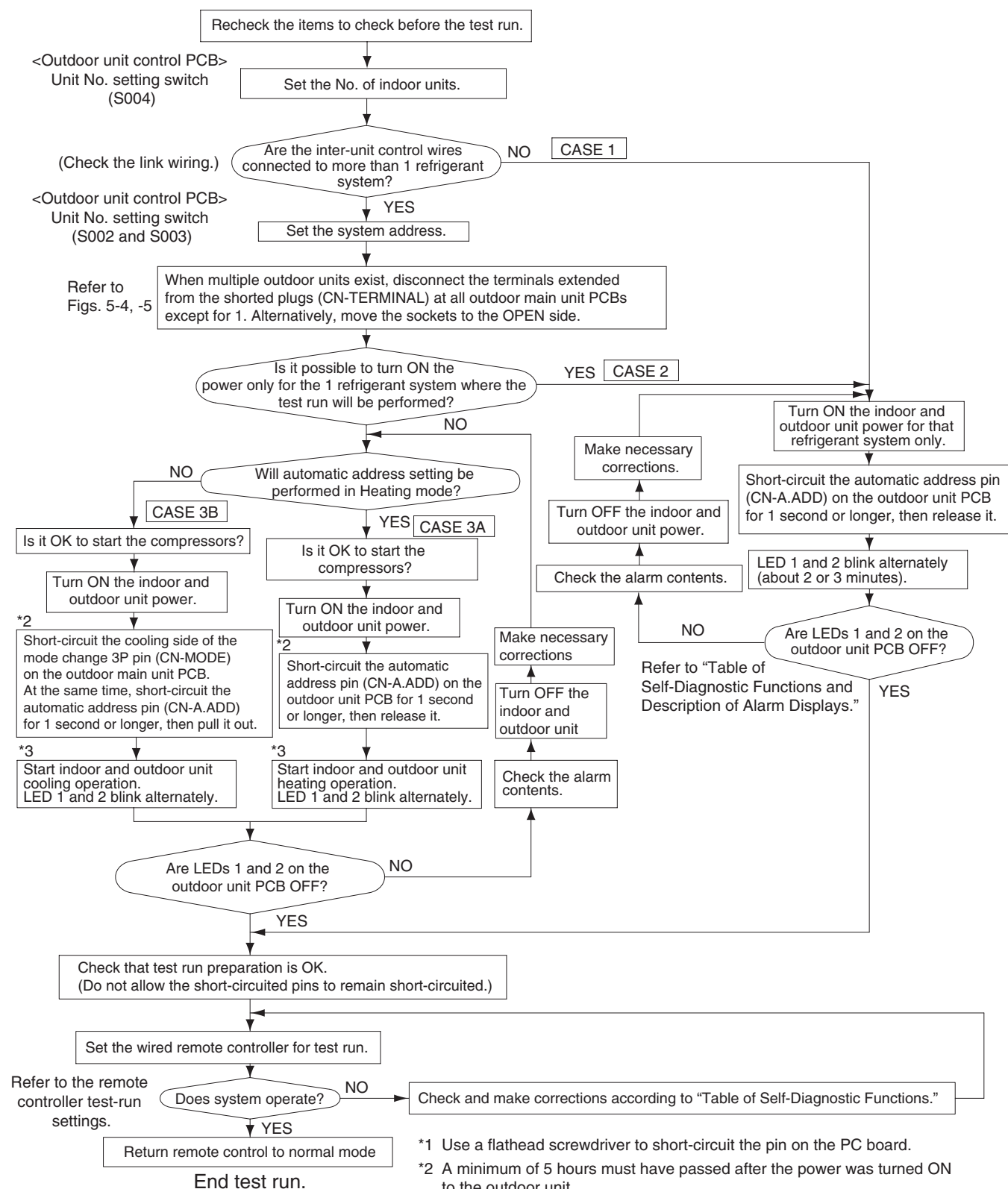


Fig. 5-3

3. Main Outdoor Unit PCB Setting

3. Main Outdoor Unit PCB Setting

(for single-phase outdoor unit PCB)

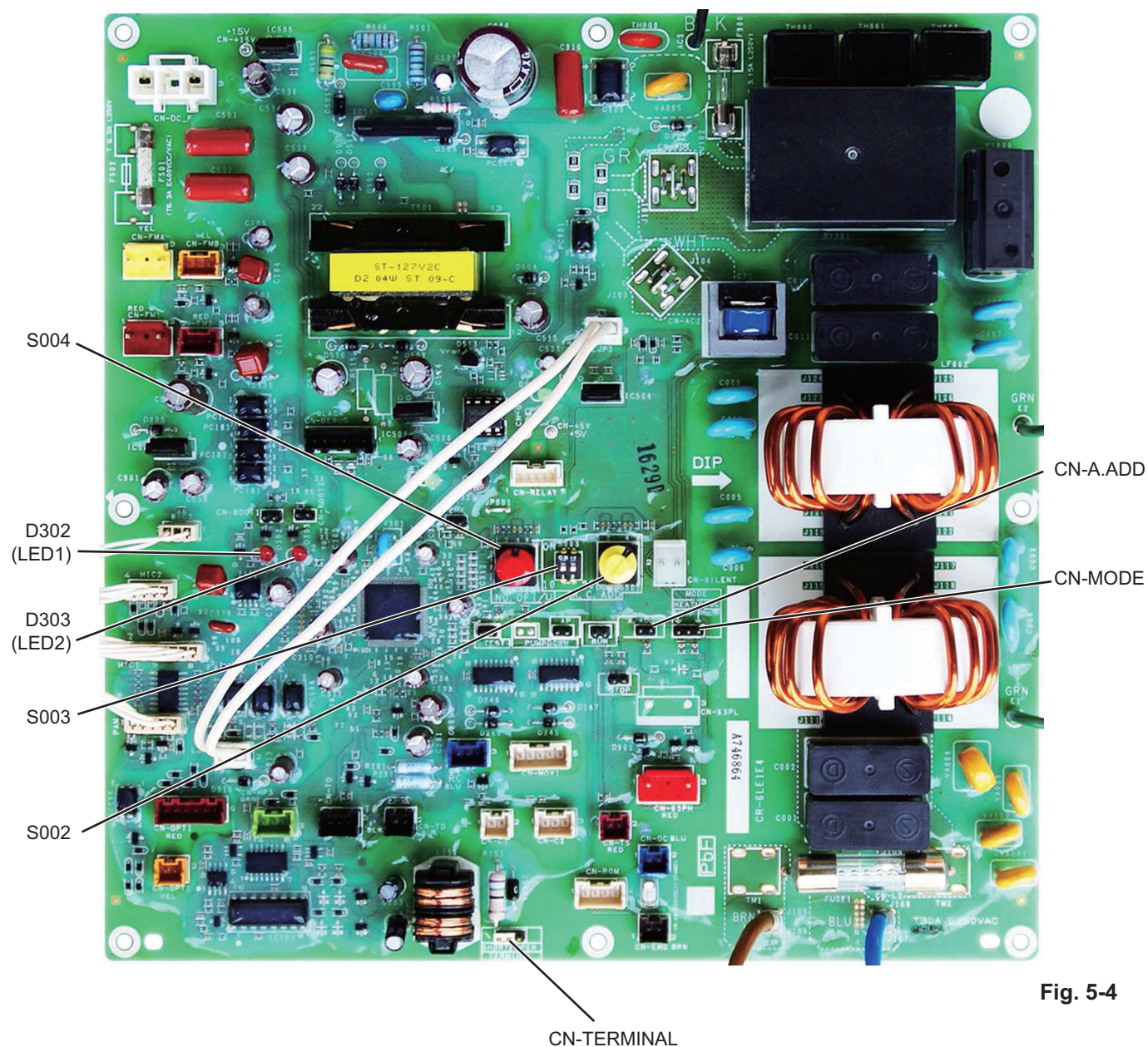


Fig. 5-4

3. Main Outdoor Unit PCB Setting

3. Main Outdoor Unit PCB Setting (for 3-phase outdoor unit PCB)

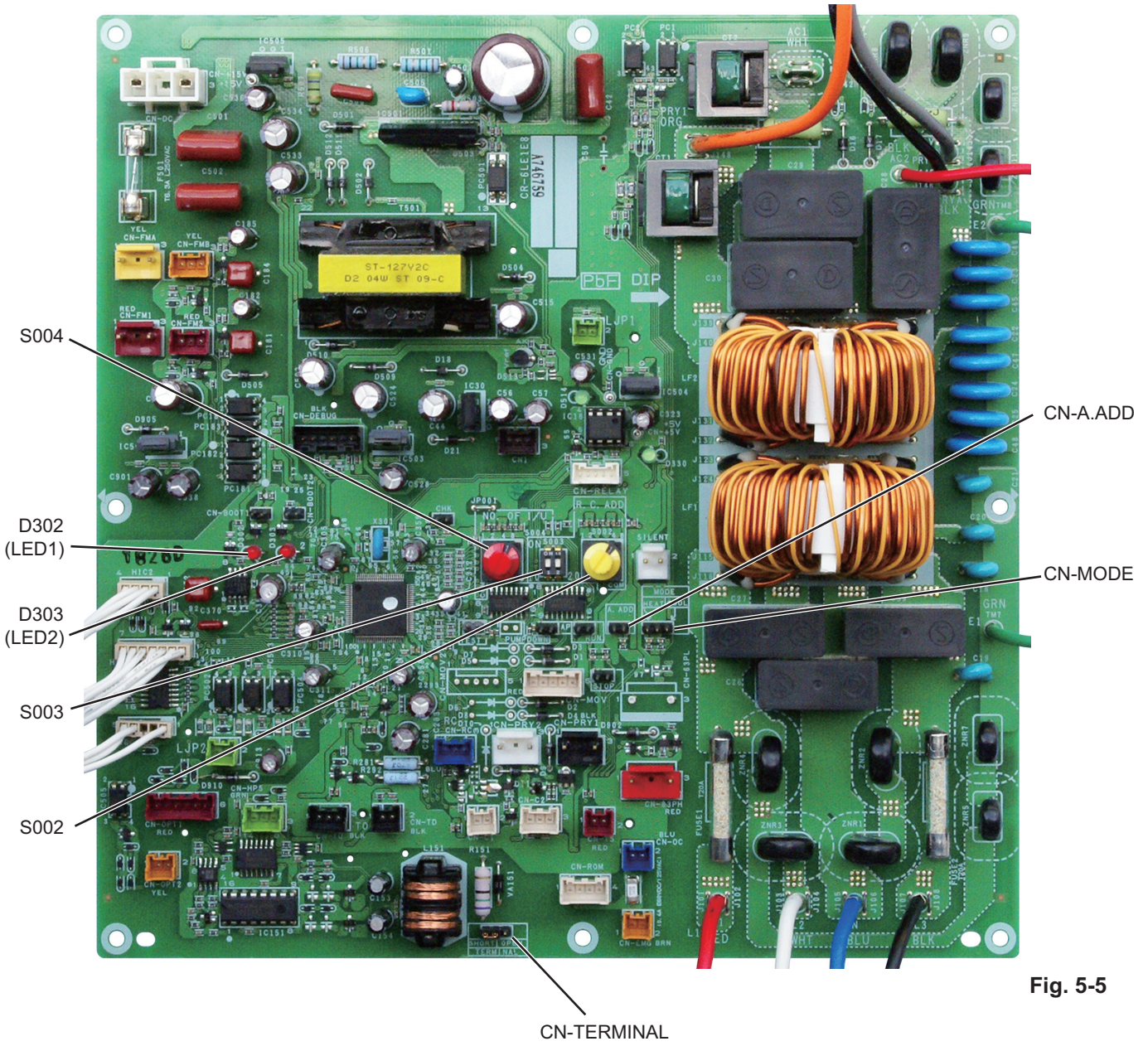


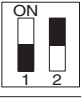
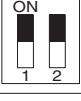
Fig. 5-5

3. Main Outdoor Unit PCB Setting

● Examples of the No. of indoor units settings

No. of indoor units	Indoor unit setting (S004) (Rotary switch, gray)
1 unit (factory setting)	 set to 1
2 units	 set to 2
	
9 units	 set to 9

● Examples of refrigerant circuit (R.C.) address settings (required when link wiring is used)

System address No.	System address (S003) (2P DIP switch, black)	System address (S002) (Rotary switch, yellow)
System 1 (factory setting)	Both OFF  ON ↑ OFF ↓	 set to 1
System 11	1 ON  ON ↑ OFF ↓	 set to 1
System 21	2 ON  ON ↑ OFF ↓	 set to 1
System 30	1 & 2 ON  ON ↑ OFF ↓	 set to 0

4. Auto Address Setting

4. Auto Address Setting

Basic wiring diagram: Example (1)

- If link wiring is not used

(The inter-unit control wires are not connected to multiple refrigerant systems.)

Indoor unit addresses can be set without operating the compressors.

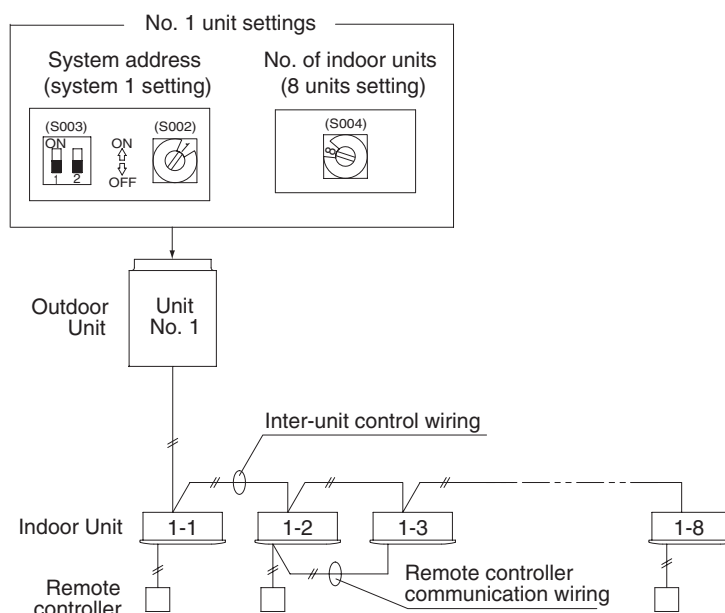


Fig. 5-6

(1) Automatic Address Setting from the Outdoor Unit

- 1 On the outdoor unit control PCB, check that the system address rotary switch (S002) is set to "1" and that the DIP switch (S003) is set to "0".



(These are the settings at the time of factory shipment.)

- 2 To set the number of indoor units that are connected to the outdoor unit to 8 on the outdoor unit control PCB, set the No. of indoor units rotary switch (S004) to "8".
- 3 Turn ON the power to the indoor and outdoor units.
- 4 On the outdoor unit control PCB, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then release it.



(Communication for automatic address setting begins.)



* To cancel, again short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out. The LED that indicates that automatic address setting is in progress turns OFF and the process is stopped.

(Automatic address setting is completed when LEDs 1 and 2 on the outdoor unit control PCB turn OFF.)



- 5 Operation from the remote controllers is now possible.

* To perform automatic address setting from the remote controller, perform steps 1 to 3, then use the remote controller and complete automatic address setting.

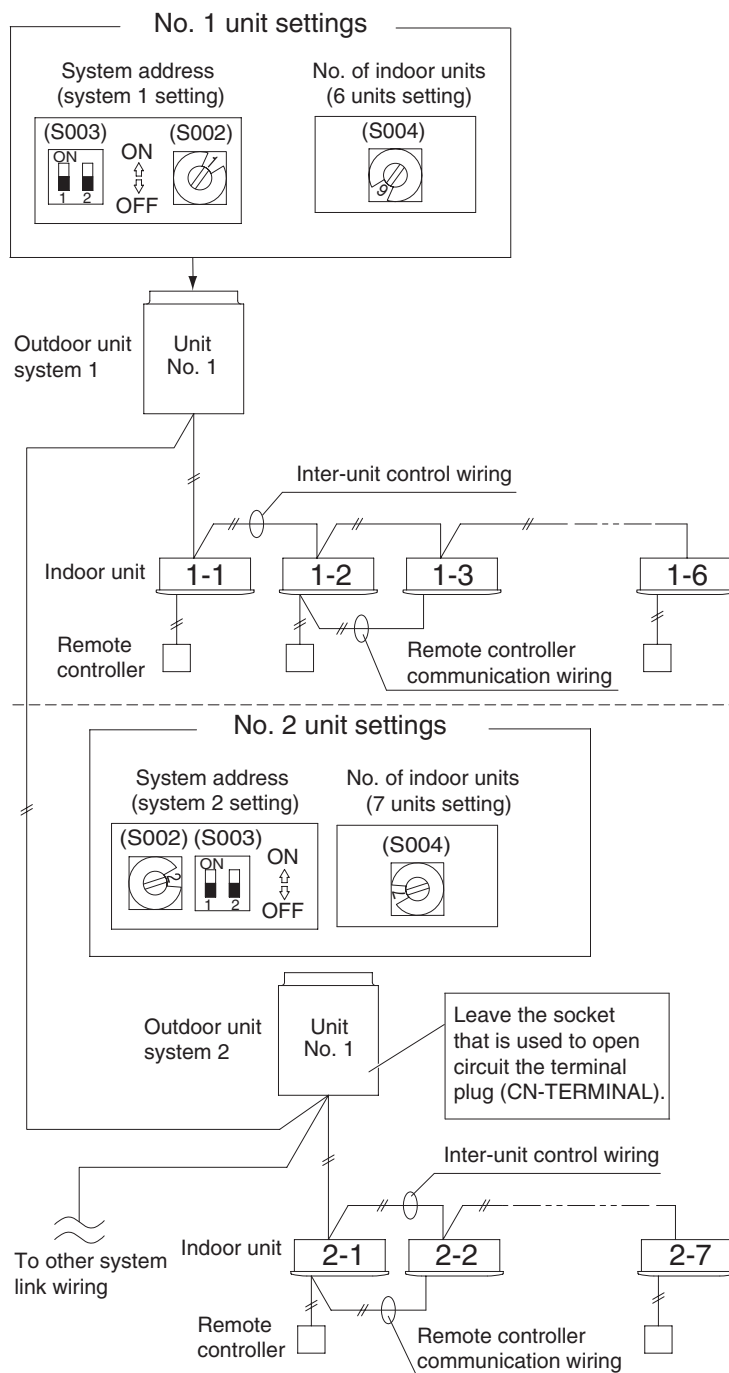
Refer to "Automatic Address Setting from the Remote Controller."

4. Auto Address Setting

Basic wiring diagram: Example (2)

- If link wiring is used

* When multiple outdoor units exist, remove the socket that is used to short-circuit the terminal plug (CN-TERMINAL) from all outdoor unit PCBs except for 1. Alternatively, move the sockets to the "OPEN" side.



Make settings as appropriate for the cases listed below.

- Indoor and outdoor unit power can be turned ON for each system separately. → <Case 2>
- Indoor and outdoor unit power cannot be turned ON for each system separately.
 - Automatic address setting in Heating mode → <Case 3A>
 - Automatic address setting in Cooling mode → <Case 3B>

Fig. 5-7

4. Auto Address Setting

Case 2 Automatic Address Setting (no compressor operation)

- Indoor and outdoor unit power can be turned ON for each system separately.

Indoor unit addresses can be set without operating the compressors.

Automatic Address Setting from Outdoor Unit

- 1 On the outdoor unit control PCB, check that the system address rotary switch (S002) is set to "1" and that the DIP switch (S003) is set to "0".



(These are the settings at the time of factory shipment.)

- 2 To set the number of indoor units that are connected to the outdoor unit to 6 on the outdoor unit control PCB, set the No. of indoor units rotary switch (S004) to "6".
- 3 At the outdoor unit where all indoor and outdoor unit power has been turned ON, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.



(Communication for automatic address setting begins.)



* To cancel, again short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.

The LED that indicates automatic address setting is in progress turns OFF and the process is stopped.

(Automatic address setting is completed when LEDs 1 and 2 on the outdoor unit control PCB turn OFF.)



- 4 Next turn the power ON only for the indoor and outdoor units of the next (different) system. Repeat steps 1 – 3 in the same way to complete automatic address settings for all systems.



- 5 Operation from the remote controllers is now possible.

* To perform automatic address setting from the remote controller, perform steps 1 and 2, then use the remote controller complete automatic address setting.

Refer to "Automatic Address Setting from the Remote Controller."

4. Auto Address Setting

Case 3A Automatic Address Setting in Heating Mode

- Indoor and outdoor unit power cannot be turned ON for each system separately.
In the following, automatic setting of indoor unit addresses is not possible if the compressors are not operating.
Therefore perform this process only after completing all refrigerant tubing work.

Automatic Address Setting from Outdoor Unit

- 1 Perform steps 1 and 2 in the same way as for **Case 2**.
- 2 Turn the indoor and outdoor unit power ON at all systems.
↓
- 3 To perform automatic address setting in **Heating mode**, on the outdoor unit control PCB in the refrigerant system where you wish to set the addresses, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out. (Be sure to perform this process for one system at a time. Automatic address settings cannot be performed for more than one system at the same time.)
↓
(Communication for automatic address setting begins, **the compressors turn ON, and automatic address setting in heating mode begins.**)
(All indoor units operate.)
↓ * To cancel, again short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.
The LED that indicates automatic address setting is in progress turns OFF and the process is stopped.
(Automatic address setting is completed when the compressors stop and LEDs 1 and 2 on the outdoor unit control PCB turn OFF.)
↓
- 4 At the outdoor unit in the next (different) system, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.
↓
(Repeat the same steps to complete automatic address setting for all units.)
↓
- 5 Operation from the remote controllers is now possible.
* To perform automatic address setting from the remote controller, perform steps 1 and 2, then use the remote controller complete automatic address setting.
Refer to "Automatic Address Setting from the Remote Controller."

4. Auto Address Setting

Case 3B Automatic Address Setting in Cooling Mode

- Indoor and outdoor unit power cannot be turned ON for each system separately.
In the following, automatic setting of indoor unit addresses is not possible if the compressors are not operating.
Therefore perform this process only after completing all refrigerant tubing work.
Automatic address setting can be performed during Cooling operation.

Automatic Address Setting from Outdoor Unit

- 1 Perform steps 1 and 2 in the same way as for **Case 2**.
- 2 Turn the indoor and outdoor unit power ON at all systems.
↓
- 3 To perform automatic address setting in **Cooling mode**, on the outdoor unit control PCB in the refrigerant system where you wish to set the addresses, short-circuit the cooling side of the mode change 3P pin (CN-MODE).
At the same time, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.
(Be sure to perform this process for one system at a time. Automatic address settings cannot be performed for more than one system at the same time.)
↓
(Communication for automatic address setting begins, **the compressors turn ON, and automatic address setting in Cooling mode begins.**)
(All indoor units operate.)
↓ * To cancel, again short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.
The LED that indicates automatic address setting is in progress turns OFF and the process is stopped.
(Automatic address setting is completed when the compressors stop and LEDs 1 and 2 on the outdoor unit control PCB turn OFF.)
↓
- 4 At the outdoor unit in the next (different) system, short-circuit the automatic address pin (CN-A.ADD) for 1 second or longer, then pull it out.
↓
(Repeat the same steps to complete automatic address setting for all units.)
↓
- 5 Operation from the remote controllers is now possible.
* Automatic address setting in Cooling mode cannot be done from the remote controller.

4. Auto Address Setting

Automatic Address Setting from the Remote Controller *

Selecting each refrigerant system individually for automatic address setting

---Automatic address setting for each system: Item code "A1"

- Press the remote controller timer time button and button at the same time.
(Press and hold for 4 seconds or longer.)

- Next, press either the temperature setting or button.
(Check that the item code is "A1.")

- Use either the or button to set the system No. to perform automatic address setting.

- Then press the button.

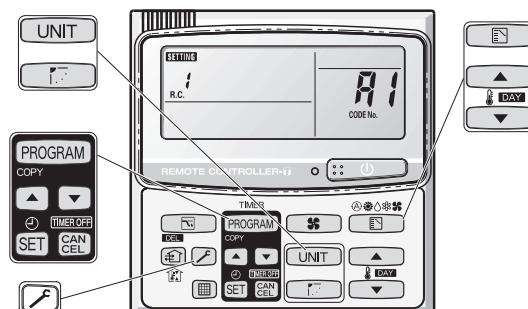
(Automatic address setting for one refrigerant system begins.)

(When automatic address setting for one system is completed, the system returns to normal stopped status.)

<Approximately 4 – 5 minutes is required.>

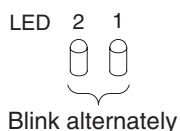
(During automatic address setting, " **SETTING** " is displayed on the remote controller. This message disappears when automatic address setting is completed.)

- Repeat the same steps to perform automatic address setting for each successive system.



Display during automatic address setting

- On outdoor unit PCB



- * Do not short-circuit the automatic address setting pin (CN-A.ADD) again while automatic address setting is in progress.

Doing so will cancel the setting operation and will cause LEDs 1 and 2 to turn OFF.

- * When automatic address setting has been successfully completed, both LEDs 1 and 2 turn OFF.

- * LED 1 is D302. LED 2 is D303.

- * If automatic address setting is not completed successfully, refer to the table below and correct the problem. Then perform automatic address setting again.

- Display details of LEDs 1 and 2 on the outdoor unit control PCB

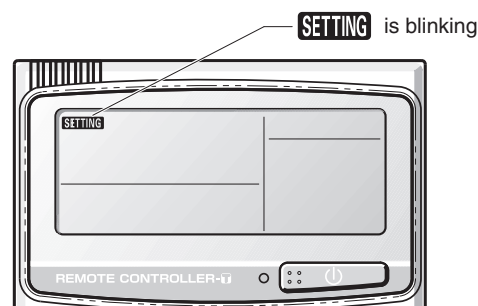
(☀ : ON ☀ : Blinking ● : OFF)

LED 1	LED 2	Display meaning
☀	☀	After the power is turned ON (and automatic address setting is not in progress), no communication with the indoor units in that system is possible.
●	☀	After the power is turned ON (and automatic address setting is not in progress), 1 or more indoor units are confirmed in that system; however, the number of indoor units does not match the number that was set.
☀	☀	Automatic address setting is in progress.
Alternating	Alternating	
●	●	Automatic address setting completed.
☀	☀	At time of automatic address setting, the number of indoor units did not match the number that was set. ⚠ (when indoor units are operating) indication appears on the display.
Simultaneous	Simultaneous	
☀	☀	Refer to Table of Self-Diagnostic Functions and Description of Alarm Displays.
Alternating	Alternating	

NOTE

⚠ indicates that the solenoid is fused or that there is a CT (current detection circuit) failure (current is detected when the compressor is OFF).

- Remote controller display during automatic setting



4. Auto Address Setting

Request concerning recording the indoor/outdoor unit combination Nos.

After automatic address setting has been completed, be sure to record them for future reference.

List the outdoor unit system address and the addresses of the indoor units in that system in an easily visible location (next to the nameplate), using a permanent marking pen or similar means that cannot be erased easily.

Example: (Outdoor) 1 – (Indoor) 1-1, 1-2, 1-3...

(Outdoor) 2 – (Indoor) 2-1, 2-2, 2-3...

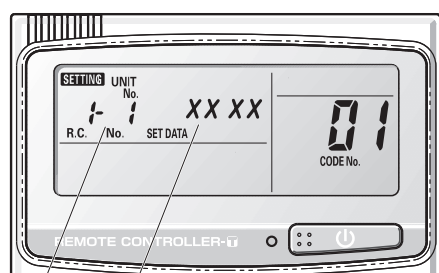
These numbers are necessary for later maintenance. Please be sure to indicate them.

Checking the indoor unit addresses

Use the remote controller to check the indoor unit address.

<If 1 indoor unit is connected to 1 remote controller>

- 1 Press and hold the  button and  button for 4 seconds or longer (simple settings mode).
- 2 The address is displayed for the indoor unit that is connected to the remote controller.
(Only the address of the indoor unit that is connected to the remote controller can be checked.)
- 3 Press the  button again to return to normal remote controller mode.

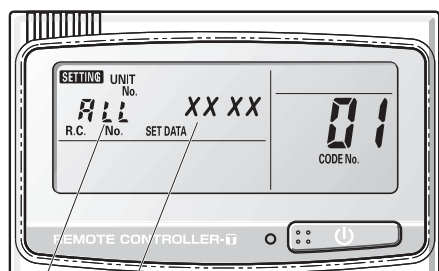


Number changes to indicate which indoor unit is currently selected.

Indoor unit address

<If multiple indoor units are connected to 1 remote controller (group control)>

- 1 Press and hold the  button and  button for 4 seconds or longer (simple settings mode).
- 2 "ALL" is displayed on the remote controller.
- 3 Next, press the  button.
- 4 The address is displayed for 1 of the indoor units which is connected to the remote controller.
Check that the fan of that indoor unit starts and that air is discharged.
- 5 Press the  button again and check the address of each indoor unit in sequence.
- 6 Press the  button again to return to normal remote controller mode.



Number changes to indicate which indoor unit is currently selected.

Indoor unit address

5. Remote Controller Test Run Settings

6. Caution for Pump Down

5. Remote Controller Test Run Settings

- 1 Press the remote controller  button for 4 seconds or longer. Then press the  button.
 - “TEST” appears on the LCD display while the test run is in progress.
 - The temperature cannot be adjusted when in Test Run mode.
(This mode places a heavy load on the machines. Therefore use it only when performing the test run.)
- 2 The test run can be performed using the HEAT, COOL, or FAN operation modes.

NOTE

The outdoor units will not operate for approximately 3 minutes after the power is turned ON and after operation is stopped.

- 3 If correct operation is not possible, a code is displayed on the remote controller display.
(Refer to “7. Meaning of Alarm Messages” and correct the problem.)
- 4 After the test run is completed, press the  button again.
Check that “TEST” disappears from the remote controller display.
(To prevent continuous test runs, this remote controller includes a timer function that cancels the test run after 60 minutes.)
 - * If the test run is performed using the wired remote controller, operation is possible even if the cassette-type ceiling panel has not been installed. (“P09” display does not occur.)

6. Caution for Pump Down

Pump down means refrigerant gas in the system is returned to the outdoor unit. Pump down is used when the unit is to be moved, or before servicing the refrigerant circuit.



CAUTION

- This outdoor unit cannot collect more than the rated refrigerant amount as shown by the nameplate on the back.
- If the amount of refrigerant is more than that recommended, do not conduct pump down.
In this case use another refrigerant collecting system.

7. Meaning of Alarm Messages

7. Meaning of Alarm Messages

Table of Self-Diagnostics Functions and Description of Alarm Displays

Alarm messages are indicated by the blinking of LED 1 and 2 (D302, D303) on the outdoor unit PCB.

They are also displayed on the wired remote controller.

- Viewing the LED 1 and 2 (D302 and D303) alarm displays

LED 1	LED 2	Alarm contents
☼ (☼ : Blinking)	☼	Alarm display LED 1 blinks M times, then LED 2 blinks N times. The cycle then repeats. M = 2: P alarm 3: H alarm 4: E alarm 5: F alarm 6: L alarm N = Alarm No. Example: LED 1 blinks 2 times, then LED 2 blinks 16 times. The cycle then repeats. Alarm is "P16".
Alternating		

Possible cause of malfunction			Alarm message	
Serial communication errors / Mis-setting	Remote controller is detecting error signal from indoor unit.	Error in receiving serial communication signal. (Signal from main indoor unit in case of group control) Ex: Auto address is not completed.	<E01>	
		Error in transmitting serial communication signal.	<E02>	
	Indoor unit is detecting error signal from remote controller (and system controller).		<<E03>>	
	Indoor unit is detecting error signal from main outdoor unit.	Error in receiving serial communication signal. When turning on the power supply, the number of connected indoor units does not correspond to the number set. (Except R.C. address is "0".)	E04	
		Error of the outdoor unit in receiving serial communication signal from the indoor unit.	<E06>	
	Improper setting of indoor unit or remote controller.	Indoor unit address setting is duplicated.	E08	
		Remote controller address connector (RCU. ADR) is duplicated. (Duplication of main remote controller)	<<E09>>	
	During auto address setting, number of connected units does not correspond to number set. When turning on the power supply, number of connected units does not correspond to number set. (Except R.C. address is "0".)	Starting auto address setting is prohibited. This alarm message shows that the auto address connector CN-A.ADD is shorted while other RC line is executing auto address operation.		E12
		Error in auto address setting. (Number of connected indoor units is less than the number set)		E15
		Error in auto address setting. (Number of connected indoor units is more than the number set)		E16
		No indoor unit is connected during auto address setting.		E20
		Main outdoor unit is detecting error signal from sub outdoor unit.		E24
		Error of outdoor unit address setting.		E25
		The number of connected main and sub outdoor units do not correspond to the number set at main outdoor unit PCB.		E26
		Error of sub outdoor unit in receiving serial communication signal from main outdoor unit.		E29
	Outdoor Unit Serial Transmission Error	Transmission from outdoor unit faulty		E30
	Indoor unit communication error of group control wiring.	Error of main indoor unit in receiving serial communication signal from sub indoor units.		E18
	Improper setting.	This alarm message shows when the indoor unit for multiple-use is not connected to the outdoor unit.		L02
		Duplication of main indoor unit address setting in group control.		<L03>
		Duplication of outdoor R.C. address setting.		L04
		There are 2 or more indoor units controllers which have operation mode priority in 1 refrigerant circuit.	Priority set remote controller	L05
			Non-priority set remote controller	L06
		Group control wiring is connected to individual control indoor unit.		L07
		Indoor unit address is not set.		L08
		Capacity code of indoor unit is not set.		<<L09>>
		Capacity code of outdoor unit is not set.		L10
	4-way valve operation failure		L18	

Continued

7. Meaning of Alarm Messages

Possible cause of malfunction			Alarm message
Activation of protective device	Protective device in indoor unit is activated.	Thermal protector in indoor unit fan motor is activated.	<<P01>>
		Improper wiring connections of ceiling panel.	<<P09>>
		Float switch is activated.	<<P10>>
		Operation of protective function of fan inverter	<<P12>>
	Protective device in outdoor unit is activated.	Incorrect discharge temperature. (Comp. No. 1)	P03
		The internal circuit of the high pressure switch is dead.	P04
		Power supply circuit failure, missing-phase detection.	P05
		There is a trouble with the outdoor unit when the liquid valve and the gas valve are closed.	P13
		O2 sensor (detects low oxygen level) activated.	P14
		Compressor running failure resulting from missing phase in the compressor wiring, etc. (Start failure not caused by IPM or no gas.)	P16
		Outdoor unit fan motor is unusual.	P22
		IPM trip (IPM current or temperature)	H31
		Missing-phase/reverse-phase in the compressor wiring, Compressor start-up failure (Overcurrent at time of INV compressor starts up, etc.)	P29
	Thermistor fault	Indoor thermistor is either open or damaged.	Indoor coil temp. sensor (E1)
Indoor coil temp. sensor (E3)			<<F03>>
Indoor suction air (room) temp. sensor (TA)			<<F10>>
Indoor discharge air temp. sensor (BL)			<<F11>>
Outdoor thermistor is either open or damaged.		Compressor No. 1 discharge gas temp. sensor (TD)	F04
		Outdoor No. 1 coil liquid temp. sensor (C1)	F07
		Outdoor air temp. sensor (TO)	F08
		Compressor intake port temperature sensor (TS)	F12
		High pressure sensor failure	F16
		EEPROM on indoor unit PCB failure	
Protective device for compressor is activated	Protective device for compressor No. 1 is activated.	EEPROM on the outdoor unit PCB is a failure.	F31
		Overcurrent of power supply current (CT) sensor	H01
		PAM failure	H02
		Power supply current (CT) sensor failure (Current is not detected at time of compressor ON.)	H03
Alarm messages displayed on system controller			
Serial communication errors / Mis-setting	Error in transmitting serial communication signal	Indoor or main outdoor unit is not operating correctly. Mis-wiring of control wiring between indoor unit, main outdoor unit and system controller.	C05
	Error in receiving serial communication signal	Indoor or main outdoor unit is not operating correctly. Mis-wiring of control wiring between indoor unit, main outdoor unit and system controller. CN1 is not connected properly.	C06
Activation of protective device	Protective device of sub indoor unit in group control is activated.	When using wireless remote controller or system controller, in order to check the alarm message in detail, connect wired remote controller to indoor unit temporarily.	P30

NOTE

1. Alarm messages in << >> do not affect other indoor unit operations.
2. Alarm messages in < > sometimes affect other indoor unit operations depending on the fault.

Contents

6. ELECTRICAL DATA

1. Outdoor Unit6-2

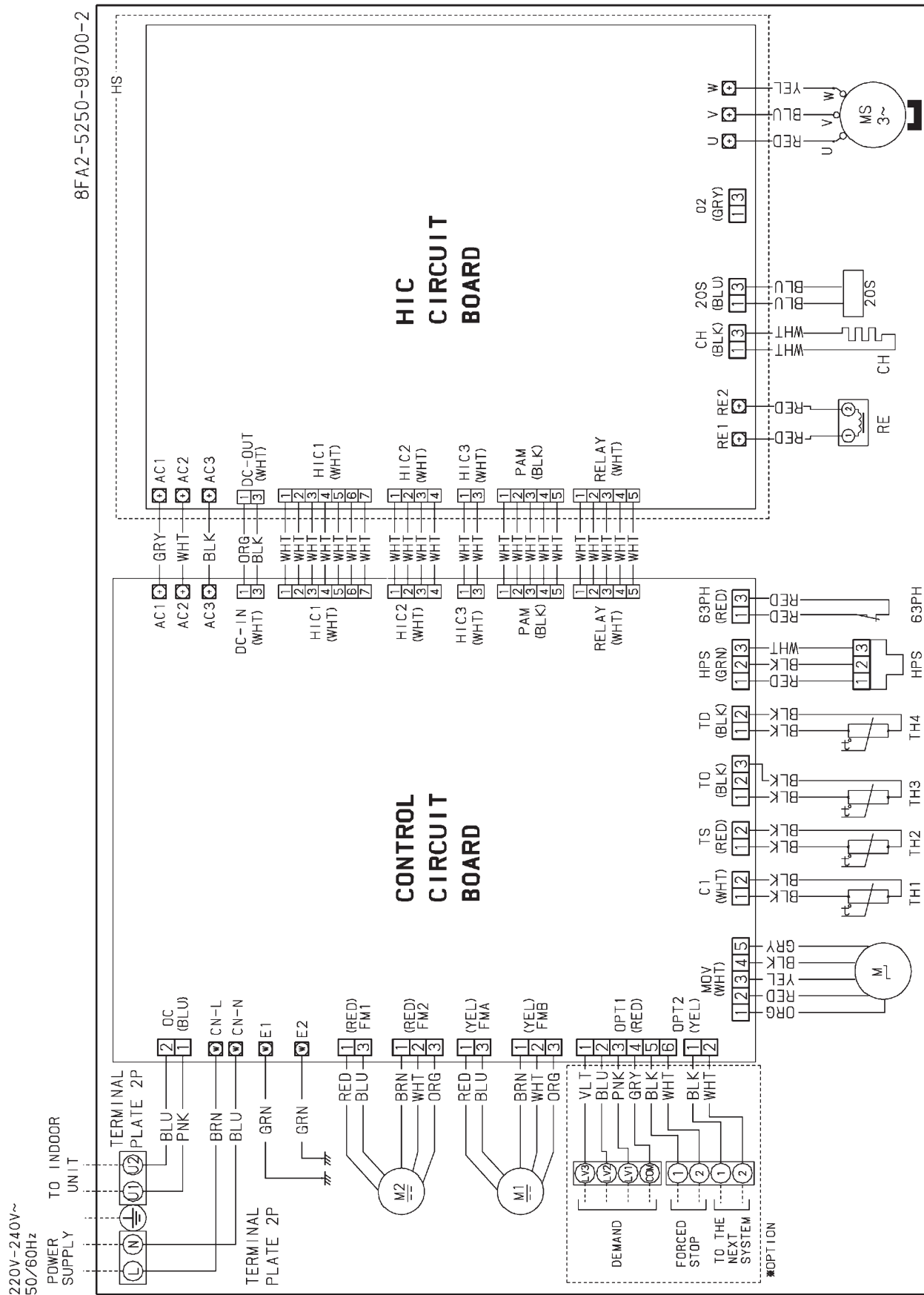
 (1) Electric Wiring Diagram U-4LE1E5/U-5LE1E5/U-6LE1E56-2

2. Indoor Unit

 * Refer to the 2WAY SYSTEM TECHNICAL DATA (TD831151)

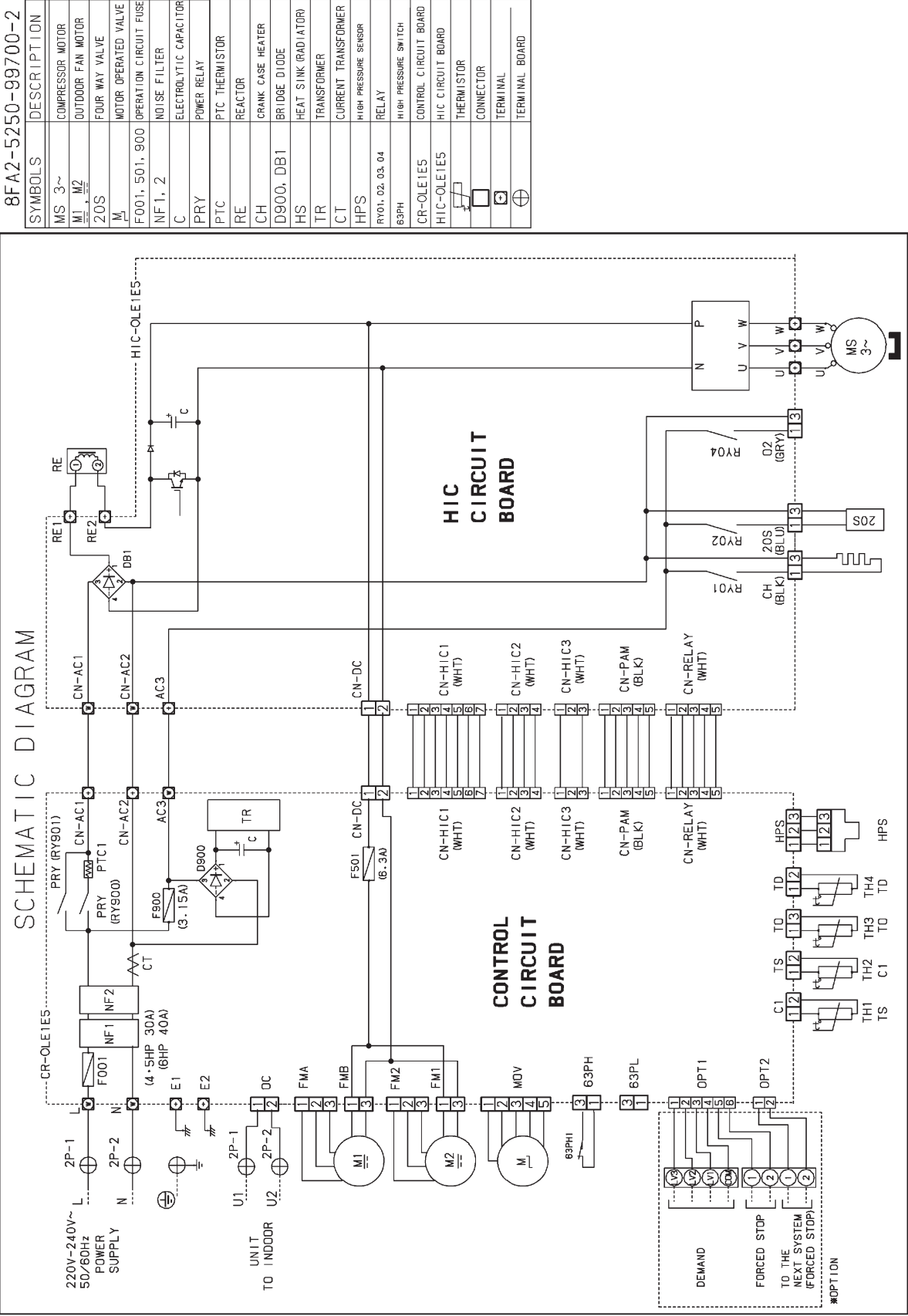
1. Outdoor Unit

(1) Electric Wiring Diagram U-4LE1E5/U-5LE1E5/U-6LE1E5



1. Outdoor Unit

Schematic Diagram U-4LE1E5/U-5LE1E5/U-6LE1E5



(1) Electric Wiring Diagram U-4LE1E8 / U-5LE1E8 / U-6LE1E8

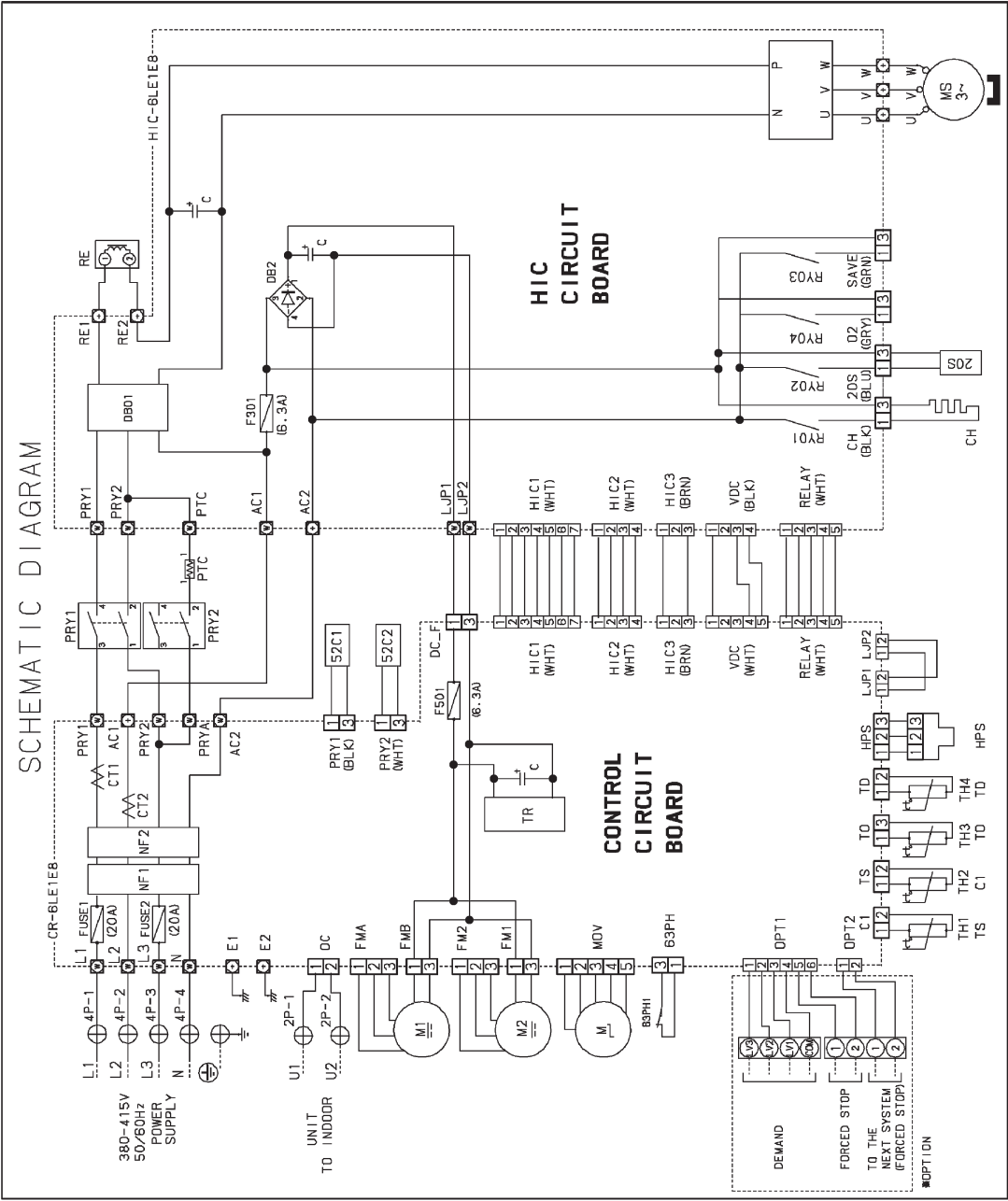


1. Outdoor Unit

Schematic Diagram U-4LE1E8 / U-5LE1E8 / U-6LE1E8

8FA2-5251-01800-2

SYMBOLS	DESCRIPTION
MS 3~	COMPRESSOR MOTOR
M1, M2	OUTDOOR FAN MOTOR
20S	FOUR WAY VALVE
M	MOTOR OPERATED VALVE
FUSE1, 2, F301, FS01	OPERATION CIRCUIT FUSE
NF1, 2	NOISE FILTER
C	ELECTROLYTIC CAPACITOR
PRY1, PRY2	POWER RELAY
52C1, 52C2	MAGNETIC CONTACTOR
PTC	PTC THERMISTOR
RE	REACTOR
CH	CRANK CASE HEATER
DB01, DB2	BRIDGE DIODE
HS	HEAT SINK (RADIATOR)
TR	TRANSFORMER
CT1, CT2	CURRENT TRANSFORMER
HPS	HIGH PRESSURE SENSOR
RY01, 02, 03, 04	RELAY
63PH	HIGH PRESSURE SWITCH
CR-6LE1E8	CONTROL CIRCUIT BOARD
HIC-6LE1E8	HIC CIRCUIT BOARD
	THERMISTOR
	CONNECTOR
	TERMINAL
	TERMINAL BOARD



WARNING DANGER! HIGH VOLTAGE.
DO NOT TOUCH ANY ELECTRIC COMPONENT WHILE OPERATING OR 5 MINUTES AFTER STOPPING OPERATION. MEASURE THE POWER VOLTAGE OF "VDC+" AND "VDC-" PINS WITH THE TESTER.

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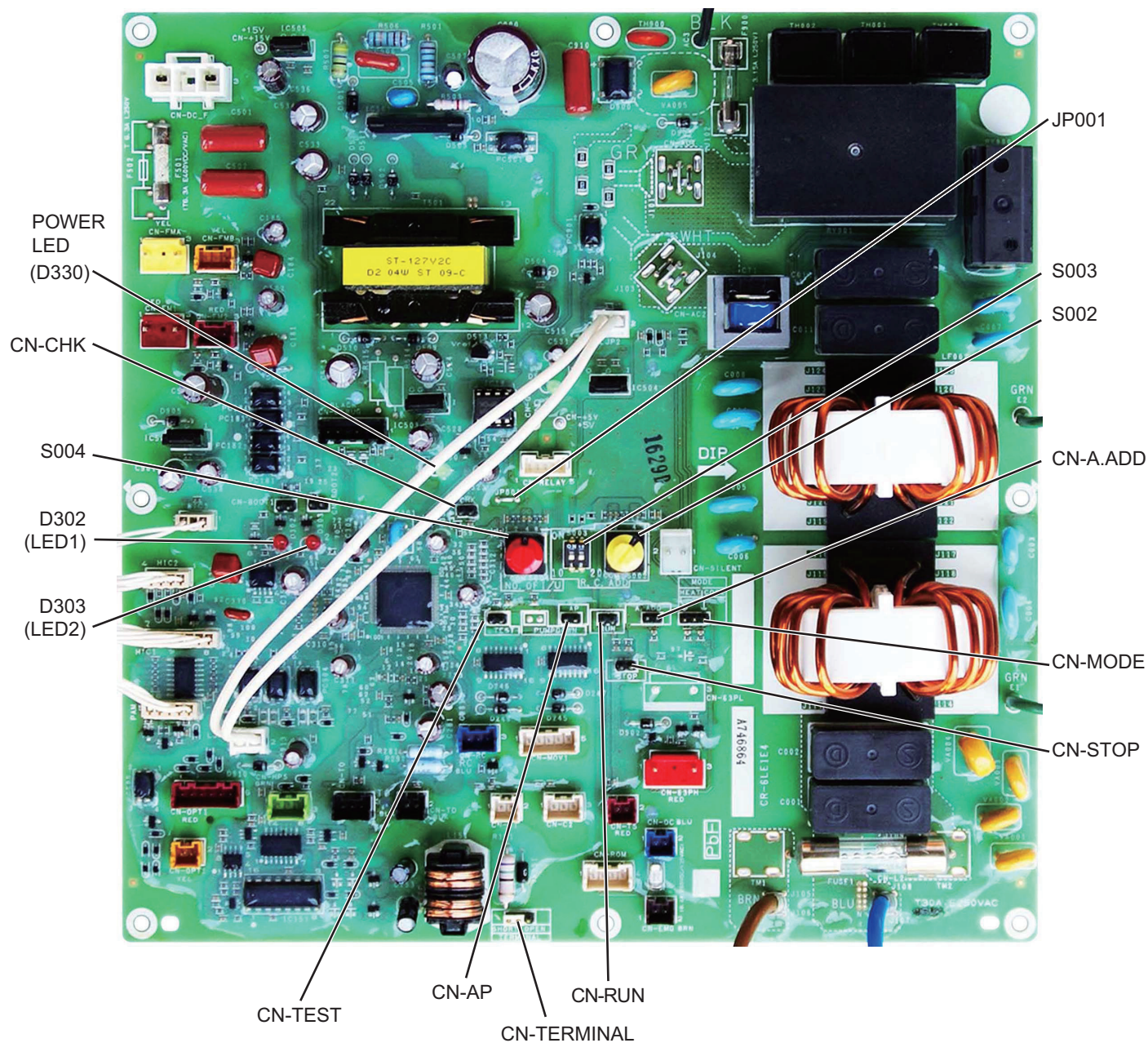
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* Refer to the 2WAY SYSTEM TECHNICAL DATA (TD831151)

1. Outdoor Unit Control PCB

1-1. Single-Phase Unit

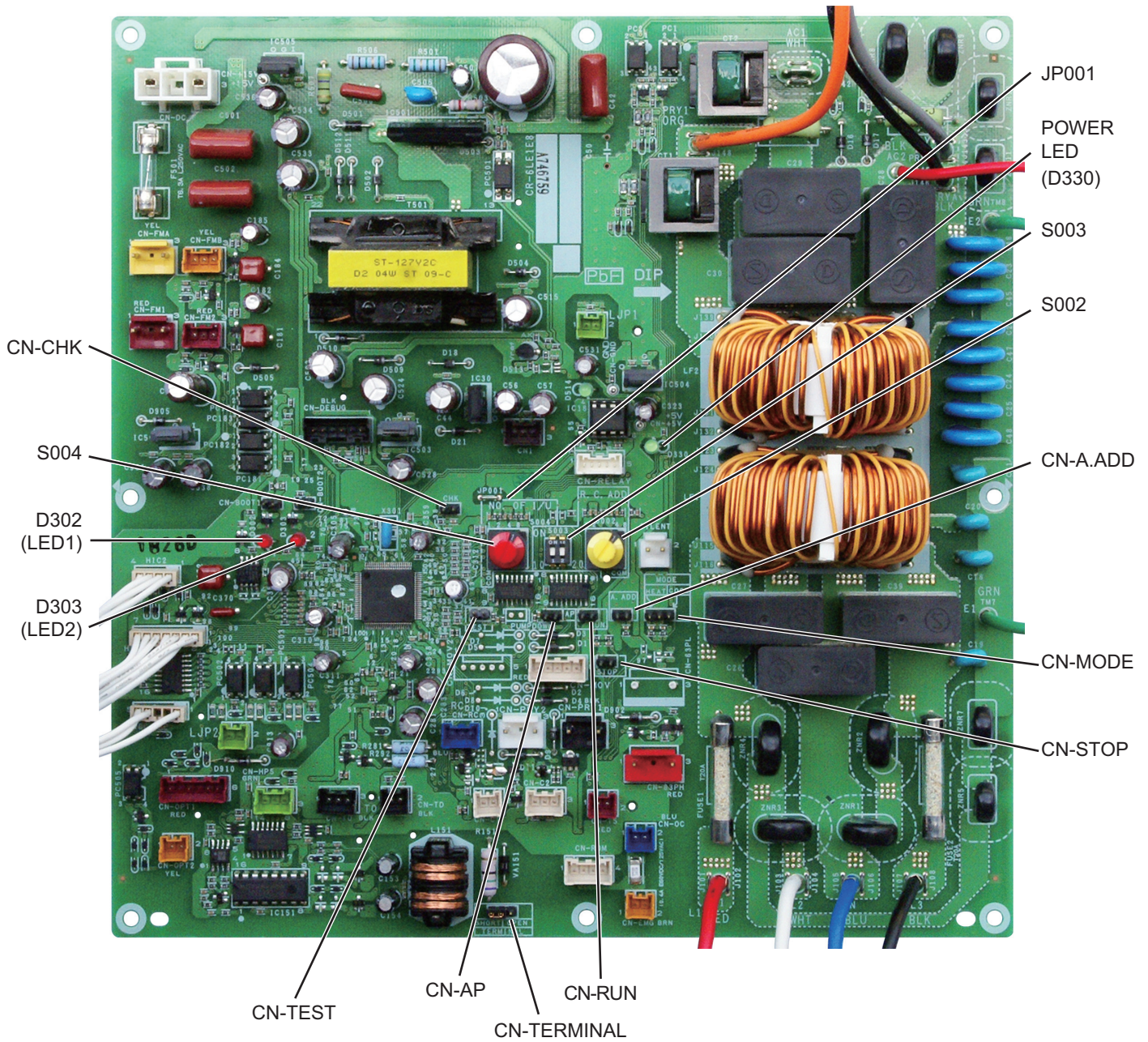
■ CR-5LE1E5
CR-6LE1E5



1. Outdoor Unit Control PCB

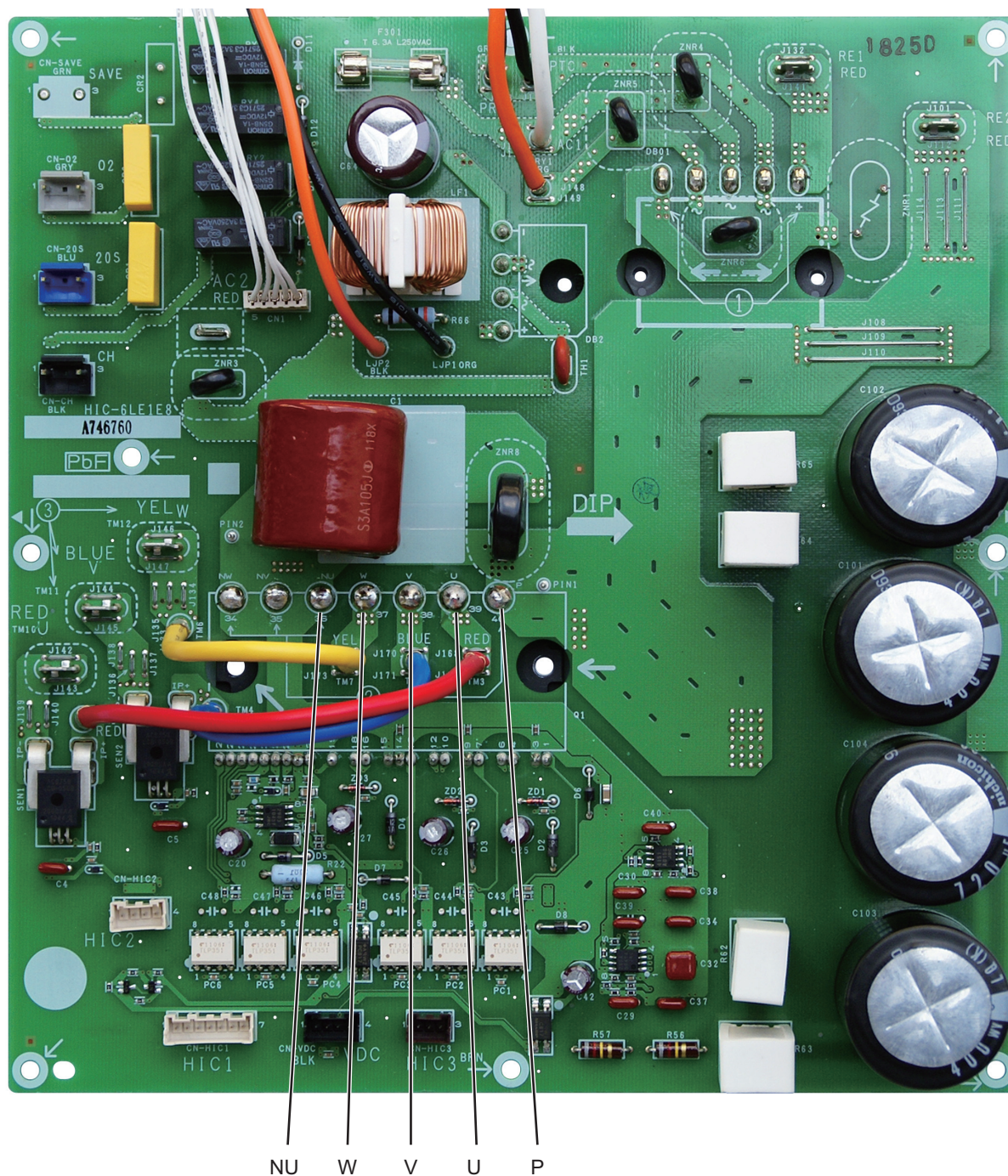
1-2. 3-Phase Unit

■ CR-6LE1E8



1. Outdoor Unit Control PCB

■ HIC PCB (HIC-6LE1E8)



1. Outdoor Unit Control PCB

1-3. Functions of Outdoor Unit PCB

Automatic address setting (CN-A.ADD)	2P plug (black): Automatic address setting pin • Short-circuit this pin for 1 second or longer to automatically set the addresses at the indoor units that are connected to that outdoor unit and are within the same system. • The system address is “1” at the time of shipment. Automatic address setting is necessary even for communications lines in a single system where the inter-unit control wiring does not cross to any other systems. • While automatic address setting is in progress, the 2 LEDs (LED1, 2: red) on the outdoor unit control PCB blink alternately. (Short-circuiting this pin while automatic address setting is in progress will stop the automatic address setting operation.)
S002	Rotary switch (10 positions, yellow): Outdoor system address setting switch • The setting is “1” at the time of shipment. It is not necessary to change the setting if wiring is connected only to an outdoor unit and indoor units in a single system and the inter-unit control wiring does not cross multiple systems. • If wiring links the inter-unit control wiring for multiple systems to the same communications lines, then a different address must be set for each refrigerant tubing system. • If wiring links multiple systems, a maximum of 30 systems (up to 64 indoor units) can be connected. This setting can be set up to “39,” however control will be for 30 systems even if the setting is set to higher than 30. An alarm will be displayed if system addresses are duplicated. (For details, refer to Table 1.)
S003	DIP switch (2P, black): Switches for setting system address 10s digit and 20s digit • If 10 systems or more are set, the setting is made by a combination of this DIP switch and S002. • If 10 – 19 systems are set, set switch 1 (10s digit) to ON. • If 20 – 29 systems are set, set switch 2 (20s digit) to ON, and set switch 1 (10s digit) to OFF. • If 30 systems are set, set both switch 1 (10s digit) and switch 2 (20s digit) to ON. (For details concerning S002 and S003, refer to Table 1.)
S004	Rotary switch (16 positions, gray): Switch for setting the number of connected indoor units. In order to allow the outdoor unit to manage indoor units in the same refrigerant system, set the number of connected indoor units. (For details, refer to Table 2.)
JP001	Jumper wire
Terminal plug (CN-TERMINAL)	3P plug (black): For communications circuit impedance matching • A connecting socket (3P, black) is attached to the terminal plug at the time of shipment from the factory. • In the case of link wiring which combines the inter-unit control wiring for multiple systems into a single communications circuit, leave the connecting socket in place at only one of the outdoor units, and move the socket from the “SHORT” side to the “OPEN” side at all other outdoor units. If multiple connecting sockets are left in place, communications trouble will occur.

1. Outdoor Unit Control PCB

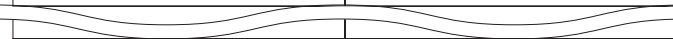
LED 1 (D302) LED 2 (D303)	LED (red × 2) • LED 1 and 2 blink alternately while automatic address setting is in progress. • Display the alarm contents for alarms that are detected by the outdoor unit.
Power LED (D330)	LED (green): Power indicator Indicates the DC 5V power on the outdoor unit control PCB.
RUN (CN-RUN)	2P plug (black): Start pin Short-circuit this pin and apply a pulse signal to start all indoor units in that refrigerant system.
Stop (CN-STOP)	2P plug (black): Stop pin Short-circuit this pin and apply a pulse signal to stop all indoor units in that refrigerant system.
AP (CN-AP)	2P plug (black): Vacuuming pin • To perform vacuuming of the outdoor unit, short-circuit this pin and then turn the power ON. All solenoid valves turn ON and vacuuming begins smoothly. (Do not perform automatic address setting at this time.) • Release the short-circuit to return the unit to normal status.
Mode change (CN-MODE)	3P plug (black): Indoor unit Heating/Cooling mode change pin • When operating the compressors to perform automatic address setting, operation in Heating mode can be normally used. However, short-circuiting this pin performs operation in Cooling mode. (Static signal) • Short-circuiting this pin during ordinary operation changes the mode from Cooling to Heating (if the current mode is Cooling) or from Heating to Cooling (if the current mode is Heating).
Test (CN-TEST)	2P plug (black) • This pin is used to test the PCB at the factory. • When the power is turned ON after this pin has been short-circuited, all output signals will be output in sequence. (Sequential output does not occur if this pin is short-circuited when the power is already ON.) Releasing this pin returns the unit to normal control.
CHK (CN-CHK)	2P plug (black) Short-circuit during the test run operation. Open the circuit after the test run.

1. Outdoor Unit Control PCB

Table 1. Setting the System Address [S002: Rotary switch (yellow), S003: 2P DIP (black)]

	Outdoor system address No.	S002 setting (system address switch)	S003 setting	
			1P (10s digit)	2P (20s digit)
1 refrigerant system only	1	0	OFF	OFF
Link wiring	1	1	OFF	OFF
	2	2	OFF	OFF
	3	3	OFF	OFF
	4	4	OFF	OFF
	5	5	OFF	OFF
	6	6	OFF	OFF
	7	7	OFF	OFF
	8	8	OFF	OFF
	9	9	OFF	OFF
	10	0	ON	OFF
	11	1	ON	OFF
	12	2	ON	OFF
	13	3	ON	OFF
	14	4	ON	OFF
	15	5	ON	OFF
	16	6	ON	OFF
	17	7	ON	OFF
	18	8	ON	OFF
	19	9	ON	OFF
	20	0	OFF	ON
	21	1	OFF	ON
	22	2	OFF	ON
	23	3	OFF	ON
	24	4	OFF	ON
	25	5	OFF	ON
	26	6	OFF	ON
	27	7	OFF	ON
	28	8	OFF	ON
	29	9	OFF	ON
	30	0	ON	ON

Table 2. Setting the Number of Indoor Units [S004: Rotary switch (gray)]

Number of Indoor Units	S004 Setting
1	1
2	2
3	3
	
9	9
10	A
11	B
12	C
13	D
14	E
15	F

1. Outdoor Unit Control PCB

1-4. Self-Diagnostics Function Table

- Causes and corrections in instances when automatic address setting cannot be started.

Trouble	Cause and correction
The power LED on the outdoor unit control PCB does not turn ON.	Check for any errors in the power wiring to the outdoor unit, and check for a missing phase.
LED 1 and 2 on the outdoor unit control PCB do not turn OFF when the outdoor unit power is turned ON, and automatic address setting cannot be started.	Check the "Alarm Displays" table and correct the problem.
An alarm appears immediately when automatic address setting is started from the remote controller.	
Nothing happens when the operator attempts to start automatic address setting from the remote controller.	Check that the remote controller wiring and the inter-unit control wiring are connected correctly. Check that the indoor unit power is ON.

- Causes and corrections in instances when automatic address setting starts, but cannot be completed successfully.

Trouble	Cause and correction
An alarm appears on the remote controller sometime from several seconds to several minutes after automatic address setting is started.	Check the "Alarm Displays" table and correct the problem.
LED 1 and 2 on the outdoor unit control PCB indicate that automatic address setting is in progress (the LEDs blink alternately) for several minutes after automatic address setting is started (the compressors may also start and stop several times), however LED 1 and 2 never indicate that automatic address setting is completed (turn OFF).	Check the alarm details on the "Outdoor Unit Control PCB LED 1 and 2 Alarms" table, then check the "Alarm Displays" table and correct the problem.

- If alarm E15, E16, or E20 appears after automatic address setting is started, check the following items.

Alarm display	Alarm description
E15	The number of indoor units detected during automatic address setting was smaller than the number of indoor units which was set with switch S004 on the outdoor unit PCB.
E16	The number of indoor units detected during automatic address setting was larger than the number of indoor units which was set with switch S004 on the outdoor unit PCB.
E20	The outdoor unit received no serial signals from indoor units within 90 seconds after automatic address setting was started.

1. Outdoor Unit Control PCB

Check items	E15	E16	E20
Check that the indoor unit power is turned ON.	○		○
Check that the inter-unit control wiring is connected correctly. (Check that there are no open circuits, short circuits, terminal plugs, incorrect wiring to the remote controller terminals, or similar problems.)	○	○	○
Check that the remote controller wiring is connected correctly. (Check that there are no open circuits, short circuits, incorrect wiring to the inter-unit control wiring terminals, control wiring for group control, or similar problems.)	○		○
Check that the number of indoor units has been set correctly using switch S004 on the outdoor unit control PCB.	○	○	
Check that the amount of additional refrigerant charge is correct (if automatic address setting is performed with the compressors ON).	○		
Check that the refrigerant tubing connections are correct (if automatic address setting is performed with the compressors ON).	○	○	
Check that there are no problems with indoor unit sensors E1 and E3 (if automatic address setting is performed with the compressors ON).	○		
Check that there are no indoor units where the system address was already incorrectly set by manual or automatic address setting.		○	

- When automatic address setting is started from the outdoor unit control PCB or from the remote controller, **SETTING** (SETTING) appears on the remote controller at units where the inter-unit control wiring and remote controller wiring are connected correctly. LED 1 and 2 on the outdoor unit control PCB blink alternately.
- In the case of indoor unit group control, if there is a mistake in the remote controller inter-unit control wiring for group control, addresses may not be set even if **SETTING** (SETTING) appears.
- Even if alarm E15 or E16 appears, addresses are set at those indoor units which could be verified. The set addresses can be checked using the remote controller.
- If one of the below alarms appears when the remote controller is operated after automatic address setting was completed (LED 1 and 2 on the outdoor unit control PCB are turned OFF), follow the instructions in the table below and correct the problem location.

Remote controller display	Cause
Nothing is displayed.	The remote controller is not connected correctly (power trouble). The indoor unit power was cut off after automatic address setting was completed.
E01	The remote controller is not connected correctly (remote controller receiving trouble). The remote controller of an indoor unit where the indoor unit address is not set is inadvertently operated. (Communications with the outdoor unit are not possible.)
E02	The remote controller is not connected correctly (trouble with sending of the signal from the remote controller to the indoor unit).
E09	The indoor unit ceiling panel connector is not connected correctly.

1. Outdoor Unit Control PCB

- The outdoor unit maintenance remote controller can be used to check the alarm display.
The number of times that LED 1 and 2 blink on the outdoor unit control PCB can be used to check the alarm display.
(Refer to "Checking the LED 1 and 2 Alarm Display on the Outdoor Unit Control PCB.")

Alarm Code	Alarm Meaning
E01	Remote Controller Reception Error
E02	Remote Controller Transmission Error
E03	Error in Indoor Unit Receiving Signal from Remote Controller (central)
E04	Error in Indoor Unit Receiving Signal from the Outdoor unit
E05	Error in Indoor Unit Transmitting Signal to the Outdoor Unit
E06	Error in the Outdoor Unit Receiving Signal from the Indoor Unit
E07	Error in Outdoor Unit Transmitting Signal to the Indoor Unit
E08	Duplicate Indoor Unit Address Settings Error
E09	More Than One Remote Controller Set to Main Error
E12	Start of Auto Address Setting Prohibited Due to Auto Address Setting Being in Progress
E13	Error in Indoor Unit Transmitting Signal to Remote Controller
E15	Auto-Address Alarm (not enough units)
E16	Auto-Address Alarm (too many units)
E18	Faulty Communication in Group Control Wiring
E20	No Indoor Units Error
E30	Outdoor Unit Serial Transmission Error

F04	Compressor Discharge Temperature Sensor Error
F06	Outdoor Air Intake Temperature Sensor Error
F07	Heat Exchanger Inlet Temperature Sensor (C1) Error
F08	Outdoor Air Temperature Sensor (TO) Error
F12	Compressor Intake Temperature Sensor (TS) Error
F16	High Pressure Sensor Error
F31	Outdoor Unit Nonvolatile Memory (EEPROM) Error

H01	Primary Current (Input) Detect of Overcurrent
H02	PAM Error
H03	Compressor CT Sensor (Current Sensor) Unplugged
H31	HIC Error

L04	Duplicated Setting of Outdoor System Address Error
L10	Outdoor Unit Capacity Not Yet Setup Error
L18	4-way valve operation failure

P03	Compressor Discharge Temperature Error
P04	Actuation of High Pressure Switch
P05	Power Supply Error
P13	Forgot-to-open Valve Alarm
P14	O ₂ Sensor
P16	Overcurrent of Inverter Compressor
P22	Outdoor Fan Motor Error
P29	INV Compressor Start-up Failed (including lock) Due to INV Compressor Wiring Open Phase, Faulty DCCT, etc.

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2. Cooling Capacity of Indoor Unit

* Refer to the 2WAY SYSTEM TECHNICAL DATA (TD831151)

1. Capacity Ratio of Outdoor Unit

1-1. U-4LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-10.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	-5.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	0.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	5.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.29	14.7	2.43	15.6	2.57
	10.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.29	14.7	2.43	15.6	2.58
	15.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.30	14.7	2.44	15.6	2.58
	20.0	13.0	2.19	13.0	2.19	13.0	2.19	13.0	2.19	13.9	2.33	14.7	2.48	15.6	2.62
	25.0	13.0	2.24	13.0	2.24	13.0	2.24	13.0	2.24	13.9	2.39	14.7	2.54	15.6	2.69
	30.0	13.0	2.60	13.0	2.60	13.0	2.60	13.0	2.60	13.9	2.79	14.7	2.98	15.6	3.18
	35.0	13.0	3.09	13.0	3.09	13.0	3.09	13.0	3.09	13.9	3.32	14.7	3.55	15.3	3.65
	40.0	12.9	3.65	12.9	3.65	12.9	3.65	12.9	3.65	13.6	3.65	13.6	3.65	13.9	3.65
	43.0	12.1	3.65	12.1	3.65	12.1	3.65	12.1	3.65	12.4	3.65	12.8	3.65	13.1	3.65
	46.0	10.2	3.07	10.2	3.07	10.2	3.07	10.2	3.07	10.2	2.92	10.2	2.78	10.2	2.66

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
120%	-10.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	-5.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	0.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	5.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.23	14.4	2.37	15.2	2.51
	10.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.24	14.4	2.38	15.2	2.52
	15.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.24	14.4	2.38	15.2	2.52
	20.0	12.2	2.02	12.7	2.13	12.7	2.13	12.7	2.13	13.6	2.28	14.4	2.42	15.2	2.56
	25.0	12.2	2.08	12.7	2.19	12.7	2.19	12.7	2.19	13.6	2.33	14.4	2.48	15.2	2.63
	30.0	12.2	2.36	12.7	2.52	12.7	2.52	12.7	2.52	13.6	2.70	14.4	2.89	15.2	3.08
	35.0	12.2	2.81	12.7	3.00	12.7	3.00	12.7	3.00	13.6	3.22	14.4	3.44	15.2	3.65
	40.0	12.2	3.35	12.7	3.59	12.7	3.59	12.7	3.59	13.1	3.65	13.5	3.65	13.8	3.65
	43.0	12.0	3.65	12.0	3.65	12.0	3.65	12.0	3.65	12.4	3.65	12.7	3.65	13.0	3.65
	46.0	10.2	3.10	10.2	3.10	10.2	3.10	10.2	3.10	10.2	2.94	10.2	2.81	10.2	2.68

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-10.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	-5.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	0.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	5.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.18	14.1	2.32	14.9	2.45
	10.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.18	14.1	2.32	14.9	2.46
	15.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.19	14.1	2.32	14.9	2.46
	20.0	10.9	1.81	11.8	1.96	12.4	2.08	12.4	2.08	13.2	2.22	14.1	2.36	14.9	2.50
	25.0	10.9	1.87	11.8	2.02	12.4	2.13	12.4	2.13	13.2	2.27	14.1	2.42	14.9	2.56
	30.0	10.9	2.11	11.8	2.29	12.4	2.44	12.4	2.44	13.2	2.62	14.1	2.80	14.9	2.98
	35.0	10.9	2.51	11.8	2.73	12.4	2.90	12.4	2.90	13.2	3.12	14.1	3.33	14.9	3.55
	40.0	10.9	2.99	11.8	3.26	12.4	3.47	12.4	3.47	13.1	3.65	13.4	3.65	13.7	3.65
	43.0	10.9	3.37	11.8	3.65	11.9	3.65	11.9	3.65	12.3	3.65	12.6	3.65	13.0	3.65
	46.0	10.2	3.13	10.2	3.13	10.2	3.13	10.2	3.13	10.2	2.97	10.2	2.83	10.2	2.71

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	-5.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	0.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	5.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	2.00	12.9	2.13	13.7	2.26	14.5	2.39
	10.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	2.00	12.9	2.13	13.7	2.26	14.5	2.40
	15.0	9.7	1.60	10.5	1.73	11.3	1.87	12.1	2.00	12.9	2.13	13.7	2.27	14.5	2.40
	20.0	9.7	1.61	10.5	1.74	11.3	1.90	12.1	2.03	12.9	2.17	13.7	2.30	14.5	2.44
	25.0	9.7	1.66	10.5	1.80	11.3	1.94	12.1	2.08	12.9	2.22	13.7	2.36	14.5	2.49
	30.0	9.7	1.87	10.5	2.04	11.3	2.20	12.1	2.37	12.9	2.53	13.7	2.71	14.5	2.88
	35.0	9.7	2.22	10.5	2.41	11.3	2.61	12.1	2.81	12.9	3.01	13.7	3.22	14.5	3.42
	40.0	9.7	2.65	10.5	2.88	11.3	3.12	12.1	3.36	12.9	3.60	13.3	3.65	13.7	3.65
	43.0	9.7	2.97	10.5	3.24	11.3	3.52	11.8	3.65	12.2	3.65	12.5	3.65	12.9	3.65
	46.0	9.7	3.46	10.2	3.61	10.2	3.36	10.2	3.16	10.2	3.00	10.2	2.86	10.2	2.73

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
90%	-10.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.91	12.3	2.03	13.1	2.15
	-5.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.91	12.3	2.03	13.1	2.15
	0.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.03	13.1	2.15
	5.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	10.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	15.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	20.0	8.7	1.45	9.4	1.57	10.2	1.69	10.9	1.81	11.6	1.93	12.3	2.07	13.1	2.19
	25.0	8.7	1.49	9.4	1.61	10.2	1.74	10.9	1.86	11.6	1.98	12.3	2.11	13.1	2.23
	30.0	8.7	1.66	9.4	1.79	10.2	1.93	10.9	2.07	11.6	2.22	12.3	2.36	13.1	2.50
	35.0	8.7	1.96	9.4	2.12	10.2	2.29	10.9	2.46	11.6	2.63	12.3	2.80	13.1	2.97
	40.0	8.7	2.33	9.4	2.53	10.2	2.73	10.9	2.93	11.6	3.13	12.3	3.34	13.1	3.54
	43.0	8.7	2.60	9.4	2.82	10.2	3.05	10.9	3.28	11.6	3.51	12.2	3.65	12.5	3.65
46.0	8.7	2.98	9.4	3.24	10.2	3.51	10.2	3.34	10.2	3.15	10.2	2.99	10.2	2.85	

1. Capacity Ratio of Outdoor Unit

U-4LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-10.0	6.8	1.12	7.3	1.21	7.9	1.30	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	-5.0	6.8	1.12	7.3	1.21	7.9	1.30	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	0.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	5.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	10.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.59	10.2	1.68
	15.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.59	10.2	1.68
	20.0	6.8	1.12	7.3	1.22	7.9	1.31	8.5	1.40	9.0	1.50	9.6	1.59	10.2	1.68
	25.0	6.8	1.13	7.3	1.25	7.9	1.34	8.5	1.44	9.0	1.53	9.6	1.63	10.2	1.72
	30.0	6.8	1.26	7.3	1.35	7.9	1.45	8.5	1.54	9.0	1.64	9.6	1.74	10.2	1.83
	35.0	6.8	1.47	7.3	1.59	7.9	1.70	8.5	1.81	9.0	1.93	9.6	2.04	10.2	2.16
	40.0	6.8	1.74	7.3	1.88	7.9	2.01	8.5	2.15	9.0	2.28	9.6	2.42	10.2	2.56
	43.0	6.8	1.93	7.3	2.08	7.9	2.23	8.5	2.39	9.0	2.54	9.6	2.69	10.2	2.84
	46.0	6.8	2.17	7.3	2.34	7.9	2.51	8.5	2.68	9.0	2.86	9.6	3.03	10.2	3.20

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-10.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	-5.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	0.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	5.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	10.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	15.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	20.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	25.0	5.8	0.97	6.3	1.05	6.8	1.13	7.3	1.21	7.7	1.29	8.2	1.37	8.7	1.45
	30.0	5.8	1.05	6.3	1.13	6.8	1.22	7.3	1.30	7.7	1.38	8.2	1.46	8.7	1.54
	35.0	5.8	1.25	6.3	1.34	6.8	1.43	7.3	1.52	7.7	1.61	8.2	1.71	8.7	1.80
	40.0	5.8	1.47	6.3	1.58	6.8	1.69	7.3	1.80	7.7	1.91	8.2	2.01	8.7	2.12
	43.0	5.8	1.63	6.3	1.75	6.8	1.87	7.3	1.99	7.7	2.11	8.2	2.23	8.7	2.35
	46.0	5.8	1.81	6.3	1.95	6.8	2.09	7.3	2.22	7.7	2.35	8.2	2.49	8.7	2.62

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-10.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	-5.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	0.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	5.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	10.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	15.0	4.8	0.80	5.2	0.87	5.6	0.94	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	20.0	4.8	0.80	5.2	0.87	5.6	0.94	6.1	1.00	6.5	1.07	6.9	1.14	7.3	1.20
	25.0	4.8	0.81	5.2	0.87	5.6	0.94	6.1	1.01	6.5	1.07	6.9	1.14	7.3	1.21
	30.0	4.8	0.86	5.2	0.93	5.6	1.00	6.1	1.06	6.5	1.13	6.9	1.20	7.3	1.26
	35.0	4.8	1.04	5.2	1.11	5.6	1.18	6.1	1.25	6.5	1.32	6.9	1.39	7.3	1.46
	40.0	4.8	1.22	5.2	1.30	5.6	1.39	6.1	1.47	6.5	1.55	6.9	1.64	7.3	1.72
	43.0	4.8	1.34	5.2	1.44	5.6	1.53	6.1	1.62	6.5	1.72	6.9	1.81	7.3	1.90
	46.0	4.8	1.49	5.2	1.59	5.6	1.70	6.1	1.80	6.5	1.90	6.9	2.00	7.3	2.11

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-10.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	-5.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	0.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	5.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	10.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	15.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	20.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	25.0	3.9	0.65	4.2	0.70	4.5	0.75	4.8	0.81	5.2	0.86	5.5	0.91	5.8	0.97
	30.0	3.9	0.68	4.2	0.74	4.5	0.79	4.8	0.84	5.2	0.89	5.5	0.95	5.8	1.00
	35.0	3.9	0.84	4.2	0.89	4.5	0.94	4.8	1.00	5.2	1.05	5.5	1.10	5.8	1.15
	40.0	3.9	0.97	4.2	1.04	4.5	1.10	4.8	1.16	5.2	1.23	5.5	1.29	5.8	1.35
	43.0	3.9	1.07	4.2	1.14	4.5	1.21	4.8	1.28	5.2	1.35	5.5	1.42	5.8	1.48
	46.0	3.9	1.18	4.2	1.26	4.5	1.34	4.8	1.41	5.2	1.49	5.5	1.56	5.8	1.64

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
30%	-10.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	-5.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	0.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	5.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	10.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	15.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	20.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	25.0	2.9	0.49	3.1	0.53	3.4	0.57	3.6	0.61	3.9	0.65	4.1	0.69	4.4	0.72
	30.0	2.9	0.49	3.1	0.53	3.4	0.57	3.6	0.61	3.9	0.65	4.1	0.69	4.4	0.73
	35.0	2.9	0.65	3.1	0.68	3.4	0.72	3.6	0.76	3.9	0.80	4.1	0.83	4.4	0.87
	40.0	2.9	0.75	3.1	0.79	3.4	0.84	3.6	0.88	3.9	0.92	4.1	0.96	4.4	1.01
43.0	2.9	0.82	3.1	0.87	3.4	0.91	3.6	0.96	3.9	1.01	4.1	1.06	4.4	1.10	
46.0	2.9	0.89	3.1	0.95	3.4	1.00	3.6	1.06	3.9	1.11	4.1	1.16	4.4	1.21	

1. Capacity Ratio of Outdoor Unit

1-2. U-4LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-19.8	-20.0	8.9	3.52	8.8	3.52	8.6	3.52	8.3	3.42	8.3	3.42	8.3	3.42	7.2	3.00
	-14.7	-15.0	9.9	3.52	9.7	3.52	9.5	3.52	9.4	3.52	9.4	3.52	9.4	3.52	8.5	3.22
	-9.6	-10.0	10.9	3.52	10.8	3.52	10.5	3.52	10.4	3.52	10.4	3.52	10.4	3.52	10.0	3.46
	-4.4	-5.0	12.0	3.52	11.9	3.52	11.6	3.52	11.5	3.52	11.5	3.52	11.5	3.52	11.0	3.42
	-1.8	-2.5	12.6	3.52	12.5	3.52	12.2	3.52	12.1	3.52	12.1	3.52	12.1	3.52	11.0	3.16
	0.8	0.0	13.3	3.52	13.1	3.52	12.8	3.52	12.7	3.52	12.7	3.52	12.7	3.52	11.0	2.91
	2.8	2.0	13.8	3.52	13.7	3.52	13.4	3.52	13.2	3.52	13.2	3.52	13.2	3.52	11.0	2.72
	6.0	5.0	14.7	3.52	14.5	3.52	13.9	3.40	13.4	3.25	13.4	3.25	13.4	3.25	11.0	2.45
	7.0	6.0	15.0	3.52	14.8	3.52	13.9	3.28	13.4	3.13	13.4	3.13	13.4	3.13	11.0	2.37
	8.6	7.5	15.4	3.51	14.9	3.37	13.9	3.10	13.4	2.96	13.4	2.96	13.4	2.96	11.0	2.25
	11.2	10.0	15.4	3.19	14.9	3.06	13.9	2.82	13.4	2.70	13.4	2.70	13.4	2.70	11.0	2.07
	16.4	15.0	15.4	2.66	14.9	2.56	13.9	2.37	13.4	2.27	13.4	2.27	13.4	2.27	11.0	1.78
	24.0	18.0	15.4	2.42	14.9	2.33	13.9	2.16	13.4	2.08	13.4	2.08	13.4	2.08	11.0	1.65

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
120%	-19.8	-20.0	8.9	3.52	8.8	3.52	8.6	3.49	8.3	3.40	8.3	3.40	8.3	3.40	6.6	2.76
	-14.7	-15.0	9.9	3.52	9.8	3.52	9.5	3.52	9.4	3.52	9.4	3.52	9.4	3.52	7.8	2.96
	-9.6	-10.0	10.9	3.52	10.8	3.52	10.6	3.52	10.4	3.52	10.4	3.52	10.4	3.52	9.2	3.18
	-4.4	-5.0	12.1	3.52	11.9	3.52	11.7	3.52	11.5	3.52	11.5	3.52	11.5	3.52	9.9	3.04
	-1.8	-2.5	12.7	3.52	12.5	3.52	12.2	3.52	12.1	3.52	12.1	3.52	12.1	3.52	9.9	2.81
	0.8	0.0	13.3	3.52	13.2	3.52	12.9	3.52	12.7	3.52	12.7	3.52	12.7	3.52	9.9	2.59
	2.8	2.0	13.9	3.52	13.7	3.52	13.4	3.52	13.1	3.46	13.1	3.46	12.8	3.24	9.9	2.42
	6.0	5.0	14.7	3.52	14.6	3.52	13.6	3.24	13.1	3.10	13.1	3.10	12.8	2.92	9.9	2.19
	7.0	6.0	15.1	3.52	14.6	3.39	13.6	3.12	13.1	2.99	13.1	2.99	12.8	2.81	9.9	2.11
	8.6	7.5	15.1	3.33	14.6	3.20	13.6	2.95	13.1	2.83	13.1	2.83	12.8	2.67	9.9	2.01
	11.2	10.0	15.1	3.03	14.6	2.91	13.6	2.69	13.1	2.58	13.1	2.58	12.8	2.44	9.9	1.85
	16.4	15.0	15.1	2.54	14.6	2.45	13.6	2.27	13.1	2.18	13.1	2.18	12.8	2.08	9.9	1.59
	24.0	18.0	15.1	2.31	14.6	2.23	13.6	2.07	13.1	2.00	13.1	2.00	12.8	1.92	9.9	1.48

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
110%	-19.8	-20.0	9.0	3.52	8.9	3.52	8.6	3.47	8.3	3.37	8.2	3.37	7.6	3.14	6.1	2.52
	-14.7	-15.0	9.9	3.52	9.8	3.52	9.6	3.52	9.5	3.52	9.5	3.52	9.0	3.38	7.1	2.70
	-9.6	-10.0	11.0	3.52	10.9	3.52	10.6	3.52	10.5	3.52	10.5	3.52	10.5	3.52	8.4	2.90
	-4.4	-5.0	12.1	3.52	12.0	3.52	11.7	3.52	11.6	3.52	11.6	3.52	11.5	3.52	8.9	2.69
	-1.8	-2.5	12.7	3.52	12.6	3.52	12.3	3.52	12.2	3.52	12.2	3.52	11.5	3.32	8.9	2.49
	0.8	0.0	13.4	3.52	13.2	3.52	12.9	3.52	12.8	3.52	12.5	3.38	11.5	3.06	8.9	2.29
	2.8	2.0	13.9	3.52	13.8	3.52	13.3	3.44	12.8	3.30	12.5	3.15	11.5	2.85	8.9	2.14
	6.0	5.0	14.7	3.48	14.2	3.35	13.3	3.08	12.8	2.95	12.5	2.83	11.5	2.57	8.9	1.94
	7.0	6.0	14.7	3.35	14.2	3.22	13.3	2.97	12.8	2.85	12.5	2.73	11.5	2.48	8.9	1.87
	8.6	7.5	14.7	3.17	14.2	3.04	13.3	2.81	12.8	2.69	12.5	2.59	11.5	2.35	8.9	1.78
	11.2	10.0	14.7	2.88	14.2	2.77	13.3	2.56	12.8	2.46	12.5	2.37	11.5	2.15	8.9	1.64
	16.4	15.0	14.7	2.42	14.2	2.33	13.3	2.17	12.8	2.08	12.5	2.02	11.5	1.84	8.9	1.42
	24.0	18.0	14.7	2.21	14.2	2.14	13.3	1.99	12.8	1.92	12.5	1.86	11.5	1.70	8.9	1.32

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-19.8	-20.0	9.0	3.52	8.9	3.52	8.6	3.45	8.3	3.35	7.5	3.05	6.9	2.84	5.5	2.29
	-14.7	-15.0	10.0	3.52	9.9	3.52	9.6	3.52	9.5	3.52	8.8	3.30	8.1	3.06	6.5	2.45
	-9.6	-10.0	11.0	3.52	10.9	3.52	10.6	3.52	10.5	3.52	10.1	3.52	9.5	3.32	7.6	2.62
	-4.4	-5.0	12.2	3.52	12.0	3.52	11.7	3.52	11.6	3.52	11.1	3.47	10.2	3.14	7.9	2.36
	-1.8	-2.5	12.8	3.52	12.6	3.52	12.3	3.52	12.2	3.52	11.1	3.20	10.2	2.90	7.9	2.18
	0.8	0.0	13.4	3.52	13.3	3.52	13.0	3.51	12.5	3.37	11.1	2.94	10.2	2.67	7.9	2.01
	2.8	2.0	14.0	3.52	13.8	3.52	13.0	3.27	12.5	3.14	11.1	2.74	10.2	2.49	7.9	1.88
	6.0	5.0	14.4	3.30	13.9	3.18	13.0	2.93	12.5	2.81	11.1	2.47	10.2	2.23	7.9	1.70
	7.0	6.0	14.4	3.18	13.9	3.06	13.0	2.83	12.5	2.71	11.1	2.37	10.2	2.16	7.9	1.64
	8.6	7.5	14.4	3.00	13.9	2.89	13.0	2.67	12.5	2.56	11.1	2.25	10.2	2.05	7.9	1.56
	11.2	10.0	14.4	2.74	13.9	2.64	13.0	2.44	12.5	2.35	11.1	2.07	10.2	1.89	7.9	1.45
	16.4	15.0	14.4	2.31	13.9	2.23	13.0	2.07	12.5	1.99	11.1	1.76	10.2	1.61	7.9	1.24
	24.0	18.0	14.4	2.08	13.9	2.01	13.0	1.86	12.5	1.79	11.1	1.58	10.2	1.44	7.9	1.13

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
90%	-19.8	-20.0	9.1	3.52	9.0	3.52	8.6	3.39	8.3	3.30	7.5	3.00	6.9	2.80	5.5	2.26
	-14.7	-15.0	10.2	3.52	10.0	3.52	9.8	3.52	9.7	3.52	8.8	3.24	8.1	3.01	6.5	2.40
	-9.6	-10.0	11.2	3.52	11.1	3.52	10.8	3.52	10.7	3.52	10.0	3.36	9.2	3.06	7.1	2.33
	-4.4	-5.0	12.4	3.52	12.2	3.52	11.7	3.39	11.3	3.26	10.0	2.88	9.2	2.62	7.1	2.01
	-1.8	-2.5	12.9	3.49	12.5	3.37	11.7	3.12	11.3	3.01	10.0	2.65	9.2	2.42	7.1	1.86
	0.8	0.0	12.9	3.20	12.5	3.09	11.7	2.87	11.3	2.76	10.0	2.44	9.2	2.23	7.1	1.71
	2.8	2.0	12.9	2.97	12.5	2.87	11.7	2.67	11.3	2.57	10.0	2.27	9.2	2.09	7.1	1.62
	6.0	5.0	12.9	2.70	12.5	2.61	11.7	2.43	11.3	2.34	10.0	2.08	9.2	1.90	7.1	1.47
	7.0	6.0	12.9	2.62	12.5	2.53	11.7	2.35	11.3	2.27	10.0	2.01	9.2	1.84	7.1	1.42
	8.6	7.5	12.9	2.48	12.5	2.40	11.7	2.23	11.3	2.15	10.0	1.90	9.2	1.75	7.1	1.35
	11.2	10.0	12.9	2.27	12.5	2.20	11.7	2.05	11.3	1.97	10.0	1.76	9.2	1.61	7.1	1.26
	16.4	15.0	12.9	1.93	12.5	1.87	11.7	1.75	11.3	1.69	10.0	1.50	9.2	1.38	7.1	1.08
24.0	18.0	12.9	1.81	12.5	1.75	11.7	1.64	11.3	1.58	10.0	1.42	9.2	1.31	7.1	1.03	

1. Capacity Ratio of Outdoor Unit

U-4LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-19.8	-20.0	9.5	3.52	9.3	3.52	9.1	3.50	8.8	3.40	7.8	3.04	7.1	2.81	5.5	2.20
	-14.7	-15.0	10.0	3.29	9.7	3.19	9.1	3.00	8.8	2.90	7.8	2.60	7.1	2.40	5.5	1.90
	-9.6	-10.0	10.0	2.82	9.7	2.74	9.1	2.57	8.8	2.49	7.8	2.24	7.1	2.07	5.5	1.64
	-4.4	-5.0	10.0	2.40	9.7	2.34	9.1	2.21	8.8	2.15	7.8	1.95	7.1	1.81	5.5	1.46
	-1.8	-2.5	10.0	2.23	9.7	2.17	9.1	2.05	8.8	1.99	7.8	1.81	7.1	1.68	5.5	1.35
	0.8	0.0	10.0	2.07	9.7	2.01	9.1	1.90	8.8	1.85	7.8	1.68	7.1	1.56	5.5	1.24
	2.8	2.0	10.0	1.95	9.7	1.90	9.1	1.79	8.8	1.74	7.8	1.58	7.1	1.46	5.5	1.16
	6.0	5.0	10.0	1.78	9.7	1.73	9.1	1.63	8.8	1.58	7.8	1.43	7.1	1.32	5.5	1.06
	7.0	6.0	10.0	1.72	9.7	1.67	9.1	1.58	8.8	1.53	7.8	1.38	7.1	1.28	5.5	1.03
	8.6	7.5	10.0	1.64	9.7	1.59	9.1	1.50	8.8	1.46	7.8	1.32	7.1	1.22	5.5	0.98
	11.2	10.0	10.0	1.52	9.7	1.48	9.1	1.39	8.8	1.35	7.8	1.23	7.1	1.14	5.5	0.92
	16.4	15.0	10.0	1.42	9.7	1.38	9.1	1.29	8.8	1.25	7.8	1.12	7.1	1.03	5.5	0.82
	24.0	18.0	10.0	1.42	9.7	1.38	9.1	1.29	8.8	1.25	7.8	1.12	7.1	1.03	5.5	0.82

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-19.8	-20.0	8.6	2.99	8.3	2.91	7.8	2.75	7.5	2.67	6.7	2.42	6.1	2.25	4.7	1.80
	-14.7	-15.0	8.6	2.56	8.3	2.50	7.8	2.36	7.5	2.29	6.7	2.08	6.1	1.95	4.7	1.58
	-9.6	-10.0	8.6	2.21	8.3	2.16	7.8	2.06	7.5	2.00	6.7	1.83	6.1	1.71	4.7	1.39
	-4.4	-5.0	8.6	1.91	8.3	1.87	7.8	1.78	7.5	1.73	6.7	1.59	6.1	1.49	4.7	1.21
	-1.8	-2.5	8.6	1.77	8.3	1.73	7.8	1.65	7.5	1.61	6.7	1.47	6.1	1.38	4.7	1.11
	0.8	0.0	8.6	1.64	8.3	1.60	7.8	1.53	7.5	1.49	6.7	1.36	6.1	1.27	4.7	1.03
	2.8	2.0	8.6	1.55	8.3	1.51	7.8	1.44	7.5	1.40	6.7	1.28	6.1	1.19	4.7	0.96
	6.0	5.0	8.6	1.41	8.3	1.38	7.8	1.30	7.5	1.27	6.7	1.16	6.1	1.08	4.7	0.88
	7.0	6.0	8.6	1.37	8.3	1.33	7.8	1.26	7.5	1.23	6.7	1.12	6.1	1.05	4.7	0.85
	8.6	7.5	8.6	1.31	8.3	1.27	7.8	1.21	7.5	1.18	6.7	1.07	6.1	1.00	4.7	0.82
	11.2	10.0	8.6	1.23	8.3	1.19	7.8	1.13	7.5	1.10	6.7	1.00	6.1	0.94	4.7	0.77
	16.4	15.0	8.6	1.23	8.3	1.19	7.8	1.12	7.5	1.08	6.7	0.97	6.1	0.90	4.7	0.71
	24.0	18.0	8.6	1.23	8.3	1.19	7.8	1.12	7.5	1.08	6.7	0.97	6.1	0.90	4.7	0.71

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
50%	-19.8	-20.0	7.2	2.27	6.9	2.22	6.5	2.12	6.3	2.07	5.6	1.90	5.1	1.79	3.9	1.47
	-14.7	-15.0	7.2	1.98	6.9	1.94	6.5	1.86	6.3	1.81	5.6	1.67	5.1	1.57	3.9	1.29
	-9.6	-10.0	7.2	1.72	6.9	1.69	6.5	1.62	6.3	1.58	5.6	1.46	5.1	1.37	3.9	1.13
	-4.4	-5.0	7.2	1.48	6.9	1.46	6.5	1.39	6.3	1.36	5.6	1.26	5.1	1.19	3.9	0.97
	-1.8	-2.5	7.2	1.38	6.9	1.35	6.5	1.29	6.3	1.26	5.6	1.17	5.1	1.09	3.9	0.90
	0.8	0.0	7.2	1.28	6.9	1.25	6.5	1.20	6.3	1.17	5.6	1.07	5.1	1.01	3.9	0.83
	2.8	2.0	7.2	1.20	6.9	1.17	6.5	1.12	6.3	1.09	5.6	1.01	5.1	0.94	3.9	0.78
	6.0	5.0	7.2	1.09	6.9	1.07	6.5	1.02	6.3	1.00	5.6	0.92	5.1	0.86	3.9	0.71
	7.0	6.0	7.2	1.06	6.9	1.04	6.5	0.99	6.3	0.97	5.6	0.89	5.1	0.84	3.9	0.69
	8.6	7.5	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.93	5.6	0.86	5.1	0.81	3.9	0.67
	11.2	10.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.63
	16.4	15.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.61
24.0	18.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.61	

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
40%	-19.8	-20.0	5.7	1.72	5.6	1.68	5.2	1.62	5.0	1.58	4.4	1.46	4.1	1.38	3.1	1.15
	-14.7	-15.0	5.7	1.49	5.6	1.47	5.2	1.41	5.0	1.38	4.4	1.28	4.1	1.21	3.1	1.01
	-9.6	-10.0	5.7	1.29	5.6	1.27	5.2	1.23	5.0	1.20	4.4	1.12	4.1	1.06	3.1	0.88
	-4.4	-5.0	5.7	1.11	5.6	1.10	5.2	1.06	5.0	1.03	4.4	0.96	4.1	0.90	3.1	0.76
	-1.8	-2.5	5.7	1.03	5.6	1.01	5.2	0.97	5.0	0.95	4.4	0.88	4.1	0.83	3.1	0.70
	0.8	0.0	5.7	0.95	5.6	0.94	5.2	0.90	5.0	0.88	4.4	0.82	4.1	0.77	3.1	0.65
	2.8	2.0	5.7	0.90	5.6	0.88	5.2	0.85	5.0	0.83	4.4	0.77	4.1	0.73	3.1	0.61
	6.0	5.0	5.7	0.85	5.6	0.82	5.2	0.78	5.0	0.76	4.4	0.71	4.1	0.67	3.1	0.56
	7.0	6.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.69	4.1	0.65	3.1	0.55
	8.6	7.5	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.63	3.1	0.53
	11.2	10.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50
	16.4	15.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50
	24.0	18.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-19.8	-20.0	4.3	1.22	4.2	1.20	3.9	1.16	3.8	1.14	3.3	1.06	3.1	1.01	2.4	0.85
	-14.7	-15.0	4.3	1.06	4.2	1.04	3.9	1.01	3.8	0.99	3.3	0.93	3.1	0.88	2.4	0.74
	-9.6	-10.0	4.3	0.92	4.2	0.90	3.9	0.87	3.8	0.86	3.3	0.80	3.1	0.76	2.4	0.65
	-4.4	-5.0	4.3	0.78	4.2	0.77	3.9	0.75	3.8	0.73	3.3	0.69	3.1	0.66	2.4	0.56
	-1.8	-2.5	4.3	0.73	4.2	0.72	3.9	0.69	3.8	0.68	3.3	0.64	3.1	0.61	2.4	0.52
	0.8	0.0	4.3	0.68	4.2	0.67	3.9	0.64	3.8	0.63	3.3	0.59	3.1	0.56	2.4	0.48
	2.8	2.0	4.3	0.66	4.2	0.64	3.9	0.61	3.8	0.60	3.3	0.56	3.1	0.53	2.4	0.46
	6.0	5.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.50	2.4	0.43
	7.0	6.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.42
	8.6	7.5	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.40
	11.2	10.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39
16.4	15.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39	
24.0	18.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39	

1. Capacity Ratio of Outdoor Unit

1-3. U-5LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-10.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	-5.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	0.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	5.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	10.0	15.1	2.40	15.1	2.40	15.1	2.40	15.1	2.40	16.1	2.56	17.1	2.72	18.1	2.90
	15.0	15.1	2.43	15.1	2.43	15.1	2.43	15.1	2.43	16.1	2.59	17.1	2.75	18.1	2.91
	20.0	15.1	2.46	15.1	2.46	15.1	2.46	15.1	2.46	16.1	2.62	17.1	2.79	18.1	2.96
	25.0	15.1	2.61	15.1	2.61	15.1	2.61	15.1	2.61	16.1	2.80	17.1	3.01	18.1	3.22
	30.0	15.1	3.09	15.1	3.09	15.1	3.09	15.1	3.09	16.1	3.33	17.1	3.57	18.1	3.82
	35.0	15.1	3.68	15.1	3.68	15.1	3.68	15.1	3.68	16.1	3.97	17.1	4.26	17.6	4.33
	40.0	14.8	4.33	14.8	4.33	14.8	4.33	14.8	4.33	15.2	4.33	15.6	4.33	16.0	4.33
	43.0	13.2	3.93	13.2	3.93	13.2	3.93	13.2	3.93	13.2	3.73	13.2	3.55	13.2	3.39
	46.0	9.8	2.68	9.8	2.68	9.8	2.68	9.8	2.68	9.9	2.56	9.9	2.45	9.8	2.35

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
120%	-10.0	14.1	2.24	14.7	2.33	14.7	2.33	14.7	2.33	15.7	2.49	16.7	2.64	17.6	2.80
	-5.0	14.1	2.24	14.7	2.33	14.7	2.33	14.7	2.33	15.7	2.49	16.7	2.65	17.6	2.80
	0.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.49	16.7	2.65	17.6	2.80
	5.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.49	16.7	2.65	17.6	2.81
	10.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.50	16.7	2.65	17.6	2.81
	15.0	14.1	2.25	14.7	2.37	14.7	2.37	14.7	2.37	15.7	2.53	16.7	2.69	17.6	2.84
	20.0	14.1	2.29	14.7	2.40	14.7	2.40	14.7	2.40	15.7	2.56	16.7	2.72	17.6	2.88
	25.0	14.1	2.37	14.7	2.53	14.7	2.53	14.7	2.53	15.7	2.72	16.7	2.91	17.6	3.11
	30.0	14.1	2.77	14.7	2.99	14.7	2.99	14.7	2.99	15.7	3.22	16.7	3.45	17.6	3.69
	35.0	14.1	3.30	14.7	3.56	14.7	3.56	14.7	3.56	15.7	3.84	16.7	4.12	17.5	4.33
	40.0	14.1	3.95	14.7	4.30	14.7	4.30	14.7	4.30	15.1	4.33	15.5	4.33	15.9	4.33
	43.0	13.2	3.98	13.2	3.98	13.2	3.98	13.2	3.98	13.2	3.77	13.2	3.58	13.2	3.42
	46.0	9.9	2.70	9.9	2.70	9.9	2.70	9.9	2.70	9.8	2.58	9.8	2.47	9.8	2.37

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-10.0	12.6	2.00	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.73
	-5.0	12.6	2.00	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.73
	0.0	12.6	2.01	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.74
	5.0	12.6	2.01	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.59	17.2	2.74
	10.0	12.6	2.01	13.7	2.18	14.4	2.29	14.4	2.29	15.3	2.44	16.3	2.59	17.2	2.74
	15.0	12.6	2.01	13.7	2.18	14.4	2.31	14.4	2.31	15.3	2.47	16.3	2.62	17.2	2.78
	20.0	12.6	2.05	13.7	2.22	14.4	2.34	14.4	2.34	15.3	2.50	16.3	2.66	17.2	2.81
	25.0	12.6	2.13	13.7	2.31	14.4	2.45	14.4	2.45	15.3	2.63	16.3	2.81	17.2	3.00
	30.0	12.6	2.47	13.7	2.70	14.4	2.89	14.4	2.89	15.3	3.11	16.3	3.33	17.2	3.56
	35.0	12.6	2.94	13.7	3.21	14.4	3.44	14.4	3.44	15.3	3.71	16.3	3.98	17.2	4.25
	40.0	12.6	3.52	13.7	3.85	14.4	4.15	14.4	4.15	15.0	4.33	15.4	4.33	15.8	4.33
	43.0	12.6	4.01	13.2	4.02	13.2	4.02	13.2	4.02	13.2	3.81	13.2	3.62	13.2	3.45
	46.0	9.8	2.71	9.8	2.71	9.8	2.71	9.8	2.71	9.8	2.59	9.8	2.48	9.9	2.38

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	11.2	1.78	12.1	1.93	13.1	2.07	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	-5.0	11.2	1.78	12.1	1.93	13.1	2.07	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	0.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	5.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.23	14.9	2.37	15.9	2.52	16.8	2.67
	10.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.23	14.9	2.38	15.9	2.53	16.8	2.68
	15.0	11.2	1.79	12.1	1.94	13.1	2.09	14.0	2.26	14.9	2.41	15.9	2.56	16.8	2.71
	20.0	11.2	1.82	12.1	1.98	13.1	2.13	14.0	2.28	14.9	2.43	15.9	2.59	16.8	2.74
	25.0	11.2	1.89	12.1	2.05	13.1	2.21	14.0	2.37	14.9	2.54	15.9	2.72	16.8	2.90
	30.0	11.2	2.19	12.1	2.39	13.1	2.59	14.0	2.80	14.9	3.01	15.9	3.22	16.8	3.44
	35.0	11.2	2.60	12.1	2.84	13.1	3.08	14.0	3.33	14.9	3.57	15.8	3.82	16.7	4.08
	40.0	11.2	3.11	12.1	3.40	13.1	3.70	14.0	4.00	14.8	4.27	15.3	4.33	15.7	4.33
	43.0	11.2	3.53	12.1	3.88	13.1	4.23	13.2	4.08	13.2	3.85	13.2	3.66	13.2	3.49
	46.0	9.9	3.23	9.9	3.03	9.9	2.87	9.8	2.74	9.9	2.61	9.9	2.50	9.9	2.40

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-10.0	10.1	1.60	10.9	1.73	11.8	1.87	12.6	2.00	13.4	2.13	14.3	2.27	15.1	2.40
	-5.0	10.1	1.60	10.9	1.73	11.8	1.87	12.6	2.00	13.4	2.13	14.3	2.27	15.1	2.40
	0.0	10.1	1.60	10.9	1.74	11.8	1.87	12.6	2.00	13.4	2.14	14.3	2.27	15.1	2.40
	5.0	10.1	1.60	10.9	1.74	11.8	1.87	12.6	2.01	13.4	2.14	14.3	2.27	15.1	2.41
	10.0	10.1	1.61	10.9	1.74	11.8	1.88	12.6	2.01	13.4	2.15	14.3	2.30	15.1	2.43
	15.0	10.1	1.64	10.9	1.77	11.8	1.91	12.6	2.05	13.4	2.18	14.3	2.32	15.1	2.46
	20.0	10.1	1.69	10.9	1.83	11.8	1.97	12.6	2.11	13.4	2.26	14.3	2.40	15.1	2.54
	25.0	10.1	1.93	10.9	2.10	11.8	2.26	12.6	2.43	13.4	2.61	14.3	2.78	15.1	2.96
	30.0	10.1	2.28	10.9	2.48	11.8	2.68	12.6	2.89	13.4	3.10	14.3	3.31	15.1	3.52
	35.0	10.1	2.72	10.9	2.96	11.8	3.20	12.6	3.45	13.4	3.70	14.3	3.96	15.1	4.23
	40.0	10.1	3.05	10.9	3.33	11.8	3.62	12.6	3.91	13.2	4.07	13.2	3.85	13.2	3.66
	43.0	9.9	3.41	9.9	3.18	9.8	2.99	9.9	2.83	9.9	2.70	9.9	2.58	9.9	2.47

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp.
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1. Capacity Ratio of Outdoor Unit

U-5LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-10.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.76	11.8	1.87
	-5.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.76	11.8	1.87
	0.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	5.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	10.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	15.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.67	11.1	1.77	11.8	1.88
	20.0	7.8	1.26	8.5	1.36	9.1	1.46	9.8	1.57	10.5	1.67	11.1	1.80	11.8	1.90
	25.0	7.8	1.30	8.5	1.40	9.1	1.51	9.8	1.62	10.5	1.73	11.1	1.83	11.8	1.94
	30.0	7.8	1.45	8.5	1.56	9.1	1.67	9.8	1.79	10.5	1.90	11.1	2.02	11.8	2.14
	35.0	7.8	1.70	8.5	1.83	9.1	1.97	9.8	2.11	10.5	2.24	11.1	2.38	11.8	2.52
	40.0	7.8	2.01	8.5	2.17	9.1	2.33	9.8	2.49	10.5	2.66	11.1	2.82	11.8	2.99
	43.0	7.8	2.23	8.5	2.41	9.1	2.59	9.8	2.77	10.5	2.96	11.1	3.14	11.8	3.33
	46.0	7.8	2.52	8.5	2.73	9.1	2.94	9.8	3.15	10.5	3.00	9.9	2.85	9.8	2.71

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-10.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	-5.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	0.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	5.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.51	10.1	1.60
	10.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.60
	15.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.61
	20.0	6.7	1.08	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.61
	25.0	6.7	1.11	7.3	1.20	7.8	1.29	8.4	1.38	9.0	1.47	9.5	1.56	10.1	1.65
	30.0	6.7	1.23	7.3	1.32	7.8	1.41	8.4	1.50	9.0	1.59	9.5	1.68	10.1	1.78
	35.0	6.7	1.43	7.3	1.54	7.8	1.65	8.4	1.76	9.0	1.86	9.5	1.97	10.1	2.08
	40.0	6.7	1.69	7.3	1.82	7.8	1.94	8.4	2.07	9.0	2.20	9.5	2.33	10.1	2.46
	43.0	6.7	1.87	7.3	2.01	7.8	2.15	8.4	2.30	9.0	2.44	9.5	2.58	10.1	2.72
	46.0	6.7	2.09	7.3	2.25	7.8	2.41	8.4	2.57	9.0	2.73	9.5	2.90	9.9	2.93

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-10.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	-5.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	0.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	5.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	10.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.26	8.4	1.34
	15.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.27	8.4	1.34
	20.0	5.6	0.90	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.27	8.4	1.34
	25.0	5.6	0.90	6.1	0.98	6.5	1.05	7.0	1.13	7.5	1.22	7.9	1.30	8.4	1.37
	30.0	5.6	0.99	6.1	1.07	6.5	1.14	7.0	1.22	7.5	1.29	7.9	1.37	8.4	1.44
	35.0	5.6	1.19	6.1	1.27	6.5	1.35	7.0	1.44	7.5	1.52	7.9	1.60	8.4	1.68
	40.0	5.6	1.39	6.1	1.49	6.5	1.59	7.0	1.68	7.5	1.78	7.9	1.88	8.4	1.98
	43.0	5.6	1.53	6.1	1.64	6.5	1.75	7.0	1.86	7.5	1.97	7.9	2.08	8.4	2.18
	46.0	5.6	1.70	6.1	1.82	6.5	1.94	7.0	2.07	7.5	2.19	7.9	2.31	8.4	2.43

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-10.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	-5.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	0.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	5.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	10.0	4.5	0.72	4.9	0.78	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	15.0	4.5	0.72	4.9	0.78	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	20.0	4.5	0.72	4.9	0.78	5.2	0.84	5.6	0.90	6.0	0.96	6.3	1.01	6.7	1.07
	25.0	4.5	0.72	4.9	0.78	5.2	0.84	5.6	0.90	6.0	0.96	6.3	1.02	6.7	1.08
	30.0	4.5	0.77	4.9	0.83	5.2	0.89	5.6	0.95	6.0	1.01	6.3	1.07	6.7	1.13
	35.0	4.5	0.95	4.9	1.02	5.2	1.08	5.6	1.14	6.0	1.20	6.3	1.26	6.7	1.32
	40.0	4.5	1.11	4.9	1.18	5.2	1.26	5.6	1.33	6.0	1.40	6.3	1.47	6.7	1.54
	43.0	4.5	1.22	4.9	1.30	5.2	1.38	5.6	1.46	6.0	1.54	6.3	1.62	6.7	1.69
	46.0	4.5	1.34	4.9	1.43	5.2	1.52	5.6	1.61	6.0	1.70	6.3	1.78	6.7	1.87

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
30%	-10.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	-5.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	0.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	5.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	10.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	15.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	20.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	25.0	3.4	0.54	3.6	0.59	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	30.0	3.4	0.55	3.6	0.60	3.9	0.66	4.2	0.71	4.5	0.75	4.8	0.80	5.0	0.84
	35.0	3.4	0.74	3.6	0.78	3.9	0.82	4.2	0.87	4.5	0.91	4.8	0.95	5.0	0.99
	40.0	3.4	0.85	3.6	0.90	3.9	0.95	4.2	1.00	4.5	1.05	4.8	1.10	5.0	1.14
43.0	3.4	0.93	3.6	0.98	3.9	1.04	4.2	1.09	4.5	1.15	4.8	1.20	5.0	1.25	
46.0	3.4	1.02	3.6	1.08	3.9	1.14	4.2	1.20	4.5	1.26	4.8	1.32	5.0	1.37	

1. Capacity Ratio of Outdoor Unit

1-4. U-5LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-19.8	-20.0	10.9	4.54	10.6	4.44	10.0	4.23	9.7	4.11	9.7	4.11	9.7	4.11	8.6	3.68
	-14.7	-15.0	12.5	4.84	12.3	4.79	11.6	4.56	11.3	4.44	11.3	4.44	11.3	4.44	10.1	3.95
	-9.6	-10.0	13.8	4.84	13.6	4.84	13.3	4.84	13.1	4.79	13.1	4.79	13.1	4.79	11.8	4.20
	-4.4	-5.0	15.2	4.84	15.0	4.84	14.7	4.84	14.6	4.84	14.6	4.84	14.6	4.84	13.8	4.49
	-1.8	-2.5	16.0	4.84	15.8	4.84	15.5	4.84	15.3	4.84	15.3	4.84	15.3	4.84	14.1	4.29
	0.8	0.0	16.8	4.84	16.6	4.84	16.3	4.84	16.1	4.84	16.1	4.84	16.1	4.84	14.1	3.95
	2.8	2.0	17.5	4.84	17.3	4.84	17.0	4.84	16.8	4.84	16.8	4.84	16.8	4.84	14.1	3.69
	6.0	5.0	18.6	4.84	18.4	4.84	17.8	4.73	17.2	4.51	17.2	4.51	17.2	4.51	14.1	3.32
	7.0	6.0	19.0	4.84	18.8	4.84	17.8	4.55	17.2	4.34	17.2	4.34	17.2	4.34	14.1	3.20
	8.6	7.5	19.6	4.84	19.1	4.70	17.8	4.29	17.2	4.10	17.2	4.10	17.2	4.10	14.1	3.03
	11.2	10.0	19.7	4.43	19.1	4.24	17.8	3.88	17.2	3.71	17.2	3.71	17.2	3.71	14.1	2.78
	16.4	15.0	19.7	3.63	19.1	3.49	17.8	3.21	17.2	3.08	17.2	3.08	17.2	3.08	14.1	2.37
	24.0	18.0	19.7	3.27	19.1	3.15	17.8	2.91	17.2	2.79	17.2	2.79	17.2	2.79	14.1	2.19

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
120%	-19.8	-20.0	10.8	4.50	10.6	4.40	10.0	4.19	9.7	4.08	9.7	4.08	9.7	4.08	7.9	3.38
	-14.7	-15.0	12.5	4.84	12.2	4.73	11.6	4.50	11.3	4.39	11.3	4.39	11.3	4.39	9.3	3.61
	-9.6	-10.0	13.9	4.84	13.7	4.84	13.4	4.84	13.1	4.73	13.1	4.73	13.1	4.73	10.8	3.84
	-4.4	-5.0	15.3	4.84	15.1	4.84	14.8	4.84	14.6	4.84	14.6	4.84	14.6	4.84	12.6	4.10
	-1.8	-2.5	16.1	4.84	15.9	4.84	15.6	4.84	15.4	4.84	15.4	4.84	15.4	4.84	12.7	3.81
	0.8	0.0	16.9	4.84	16.7	4.84	16.4	4.84	16.2	4.84	16.2	4.84	16.2	4.84	12.7	3.51
	2.8	2.0	17.6	4.84	17.4	4.84	17.0	4.84	16.8	4.80	16.8	4.80	16.4	4.44	12.7	3.28
	6.0	5.0	18.7	4.84	18.5	4.84	17.4	4.49	16.8	4.29	16.8	4.29	16.4	3.98	12.7	2.95
	7.0	6.0	19.1	4.84	18.7	4.72	17.4	4.32	16.8	4.13	16.8	4.13	16.4	3.83	12.7	2.85
	8.6	7.5	19.3	4.64	18.7	4.45	17.4	4.07	16.8	3.89	16.8	3.89	16.4	3.62	12.7	2.70
	11.2	10.0	19.3	4.19	18.7	4.02	17.4	3.69	16.8	3.53	16.8	3.53	16.4	3.30	12.7	2.48
	16.4	15.0	19.3	3.45	18.7	3.32	17.4	3.06	16.8	2.94	16.8	2.94	16.4	2.79	12.7	2.12
	24.0	18.0	19.3	3.11	18.7	3.00	17.4	2.78	16.8	2.67	16.8	2.67	16.4	2.55	12.7	1.96

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
110%	-19.8	-20.0	10.8	4.45	10.5	4.35	10.0	4.14	9.7	4.04	9.7	4.05	9.0	3.79	7.2	3.08
	-14.7	-15.0	12.5	4.79	12.2	4.68	11.6	4.45	11.2	4.33	11.2	4.33	10.5	4.06	8.4	3.28
	-9.6	-10.0	13.9	4.84	13.8	4.84	13.4	4.81	13.0	4.67	13.0	4.67	12.2	4.35	9.9	3.49
	-4.4	-5.0	15.4	4.84	15.2	4.84	14.9	4.84	14.7	4.84	14.7	4.84	14.2	4.70	11.4	3.64
	-1.8	-2.5	16.1	4.84	16.0	4.84	15.6	4.84	15.5	4.84	15.5	4.84	14.7	4.55	11.4	3.37
	0.8	0.0	17.0	4.84	16.8	4.84	16.4	4.84	16.3	4.84	16.0	4.64	14.7	4.18	11.4	3.10
	2.8	2.0	17.7	4.84	17.5	4.84	17.0	4.77	16.4	4.56	16.0	4.34	14.7	3.90	11.4	2.90
	6.0	5.0	18.8	4.84	18.2	4.65	17.0	4.26	16.4	4.08	16.0	3.87	14.7	3.50	11.4	2.61
	7.0	6.0	18.8	4.66	18.2	4.47	17.0	4.10	16.4	3.92	16.0	3.73	14.7	3.37	11.4	2.52
	8.6	7.5	18.8	4.39	18.2	4.21	17.0	3.87	16.4	3.70	16.0	3.53	14.7	3.19	11.4	2.39
	11.2	10.0	18.8	3.97	18.2	3.81	17.0	3.51	16.4	3.36	16.0	3.21	14.7	2.91	11.4	2.20
	16.4	15.0	18.8	3.28	18.2	3.16	17.0	2.92	16.4	2.81	16.0	2.70	14.7	2.46	11.4	1.89
	24.0	18.0	18.8	2.97	18.2	2.87	17.0	2.66	16.4	2.56	16.0	2.47	14.7	2.26	11.4	1.75

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-19.8	-20.0	10.8	4.40	10.5	4.30	9.9	4.10	9.6	3.99	8.8	3.66	8.1	3.43	6.5	2.79
	-14.7	-15.0	12.5	4.72	12.2	4.62	11.5	4.39	11.2	4.28	10.2	3.91	9.5	3.66	7.6	2.96
	-9.6	-10.0	14.0	4.84	13.8	4.84	13.4	4.75	13.0	4.62	11.9	4.21	11.1	3.92	9.0	3.15
	-4.4	-5.0	15.4	4.84	15.3	4.84	15.0	4.84	14.8	4.84	13.8	4.57	12.9	4.23	10.1	3.19
	-1.8	-2.5	16.2	4.84	16.1	4.84	15.7	4.84	15.6	4.84	14.2	4.39	13.0	3.96	10.1	2.95
	0.8	0.0	17.1	4.84	16.9	4.84	16.5	4.84	16.0	4.65	14.2	4.03	13.0	3.64	10.1	2.72
	2.8	2.0	17.8	4.84	17.6	4.84	16.6	4.53	16.0	4.33	14.2	3.76	13.0	3.40	10.1	2.54
	6.0	5.0	18.4	4.59	17.8	4.40	16.6	4.05	16.0	3.87	14.2	3.37	13.0	3.02	10.1	2.28
	7.0	6.0	18.4	4.41	17.8	4.23	16.6	3.89	16.0	3.72	14.2	3.24	13.0	2.93	10.1	2.21
	8.6	7.5	18.4	4.15	17.8	3.99	16.6	3.67	16.0	3.51	14.2	3.06	13.0	2.78	10.1	2.10
	11.2	10.0	18.4	3.75	17.8	3.61	16.6	3.33	16.0	3.19	14.2	2.80	13.0	2.54	10.1	1.94
	16.4	15.0	18.4	3.13	17.8	3.01	16.6	2.79	16.0	2.69	14.2	2.37	13.0	2.16	10.1	1.66
	24.0	18.0	18.4	2.82	17.8	2.72	16.6	2.53	16.0	2.43	14.2	2.14	13.0	1.95	10.1	1.49

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-19.8	-20.0	10.7	4.20	10.4	4.11	9.8	3.92	9.5	3.82	8.6	3.51	8.0	3.29	6.4	2.68
	-14.7	-15.0	12.4	4.49	12.1	4.39	11.4	4.19	11.1	4.08	10.1	3.73	9.3	3.49	7.5	2.83
	-9.6	-10.0	14.3	4.84	14.0	4.77	13.3	4.53	12.9	4.41	11.7	4.02	10.9	3.75	8.8	3.02
	-4.4	-5.0	15.8	4.84	15.6	4.84	14.9	4.66	14.4	4.47	12.8	3.91	11.7	3.56	9.1	2.70
	-1.8	-2.5	16.5	4.81	16.0	4.63	14.9	4.28	14.4	4.11	12.8	3.61	11.7	3.28	9.1	2.50
	0.8	0.0	16.5	4.40	16.0	4.24	14.9	3.92	14.4	3.77	12.8	3.31	11.7	3.01	9.1	2.30

1. Capacity Ratio of Outdoor Unit

U-5LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-19.8	-20.0	10.6	3.90	10.3	3.82	9.7	3.65	9.4	3.56	8.5	3.28	7.9	3.08	6.2	2.52
	-14.7	-15.0	12.4	4.20	12.0	4.10	11.4	3.91	11.0	3.81	10.0	3.49	9.1	3.22	7.1	2.53
	-9.6	-10.0	12.9	3.80	12.4	3.69	11.6	3.46	11.2	3.34	10.0	3.00	9.1	2.77	7.1	2.19
	-4.4	-5.0	12.9	3.22	12.4	3.13	11.6	2.95	11.2	2.86	10.0	2.58	9.1	2.39	7.1	1.92
	-1.8	-2.5	12.9	3.00	12.4	2.91	11.6	2.74	11.2	2.66	10.0	2.40	9.1	2.23	7.1	1.79
	0.8	0.0	12.9	2.79	12.4	2.71	11.6	2.55	11.2	2.47	10.0	2.23	9.1	2.07	7.1	1.67
	2.8	2.0	12.9	2.62	12.4	2.55	11.6	2.40	11.2	2.33	10.0	2.10	9.1	1.95	7.1	1.57
	6.0	5.0	12.9	2.41	12.4	2.34	11.6	2.20	11.2	2.13	10.0	1.93	9.1	1.78	7.1	1.42
	7.0	6.0	12.9	2.34	12.4	2.27	11.6	2.14	11.2	2.07	10.0	1.86	9.1	1.73	7.1	1.38
	8.6	7.5	12.9	2.22	12.4	2.16	11.6	2.03	11.2	1.97	10.0	1.77	9.1	1.64	7.1	1.32
	11.2	10.0	12.9	2.04	12.4	1.99	11.6	1.87	11.2	1.82	10.0	1.64	9.1	1.53	7.1	1.23
	16.4	15.0	12.9	1.87	12.4	1.81	11.6	1.70	11.2	1.64	10.0	1.47	9.1	1.36	7.1	1.08
	24.0	18.0	12.9	1.87	12.4	1.81	11.6	1.70	11.2	1.64	10.0	1.47	9.1	1.36	7.1	1.08

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
60%	-19.8	-20.0	10.9	3.92	10.6	3.84	9.9	3.66	9.6	3.57	8.5	3.23	7.8	2.99	6.0	2.39
	-14.7	-15.0	11.0	3.42	10.7	3.33	10.0	3.15	9.6	3.05	8.5	2.77	7.8	2.57	6.0	2.06
	-9.6	-10.0	11.0	2.93	10.7	2.86	10.0	2.71	9.6	2.64	8.5	2.41	7.8	2.25	6.0	1.83
	-4.4	-5.0	11.0	2.55	10.7	2.48	10.0	2.36	9.6	2.29	8.5	2.10	7.8	1.96	6.0	1.60
	-1.8	-2.5	11.0	2.36	10.7	2.31	10.0	2.19	9.6	2.13	8.5	1.95	7.8	1.82	6.0	1.49
	0.8	0.0	11.0	2.19	10.7	2.14	10.0	2.03	9.6	1.98	8.5	1.81	7.8	1.69	6.0	1.38
	2.8	2.0	11.0	2.07	10.7	2.02	10.0	1.92	9.6	1.87	8.5	1.71	7.8	1.60	6.0	1.30
	6.0	5.0	11.0	1.90	10.7	1.85	10.0	1.76	9.6	1.71	8.5	1.56	7.8	1.45	6.0	1.18
	7.0	6.0	11.0	1.85	10.7	1.80	10.0	1.70	9.6	1.66	8.5	1.51	7.8	1.41	6.0	1.15
	8.6	7.5	11.0	1.76	10.7	1.72	10.0	1.63	9.6	1.58	8.5	1.44	7.8	1.35	6.0	1.10
	11.2	10.0	11.0	1.63	10.7	1.59	10.0	1.51	9.6	1.47	8.5	1.34	7.8	1.26	6.0	1.03
	16.4	15.0	11.0	1.62	10.7	1.57	10.0	1.47	9.6	1.43	8.5	1.28	7.8	1.19	6.0	0.95
	24.0	18.0	11.0	1.62	10.7	1.57	10.0	1.47	9.6	1.43	8.5	1.28	7.8	1.19	6.0	0.95

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-19.8	-20.0	9.2	3.02	8.9	2.95	8.3	2.81	8.0	2.73	7.1	2.50	6.5	2.34	5.0	1.93
	-14.7	-15.0	9.2	2.61	8.9	2.55	8.3	2.44	8.0	2.38	7.1	2.19	6.5	2.06	5.0	1.69
	-9.6	-10.0	9.2	2.27	8.9	2.23	8.3	2.13	8.0	2.08	7.1	1.92	6.5	1.81	5.0	1.49
	-4.4	-5.0	9.2	1.97	8.9	1.93	8.3	1.84	8.0	1.80	7.1	1.67	6.5	1.57	5.0	1.31
	-1.8	-2.5	9.2	1.82	8.9	1.79	8.3	1.71	8.0	1.67	7.1	1.55	6.5	1.46	5.0	1.21
	0.8	0.0	9.2	1.70	8.9	1.66	8.3	1.59	8.0	1.55	7.1	1.44	6.5	1.36	5.0	1.12
	2.8	2.0	9.2	1.60	8.9	1.57	8.3	1.50	8.0	1.47	7.1	1.36	6.5	1.27	5.0	1.05
	6.0	5.0	9.2	1.48	8.9	1.44	8.3	1.38	8.0	1.34	7.1	1.24	6.5	1.16	5.0	0.96
	7.0	6.0	9.2	1.43	8.9	1.40	8.3	1.34	8.0	1.30	7.1	1.20	6.5	1.13	5.0	0.94
	8.6	7.5	9.2	1.37	8.9	1.34	8.3	1.28	8.0	1.25	7.1	1.15	6.5	1.08	5.0	0.90
	11.2	10.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.02	5.0	0.85
	16.4	15.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.01	5.0	0.81
	24.0	18.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.01	5.0	0.81

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-19.8	-20.0	7.3	2.25	7.1	2.21	6.6	2.12	6.4	2.07	5.7	1.92	5.2	1.82	4.0	1.51
	-14.7	-15.0	7.3	1.96	7.1	1.93	6.6	1.86	6.4	1.82	5.7	1.69	5.2	1.60	4.0	1.34
	-9.6	-10.0	7.3	1.71	7.1	1.68	6.6	1.62	6.4	1.59	5.7	1.48	5.2	1.40	4.0	1.18
	-4.4	-5.0	7.3	1.47	7.1	1.45	6.6	1.40	6.4	1.37	5.7	1.28	5.2	1.22	4.0	1.02
	-1.8	-2.5	7.3	1.37	7.1	1.35	6.6	1.30	6.4	1.28	5.7	1.19	5.2	1.13	4.0	0.95
	0.8	0.0	7.3	1.28	7.1	1.26	6.6	1.21	6.4	1.19	5.7	1.10	5.2	1.04	4.0	0.88
	2.8	2.0	7.3	1.21	7.1	1.19	6.6	1.14	6.4	1.12	5.7	1.04	5.2	0.98	4.0	0.83
	6.0	5.0	7.3	1.12	7.1	1.09	6.6	1.05	6.4	1.03	5.7	0.95	5.2	0.90	4.0	0.76
	7.0	6.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.93	5.2	0.88	4.0	0.74
	8.6	7.5	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.85	4.0	0.72
	11.2	10.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68
	16.4	15.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68
	24.0	18.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
30%	-19.8	-20.0	5.5	1.61	5.3	1.59	5.0	1.53	4.8	1.50	4.3	1.41	3.9	1.33	3.0	1.13
	-14.7	-15.0	5.5	1.40	5.3	1.38	5.0	1.34	4.8	1.32	4.3	1.24	3.9	1.18	3.0	1.00
	-9.6	-10.0	5.5	1.22	5.3	1.20	5.0	1.17	4.8	1.15	4.3	1.08	3.9	1.03	3.0	0.88
	-4.4	-5.0	5.5	1.06	5.3	1.04	5.0	1.01	4.8	0.99	4.3	0.93	3.9	0.89	3.0	0.76
	-1.8	-2.5	5.5	0.99	5.3	0.97	5.0	0.94	4.8	0.92	4.3	0.86	3.9	0.82	3.0	0.71
	0.8	0.0	5.5	0.92	5.3	0.90	5.0	0.87	4.8	0.86	4.3	0.80	3.9	0.77	3.0	0.66
	2.8	2.0	5.5	0.88	5.3	0.85	5.0	0.83	4.8	0.81	4.3	0.76	3.9	0.73	3.0	0.63
	6.0	5.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.67	3.0	0.58
	7.0	6.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.57
	8.6	7.5	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.55
	11.2	10.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54
	16.4	15.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54
24.0	18.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54	

1. Capacity Ratio of Outdoor Unit

1-5. U-6LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-10.0	16.7	2.87	16.7	2.87	16.7	2.87	16.7	2.87	17.8	3.06	18.9	3.25	20.0	3.45
		16.7	2.87	16.7	2.87	16.7	2.87	16.7	2.87	17.8	3.06	18.9	3.26	20.0	3.45
		16.7	2.88	16.7	2.88	16.7	2.88	16.7	2.88	17.8	3.07	18.9	3.26	20.0	3.45
		16.7	2.88	16.7	2.88	16.7	2.88	16.7	2.88	17.8	3.07	18.9	3.26	20.0	3.48
		16.7	2.91	16.7	2.91	16.7	2.91	16.7	2.91	17.8	3.10	18.9	3.30	20.0	3.49
		16.7	2.93	16.7	2.93	16.7	2.93	16.7	2.93	17.8	3.13	18.9	3.33	20.0	3.53
		16.7	3.00	16.7	3.00	16.7	3.00	16.7	3.00	17.8	3.21	18.9	3.42	20.0	3.68
		16.7	3.47	16.7	3.47	16.7	3.47	16.7	3.47	17.8	3.76	18.9	4.07	20.0	4.39
		16.7	4.15	16.7	4.15	16.7	4.15	16.7	4.15	17.8	4.51	18.9	4.88	20.0	5.27
		16.7	5.00	16.7	5.00	16.7	5.00	16.7	5.00	17.8	5.45	18.7	5.84	19.2	5.84
		16.1	5.84	16.1	5.84	16.1	5.84	16.1	5.84	16.4	5.74	16.4	5.38	16.4	5.09
		13.0	4.26	13.0	4.26	13.0	4.26	13.0	4.26	13.0	4.04	13.0	3.84	13.0	3.67
		9.7	2.89	9.7	2.89	9.7	2.89	9.7	2.89	9.7	2.76	9.7	2.65	9.7	2.54

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
120%	-10.0	15.6	2.69	16.3	2.80	16.3	2.80	16.3	2.80	17.4	2.99	18.4	3.18	19.5	3.37
		15.6	2.69	16.3	2.81	16.3	2.81	16.3	2.81	17.4	2.99	18.4	3.18	19.5	3.37
		15.6	2.69	16.3	2.81	16.3	2.81	16.3	2.81	17.4	3.00	18.4	3.18	19.5	3.37
		15.6	2.70	16.3	2.81	16.3	2.81	16.3	2.81	17.4	3.00	18.4	3.19	19.5	3.38
		15.6	2.70	16.3	2.84	16.3	2.84	16.3	2.84	17.4	3.03	18.4	3.22	19.5	3.41
		15.6	2.73	16.3	2.86	16.3	2.86	16.3	2.86	17.4	3.06	18.4	3.25	19.5	3.45
		15.6	2.78	16.3	2.93	16.3	2.93	16.3	2.93	17.4	3.13	18.4	3.33	19.5	3.56
		15.6	3.04	16.3	3.35	16.3	3.35	16.3	3.35	17.4	3.64	18.4	3.93	19.5	4.23
		15.6	3.62	16.3	4.01	16.3	4.01	16.3	4.01	17.4	4.35	18.4	4.71	19.5	5.08
		15.6	4.34	16.3	4.82	16.3	4.82	16.3	4.82	17.4	5.25	18.4	5.70	19.1	5.84
		15.6	5.35	15.9	5.84	15.9	5.84	15.9	5.84	16.4	5.83	16.4	5.47	16.4	5.16
		13.0	4.31	13.0	4.31	13.0	4.31	13.0	4.31	13.0	4.08	13.0	3.88	13.0	3.70
		9.7	2.91	9.7	2.91	9.7	2.91	9.7	2.91	9.7	2.78	9.7	2.66	9.7	2.55

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-10.0	14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.10	19.1	3.29
		14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.11	19.1	3.29
		14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.11	19.1	3.29
		14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.93	18.0	3.11	19.1	3.30
		14.0	2.42	15.1	2.62	15.9	2.77	15.9	2.77	16.9	2.96	18.0	3.14	19.1	3.33
		14.0	2.45	15.1	2.65	15.9	2.79	15.9	2.79	16.9	2.98	18.0	3.17	19.1	3.36
		14.0	2.49	15.1	2.70	15.9	2.86	15.9	2.86	16.9	3.05	18.0	3.25	19.1	3.45
		14.0	2.71	15.1	2.98	15.9	3.24	15.9	3.24	16.9	3.51	18.0	3.79	19.1	4.08
		14.0	3.23	15.1	3.55	15.9	3.87	15.9	3.87	16.9	4.20	18.0	4.54	19.1	4.89
		14.0	3.87	15.1	4.26	15.9	4.65	15.9	4.65	16.9	5.05	18.0	5.48	18.9	5.84
		14.0	4.74	15.1	5.27	15.8	5.82	15.8	5.82	16.3	5.83	16.4	5.56	16.4	5.24
		13.0	4.37	13.0	4.37	13.0	4.37	13.0	4.37	13.0	4.13	13.0	3.92	13.0	3.74
		9.7	2.93	9.7	2.93	9.7	2.93	9.7	2.93	9.7	2.80	9.7	2.68	9.7	2.57

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	12.4	2.14	13.4	2.32	14.5	2.49	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
		12.4	2.14	13.4	2.32	14.5	2.49	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
		12.4	2.14	13.4	2.32	14.5	2.50	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
		12.4	2.14	13.4	2.32	14.5	2.50	15.5	2.68	16.5	2.86	17.6	3.04	18.6	3.21
		12.4	2.15	13.4	2.32	14.5	2.50	15.5	2.68	16.5	2.89	17.6	3.07	18.6	3.25
		12.4	2.18	13.4	2.36	14.5	2.54	15.5	2.72	16.5	2.91	17.6	3.09	18.6	3.28
		12.4	2.21	13.4	2.40	14.5	2.59	15.5	2.78	16.5	2.97	17.6	3.16	18.6	3.36
		12.4	2.41	13.4	2.64	14.5	2.88	15.5	3.13	16.5	3.39	17.6	3.66	18.6	3.93
		12.4	2.86	13.4	3.14	14.5	3.43	15.5	3.74	16.5	4.05	17.6	4.37	18.6	4.71
		12.4	3.41	13.4	3.76	14.4	4.11	15.5	4.49	16.5	4.84	17.5	5.23	18.5	5.64
		12.4	4.17	13.4	4.62	14.5	5.10	15.5	5.63	16.2	5.83	16.4	5.66	16.4	5.32
		12.4	4.97	13.0	5.18	13.0	4.75	13.0	4.43	13.0	4.17	13.0	3.96	13.0	3.78
		9.7	3.50	9.7	3.28	9.7	3.11	9.7	2.95	9.7	2.82	9.7	2.70	9.7	2.59

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
	-10.0	11.2	1.92	12.1	2.08	13.0	2.24	14.0	2.40	14.9	2.57	15.8	2.73	16.7	2.89
	-5.0	11.2	1.92	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	0.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	5.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	10.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.58	15.8	2.74	16.7	2.92
	15.0	11.2	1.94	12.1	2.12	13.0	2.28	14.0	2.45	14.9	2.61	15.8	2.78	16.7	2.94
	20.0	11.2	1.98	12.1	2.15	13.0	2.32	14.0	2.49	14.9	2.66	15.8	2.83	16.7	3.00
	25.0	11.2	2.11	12.1	2.31	13.0	2.51	14.0	2.71	14.9	2.93	15.8	3.15	16.7	3.37
	30.0	11.2	2.50	12.1	2.73	13.0	2.98	14.0	3.23	14.9	3.48	15.8	3.75	16.7	4.02
	35.0	11.2	2.98	12.1	3.26	13.0	3.55	14.0	3.86	14.9	4.17	15.8	4.49	16.7	4.82
	40.0	11.2	3.59	12.1	3.95	13.0	4.33	14.0	4.72	14.9	5.14	15.8	5.58	16.4	5.77
	43.0	11.2	4.17	12.1	4.63	13.0	5.14	13.0	4.75	13.0	4.43	13.0	4.18	13.0	3.96
46.0	9.7	3.71	9.7	3.44	9.7	3.24	9.7	3.07	9.7	2.92	9.7	2.79	9.7	2.67	

1. Capacity Ratio of Outdoor Unit

U-6LE1E5 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-10.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	-5.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	0.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	5.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	10.0	8.7	1.50	9.4	1.63	10.1	1.75	10.9	1.88	11.6	2.00	12.3	2.13	13.0	2.25
	15.0	8.7	1.50	9.4	1.63	10.1	1.76	10.9	1.88	11.6	2.01	12.3	2.13	13.0	2.28
	20.0	8.7	1.54	9.4	1.66	10.1	1.79	10.9	1.92	11.6	2.05	12.3	2.18	13.0	2.31
	25.0	8.7	1.59	9.4	1.73	10.1	1.86	10.9	2.00	11.6	2.14	12.3	2.27	13.0	2.41
	30.0	8.7	1.84	9.4	2.00	10.1	2.16	10.9	2.33	11.6	2.49	12.3	2.66	13.0	2.84
	35.0	8.7	2.18	9.4	2.37	10.1	2.57	10.9	2.76	11.6	2.97	12.3	3.17	13.0	3.38
	40.0	8.7	2.60	9.4	2.83	10.1	3.07	10.9	3.31	11.6	3.55	12.3	3.80	13.0	4.06
	43.0	8.7	2.93	9.4	3.20	10.1	3.47	10.9	3.76	11.6	4.05	12.3	4.36	13.0	4.67
	46.0	8.7	3.44	9.4	3.79	9.7	3.76	9.7	3.48	9.7	3.26	9.7	3.09	9.7	2.94

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-10.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	-5.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	0.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	5.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	10.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.72	10.5	1.82	11.2	1.93
	15.0	7.4	1.29	8.1	1.40	8.7	1.50	9.3	1.61	9.9	1.72	10.5	1.83	11.2	1.94
	20.0	7.4	1.30	8.1	1.40	8.7	1.51	9.3	1.64	9.9	1.75	10.5	1.86	11.2	1.97
	25.0	7.4	1.35	8.1	1.46	8.7	1.58	9.3	1.69	9.9	1.81	10.5	1.92	11.2	2.03
	30.0	7.4	1.55	8.1	1.68	8.7	1.81	9.3	1.93	9.9	2.06	10.5	2.20	11.2	2.33
	35.0	7.4	1.83	8.1	1.98	8.7	2.13	9.3	2.29	9.9	2.44	10.5	2.60	11.2	2.76
	40.0	7.4	2.17	8.1	2.35	8.7	2.53	9.3	2.72	9.9	2.91	10.5	3.10	11.2	3.29
	43.0	7.4	2.42	8.1	2.62	8.7	2.83	9.3	3.05	9.9	3.26	10.5	3.49	11.2	3.71
	46.0	7.4	2.78	8.1	3.02	8.7	3.28	9.3	3.54	9.7	3.64	9.7	3.39	9.7	3.19

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-10.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	-5.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	0.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	5.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	10.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	15.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	20.0	6.2	1.08	6.7	1.17	7.2	1.26	7.8	1.35	8.3	1.44	8.8	1.53	9.3	1.62
	25.0	6.2	1.12	6.7	1.21	7.2	1.30	7.8	1.40	8.3	1.49	8.8	1.58	9.3	1.67
	30.0	6.2	1.28	6.7	1.38	7.2	1.48	7.8	1.57	8.3	1.67	8.8	1.77	9.3	1.87
	35.0	6.2	1.50	6.7	1.62	7.2	1.73	7.8	1.85	8.3	1.97	8.8	2.09	9.3	2.21
	40.0	6.2	1.77	6.7	1.91	7.2	2.05	7.8	2.19	8.3	2.33	8.8	2.47	9.3	2.61
	43.0	6.2	1.96	6.7	2.12	7.2	2.27	7.8	2.43	8.3	2.59	8.8	2.75	9.3	2.91
	46.0	6.2	2.21	6.7	2.39	7.2	2.57	7.8	2.76	8.3	2.94	8.8	3.13	9.3	3.32

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	-10.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.21	7.4	1.29
	-5.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.21	7.4	1.29
	0.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	5.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	10.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	15.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.15	7.0	1.22	7.4	1.29
	20.0	5.0	0.86	5.4	0.93	5.8	1.01	6.2	1.08	6.6	1.15	7.0	1.22	7.4	1.29
	25.0	5.0	0.87	5.4	0.94	5.8	1.02	6.2	1.11	6.6	1.18	7.0	1.26	7.4	1.33
	30.0	5.0	1.02	5.4	1.09	5.8	1.17	6.2	1.25	6.6	1.32	7.0	1.39	7.4	1.46
	35.0	5.0	1.19	5.4	1.28	5.8	1.36	6.2	1.45	6.6	1.54	7.0	1.62	7.4	1.71
	40.0	5.0	1.40	5.4	1.50	5.8	1.60	6.2	1.70	6.6	1.81	7.0	1.91	7.4	2.01
	43.0	5.0	1.54	5.4	1.66	5.8	1.77	6.2	1.88	6.6	2.00	7.0	2.11	7.4	2.23
	46.0	5.0	1.72	5.4	1.85	5.8	1.98	6.2	2.11	6.6	2.23	7.0	2.36	7.4	2.49

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
30%	-10.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	-5.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	0.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	5.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	10.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	15.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	20.0	3.7	0.65	4.0	0.71	4.3	0.76	4.7	0.81	5.0	0.87	5.3	0.92	5.6	0.97
	25.0	3.7	0.65	4.0	0.71	4.3	0.76	4.7	0.81	5.0	0.87	5.3	0.92	5.6	0.98
	30.0	3.7	0.72	4.0	0.78	4.3	0.83	4.7	0.89	5.0	0.94	5.3	1.00	5.6	1.05
	35.0	3.7	0.91	4.0	0.97	4.3	1.03	4.7	1.09	5.0	1.14	5.3	1.20	5.6	1.26
	40.0	3.7	1.06	4.0	1.13	4.3	1.20	4.7	1.27	5.0	1.34	5.3	1.40	5.6	1.47
	43.0	3.7	1.16	4.0	1.24	4.3	1.32	4.7	1.39	5.0	1.47	5.3	1.55	5.6	1.62
	46.0	3.7	1.28	4.0	1.37	4.3	1.45	4.7	1.54	5.0	1.62	5.3	1.71	5.6	1.79

1. Capacity Ratio of Outdoor Unit

1-6. U-6LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	12.2	5.13	11.9	5.01	11.3	4.76	10.9	4.63	10.9	4.63	10.9	4.63	9.8	4.15
	-14.7	-15.0	14.0	5.79	13.7	5.65	13.0	5.37	12.6	5.22	12.6	5.22	12.6	5.22	11.4	4.61
	-9.6	-10.0	15.5	5.93	15.4	5.93	15.0	5.88	14.6	5.71	14.6	5.71	14.6	5.71	13.3	4.95
	-4.4	-5.0	17.1	5.93	17.0	5.93	16.6	5.93	16.5	5.93	16.5	5.93	16.5	5.93	15.5	5.31
	-1.8	-2.5	18.0	5.93	17.8	5.93	17.5	5.93	17.3	5.93	17.3	5.93	17.3	5.93	15.8	5.06
	0.8	0.0	18.8	5.93	18.7	5.93	18.3	5.93	18.2	5.93	18.2	5.93	18.2	5.93	15.8	4.67
	2.8	2.0	19.6	5.93	19.4	5.93	19.1	5.93	18.9	5.93	18.9	5.93	18.9	5.93	15.8	4.37
	6.0	5.0	20.8	5.93	20.6	5.93	20.1	5.83	19.4	5.54	19.4	5.54	19.4	5.54	15.8	3.94
	7.0	6.0	21.2	5.93	21.0	5.93	20.1	5.62	19.4	5.34	19.4	5.34	19.4	5.34	15.8	3.80
	8.6	7.5	21.8	5.93	21.5	5.85	20.1	5.31	19.4	5.05	19.4	5.05	19.4	5.05	15.8	3.60
	11.2	10.0	22.2	5.55	21.5	5.30	20.1	4.81	19.4	4.58	19.4	4.58	19.4	4.58	15.8	3.30
	16.4	15.0	22.2	4.54	21.5	4.34	20.1	3.96	19.4	3.78	19.4	3.78	19.4	3.78	15.8	2.81
	24.0	18.0	22.2	4.05	21.5	3.89	20.1	3.56	19.4	3.41	19.4	3.41	19.4	3.41	15.8	2.58

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
120%	-19.8	-20.0	12.1	5.12	11.8	5.00	11.2	4.75	10.9	4.62	10.9	4.62	10.9	4.62	9.0	3.83
	-14.7	-15.0	14.0	5.74	13.7	5.60	13.0	5.32	12.6	5.17	12.6	5.17	12.6	5.17	10.5	4.23
	-9.6	-10.0	15.6	5.93	15.5	5.93	15.0	5.81	14.6	5.64	14.6	5.64	14.6	5.64	12.2	4.52
	-4.4	-5.0	17.2	5.93	17.1	5.93	16.7	5.93	16.6	5.93	16.6	5.93	16.6	5.93	14.2	4.85
	-1.8	-2.5	18.1	5.93	17.9	5.93	17.6	5.93	17.4	5.93	17.4	5.93	17.4	5.93	14.3	4.50
	0.8	0.0	19.0	5.93	18.8	5.93	18.4	5.93	18.3	5.93	18.3	5.93	18.3	5.93	14.3	4.15
	2.8	2.0	19.7	5.93	19.5	5.93	19.2	5.93	18.9	5.87	18.9	5.87	18.5	5.34	14.3	3.88
	6.0	5.0	20.9	5.93	20.7	5.93	19.6	5.53	18.9	5.26	18.9	5.26	18.5	4.80	14.3	3.50
	7.0	6.0	21.3	5.93	21.0	5.86	19.6	5.33	18.9	5.07	18.9	5.07	18.5	4.63	14.3	3.38
	8.6	7.5	21.7	5.79	21.0	5.53	19.6	5.03	18.9	4.79	18.9	4.79	18.5	4.38	14.3	3.21
	11.2	10.0	21.7	5.24	21.0	5.01	19.6	4.56	18.9	4.35	18.9	4.35	18.5	3.99	14.3	2.94
	16.4	15.0	21.7	4.30	21.0	4.12	19.6	3.77	18.9	3.60	18.9	3.60	18.5	3.35	14.3	2.51
	24.0	18.0	21.7	3.85	21.0	3.70	19.6	3.40	18.9	3.25	18.9	3.25	18.5	3.05	14.3	2.31

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-19.8	-20.0	12.1	5.10	11.8	4.98	11.2	4.73	10.9	4.60	10.9	4.60	10.1	4.31	8.2	3.50
	-14.7	-15.0	14.0	5.68	13.6	5.54	12.9	5.26	12.6	5.12	12.6	5.12	11.8	4.77	9.5	3.85
	-9.6	-10.0	15.7	5.93	15.6	5.93	15.0	5.74	14.6	5.57	14.6	5.57	13.7	5.15	11.1	4.11
	-4.4	-5.0	17.3	5.93	17.2	5.93	16.8	5.93	16.7	5.93	16.7	5.93	16.0	5.59	12.8	4.29
	-1.8	-2.5	18.2	5.93	18.0	5.93	17.7	5.93	17.5	5.93	17.5	5.93	16.5	5.45	12.8	3.97
	0.8	0.0	19.1	5.93	18.9	5.93	18.5	5.93	18.4	5.93	18.0	5.60	16.5	5.01	12.8	3.66
	2.8	2.0	19.8	5.93	19.6	5.93	19.1	5.85	18.5	5.57	18.0	5.23	16.5	4.68	12.8	3.43
	6.0	5.0	21.0	5.93	20.5	5.75	19.1	5.24	18.5	4.99	18.0	4.70	16.5	4.21	12.8	3.10
	7.0	6.0	21.2	5.80	20.5	5.54	19.1	5.05	18.5	4.81	18.0	4.53	16.5	4.06	12.8	2.99
	8.6	7.5	21.2	5.47	20.5	5.23	19.1	4.77	18.5	4.54	18.0	4.28	16.5	3.84	12.8	2.84
	11.2	10.0	21.2	4.95	20.5	4.74	19.1	4.33	18.5	4.13	18.0	3.90	16.5	3.51	12.8	2.61
	16.4	15.0	21.2	4.07	20.5	3.90	19.1	3.58	18.5	3.43	18.0	3.26	16.5	2.95	12.8	2.23
	24.0	18.0	21.2	3.66	20.5	3.52	19.1	3.24	18.5	3.11	18.0	2.97	16.5	2.70	12.8	2.06

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	12.1	5.08	11.8	4.96	11.2	4.71	10.8	4.58	9.9	4.19	9.2	3.91	7.4	3.18
	-14.7	-15.0	14.0	5.61	13.6	5.48	12.9	5.20	12.5	5.06	11.4	4.61	10.7	4.30	8.6	3.47
	-9.6	-10.0	15.8	5.93	15.7	5.93	14.9	5.66	14.5	5.50	13.3	5.00	12.4	4.64	10.1	3.71
	-4.4	-5.0	17.4	5.93	17.2	5.93	16.9	5.93	16.7	5.93	15.5	5.44	14.5	5.03	11.3	3.76
	-1.8	-2.5	18.3	5.93	18.1	5.93	17.8	5.93	17.6	5.93	16.0	5.29	14.7	4.74	11.3	3.48
	0.8	0.0	19.2	5.93	19.0	5.93	18.6	5.93	18.0	5.66	16.0	4.86	14.7	4.36	11.3	3.21
	2.8	2.0	19.9	5.93	19.7	5.93	18.7	5.54	18.0	5.28	16.0	4.54	14.7	4.07	11.3	3.01
	6.0	5.0	20.7	5.68	20.0	5.44	18.7	4.96	18.0	4.74	16.0	4.04	14.7	3.63	11.3	2.70
	7.0	6.0	20.7	5.47	20.0	5.24	18.7	4.78	18.0	4.56	16.0	3.93	14.7	3.53	11.3	2.62
	8.6	7.5	20.7	5.16	20.0	4.94	18.7	4.51	18.0	4.31	16.0	3.72	14.7	3.35	11.3	2.49
	11.2	10.0	20.7	4.67	20.0	4.47	18.7	4.09	18.0	3.91	16.0	3.39	14.7	3.06	11.3	2.30
	16.4	15.0	20.7	3.86	20.0	3.71	18.7	3.41	18.0	3.27	16.0	2.86	14.7	2.59	11.3	1.97
	24.0	18.0	20.7	3.47	20.0	3.34	18.7	3.08	18.0	2.95	16.0	2.58	14.7	2.34	11.3	1.77

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-19.8	-20.0	11.9	4.92	11.6	4.80	11.0	4.57	10.7	4.45	9.7	4.06	9.0	3.80	7.2	3.09
	-14.7	-15.0	13.8	5.33	13.5	5.21	12.8	4.95	12.4	4.81	11.3	4.39	10.5	4.10	8.5	3.31
	-9.6	-10.0	16.0	5.82	15.6	5.67	14.8	5.38	14.4	5.22	13.1	4.75	12.3	4.41	9.9	3.53
	-4.4	-5.0	17.8	5.93	17.7	5.93	16.8	5.63	16.2	5.38	14.4	4.67	13.2	4.22	10.2	3.16
	-1.8	-2.5	18.6	5.87	18.0	5.64	16.8	5.18	16.2	4.95	14.4	4.31	13.2	3.90	10.2	2.93
	0.8	0.0	18.6	5.39	18.0	5.17	16.8	4.76	16.2	4.55	14.4	3.97	13.2	3.59	10.2	2.68
	2.8	2.0	18.6	5.02	18.0	4.82	16.8	4.43	16.2	4.25	14.4	3.67	13.2	3.33	10.2	2.53
	6.0	5.0	18.6	4.59	18.0	4.40	16.8	4.05	16.2	3.88	14.4	3.38	13.2	3.06	10.2	2.33
	7.0	6.0	18.6	4.46	18.0	4.29	16.8	3.94	16.2	3.77	14.4	3.29	13.2	2.98	10.2	2.26
	8.6	7.5	18.6	4.20	18.0	4.04	16.8	3.72	16.2	3.56	14.4	3.11	13.2	2.82	10.2	2.15
	11.2	10.0	18.6	3.81	18.0	3.67	16.8	3.38	16.2	3.24	14.4	2.85	13.2	2.59	10.2	1.98
	16.4	15.0	18.6	3.18	18.0	3.07	16.8	2.85	16.2	2.74	14.4	2.42	13.2	2.21	10.2	1.71
24.0	18.0	18.6	2.88	18.0	2.78	16.8	2.58	16.2	2.48	14.4	2.19	13.2	2.00	10.2	1.54	

1. Capacity Ratio of Outdoor Unit

U-6LE1E5 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	11.7	4.50	11.4	4.40	10.7	4.19	10.4	4.09	9.4	3.75	8.7	3.51	6.9	2.86
	-14.7	-15.0	13.7	4.84	13.3	4.73	12.5	4.50	12.2	4.38	11.0	4.00	10.2	3.74	7.9	2.93
	-9.6	-10.0	14.5	4.53	14.0	4.39	13.1	4.10	12.6	3.95	11.2	3.52	10.3	3.24	7.9	2.53
	-4.4	-5.0	14.5	3.87	14.0	3.74	13.1	3.51	12.6	3.39	11.2	3.03	10.3	2.80	7.9	2.22
	-1.8	-2.5	14.5	3.62	14.0	3.50	13.1	3.28	12.6	3.16	11.2	2.83	10.3	2.61	7.9	2.08
	0.8	0.0	14.5	3.37	14.0	3.26	13.1	3.05	12.6	2.95	11.2	2.64	10.3	2.44	7.9	1.94
	2.8	2.0	14.5	3.18	14.0	3.08	13.1	2.88	12.6	2.78	11.2	2.49	10.3	2.30	7.9	1.83
	6.0	5.0	14.5	2.92	14.0	2.82	13.1	2.64	12.6	2.55	11.2	2.29	10.3	2.11	7.9	1.67
	7.0	6.0	14.5	2.84	14.0	2.75	13.1	2.57	12.6	2.48	11.2	2.22	10.3	2.05	7.9	1.62
	8.6	7.5	14.5	2.68	14.0	2.60	13.1	2.44	12.6	2.35	11.2	2.11	10.3	1.95	7.9	1.55
	11.2	10.0	14.5	2.46	14.0	2.39	13.1	2.24	12.6	2.17	11.2	1.95	10.3	1.81	7.9	1.44
	16.4	15.0	14.5	2.12	14.0	2.06	13.1	1.93	12.6	1.87	11.2	1.69	10.3	1.57	7.9	1.26
	24.0	18.0	14.5	2.09	14.0	2.03	13.1	1.91	12.6	1.85	11.2	1.66	10.3	1.54	7.9	1.23

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-19.8	-20.0	11.8	4.41	11.5	4.31	10.8	4.11	10.5	4.01	9.5	3.68	8.7	3.45	6.8	2.76
	-14.7	-15.0	12.4	4.04	12.0	3.92	11.2	3.69	10.8	3.58	9.6	3.22	8.8	2.99	6.8	2.38
	-9.6	-10.0	12.4	3.47	12.0	3.37	11.2	3.19	10.8	3.09	9.6	2.80	8.8	2.61	6.8	2.11
	-4.4	-5.0	12.4	3.03	12.0	2.95	11.2	2.79	10.8	2.70	9.6	2.46	8.8	2.29	6.8	1.86
	-1.8	-2.5	12.4	2.82	12.0	2.75	11.2	2.60	10.8	2.52	9.6	2.29	8.8	2.13	6.8	1.73
	0.8	0.0	12.4	2.63	12.0	2.55	11.2	2.41	10.8	2.34	9.6	2.13	8.8	1.98	6.8	1.62
	2.8	2.0	12.4	2.48	12.0	2.41	11.2	2.28	10.8	2.21	9.6	2.01	8.8	1.88	6.8	1.52
	6.0	5.0	12.4	2.28	12.0	2.22	11.2	2.09	10.8	2.03	9.6	1.85	8.8	1.72	6.8	1.38
	7.0	6.0	12.4	2.21	12.0	2.15	11.2	2.03	10.8	1.97	9.6	1.79	8.8	1.66	6.8	1.34
	8.6	7.5	12.4	2.11	12.0	2.05	11.2	1.94	10.8	1.88	9.6	1.71	8.8	1.59	6.8	1.29
	11.2	10.0	12.4	1.95	12.0	1.90	11.2	1.80	10.8	1.74	9.6	1.59	8.8	1.48	6.8	1.21
	16.4	15.0	12.4	1.82	12.0	1.77	11.2	1.66	10.8	1.61	9.6	1.45	8.8	1.35	6.8	1.08
	24.0	18.0	12.4	1.82	12.0	1.77	11.2	1.66	10.8	1.61	9.6	1.45	8.8	1.35	6.8	1.08

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
50%	-19.8	-20.0	10.3	3.53	10.0	3.44	9.3	3.26	9.0	3.17	8.0	2.89	7.3	2.70	5.7	2.19
	-14.7	-15.0	10.3	3.05	10.0	2.98	9.3	2.83	9.0	2.76	8.0	2.53	7.3	2.37	5.7	1.94
	-9.6	-10.0	10.3	2.67	10.0	2.61	9.3	2.49	9.0	2.43	8.0	2.23	7.3	2.09	5.7	1.72
	-4.4	-5.0	10.3	2.32	10.0	2.27	9.3	2.17	9.0	2.11	8.0	1.94	7.3	1.83	5.7	1.51
	-1.8	-2.5	10.3	2.16	10.0	2.11	9.3	2.01	9.0	1.97	8.0	1.81	7.3	1.70	5.7	1.41
	0.8	0.0	10.3	2.01	10.0	1.96	9.3	1.88	9.0	1.83	8.0	1.69	7.3	1.59	5.7	1.31
	2.8	2.0	10.3	1.90	10.0	1.86	9.3	1.77	9.0	1.73	8.0	1.60	7.3	1.50	5.7	1.23
	6.0	5.0	10.3	1.75	10.0	1.71	9.3	1.63	9.0	1.59	8.0	1.46	7.3	1.37	5.7	1.13
	7.0	6.0	10.3	1.70	10.0	1.66	9.3	1.58	9.0	1.54	8.0	1.41	7.3	1.33	5.7	1.10
	8.6	7.5	10.3	1.63	10.0	1.59	9.3	1.51	9.0	1.48	8.0	1.36	7.3	1.27	5.7	1.06
	11.2	10.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.38	8.0	1.27	7.3	1.19	5.7	0.99
	16.4	15.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.37	8.0	1.24	7.3	1.15	5.7	0.93
24.0	18.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.37	8.0	1.24	7.3	1.15	5.7	0.93	

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	-19.8	-20.0	8.3	2.60	8.0	2.55	7.5	2.44	7.2	2.39	6.4	2.21	5.9	2.08	4.5	1.74
	-14.7	-15.0	8.3	2.28	8.0	2.24	7.5	2.15	7.2	2.10	6.4	1.95	5.9	1.84	4.5	1.54
	-9.6	-10.0	8.3	1.99	8.0	1.96	7.5	1.88	7.2	1.84	6.4	1.72	5.9	1.62	4.5	1.36
	-4.4	-5.0	8.3	1.73	8.0	1.70	7.5	1.64	7.2	1.60	6.4	1.50	5.9	1.42	4.5	1.19
	-1.8	-2.5	8.3	1.61	8.0	1.58	7.5	1.52	7.2	1.49	6.4	1.39	5.9	1.32	4.5	1.11
	0.8	0.0	8.3	1.50	8.0	1.48	7.5	1.42	7.2	1.39	6.4	1.30	5.9	1.22	4.5	1.03
	2.8	2.0	8.3	1.43	8.0	1.40	7.5	1.35	7.2	1.32	6.4	1.22	5.9	1.15	4.5	0.97
	6.0	5.0	8.3	1.31	8.0	1.29	7.5	1.24	7.2	1.21	6.4	1.12	5.9	1.06	4.5	0.90
	7.0	6.0	8.3	1.28	8.0	1.25	7.5	1.20	7.2	1.18	6.4	1.09	5.9	1.03	4.5	0.88
	8.6	7.5	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.05	5.9	1.00	4.5	0.85
	11.2	10.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.80
	16.4	15.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.78
	24.0	18.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.78

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
30%	-19.8	-20.0	6.2	1.86	6.0	1.83	5.6	1.76	5.4	1.73	4.8	1.62	4.4	1.53	3.4	1.30
	-14.7	-15.0	6.2	1.63	6.0	1.60	5.6	1.55	5.4	1.52	4.8	1.43	4.4	1.36	3.4	1.16
	-9.6	-10.0	6.2	1.42	6.0	1.40	5.6	1.36	5.4	1.33	4.8	1.26	4.4	1.20	3.4	1.02
	-4.4	-5.0	6.2	1.24	6.0	1.22	5.6	1.18	5.4	1.16	4.8	1.09	4.4	1.04	3.4	0.89
	-1.8	-2.5	6.2	1.16	6.0	1.14	5.6	1.10	5.4	1.08	4.8	1.02	4.4	0.97	3.4	0.83
	0.8	0.0	6.2	1.08	6.0	1.06	5.6	1.03	5.4	1.01	4.8	0.95	4.4	0.90	3.4	0.78
	2.8	2.0	6.2	1.02	6.0	1.01	5.6	0.97	5.4	0.96	4.8	0.90	4.4	0.86	3.4	0.74
	6.0	5.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.83	4.4	0.80	3.4	0.69
	7.0	6.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.78	3.4	0.68
	8.6	7.5	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.66
11.2	10.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63	
16.4	15.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63	
24.0	18.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63	

1. Capacity Ratio of Outdoor Unit

1-7. U-4LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-10.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	-5.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	0.0	13.0	2.14	13.0	2.14	13.0	2.14	13.0	2.14	13.9	2.29	14.7	2.43	15.6	2.57
	5.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.29	14.7	2.43	15.6	2.57
	10.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.29	14.7	2.43	15.6	2.58
	15.0	13.0	2.15	13.0	2.15	13.0	2.15	13.0	2.15	13.9	2.30	14.7	2.44	15.6	2.58
	20.0	13.0	2.19	13.0	2.19	13.0	2.19	13.0	2.19	13.9	2.33	14.7	2.48	15.6	2.62
	25.0	13.0	2.24	13.0	2.24	13.0	2.24	13.0	2.24	13.9	2.39	14.7	2.54	15.6	2.69
	30.0	13.0	2.60	13.0	2.60	13.0	2.60	13.0	2.60	13.9	2.79	14.7	2.98	15.6	3.18
	35.0	13.0	3.09	13.0	3.09	13.0	3.09	13.0	3.09	13.9	3.32	14.7	3.55	15.3	3.65
	40.0	12.9	3.65	12.9	3.65	12.9	3.65	12.9	3.65	13.2	3.65	13.6	3.65	13.9	3.65
	43.0	12.1	3.65	12.1	3.65	12.1	3.65	12.1	3.65	12.4	3.65	12.8	3.65	13.1	3.65
	46.0	10.2	3.07	10.2	3.07	10.2	3.07	10.2	3.07	10.2	2.92	10.2	2.78	10.2	2.66

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
120%	-10.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	-5.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	0.0	12.2	2.01	12.7	2.09	12.7	2.09	12.7	2.09	13.6	2.23	14.4	2.37	15.2	2.51
	5.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.23	14.4	2.37	15.2	2.51
	10.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.24	14.4	2.38	15.2	2.52
	15.0	12.2	2.01	12.7	2.10	12.7	2.10	12.7	2.10	13.6	2.24	14.4	2.38	15.2	2.52
	20.0	12.2	2.02	12.7	2.13	12.7	2.13	12.7	2.13	13.6	2.28	14.4	2.42	15.2	2.56
	25.0	12.2	2.08	12.7	2.19	12.7	2.19	12.7	2.19	13.6	2.33	14.4	2.48	15.2	2.63
	30.0	12.2	2.36	12.7	2.52	12.7	2.52	12.7	2.52	13.6	2.70	14.4	2.89	15.2	3.08
	35.0	12.2	2.81	12.7	3.00	12.7	3.00	12.7	3.00	13.6	3.22	14.4	3.44	15.2	3.65
	40.0	12.2	3.35	12.7	3.59	12.7	3.59	12.7	3.59	13.1	3.65	13.5	3.65	13.8	3.65
	43.0	12.0	3.65	12.0	3.65	12.0	3.65	12.0	3.65	12.4	3.65	12.7	3.65	13.0	3.65
	46.0	10.2	3.10	10.2	3.10	10.2	3.10	10.2	3.10	10.2	2.94	10.2	2.81	10.2	2.68

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
	-10.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	-5.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	0.0	10.9	1.80	11.8	1.95	12.4	2.04	12.4	2.04	13.2	2.18	14.1	2.32	14.9	2.45
	5.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.18	14.1	2.32	14.9	2.45
	10.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.18	14.1	2.32	14.9	2.46
	15.0	10.9	1.80	11.8	1.95	12.4	2.05	12.4	2.05	13.2	2.19	14.1	2.32	14.9	2.46
	20.0	10.9	1.81	11.8	1.96	12.4	2.08	12.4	2.08	13.2	2.22	14.1	2.36	14.9	2.50
	25.0	10.9	1.87	11.8	2.02	12.4	2.13	12.4	2.13	13.2	2.27	14.1	2.42	14.9	2.56
	30.0	10.9	2.11	11.8	2.29	12.4	2.44	12.4	2.44	13.2	2.62	14.1	2.80	14.9	2.98
	35.0	10.9	2.51	11.8	2.73	12.4	2.90	12.4	2.90	13.2	3.12	14.1	3.33	14.9	3.55
	40.0	10.9	2.99	11.8	3.26	12.4	3.47	12.4	3.47	13.1	3.65	13.4	3.65	13.7	3.65
	43.0	10.9	3.37	11.8	3.65	11.9	3.65	11.9	3.65	12.3	3.65	12.6	3.65	13.0	3.65
46.0	10.2	3.13	10.2	3.13	10.2	3.13	10.2	3.13	10.2	2.97	10.2	2.83	10.2	2.71	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	-5.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	0.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	1.99	12.9	2.13	13.7	2.26	14.5	2.39
	5.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	2.00	12.9	2.13	13.7	2.26	14.5	2.39
	10.0	9.7	1.60	10.5	1.73	11.3	1.86	12.1	2.00	12.9	2.13	13.7	2.26	14.5	2.40
	15.0	9.7	1.60	10.5	1.73	11.3	1.87	12.1	2.00	12.9	2.13	13.7	2.27	14.5	2.40
	20.0	9.7	1.61	10.5	1.74	11.3	1.90	12.1	2.03	12.9	2.17	13.7	2.30	14.5	2.44
	25.0	9.7	1.66	10.5	1.80	11.3	1.94	12.1	2.08	12.9	2.22	13.7	2.36	14.5	2.49
	30.0	9.7	1.87	10.5	2.04	11.3	2.20	12.1	2.37	12.9	2.53	13.7	2.71	14.5	2.88
	35.0	9.7	2.22	10.5	2.41	11.3	2.61	12.1	2.81	12.9	3.01	13.7	3.22	14.5	3.42
	40.0	9.7	2.65	10.5	2.88	11.3	3.12	12.1	3.36	12.9	3.60	13.3	3.65	13.7	3.65
	43.0	9.7	2.97	10.5	3.24	11.3	3.52	11.8	3.65	12.2	3.65	12.5	3.65	12.9	3.65
	46.0	9.7	3.46	10.2	3.61	10.2	3.36	10.2	3.16	10.2	3.00	10.2	2.86	10.2	2.73

Combination(%):Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-10.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.91	12.3	2.03	13.1	2.15
	-5.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.91	12.3	2.03	13.1	2.15
	0.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.03	13.1	2.15
	5.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	10.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	15.0	8.7	1.44	9.4	1.56	10.2	1.68	10.9	1.80	11.6	1.92	12.3	2.04	13.1	2.16
	20.0	8.7	1.45	9.4	1.57	10.2	1.69	10.9	1.81	11.6	1.93	12.3	2.07	13.1	2.19
	25.0	8.7	1.49	9.4	1.61	10.2	1.74	10.9	1.86	11.6	1.98	12.3	2.11	13.1	2.23
	30.0	8.7	1.66	9.4	1.79	10.2	1.93	10.9	2.07	11.6	2.22	12.3	2.36	13.1	2.50
	35.0	8.7	1.96	9.4	2.12	10.2	2.29	10.9	2.46	11.6	2.63	12.3	2.80	13.1	2.97
	40.0	8.7	2.33	9.4	2.53	10.2	2.73	10.9	2.93	11.6	3.13	12.3	3.34	13.1	3.54
	43.0	8.7	2.60	9.4	2.82	10.2	3.05	10.9	3.28	11.6	3.51	12.2	3.65	12.5	3.65
46.0	8.7	2.98	9.4	3.24	10.2	3.51	10.2	3.34	10.2	3.15	10.2	2.99	10.2	2.85	

1. Capacity Ratio of Outdoor Unit

U-4LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-10.0	6.8	1.12	7.3	1.21	7.9	1.30	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	-5.0	6.8	1.12	7.3	1.21	7.9	1.30	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	0.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	5.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.58	10.2	1.68
	10.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.59	10.2	1.68
	15.0	6.8	1.12	7.3	1.21	7.9	1.31	8.5	1.40	9.0	1.49	9.6	1.59	10.2	1.68
	20.0	6.8	1.12	7.3	1.22	7.9	1.31	8.5	1.40	9.0	1.50	9.6	1.59	10.2	1.68
	25.0	6.8	1.13	7.3	1.25	7.9	1.34	8.5	1.44	9.0	1.53	9.6	1.63	10.2	1.72
	30.0	6.8	1.26	7.3	1.35	7.9	1.45	8.5	1.54	9.0	1.64	9.6	1.74	10.2	1.83
	35.0	6.8	1.47	7.3	1.59	7.9	1.70	8.5	1.81	9.0	1.93	9.6	2.04	10.2	2.16
	40.0	6.8	1.74	7.3	1.88	7.9	2.01	8.5	2.15	9.0	2.28	9.6	2.42	10.2	2.56
	43.0	6.8	1.93	7.3	2.08	7.9	2.23	8.5	2.39	9.0	2.54	9.6	2.69	10.2	2.84
	46.0	6.8	2.17	7.3	2.34	7.9	2.51	8.5	2.68	9.0	2.85	9.6	3.03	10.2	3.20

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-10.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	-5.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	0.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	5.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	10.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	15.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	20.0	5.8	0.96	6.3	1.04	6.8	1.12	7.3	1.20	7.7	1.28	8.2	1.36	8.7	1.44
	25.0	5.8	0.97	6.3	1.05	6.8	1.13	7.3	1.21	7.7	1.29	8.2	1.37	8.7	1.45
	30.0	5.8	1.05	6.3	1.13	6.8	1.22	7.3	1.30	7.7	1.38	8.2	1.46	8.7	1.54
	35.0	5.8	1.25	6.3	1.34	6.8	1.43	7.3	1.52	7.7	1.61	8.2	1.71	8.7	1.80
	40.0	5.8	1.47	6.3	1.58	6.8	1.69	7.3	1.80	7.7	1.91	8.2	2.01	8.7	2.12
	43.0	5.8	1.63	6.3	1.75	6.8	1.87	7.3	1.99	7.7	2.11	8.2	2.23	8.7	2.35
	46.0	5.8	1.81	6.3	1.95	6.8	2.09	7.3	2.22	7.7	2.35	8.2	2.49	8.7	2.62

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-10.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	-5.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	0.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	5.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	10.0	4.8	0.80	5.2	0.87	5.6	0.93	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	15.0	4.8	0.80	5.2	0.87	5.6	0.94	6.1	1.00	6.5	1.07	6.9	1.13	7.3	1.20
	20.0	4.8	0.80	5.2	0.87	5.6	0.94	6.1	1.00	6.5	1.07	6.9	1.14	7.3	1.20
	25.0	4.8	0.81	5.2	0.87	5.6	0.94	6.1	1.01	6.5	1.07	6.9	1.14	7.3	1.21
	30.0	4.8	0.86	5.2	0.93	5.6	1.00	6.1	1.06	6.5	1.13	6.9	1.20	7.3	1.26
	35.0	4.8	1.04	5.2	1.11	5.6	1.18	6.1	1.25	6.5	1.32	6.9	1.39	7.3	1.46
	40.0	4.8	1.22	5.2	1.30	5.6	1.39	6.1	1.47	6.5	1.55	6.9	1.64	7.3	1.72
	43.0	4.8	1.34	5.2	1.44	5.6	1.53	6.1	1.62	6.5	1.72	6.9	1.81	7.3	1.90
	46.0	4.8	1.49	5.2	1.59	5.6	1.70	6.1	1.80	6.5	1.90	6.9	2.00	7.3	2.11

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-10.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	-5.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	0.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	5.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	10.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	15.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	20.0	3.9	0.64	4.2	0.70	4.5	0.75	4.8	0.80	5.2	0.86	5.5	0.91	5.8	0.96
	25.0	3.9	0.65	4.2	0.70	4.5	0.75	4.8	0.81	5.2	0.86	5.5	0.91	5.8	0.97
	30.0	3.9	0.68	4.2	0.74	4.5	0.79	4.8	0.84	5.2	0.89	5.5	0.95	5.8	1.00
	35.0	3.9	0.84	4.2	0.89	4.5	0.94	4.8	1.00	5.2	1.05	5.5	1.10	5.8	1.15
	40.0	3.9	0.97	4.2	1.04	4.5	1.10	4.8	1.16	5.2	1.23	5.5	1.29	5.8	1.35
	43.0	3.9	1.07	4.2	1.14	4.5	1.21	4.8	1.28	5.2	1.35	5.5	1.42	5.8	1.48
46.0	3.9	1.18	4.2	1.26	4.5	1.34	4.8	1.41	5.2	1.49	5.5	1.56	5.8	1.64	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
30%	-10.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	-5.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	0.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	5.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	10.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	15.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	20.0	2.9	0.48	3.1	0.52	3.4	0.56	3.6	0.60	3.9	0.64	4.1	0.68	4.4	0.72
	25.0	2.9	0.49	3.1	0.53	3.4	0.57	3.6	0.61	3.9	0.65	4.1	0.69	4.4	0.72
	30.0	2.9	0.49	3.1	0.53	3.4	0.57	3.6	0.61	3.9	0.65	4.1	0.69	4.4	0.73
	35.0	2.9	0.65	3.1	0.68	3.4	0.72	3.6	0.76	3.9	0.80	4.1	0.83	4.4	0.87
	40.0	2.9	0.75	3.1	0.79	3.4	0.84	3.6	0.88	3.9	0.92	4.1	0.96	4.4	1.01
	43.0	2.9	0.82	3.1	0.87	3.4	0.91	3.6	0.96	3.9	1.01	4.1	1.06	4.4	1.10
46.0	2.9	0.89	3.1	0.95	3.4	1.00	3.6	1.06	3.9	1.11	4.1	1.16	4.4	1.21	

1. Capacity Ratio of Outdoor Unit

1-8. U-4LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-19.8	-20.0	8.9	3.52	8.8	3.52	8.6	3.52	8.5	3.52	8.5	3.52	8.5	3.52	7.7	3.24
	-14.7	-15.0	9.9	3.52	9.7	3.52	9.5	3.52	9.4	3.52	9.4	3.52	9.4	3.52	9.1	3.52
	-9.6	-10.0	10.9	3.52	10.8	3.52	10.5	3.52	10.4	3.52	10.4	3.52	10.4	3.52	10.4	3.52
	-4.4	-5.0	12.0	3.52	11.9	3.52	11.6	3.52	11.5	3.52	11.5	3.52	11.5	3.52	11.0	3.42
	-1.8	-2.5	12.6	3.52	12.5	3.52	12.2	3.52	12.1	3.52	12.1	3.52	12.1	3.52	11.0	3.16
	0.8	0.0	13.3	3.52	13.1	3.52	12.8	3.52	12.7	3.52	12.7	3.52	12.7	3.52	11.0	2.91
	2.8	2.0	13.8	3.52	13.7	3.52	13.4	3.52	13.2	3.52	13.2	3.52	13.2	3.52	11.0	2.72
	6.0	5.0	14.7	3.52	14.5	3.52	13.9	3.40	13.4	3.25	13.4	3.25	13.4	3.25	11.0	2.45
	7.0	6.0	15.0	3.52	14.8	3.52	13.9	3.28	13.4	3.13	13.4	3.13	13.4	3.13	11.0	2.37
	8.6	7.5	15.4	3.51	14.9	3.37	13.9	3.10	13.4	2.96	13.4	2.96	13.4	2.96	11.0	2.25
	11.2	10.0	15.4	3.19	14.9	3.06	13.9	2.82	13.4	2.70	13.4	2.70	13.4	2.70	11.0	2.07
	16.4	15.0	15.4	2.66	14.9	2.56	13.9	2.37	13.4	2.27	13.4	2.27	13.4	2.27	11.0	1.78
	24.0	18.0	15.4	2.42	14.9	2.33	13.9	2.16	13.4	2.08	13.4	2.08	13.4	2.08	11.0	1.65

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
120%	-19.8	-20.0	8.9	3.52	8.8	3.52	8.6	3.52	8.5	3.52	8.5	3.52	8.5	3.52	7.1	2.98
	-14.7	-15.0	9.9	3.52	9.8	3.52	9.5	3.52	9.4	3.52	9.4	3.52	9.4	3.52	8.3	3.24
	-9.6	-10.0	10.9	3.52	10.8	3.52	10.6	3.52	10.4	3.52	10.4	3.52	10.4	3.52	9.8	3.49
	-4.4	-5.0	12.1	3.52	11.9	3.52	11.7	3.52	11.5	3.52	11.5	3.52	11.5	3.52	9.9	3.04
	-1.8	-2.5	12.7	3.52	12.5	3.52	12.2	3.52	12.1	3.52	12.1	3.52	12.1	3.52	9.9	2.81
	0.8	0.0	13.3	3.52	13.2	3.52	12.9	3.52	12.7	3.52	12.7	3.52	12.7	3.52	9.9	2.59
	2.8	2.0	13.9	3.52	13.7	3.52	13.4	3.52	13.1	3.46	13.1	3.46	12.8	3.24	9.9	2.42
	6.0	5.0	14.7	3.52	14.6	3.52	13.6	3.24	13.1	3.10	13.1	3.10	12.8	2.92	9.9	2.19
	7.0	6.0	15.1	3.52	14.6	3.39	13.6	3.12	13.1	2.99	13.1	2.99	12.8	2.81	9.9	2.11
	8.6	7.5	15.1	3.33	14.6	3.20	13.6	2.95	13.1	2.83	13.1	2.83	12.8	2.67	9.9	2.01
	11.2	10.0	15.1	3.03	14.6	2.91	13.6	2.69	13.1	2.58	13.1	2.58	12.8	2.44	9.9	1.85
	16.4	15.0	15.1	2.54	14.6	2.45	13.6	2.27	13.1	2.18	13.1	2.18	12.8	2.08	9.9	1.59
	24.0	18.0	15.1	2.31	14.6	2.23	13.6	2.07	13.1	2.00	13.1	2.00	12.8	1.92	9.9	1.48

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
110%	-19.8	-20.0	9.0	3.52	8.9	3.52	8.7	3.52	8.6	3.52	8.6	3.52	8.2	3.41	6.5	2.72
	-14.7	-15.0	9.9	3.52	9.8	3.52	9.6	3.52	9.5	3.52	9.5	3.52	9.5	3.52	7.6	2.95
	-9.6	-10.0	11.0	3.52	10.9	3.52	10.6	3.52	10.5	3.52	10.5	3.52	10.5	3.52	8.9	3.14
	-4.4	-5.0	12.1	3.52	12.0	3.52	11.7	3.52	11.6	3.52	11.6	3.52	11.5	3.52	8.9	2.69
	-1.8	-2.5	12.7	3.52	12.6	3.52	12.3	3.52	12.2	3.52	12.2	3.52	11.5	3.32	8.9	2.49
	0.8	0.0	13.4	3.52	13.2	3.52	12.9	3.52	12.8	3.52	12.5	3.38	11.5	3.06	8.9	2.29
	2.8	2.0	13.9	3.52	13.8	3.52	13.3	3.44	12.8	3.30	12.5	3.15	11.5	2.85	8.9	2.14
	6.0	5.0	14.7	3.48	14.2	3.35	13.3	3.08	12.8	2.95	12.5	2.83	11.5	2.57	8.9	1.94
	7.0	6.0	14.7	3.35	14.2	3.22	13.3	2.97	12.8	2.85	12.5	2.73	11.5	2.48	8.9	1.87
	8.6	7.5	14.7	3.17	14.2	3.04	13.3	2.81	12.8	2.69	12.5	2.59	11.5	2.35	8.9	1.78
	11.2	10.0	14.7	2.88	14.2	2.77	13.3	2.56	12.8	2.46	12.5	2.37	11.5	2.15	8.9	1.64
	16.4	15.0	14.7	2.42	14.2	2.33	13.3	2.17	12.8	2.08	12.5	2.02	11.5	1.84	8.9	1.42
	24.0	18.0	14.7	2.21	14.2	2.14	13.3	1.99	12.8	1.92	12.5	1.86	11.5	1.70	8.9	1.32

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-19.8	-20.0	9.0	3.52	8.9	3.52	8.7	3.52	8.6	3.52	8.0	3.33	7.4	3.09	5.9	2.47
	-14.7	-15.0	10.0	3.52	9.9	3.52	9.6	3.52	9.5	3.52	9.2	3.52	8.7	3.37	6.9	2.68
	-9.6	-10.0	11.0	3.52	10.9	3.52	10.6	3.52	10.5	3.52	10.1	3.52	9.9	3.52	7.9	2.75
	-4.4	-5.0	12.2	3.52	12.0	3.52	11.7	3.52	11.6	3.52	11.1	3.47	10.2	3.14	7.9	2.36
	-1.8	-2.5	12.8	3.52	12.6	3.52	12.3	3.52	12.2	3.52	11.1	3.20	10.2	2.90	7.9	2.18
	0.8	0.0	13.4	3.52	13.3	3.52	13.0	3.51	12.5	3.37	11.1	2.94	10.2	2.67	7.9	2.01
	2.8	2.0	14.0	3.52	13.8	3.52	13.0	3.27	12.5	3.14	11.1	2.74	10.2	2.49	7.9	1.88
	6.0	5.0	14.4	3.30	13.9	3.18	13.0	2.93	12.5	2.81	11.1	2.47	10.2	2.23	7.9	1.70
	7.0	6.0	14.4	3.18	13.9	3.06	13.0	2.83	12.5	2.71	11.1	2.37	10.2	2.16	7.9	1.64
	8.6	7.5	14.4	3.00	13.9	2.89	13.0	2.67	12.5	2.56	11.1	2.25	10.2	2.05	7.9	1.56
	11.2	10.0	14.4	2.74	13.9	2.64	13.0	2.44	12.5	2.35	11.1	2.07	10.2	1.89	7.9	1.45
	16.4	15.0	14.4	2.31	13.9	2.23	13.0	2.07	12.5	1.99	11.1	1.76	10.2	1.61	7.9	1.24
	24.0	18.0	14.4	2.08	13.9	2.01	13.0	1.86	12.5	1.79	11.1	1.58	10.2	1.44	7.9	1.13

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-19.8	-20.0	9.1	3.52	9.0	3.52	8.8	3.52	8.7	3.52	8.0	3.28	7.4	3.05	5.9	2.44
	-14.7	-15.0	10.2	3.52	10.0	3.52	9.8	3.52	9.7	3.52	9.3	3.52	8.7	3.31	6.9	2.63
	-9.6	-10.0	11.2	3.52	11.1	3.52	10.8	3.52	10.7	3.52	10.0	3.36	9.2	3.06	7.1	2.33
	-4.4	-5.0	12.4	3.52	12.2	3.52	11.7	3.39	11.3	3.26	10.0	2.88	9.2	2.62	7.1	2.01
	-1.8	-2.5	12.9	3.49	12.5	3.37	11.7	3.12	11.3	3.01	10.0	2.65	9.2	2.42	7.1	1.86
	0.8	0.0	12.9	3.20	12.5	3.09	11.7	2.87	11.3	2.76	10.0	2.44	9.2	2.23	7.1	1.71
	2.8	2.0	12.9	2.97	12.5	2.87	11.7	2.67	11.3	2.57	10.0	2.27	9.2	2.09	7.1	1.62
	6.0	5.0	12.9	2.70	12.5	2.61	11.7	2.43	11.3	2.34	10.0	2.08	9.2	1.90	7.1	1.47
	7.0	6.0	12.9	2.62	12.5	2.53	11.7	2.35	11.3	2.27	10.0	2.01	9.2	1.84	7.1	1.42
	8.6	7.5	12.9	2.48	12.5	2.40	11.7	2.23	11.3	2.15	10.0	1.90	9.2	1.75	7.1	1.35
	11.2	10.0	12.9	2.27	12.5	2.20	11.7	2.05	11.3	1.97	10.0	1.76	9.2	1.61	7.1	1.26
	16.4	15.0	12.9	1.93	12.5	1.87	11.7	1.75	11.3	1.69	10.0	1.50	9.2	1.38	7.1	1.08
24.0	18.0	12.9	1.81	12.5	1.75	11.7	1.64	11.3	1.58	10.0	1.42	9.2	1.31	7.1	1.03	

1. Capacity Ratio of Outdoor Unit

U-4LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	9.5	3.52	9.3	3.52	9.1	3.51	8.8	3.40	7.8	3.04	7.1	2.81	5.5	2.20
	-14.7	-15.0	10.0	3.29	9.7	3.19	9.1	3.00	8.8	2.90	7.8	2.60	7.1	2.40	5.5	1.90
	-9.6	-10.0	10.0	2.82	9.7	2.74	9.1	2.57	8.8	2.49	7.8	2.24	7.1	2.07	5.5	1.64
	-4.4	-5.0	10.0	2.40	9.7	2.34	9.1	2.21	8.8	2.15	7.8	1.95	7.1	1.81	5.5	1.46
	-1.8	-2.5	10.0	2.23	9.7	2.17	9.1	2.05	8.8	1.99	7.8	1.81	7.1	1.68	5.5	1.35
	0.8	0.0	10.0	2.07	9.7	2.01	9.1	1.90	8.8	1.85	7.8	1.68	7.1	1.56	5.5	1.24
	2.8	2.0	10.0	1.95	9.7	1.90	9.1	1.79	8.8	1.74	7.8	1.58	7.1	1.46	5.5	1.16
	6.0	5.0	10.0	1.78	9.7	1.73	9.1	1.63	8.8	1.58	7.8	1.43	7.1	1.32	5.5	1.06
	7.0	6.0	10.0	1.72	9.7	1.67	9.1	1.58	8.8	1.53	7.8	1.38	7.1	1.28	5.5	1.03
	8.6	7.5	10.0	1.64	9.7	1.59	9.1	1.50	8.8	1.46	7.8	1.32	7.1	1.22	5.5	0.98
	11.2	10.0	10.0	1.52	9.7	1.48	9.1	1.39	8.8	1.35	7.8	1.23	7.1	1.14	5.5	0.92
	16.4	15.0	10.0	1.42	9.7	1.38	9.1	1.29	8.8	1.25	7.8	1.12	7.1	1.03	5.5	0.82
	24.0	18.0	10.0	1.42	9.7	1.38	9.1	1.29	8.8	1.25	7.8	1.12	7.1	1.03	5.5	0.82

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
60%	-19.8	-20.0	8.6	2.99	8.3	2.91	7.8	2.75	7.5	2.67	6.7	2.42	6.1	2.25	4.7	1.80
	-14.7	-15.0	8.6	2.56	8.3	2.50	7.8	2.36	7.5	2.29	6.7	2.08	6.1	1.95	4.7	1.58
	-9.6	-10.0	8.6	2.21	8.3	2.16	7.8	2.06	7.5	2.00	6.7	1.83	6.1	1.71	4.7	1.39
	-4.4	-5.0	8.6	1.91	8.3	1.87	7.8	1.78	7.5	1.73	6.7	1.59	6.1	1.49	4.7	1.21
	-1.8	-2.5	8.6	1.77	8.3	1.73	7.8	1.65	7.5	1.61	6.7	1.47	6.1	1.38	4.7	1.11
	0.8	0.0	8.6	1.64	8.3	1.60	7.8	1.53	7.5	1.49	6.7	1.36	6.1	1.27	4.7	1.03
	2.8	2.0	8.6	1.55	8.3	1.51	7.8	1.44	7.5	1.40	6.7	1.28	6.1	1.19	4.7	0.96
	6.0	5.0	8.6	1.41	8.3	1.38	7.8	1.30	7.5	1.27	6.7	1.16	6.1	1.08	4.7	0.88
	7.0	6.0	8.6	1.37	8.3	1.33	7.8	1.26	7.5	1.23	6.7	1.12	6.1	1.05	4.7	0.85
	8.6	7.5	8.6	1.31	8.3	1.27	7.8	1.21	7.5	1.18	6.7	1.07	6.1	1.00	4.7	0.82
	11.2	10.0	8.6	1.23	8.3	1.19	7.8	1.13	7.5	1.10	6.7	1.00	6.1	0.94	4.7	0.77
	16.4	15.0	8.6	1.23	8.3	1.19	7.8	1.12	7.5	1.08	6.7	0.97	6.1	0.90	4.7	0.71
	24.0	18.0	8.6	1.23	8.3	1.19	7.8	1.12	7.5	1.08	6.7	0.97	6.1	0.90	4.7	0.71

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-19.8	-20.0	7.2	2.27	6.9	2.22	6.5	2.12	6.3	2.07	5.6	1.90	5.1	1.79	3.9	1.47
	-14.7	-15.0	7.2	1.98	6.9	1.94	6.5	1.86	6.3	1.81	5.6	1.67	5.1	1.57	3.9	1.29
	-9.6	-10.0	7.2	1.72	6.9	1.69	6.5	1.62	6.3	1.58	5.6	1.46	5.1	1.37	3.9	1.13
	-4.4	-5.0	7.2	1.48	6.9	1.46	6.5	1.39	6.3	1.36	5.6	1.26	5.1	1.19	3.9	0.97
	-1.8	-2.5	7.2	1.38	6.9	1.35	6.5	1.29	6.3	1.26	5.6	1.17	5.1	1.09	3.9	0.90
	0.8	0.0	7.2	1.28	6.9	1.25	6.5	1.20	6.3	1.17	5.6	1.07	5.1	1.01	3.9	0.83
	2.8	2.0	7.2	1.20	6.9	1.17	6.5	1.12	6.3	1.09	5.6	1.01	5.1	0.94	3.9	0.78
	6.0	5.0	7.2	1.09	6.9	1.07	6.5	1.02	6.3	1.00	5.6	0.92	5.1	0.86	3.9	0.71
	7.0	6.0	7.2	1.06	6.9	1.04	6.5	0.99	6.3	0.97	5.6	0.89	5.1	0.84	3.9	0.69
	8.6	7.5	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.93	5.6	0.86	5.1	0.81	3.9	0.67
	11.2	10.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.63
	16.4	15.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.61
	24.0	18.0	7.2	1.04	6.9	1.01	6.5	0.95	6.3	0.92	5.6	0.82	5.1	0.76	3.9	0.61

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
40%	-19.8	-20.0	5.7	1.72	5.6	1.68	5.2	1.62	5.0	1.58	4.4	1.46	4.1	1.38	3.1	1.15
	-14.7	-15.0	5.7	1.49	5.6	1.47	5.2	1.41	5.0	1.38	4.4	1.28	4.1	1.21	3.1	1.01
	-9.6	-10.0	5.7	1.29	5.6	1.27	5.2	1.23	5.0	1.20	4.4	1.12	4.1	1.06	3.1	0.88
	-4.4	-5.0	5.7	1.11	5.6	1.10	5.2	1.06	5.0	1.03	4.4	0.96	4.1	0.90	3.1	0.76
	-1.8	-2.5	5.7	1.03	5.6	1.01	5.2	0.97	5.0	0.95	4.4	0.88	4.1	0.83	3.1	0.70
	0.8	0.0	5.7	0.95	5.6	0.94	5.2	0.90	5.0	0.88	4.4	0.82	4.1	0.77	3.1	0.65
	2.8	2.0	5.7	0.90	5.6	0.88	5.2	0.85	5.0	0.83	4.4	0.77	4.1	0.73	3.1	0.61
	6.0	5.0	5.7	0.85	5.6	0.82	5.2	0.78	5.0	0.76	4.4	0.71	4.1	0.67	3.1	0.56
	7.0	6.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.69	4.1	0.65	3.1	0.55
	8.6	7.5	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.63	3.1	0.53
	11.2	10.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50
	16.4	15.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50
	24.0	18.0	5.7	0.85	5.6	0.82	5.2	0.77	5.0	0.75	4.4	0.67	4.1	0.62	3.1	0.50

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	4.3	1.22	4.2	1.20	3.9	1.16	3.8	1.14	3.3	1.06	3.1	1.01	2.4	0.85
	-14.7	-15.0	4.3	1.06	4.2	1.04	3.9	1.01	3.8	0.99	3.3	0.93	3.1	0.88	2.4	0.74
	-9.6	-10.0	4.3	0.92	4.2	0.90	3.9	0.87	3.8	0.86	3.3	0.80	3.1	0.76	2.4	0.65
	-4.4	-5.0	4.3	0.78	4.2	0.77	3.9	0.75	3.8	0.73	3.3	0.69	3.1	0.66	2.4	0.56
	-1.8	-2.5	4.3	0.73	4.2	0.72	3.9	0.69	3.8	0.68	3.3	0.64	3.1	0.61	2.4	0.52
	0.8	0.0	4.3	0.68	4.2	0.67	3.9	0.64	3.8	0.63	3.3	0.59	3.1	0.56	2.4	0.48
	2.8	2.0	4.3	0.66	4.2	0.64	3.9	0.61	3.8	0.60	3.3	0.56	3.1	0.53	2.4	0.46
	6.0	5.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.50	2.4	0.43
	7.0	6.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.42
	8.6	7.5	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.40
	11.2	10.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39
16.4	15.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39	
24.0	18.0	4.3	0.66	4.2	0.64	3.9	0.60	3.8	0.58	3.3	0.53	3.1	0.49	2.4	0.39	

1. Capacity Ratio of Outdoor Unit

1-9. U-5LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%):Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-10.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	-5.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	0.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	5.0	15.1	2.39	15.1	2.39	15.1	2.39	15.1	2.39	16.1	2.55	17.1	2.71	18.1	2.87
	10.0	15.1	2.40	15.1	2.40	15.1	2.40	15.1	2.40	16.1	2.56	17.1	2.72	18.1	2.90
	15.0	15.1	2.43	15.1	2.43	15.1	2.43	15.1	2.43	16.1	2.59	17.1	2.75	18.1	2.91
	20.0	15.1	2.46	15.1	2.46	15.1	2.46	15.1	2.46	16.1	2.62	17.1	2.79	18.1	2.96
	25.0	15.1	2.61	15.1	2.61	15.1	2.61	15.1	2.61	16.1	2.80	17.1	3.01	18.1	3.22
	30.0	15.1	3.09	15.1	3.09	15.1	3.09	15.1	3.09	16.1	3.33	17.1	3.57	18.1	3.82
	35.0	15.1	3.68	15.1	3.68	15.1	3.68	15.1	3.68	16.1	3.97	17.1	4.26	17.6	4.33
	40.0	14.8	4.33	14.8	4.33	14.8	4.33	14.8	4.33	15.2	4.33	15.6	4.33	16.0	4.33
	43.0	13.2	3.93	13.2	3.93	13.2	3.93	13.2	3.93	13.2	3.73	13.2	3.55	13.2	3.39
	46.0	9.9	2.68	9.9	2.68	9.9	2.68	9.9	2.68	9.9	2.56	9.9	2.45	9.9	2.35

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
120%	-10.0	14.1	2.24	14.7	2.33	14.7	2.33	14.7	2.33	15.7	2.49	16.7	2.64	17.6	2.80
	-5.0	14.1	2.24	14.7	2.33	14.7	2.33	14.7	2.33	15.7	2.49	16.7	2.65	17.6	2.80
	0.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.49	16.7	2.65	17.6	2.80
	5.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.49	16.7	2.65	17.6	2.81
	10.0	14.1	2.24	14.7	2.34	14.7	2.34	14.7	2.34	15.7	2.50	16.7	2.65	17.6	2.81
	15.0	14.1	2.25	14.7	2.37	14.7	2.37	14.7	2.37	15.7	2.53	16.7	2.69	17.6	2.84
	20.0	14.1	2.29	14.7	2.40	14.7	2.40	14.7	2.40	15.7	2.56	16.7	2.72	17.6	2.88
	25.0	14.1	2.37	14.7	2.53	14.7	2.53	14.7	2.53	15.7	2.72	16.7	2.91	17.6	3.11
	30.0	14.1	2.77	14.7	2.99	14.7	2.99	14.7	2.99	15.7	3.22	16.7	3.45	17.6	3.69
	35.0	14.1	3.30	14.7	3.56	14.7	3.56	14.7	3.56	15.7	3.84	16.7	4.12	17.5	4.33
	40.0	14.1	3.95	14.7	4.30	14.7	4.30	14.7	4.30	15.1	4.33	15.5	4.33	15.9	4.33
	43.0	13.2	3.98	13.2	3.98	13.2	3.98	13.2	3.98	13.2	3.77	13.2	3.58	13.2	3.42
46.0	9.9	2.70	9.9	2.70	9.9	2.70	9.9	2.70	9.9	2.58	9.9	2.47	9.9	2.37	

Combination(%):Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
110%	-10.0	12.6	2.00	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.73
	-5.0	12.6	2.00	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.73
	0.0	12.6	2.01	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.58	17.2	2.74
	5.0	12.6	2.01	13.7	2.17	14.4	2.28	14.4	2.28	15.3	2.43	16.3	2.59	17.2	2.74
	10.0	12.6	2.01	13.7	2.18	14.4	2.29	14.4	2.29	15.3	2.44	16.3	2.59	17.2	2.74
	15.0	12.6	2.01	13.7	2.18	14.4	2.31	14.4	2.31	15.3	2.47	16.3	2.62	17.2	2.78
	20.0	12.6	2.05	13.7	2.22	14.4	2.34	14.4	2.34	15.3	2.50	16.3	2.66	17.2	2.81
	25.0	12.6	2.13	13.7	2.31	14.4	2.45	14.4	2.45	15.3	2.63	16.3	2.81	17.2	3.00
	30.0	12.6	2.47	13.7	2.70	14.4	2.89	14.4	2.89	15.3	3.11	16.3	3.33	17.2	3.56
	35.0	12.6	2.94	13.7	3.21	14.4	3.44	14.4	3.44	15.3	3.71	16.3	3.98	17.2	4.25
	40.0	12.6	3.52	13.7	3.85	14.4	4.15	14.4	4.15	15.0	4.33	15.4	4.33	15.8	4.33
	43.0	12.6	4.01	13.2	4.02	13.2	4.02	13.2	4.02	13.2	3.81	13.2	3.62	13.2	3.45
	46.0	9.9	2.71	9.9	2.71	9.9	2.71	9.9	2.71	9.8	2.59	9.9	2.48	9.9	2.38

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-10.0	11.2	1.78	12.1	1.93	13.1	2.07	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	-5.0	11.2	1.78	12.1	1.93	13.1	2.07	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	0.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.22	14.9	2.37	15.9	2.52	16.8	2.67
	5.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.23	14.9	2.37	15.9	2.52	16.8	2.67
	10.0	11.2	1.78	12.1	1.93	13.1	2.08	14.0	2.23	14.9	2.38	15.9	2.53	16.8	2.68
	15.0	11.2	1.79	12.1	1.94	13.1	2.09	14.0	2.26	14.9	2.41	15.9	2.56	16.8	2.71
	20.0	11.2	1.82	12.1	1.98	13.1	2.13	14.0	2.28	14.9	2.43	15.9	2.59	16.8	2.74
	25.0	11.2	1.89	12.1	2.05	13.1	2.21	14.0	2.37	14.9	2.54	15.9	2.72	16.8	2.90
	30.0	11.2	2.19	12.1	2.39	13.1	2.59	14.0	2.80	14.9	3.01	15.9	3.22	16.8	3.44
	35.0	11.2	2.60	12.1	2.84	13.1	3.08	14.0	3.33	14.9	3.57	15.8	3.82	16.7	4.08
	40.0	11.2	3.11	12.1	3.40	13.1	3.70	14.0	4.00	14.8	4.27	15.3	4.33	15.7	4.33
	43.0	11.2	3.53	12.1	3.88	13.1	4.23	13.2	4.08	13.2	3.85	13.2	3.66	13.2	3.49
	46.0	9.9	3.23	9.9	3.03	9.9	2.87	9.8	2.74	9.9	2.61	9.9	2.50	9.9	2.40

Combination(%):Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
90%	-10.0	10.1	1.60	10.9	1.73	11.8	1.87	12.6	2.00	13.4	2.13	14.3	2.27	15.1	2.40
	-5.0	10.1	1.60	10.9	1.73	11.8	1.87	12.6	2.00	13.4	2.13	14.3	2.27	15.1	2.40
	0.0	10.1	1.60	10.9	1.74	11.8	1.87	12.6	2.00	13.4	2.14	14.3	2.27	15.1	2.40
	5.0	10.1	1.60	10.9	1.74	11.8	1.87	12.6	2.00	13.4	2.14	14.3	2.27	15.1	2.40
	10.0	10.1	1.60	10.9	1.74	11.8	1.87	12.6	2.01	13.4	2.14	14.3	2.27	15.1	2.41
	15.0	10.1	1.61	10.9	1.74	11.8	1.88	12.6	2.01	13.4	2.15	14.3	2.30	15.1	2.43
	20.0	10.1	1.64	10.9	1.77	11.8	1.91	12.6	2.05	13.4	2.18	14.3	2.32	15.1	2.46
	25.0	10.1	1.69	10.9	1.83	11.8	1.97	12.6	2.11	13.4	2.26	14.3	2.40	15.1	2.54
	30.0	10.1	1.93	10.9	2.10	11.8	2.26	12.6	2.43	13.4	2.61	14.3	2.78	15.1	2.96
	35.0	10.1	2.28	10.9	2.48	11.8	2.68	12.6	2.89	13.4	3.10	14.3	3.31	15.1	3.52
	40.0	10.1	2.72	10.9	2.96	11.8	3.20	12.6	3.45	13.4	3.70	14.3	3.96	15.1	4.23
	43.0	10.1	3.05	10.9	3.33	11.8	3.62	12.6	3.91	13.2	4.07	13.2	3.85	13.2	3.66
46.0	9.9	3.41	9.9	3.18	9.9	2.99	9.9	2.83	9.9	2.70	9.9	2.58	9.9	2.47	

1. Capacity Ratio of Outdoor Unit

U-5LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-10.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.76	11.8	1.87
	-5.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.76	11.8	1.87
	0.0	7.8	1.25	8.5	1.35	9.1	1.45	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	5.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	10.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.66	11.1	1.77	11.8	1.87
	15.0	7.8	1.25	8.5	1.35	9.1	1.46	9.8	1.56	10.5	1.67	11.1	1.77	11.8	1.88
	20.0	7.8	1.26	8.5	1.36	9.1	1.46	9.8	1.57	10.5	1.67	11.1	1.80	11.8	1.90
	25.0	7.8	1.30	8.5	1.40	9.1	1.51	9.8	1.62	10.5	1.73	11.1	1.83	11.8	1.94
	30.0	7.8	1.45	8.5	1.56	9.1	1.67	9.8	1.79	10.5	1.90	11.1	2.02	11.8	2.14
	35.0	7.8	1.70	8.5	1.83	9.1	1.97	9.8	2.11	10.5	2.24	11.1	2.38	11.8	2.52
	40.0	7.8	2.01	8.5	2.17	9.1	2.33	9.8	2.49	10.5	2.66	11.1	2.82	11.8	2.99
	43.0	7.8	2.23	8.5	2.41	9.1	2.59	9.8	2.77	10.5	2.96	11.1	3.14	11.8	3.33
	46.0	7.8	2.52	8.5	2.73	9.1	2.94	9.8	3.15	9.9	3.00	9.9	2.85	9.9	2.71

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-10.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	-5.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	0.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.42	9.5	1.51	10.1	1.60
	5.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.51	10.1	1.60
	10.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.60
	15.0	6.7	1.07	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.61
	20.0	6.7	1.08	7.3	1.16	7.8	1.25	8.4	1.34	9.0	1.43	9.5	1.52	10.1	1.61
	25.0	6.7	1.11	7.3	1.20	7.8	1.29	8.4	1.38	9.0	1.47	9.5	1.56	10.1	1.65
	30.0	6.7	1.23	7.3	1.32	7.8	1.41	8.4	1.50	9.0	1.59	9.5	1.68	10.1	1.78
	35.0	6.7	1.43	7.3	1.54	7.8	1.65	8.4	1.76	9.0	1.86	9.5	1.97	10.1	2.08
	40.0	6.7	1.69	7.3	1.82	7.8	1.94	8.4	2.07	9.0	2.20	9.5	2.33	10.1	2.46
	43.0	6.7	1.87	7.3	2.01	7.8	2.15	8.4	2.30	9.0	2.44	9.5	2.58	10.1	2.72
	46.0	6.7	2.09	7.3	2.25	7.8	2.41	8.4	2.57	9.0	2.73	9.5	2.90	9.9	2.93

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-10.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	-5.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	0.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	5.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.11	7.5	1.19	7.9	1.26	8.4	1.34
	10.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.26	8.4	1.34
	15.0	5.6	0.89	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.27	8.4	1.34
	20.0	5.6	0.90	6.1	0.97	6.5	1.04	7.0	1.12	7.5	1.19	7.9	1.27	8.4	1.34
	25.0	5.6	0.90	6.1	0.98	6.5	1.05	7.0	1.13	7.5	1.22	7.9	1.30	8.4	1.37
	30.0	5.6	0.99	6.1	1.07	6.5	1.14	7.0	1.22	7.5	1.29	7.9	1.37	8.4	1.44
	35.0	5.6	1.19	6.1	1.27	6.5	1.35	7.0	1.44	7.5	1.52	7.9	1.60	8.4	1.68
	40.0	5.6	1.39	6.1	1.49	6.5	1.59	7.0	1.68	7.5	1.78	7.9	1.88	8.4	1.98
	43.0	5.6	1.53	6.1	1.64	6.5	1.75	7.0	1.86	7.5	1.97	7.9	2.08	8.4	2.18
	46.0	5.6	1.70	6.1	1.82	6.5	1.94	7.0	2.07	7.5	2.19	7.9	2.31	8.4	2.43

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	-10.0	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
	-5.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	0.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	5.0	4.5	0.72	4.9	0.77	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	10.0	4.5	0.72	4.9	0.78	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	15.0	4.5	0.72	4.9	0.78	5.2	0.83	5.6	0.89	6.0	0.95	6.3	1.01	6.7	1.07
	20.0	4.5	0.72	4.9	0.78	5.2	0.84	5.6	0.90	6.0	0.96	6.3	1.01	6.7	1.07
	25.0	4.5	0.72	4.9	0.78	5.2	0.84	5.6	0.90	6.0	0.96	6.3	1.02	6.7	1.08
	30.0	4.5	0.77	4.9	0.83	5.2	0.89	5.6	0.95	6.0	1.01	6.3	1.07	6.7	1.13
	35.0	4.5	0.95	4.9	1.02	5.2	1.08	5.6	1.14	6.0	1.20	6.3	1.26	6.7	1.32
	40.0	4.5	1.11	4.9	1.18	5.2	1.26	5.6	1.33	6.0	1.40	6.3	1.47	6.7	1.54
	43.0	4.5	1.22	4.9	1.30	5.2	1.38	5.6	1.46	6.0	1.54	6.3	1.62	6.7	1.69
	46.0	4.5	1.34	4.9	1.43	5.2	1.52	5.6	1.61	6.0	1.70	6.3	1.78	6.7	1.87

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
30%	-10.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	-5.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	0.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	5.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	10.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.80
	15.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	20.0	3.4	0.54	3.6	0.58	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	25.0	3.4	0.54	3.6	0.59	3.9	0.63	4.2	0.67	4.5	0.72	4.8	0.76	5.0	0.81
	30.0	3.4	0.55	3.6	0.60	3.9	0.66	4.2	0.71	4.5	0.75	4.8	0.80	5.0	0.84
	35.0	3.4	0.74	3.6	0.78	3.9	0.82	4.2	0.87	4.5	0.91	4.8	0.95	5.0	0.99
	40.0	3.4	0.85	3.6	0.90	3.9	0.95	4.2	1.00	4.5	1.05	4.8	1.10	5.0	1.14
	43.0	3.4	0.93	3.6	0.98	3.9	1.04	4.2	1.09	4.5	1.15	4.8	1.20	5.0	1.25
	46.0	3.4	1.02	3.6	1.08	3.9	1.14	4.2	1.20	4.5	1.26	4.8	1.32	5.0	1.37

1. Capacity Ratio of Outdoor Unit

1-10. U-5LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	11.4	4.84	11.2	4.79	10.6	4.55	10.3	4.42	10.3	4.42	10.3	4.42	9.1	3.93
	-14.7	-15.0	12.5	4.84	12.3	4.84	12.0	4.84	11.9	4.84	11.9	4.84	11.9	4.84	10.7	4.28
	-9.6	-10.0	13.8	4.84	13.6	4.84	13.3	4.84	13.2	4.84	13.2	4.84	13.2	4.84	12.5	4.58
	-4.4	-5.0	15.2	4.84	15.0	4.84	14.7	4.84	14.6	4.84	14.6	4.84	14.6	4.84	14.1	4.65
	-1.8	-2.5	16.0	4.84	15.8	4.84	15.5	4.84	15.3	4.84	15.3	4.84	15.3	4.84	14.1	4.29
	0.8	0.0	16.8	4.84	16.6	4.84	16.3	4.84	16.1	4.84	16.1	4.84	16.1	4.84	14.1	3.95
	2.8	2.0	17.5	4.84	17.3	4.84	17.0	4.84	16.8	4.84	16.8	4.84	16.8	4.84	14.1	3.69
	6.0	5.0	18.6	4.84	18.4	4.84	17.8	4.73	17.2	4.51	17.2	4.51	17.2	4.51	14.1	3.32
	7.0	6.0	19.0	4.84	18.8	4.84	17.8	4.55	17.2	4.34	17.2	4.34	17.2	4.34	14.1	3.20
	8.6	7.5	19.6	4.84	19.1	4.70	17.8	4.29	17.2	4.10	17.2	4.10	17.2	4.10	14.1	3.03
	11.2	10.0	19.7	4.43	19.1	4.24	17.8	3.88	17.2	3.71	17.2	3.71	17.2	3.71	14.1	2.78
	16.4	15.0	19.7	3.63	19.1	3.49	17.8	3.21	17.2	3.08	17.2	3.08	17.2	3.08	14.1	2.37
	24.0	18.0	19.7	3.27	19.1	3.15	17.8	2.91	17.2	2.79	17.2	2.79	17.2	2.79	14.1	2.19

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
120%	-19.8	-20.0	11.4	4.84	11.2	4.76	10.6	4.52	10.3	4.40	10.3	4.40	10.3	4.40	8.4	3.61
	-14.7	-15.0	12.5	4.84	12.4	4.84	12.1	4.84	11.9	4.82	11.9	4.82	11.9	4.82	9.8	3.92
	-9.6	-10.0	13.9	4.84	13.7	4.84	13.4	4.84	13.2	4.84	13.2	4.84	13.2	4.84	11.5	4.18
	-4.4	-5.0	15.3	4.84	15.1	4.84	14.8	4.84	14.6	4.84	14.6	4.84	14.6	4.84	12.7	4.13
	-1.8	-2.5	16.1	4.84	15.9	4.84	15.6	4.84	15.4	4.84	15.4	4.84	15.4	4.84	12.7	3.81
	0.8	0.0	16.9	4.84	16.7	4.84	16.4	4.84	16.2	4.84	16.2	4.84	16.2	4.84	12.7	3.51
	2.8	2.0	17.6	4.84	17.4	4.84	17.0	4.84	16.8	4.80	16.8	4.80	16.4	4.44	12.7	3.28
	6.0	5.0	18.7	4.84	18.5	4.84	17.4	4.49	16.8	4.29	16.8	4.29	16.4	3.98	12.7	2.95
	7.0	6.0	19.1	4.84	18.7	4.72	17.4	4.32	16.8	4.13	16.8	4.13	16.4	3.83	12.7	2.85
	8.6	7.5	19.3	4.64	18.7	4.45	17.4	4.07	16.8	3.89	16.8	3.89	16.4	3.62	12.7	2.70
	11.2	10.0	19.3	4.19	18.7	4.02	17.4	3.69	16.8	3.53	16.8	3.53	16.4	3.30	12.7	2.48
	16.4	15.0	19.3	3.45	18.7	3.32	17.4	3.06	16.8	2.94	16.8	2.94	16.4	2.79	12.7	2.12
	24.0	18.0	19.3	3.11	18.7	3.00	17.4	2.78	16.8	2.67	16.8	2.67	16.4	2.55	12.7	1.96

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-19.8	-20.0	11.5	4.84	11.2	4.72	10.6	4.49	10.3	4.36	10.3	4.37	9.5	4.07	7.7	3.30
	-14.7	-15.0	12.6	4.84	12.5	4.84	12.2	4.84	11.9	4.76	11.9	4.76	11.1	4.43	9.0	3.56
	-9.6	-10.0	13.9	4.84	13.8	4.84	13.5	4.84	13.3	4.84	13.3	4.84	13.0	4.77	10.5	3.80
	-4.4	-5.0	15.4	4.84	15.2	4.84	14.9	4.84	14.7	4.84	14.7	4.84	14.7	4.84	11.4	3.64
	-1.8	-2.5	16.1	4.84	16.0	4.84	15.6	4.84	15.5	4.84	15.5	4.84	14.7	4.55	11.4	3.37
	0.8	0.0	17.0	4.84	16.8	4.84	16.4	4.84	16.3	4.84	16.0	4.64	14.7	4.18	11.4	3.10
	2.8	2.0	17.7	4.84	17.5	4.84	17.0	4.77	16.4	4.56	16.0	4.33	14.7	3.90	11.4	2.90
	6.0	5.0	18.8	4.84	18.2	4.65	17.0	4.26	16.4	4.08	16.0	3.87	14.7	3.50	11.4	2.61
	7.0	6.0	18.8	4.66	18.2	4.47	17.0	4.10	16.4	3.92	16.0	3.73	14.7	3.37	11.4	2.52
	8.6	7.5	18.8	4.39	18.2	4.21	17.0	3.87	16.4	3.70	16.0	3.53	14.7	3.19	11.4	2.39
	11.2	10.0	18.8	3.97	18.2	3.81	17.0	3.51	16.4	3.36	16.0	3.21	14.7	2.91	11.4	2.20
	16.4	15.0	18.8	3.28	18.2	3.16	17.0	2.92	16.4	2.81	16.0	2.70	14.7	2.46	11.4	1.89
	24.0	18.0	18.8	2.97	18.2	2.87	17.0	2.66	16.4	2.56	16.0	2.47	14.7	2.26	11.4	1.75

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	11.4	4.80	11.1	4.68	10.5	4.45	10.2	4.33	9.3	3.95	8.6	3.69	6.9	2.98
	-14.7	-15.0	12.7	4.84	12.5	4.84	12.2	4.83	11.9	4.70	10.8	4.28	10.1	3.99	8.1	3.21
	-9.6	-10.0	14.0	4.84	13.8	4.84	13.5	4.84	13.4	4.84	12.6	4.63	11.7	4.30	9.5	3.43
	-4.4	-5.0	15.4	4.84	15.3	4.84	15.0	4.84	14.8	4.84	14.2	4.78	13.0	4.30	10.1	3.19
	-1.8	-2.5	16.2	4.84	16.1	4.84	15.7	4.84	15.6	4.84	14.2	4.39	13.0	3.96	10.1	2.95
	0.8	0.0	17.1	4.84	16.9	4.84	16.5	4.84	16.0	4.65	14.2	4.03	13.0	3.64	10.1	2.72
	2.8	2.0	17.8	4.84	17.6	4.84	16.6	4.53	16.0	4.33	14.2	3.76	13.0	3.40	10.1	2.54
	6.0	5.0	18.4	4.59	17.8	4.40	16.6	4.05	16.0	3.87	14.2	3.37	13.0	3.02	10.1	2.28
	7.0	6.0	18.4	4.41	17.8	4.23	16.6	3.89	16.0	3.72	14.2	3.24	13.0	2.93	10.1	2.21
	8.6	7.5	18.4	4.15	17.8	3.99	16.6	3.67	16.0	3.51	14.2	3.06	13.0	2.78	10.1	2.10
	11.2	10.0	18.4	3.75	17.8	3.61	16.6	3.33	16.0	3.19	14.2	2.80	13.0	2.54	10.1	1.94
	16.4	15.0	18.4	3.13	17.8	3.01	16.6	2.79	16.0	2.69	14.2	2.37	13.0	2.16	10.1	1.66
	24.0	18.0	18.4	2.82	17.8	2.72	16.6	2.53	16.0	2.43	14.2	2.14	13.0	1.95	10.1	1.49

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
90%	-19.8	-20.0	11.3	4.59	11.0	4.49	10.4	4.27	10.1	4.16	9.1	3.80	8.5	3.55	6.8	2.88
	-14.7	-15.0	13.0	4.84	12.8	4.84	12.1	4.59	11.8	4.47	10.7	4.08	9.9	3.80	7.9	3.06
	-9.6	-10.0	14.3	4.84	14.2	4.84	13.8	4.84	13.7	4.84	12.5	4.40	11.6	4.09	9.1	3.14
	-4.4	-5.0	15.8	4.84	15.6	4.84	14.9	4.66	14.4	4.47	12.8	3.91	11.7	3.56	9.1	2.70
	-1.8	-2.5	16.5	4.81	16.0	4.63	14.9	4.28	14.4	4.11	12.8	3.61	11.7	3.28	9.1	2.50
	0.8	0.0	16.5	4.40	16.0	4.24	14.9	3.92	14.4	3.77	12.8	3.31	11.7	3.01	9.1	2.30
	2.8	2.0	16.5	4.09	16.0	3.94	14.9	3.65	14.4	3.50	12.8	3.08	11.7	2.79	9.1	2.16
	6.0	5.0	16.5	3.72	16.0	3.58	14.9	3.31	14.4	3.19	12.8	2.80	11.7	2.56	9.1	1.97
	7.0	6.0	16.5	3.61	16.0	3.48	14.9	3.22	14.4	3.10	12.8	2.72	11.7	2.48	9.1	1.91
	8.6	7.5	16.5	3.40	16.0	3.28	14.9	3.04	14.4	2.92	12.8	2.58	11.7	2.36	9.1	1.82
	11.2	10.0	16.5	3.09	16.0	2.98	14.9	2.77	14.4	2.67	12.8	2.36	11.7	2.17	9.1	1.68
	16.4	15.0	16.5	2.61	16.0	2.52	14.9	2.35	14.4	2.27	12.8	2.02	11.7	1.85	9.1	1.45
24.0	18.0	16.5	2.36	16.0	2.29	14.9	2.15	14.4	2.07	12.8	1.86	11.7	1.71	9.1	1.35	

1. Capacity Ratio of Outdoor Unit

U-5LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	11.3	4.26	10.9	4.17	10.3	3.98	10.0	3.88	9.0	3.56	8.3	3.33	6.6	2.71
	-14.7	-15.0	12.9	4.45	12.4	4.31	11.6	4.04	11.2	3.90	10.0	3.49	9.1	3.22	7.1	2.53
	-9.6	-10.0	12.9	3.80	12.4	3.69	11.6	3.46	11.2	3.34	10.0	3.00	9.1	2.77	7.1	2.19
	-4.4	-5.0	12.9	3.22	12.4	3.13	11.6	2.95	11.2	2.86	10.0	2.58	9.1	2.39	7.1	1.92
	-1.8	-2.5	12.9	3.00	12.4	2.91	11.6	2.74	11.2	2.66	10.0	2.40	9.1	2.23	7.1	1.79
	0.8	0.0	12.9	2.79	12.4	2.71	11.6	2.55	11.2	2.47	10.0	2.23	9.1	2.07	7.1	1.67
	2.8	2.0	12.9	2.62	12.4	2.55	11.6	2.40	11.2	2.33	10.0	2.10	9.1	1.95	7.1	1.57
	6.0	5.0	12.9	2.41	12.4	2.34	11.6	2.20	11.2	2.13	10.0	1.93	9.1	1.78	7.1	1.42
	7.0	6.0	12.9	2.34	12.4	2.27	11.6	2.14	11.2	2.07	10.0	1.86	9.1	1.73	7.1	1.38
	8.6	7.5	12.9	2.22	12.4	2.16	11.6	2.03	11.2	1.97	10.0	1.77	9.1	1.64	7.1	1.32
	11.2	10.0	12.9	2.04	12.4	1.99	11.6	1.87	11.2	1.82	10.0	1.64	9.1	1.53	7.1	1.23
	16.4	15.0	12.9	1.87	12.4	1.81	11.6	1.70	11.2	1.64	10.0	1.47	9.1	1.36	7.1	1.08
	24.0	18.0	12.9	1.87	12.4	1.81	11.6	1.70	11.2	1.64	10.0	1.47	9.1	1.36	7.1	1.08

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-19.8	-20.0	11.0	4.00	10.7	3.90	10.0	3.68	9.6	3.57	8.5	3.23	7.8	2.99	6.0	2.39
	-14.7	-15.0	11.0	3.42	10.7	3.33	10.0	3.15	9.6	3.05	8.5	2.77	7.8	2.57	6.0	2.06
	-9.6	-10.0	11.0	2.93	10.7	2.86	10.0	2.71	9.6	2.64	8.5	2.41	7.8	2.25	6.0	1.83
	-4.4	-5.0	11.0	2.55	10.7	2.48	10.0	2.36	9.6	2.29	8.5	2.10	7.8	1.96	6.0	1.60
	-1.8	-2.5	11.0	2.36	10.7	2.31	10.0	2.19	9.6	2.13	8.5	1.95	7.8	1.82	6.0	1.49
	0.8	0.0	11.0	2.19	10.7	2.14	10.0	2.03	9.6	1.98	8.5	1.81	7.8	1.69	6.0	1.38
	2.8	2.0	11.0	2.07	10.7	2.02	10.0	1.92	9.6	1.87	8.5	1.71	7.8	1.60	6.0	1.30
	6.0	5.0	11.0	1.90	10.7	1.85	10.0	1.76	9.6	1.71	8.5	1.56	7.8	1.45	6.0	1.18
	7.0	6.0	11.0	1.85	10.7	1.80	10.0	1.70	9.6	1.66	8.5	1.51	7.8	1.41	6.0	1.15
	8.6	7.5	11.0	1.76	10.7	1.72	10.0	1.63	9.6	1.58	8.5	1.44	7.8	1.35	6.0	1.10
	11.2	10.0	11.0	1.63	10.7	1.59	10.0	1.51	9.6	1.47	8.5	1.34	7.8	1.26	6.0	1.03
	16.4	15.0	11.0	1.62	10.7	1.57	10.0	1.47	9.6	1.43	8.5	1.28	7.8	1.19	6.0	0.95
	24.0	18.0	11.0	1.62	10.7	1.57	10.0	1.47	9.6	1.43	8.5	1.28	7.8	1.19	6.0	0.95

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-19.8	-20.0	9.2	3.02	8.9	2.95	8.3	2.81	8.0	2.73	7.1	2.50	6.5	2.34	5.0	1.93
	-14.7	-15.0	9.2	2.61	8.9	2.55	8.3	2.44	8.0	2.38	7.1	2.19	6.5	2.06	5.0	1.69
	-9.6	-10.0	9.2	2.27	8.9	2.23	8.3	2.13	8.0	2.08	7.1	1.92	6.5	1.81	5.0	1.49
	-4.4	-5.0	9.2	1.97	8.9	1.93	8.3	1.84	8.0	1.80	7.1	1.67	6.5	1.57	5.0	1.31
	-1.8	-2.5	9.2	1.82	8.9	1.79	8.3	1.71	8.0	1.67	7.1	1.55	6.5	1.46	5.0	1.21
	0.8	0.0	9.2	1.70	8.9	1.66	8.3	1.59	8.0	1.55	7.1	1.44	6.5	1.36	5.0	1.12
	2.8	2.0	9.2	1.60	8.9	1.57	8.3	1.50	8.0	1.47	7.1	1.36	6.5	1.27	5.0	1.05
	6.0	5.0	9.2	1.48	8.9	1.44	8.3	1.38	8.0	1.34	7.1	1.24	6.5	1.16	5.0	0.96
	7.0	6.0	9.2	1.43	8.9	1.40	8.3	1.34	8.0	1.30	7.1	1.20	6.5	1.13	5.0	0.94
	8.6	7.5	9.2	1.37	8.9	1.34	8.3	1.28	8.0	1.25	7.1	1.15	6.5	1.08	5.0	0.90
	11.2	10.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.02	5.0	0.85
	16.4	15.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.01	5.0	0.81
	24.0	18.0	9.2	1.37	8.9	1.33	8.3	1.25	8.0	1.21	7.1	1.09	6.5	1.01	5.0	0.81

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-19.8	-20.0	7.3	2.25	7.1	2.21	6.6	2.12	6.4	2.07	5.7	1.92	5.2	1.82	4.0	1.51
	-14.7	-15.0	7.3	1.96	7.1	1.93	6.6	1.86	6.4	1.82	5.7	1.69	5.2	1.60	4.0	1.34
	-9.6	-10.0	7.3	1.71	7.1	1.68	6.6	1.62	6.4	1.59	5.7	1.48	5.2	1.40	4.0	1.18
	-4.4	-5.0	7.3	1.47	7.1	1.45	6.6	1.40	6.4	1.37	5.7	1.28	5.2	1.22	4.0	1.02
	-1.8	-2.5	7.3	1.37	7.1	1.35	6.6	1.30	6.4	1.28	5.7	1.19	5.2	1.13	4.0	0.95
	0.8	0.0	7.3	1.28	7.1	1.26	6.6	1.21	6.4	1.19	5.7	1.10	5.2	1.04	4.0	0.88
	2.8	2.0	7.3	1.21	7.1	1.19	6.6	1.14	6.4	1.12	5.7	1.04	5.2	0.98	4.0	0.83
	6.0	5.0	7.3	1.12	7.1	1.09	6.6	1.05	6.4	1.03	5.7	0.95	5.2	0.90	4.0	0.76
	7.0	6.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.93	5.2	0.88	4.0	0.74
	8.6	7.5	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.85	4.0	0.72
	11.2	10.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68
	16.4	15.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68
	24.0	18.0	7.3	1.12	7.1	1.09	6.6	1.03	6.4	1.00	5.7	0.90	5.2	0.84	4.0	0.68

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
30%	-19.8	-20.0	5.5	1.61	5.3	1.59	5.0	1.53	4.8	1.50	4.3	1.41	3.9	1.33	3.0	1.13
	-14.7	-15.0	5.5	1.40	5.3	1.38	5.0	1.34	4.8	1.32	4.3	1.24	3.9	1.18	3.0	1.00
	-9.6	-10.0	5.5	1.22	5.3	1.20	5.0	1.17	4.8	1.15	4.3	1.08	3.9	1.03	3.0	0.88
	-4.4	-5.0	5.5	1.06	5.3	1.04	5.0	1.01	4.8	0.99	4.3	0.93	3.9	0.89	3.0	0.76
	-1.8	-2.5	5.5	0.99	5.3	0.97	5.0	0.94	4.8	0.92	4.3	0.86	3.9	0.82	3.0	0.71
	0.8	0.0	5.5	0.92	5.3	0.90	5.0	0.87	4.8	0.86	4.3	0.80	3.9	0.77	3.0	0.66
	2.8	2.0	5.5	0.88	5.3	0.85	5.0	0.83	4.8	0.81	4.3	0.76	3.9	0.73	3.0	0.63
	6.0	5.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.67	3.0	0.58
	7.0	6.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.57
	8.6	7.5	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.55
11.2	10.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54	
16.4	15.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54	
24.0	18.0	5.5	0.88	5.3	0.85	5.0	0.80	4.8	0.78	4.3	0.71	3.9	0.66	3.0	0.54	

1. Capacity Ratio of Outdoor Unit

1-11. U-6LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-10.0	16.7	2.87	16.7	2.87	16.7	2.87	16.7	2.87	17.8	3.06	18.9	3.25	20.0	3.45
	-5.0	16.7	2.87	16.7	2.87	16.7	2.87	16.7	2.87	17.8	3.06	18.9	3.26	20.0	3.45
	0.0	16.7	2.88	16.7	2.88	16.7	2.88	16.7	2.88	17.8	3.07	18.9	3.26	20.0	3.45
	5.0	16.7	2.88	16.7	2.88	16.7	2.88	16.7	2.88	17.8	3.07	18.9	3.26	20.0	3.48
	10.0	16.7	2.91	16.7	2.91	16.7	2.91	16.7	2.91	17.8	3.10	18.9	3.30	20.0	3.49
	15.0	16.7	2.93	16.7	2.93	16.7	2.93	16.7	2.93	17.8	3.13	18.9	3.33	20.0	3.53
	20.0	16.7	3.00	16.7	3.00	16.7	3.00	16.7	3.00	17.8	3.21	18.9	3.42	20.0	3.68
	25.0	16.7	3.47	16.7	3.47	16.7	3.47	16.7	3.47	17.8	3.76	18.9	4.07	20.0	4.39
	30.0	16.7	4.15	16.7	4.15	16.7	4.15	16.7	4.15	17.8	4.51	18.9	4.88	20.0	5.27
	35.0	16.7	5.00	16.7	5.00	16.7	5.00	16.7	5.00	17.8	5.45	18.7	5.84	19.2	5.84
	40.0	16.1	5.84	16.1	5.84	16.1	5.84	16.1	5.84	16.4	5.74	16.4	5.38	16.4	5.09
	43.0	13.0	4.26	13.0	4.26	13.0	4.26	13.0	4.26	13.0	4.04	13.0	3.84	13.0	3.67
	46.0	9.7	2.89	9.7	2.89	9.7	2.89	9.7	2.89	9.7	2.76	9.7	2.65	9.7	2.54

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
120%	-10.0	15.6	2.69	16.3	2.80	16.3	2.80	16.3	2.80	17.4	2.99	18.4	3.18	19.5	3.37
	-5.0	15.6	2.69	16.3	2.81	16.3	2.81	16.3	2.81	17.4	2.99	18.4	3.18	19.5	3.37
	0.0	15.6	2.69	16.3	2.81	16.3	2.81	16.3	2.81	17.4	3.00	18.4	3.18	19.5	3.37
	5.0	15.6	2.70	16.3	2.81	16.3	2.81	16.3	2.81	17.4	3.00	18.4	3.19	19.5	3.38
	10.0	15.6	2.70	16.3	2.84	16.3	2.84	16.3	2.84	17.4	3.03	18.4	3.22	19.5	3.41
	15.0	15.6	2.73	16.3	2.86	16.3	2.86	16.3	2.86	17.4	3.06	18.4	3.25	19.5	3.45
	20.0	15.6	2.78	16.3	2.93	16.3	2.93	16.3	2.93	17.4	3.13	18.4	3.33	19.5	3.56
	25.0	15.6	3.04	16.3	3.35	16.3	3.35	16.3	3.35	17.4	3.64	18.4	3.93	19.5	4.23
	30.0	15.6	3.62	16.3	4.01	16.3	4.01	16.3	4.01	17.4	4.35	18.4	4.71	19.5	5.08
	35.0	15.6	4.34	16.3	4.82	16.3	4.82	16.3	4.82	17.4	5.25	18.4	5.70	19.1	5.84
	40.0	15.6	5.35	15.9	5.84	15.9	5.84	15.9	5.84	16.4	5.83	16.4	5.47	16.4	5.16
	43.0	13.0	4.31	13.0	4.31	13.0	4.31	13.0	4.31	13.0	4.08	13.0	3.88	13.0	3.70
46.0	9.7	2.91	9.7	2.91	9.7	2.91	9.7	2.91	9.7	2.78	9.7	2.66	9.7	2.55	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
110%	-10.0	14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.10	19.1	3.29
	-5.0	14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.11	19.1	3.29
	0.0	14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.92	18.0	3.11	19.1	3.29
	5.0	14.0	2.41	15.1	2.61	15.9	2.74	15.9	2.74	16.9	2.93	18.0	3.11	19.1	3.30
	10.0	14.0	2.42	15.1	2.62	15.9	2.77	15.9	2.77	16.9	2.96	18.0	3.14	19.1	3.33
	15.0	14.0	2.45	15.1	2.65	15.9	2.79	15.9	2.79	16.9	2.98	18.0	3.17	19.1	3.36
	20.0	14.0	2.49	15.1	2.70	15.9	2.86	15.9	2.86	16.9	3.05	18.0	3.25	19.1	3.45
	25.0	14.0	2.71	15.1	2.98	15.9	3.24	15.9	3.24	16.9	3.51	18.0	3.79	19.1	4.08
	30.0	14.0	3.23	15.1	3.55	15.9	3.87	15.9	3.87	16.9	4.20	18.0	4.54	19.1	4.89
	35.0	14.0	3.87	15.1	4.26	15.9	4.65	15.9	4.65	16.9	5.05	18.0	5.48	18.9	5.84
	40.0	14.0	4.74	15.1	5.27	15.8	5.82	15.8	5.82	16.3	5.83	16.4	5.56	16.4	5.24
	43.0	13.0	4.37	13.0	4.37	13.0	4.37	13.0	4.37	13.0	4.13	13.0	3.92	13.0	3.74
	46.0	9.7	2.93	9.7	2.93	9.7	2.93	9.7	2.93	9.7	2.80	9.7	2.68	9.7	2.57

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-10.0	12.4	2.14	13.4	2.32	14.5	2.49	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
	-5.0	12.4	2.14	13.4	2.32	14.5	2.49	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
	0.0	12.4	2.14	13.4	2.32	14.5	2.50	15.5	2.67	16.5	2.85	17.6	3.03	18.6	3.21
	5.0	12.4	2.14	13.4	2.32	14.5	2.50	15.5	2.68	16.5	2.86	17.6	3.04	18.6	3.21
	10.0	12.4	2.15	13.4	2.32	14.5	2.50	15.5	2.68	16.5	2.89	17.6	3.07	18.6	3.25
	15.0	12.4	2.18	13.4	2.36	14.5	2.54	15.5	2.72	16.5	2.91	17.6	3.09	18.6	3.28
	20.0	12.4	2.21	13.4	2.40	14.5	2.59	15.5	2.78	16.5	2.97	17.6	3.16	18.6	3.36
	25.0	12.4	2.41	13.4	2.64	14.5	2.88	15.5	3.13	16.5	3.39	17.6	3.66	18.6	3.93
	30.0	12.4	2.86	13.4	3.14	14.5	3.43	15.5	3.74	16.5	4.05	17.6	4.37	18.6	4.71
	35.0	12.4	3.41	13.4	3.76	14.4	4.11	15.5	4.49	16.5	4.84	17.5	5.23	18.5	5.64
	40.0	12.4	4.17	13.4	4.62	14.5	5.10	15.5	5.63	16.2	5.83	16.4	5.66	16.4	5.32
	43.0	12.4	4.97	13.0	5.18	13.0	4.75	13.0	4.43	13.0	4.17	13.0	3.96	13.0	3.78
	46.0	9.7	3.50	9.7	3.28	9.7	3.11	9.7	2.95	9.7	2.82	9.7	2.70	9.7	2.59

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
90%	-10.0	11.2	1.92	12.1	2.08	13.0	2.24	14.0	2.40	14.9	2.57	15.8	2.73	16.7	2.89
	-5.0	11.2	1.92	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	0.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	5.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.57	15.8	2.73	16.7	2.89
	10.0	11.2	1.93	12.1	2.09	13.0	2.25	14.0	2.41	14.9	2.58	15.8	2.74	16.7	2.92
	15.0	11.2	1.94	12.1	2.12	13.0	2.28	14.0	2.45	14.9	2.61	15.8	2.78	16.7	2.94
	20.0	11.2	1.98	12.1	2.15	13.0	2.32	14.0	2.49	14.9	2.66	15.8	2.83	16.7	3.00
	25.0	11.2	2.11	12.1	2.31	13.0	2.51	14.0	2.71	14.9	2.93	15.8	3.15	16.7	3.37
	30.0	11.2	2.50	12.1	2.73	13.0	2.98	14.0	3.23	14.9	3.48	15.8	3.75	16.7	4.02
	35.0	11.2	2.98	12.1	3.26	13.0	3.55	14.0	3.86	14.9	4.17	15.8	4.49	16.7	4.82
	40.0	11.2	3.59	12.1	3.95	13.0	4.33	14.0	4.72	14.9	5.14	15.8	5.58	16.4	5.77
	43.0	11.2	4.17	12.1	4.63	13.0	5.14	13.0	4.75	13.0	4.43	13.0	4.18	13.0	3.96
46.0	9.7	3.71	9.7	3.44	9.7	3.24	9.7	3.07	9.7	2.92	9.7	2.79	9.7	2.67	

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1. Capacity Ratio of Outdoor Unit

U-6LE1E8 (Cooling)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-10.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	-5.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	0.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	5.0	8.7	1.50	9.4	1.62	10.1	1.75	10.9	1.87	11.6	2.00	12.3	2.12	13.0	2.25
	10.0	8.7	1.50	9.4	1.63	10.1	1.75	10.9	1.88	11.6	2.00	12.3	2.13	13.0	2.25
	15.0	8.7	1.50	9.4	1.63	10.1	1.76	10.9	1.88	11.6	2.01	12.3	2.13	13.0	2.28
	20.0	8.7	1.54	9.4	1.66	10.1	1.79	10.9	1.92	11.6	2.05	12.3	2.18	13.0	2.31
	25.0	8.7	1.59	9.4	1.73	10.1	1.86	10.9	2.00	11.6	2.14	12.3	2.27	13.0	2.41
	30.0	8.7	1.84	9.4	2.00	10.1	2.16	10.9	2.33	11.6	2.49	12.3	2.66	13.0	2.84
	35.0	8.7	2.18	9.4	2.37	10.1	2.57	10.9	2.76	11.6	2.97	12.3	3.17	13.0	3.38
	40.0	8.7	2.60	9.4	2.83	10.1	3.07	10.9	3.31	11.6	3.55	12.3	3.80	13.0	4.06
	43.0	8.7	2.93	9.4	3.20	10.1	3.47	10.9	3.76	11.6	4.05	12.3	4.36	13.0	4.67
46.0	8.7	3.44	9.4	3.79	9.7	3.76	9.7	3.48	9.7	3.26	9.7	3.09	9.7	2.94	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60%	-10.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	-5.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	0.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	5.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.71	10.5	1.82	11.2	1.93
	10.0	7.4	1.29	8.1	1.39	8.7	1.50	9.3	1.61	9.9	1.72	10.5	1.82	11.2	1.93
	15.0	7.4	1.29	8.1	1.40	8.7	1.50	9.3	1.61	9.9	1.72	10.5	1.83	11.2	1.94
	20.0	7.4	1.30	8.1	1.40	8.7	1.51	9.3	1.64	9.9	1.75	10.5	1.86	11.2	1.97
	25.0	7.4	1.35	8.1	1.46	8.7	1.58	9.3	1.69	9.9	1.81	10.5	1.92	11.2	2.03
	30.0	7.4	1.55	8.1	1.68	8.7	1.81	9.3	1.93	9.9	2.06	10.5	2.20	11.2	2.33
	35.0	7.4	1.83	8.1	1.98	8.7	2.13	9.3	2.29	9.9	2.44	10.5	2.60	11.2	2.76
	40.0	7.4	2.17	8.1	2.35	8.7	2.53	9.3	2.72	9.9	2.91	10.5	3.10	11.2	3.29
	43.0	7.4	2.42	8.1	2.62	8.7	2.83	9.3	3.05	9.9	3.26	10.5	3.49	11.2	3.71
	46.0	7.4	2.78	8.1	3.02	8.7	3.28	9.3	3.54	9.7	3.64	9.7	3.39	9.7	3.19

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-10.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	-5.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	0.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	5.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	10.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	15.0	6.2	1.07	6.7	1.16	7.2	1.25	7.8	1.34	8.3	1.43	8.8	1.52	9.3	1.61
	20.0	6.2	1.08	6.7	1.17	7.2	1.26	7.8	1.35	8.3	1.44	8.8	1.53	9.3	1.62
	25.0	6.2	1.12	6.7	1.21	7.2	1.30	7.8	1.40	8.3	1.49	8.8	1.58	9.3	1.67
	30.0	6.2	1.28	6.7	1.38	7.2	1.48	7.8	1.57	8.3	1.67	8.8	1.77	9.3	1.87
	35.0	6.2	1.50	6.7	1.62	7.2	1.73	7.8	1.85	8.3	1.97	8.8	2.09	9.3	2.21
	40.0	6.2	1.77	6.7	1.91	7.2	2.05	7.8	2.19	8.3	2.33	8.8	2.47	9.3	2.61
	43.0	6.2	1.96	6.7	2.12	7.2	2.27	7.8	2.43	8.3	2.59	8.8	2.75	9.3	2.91
46.0	6.2	2.21	6.7	2.39	7.2	2.58	7.8	2.76	8.3	2.94	8.8	3.13	9.3	3.32	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
40%	-10.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.21	7.4	1.29
	-5.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.21	7.4	1.29
	0.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	5.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	10.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.14	7.0	1.22	7.4	1.29
	15.0	5.0	0.86	5.4	0.93	5.8	1.00	6.2	1.07	6.6	1.15	7.0	1.22	7.4	1.29
	20.0	5.0	0.86	5.4	0.93	5.8	1.01	6.2	1.08	6.6	1.15	7.0	1.22	7.4	1.29
	25.0	5.0	0.87	5.4	0.94	5.8	1.02	6.2	1.11	6.6	1.18	7.0	1.26	7.4	1.33
	30.0	5.0	1.02	5.4	1.09	5.8	1.17	6.2	1.25	6.6	1.32	7.0	1.39	7.4	1.46
	35.0	5.0	1.19	5.4	1.28	5.8	1.36	6.2	1.45	6.6	1.54	7.0	1.62	7.4	1.71
	40.0	5.0	1.40	5.4	1.50	5.8	1.60	6.2	1.70	6.6	1.81	7.0	1.91	7.4	2.01
	43.0	5.0	1.54	5.4	1.66	5.8	1.77	6.2	1.88	6.6	2.00	7.0	2.11	7.4	2.23
46.0	5.0	1.72	5.4	1.85	5.8	1.98	6.2	2.11	6.6	2.23	7.0	2.36	7.4	2.49	

Combination(%)Indoor/ outdoor capacity ratio	Outdoor air temp. °CDB	Indoor air temp. : °CWB													
		16.0		17.0		18.0		19.0		20.0		21.0		22.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
30%	-10.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	-5.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	0.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	5.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	10.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	15.0	3.7	0.65	4.0	0.70	4.3	0.75	4.7	0.81	5.0	0.86	5.3	0.91	5.6	0.97
	20.0	3.7	0.65	4.0	0.70	4.3	0.76	4.7	0.81	5.0	0.86	5.3	0.92	5.6	0.97
	25.0	3.7	0.65	4.0	0.71	4.3	0.76	4.7	0.81	5.0	0.87	5.3	0.92	5.6	0.98
	30.0	3.7	0.72	4.0	0.78	4.3	0.83	4.7	0.89	5.0	0.94	5.3	1.00	5.6	1.05
	35.0	3.7	0.91	4.0	0.97	4.3	1.03	4.7	1.09	5.0	1.14	5.3	1.20	5.6	1.26
	40.0	3.7	1.06	4.0	1.13	4.3	1.20	4.7	1.27	5.0	1.34	5.3	1.40	5.6	1.47
	43.0	3.7	1.16	4.0	1.24	4.3	1.32	4.7	1.39	5.0	1.47	5.3	1.55	5.6	1.62
	46.0	3.7	1.28	4.0	1.37	4.3	1.45	4.7	1.54	5.0	1.62	5.3	1.71	5.6	1.79

1. Capacity Ratio of Outdoor Unit

1-12. U-6LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-19.8	-20.0	12.8	5.40	12.5	5.27	11.9	5.01	11.5	4.87	11.5	4.87	11.5	4.87	10.3	4.37
	-14.7	-15.0	14.3	5.93	14.2	5.93	13.7	5.74	13.3	5.59	13.3	5.59	13.3	5.59	12.0	4.94
	-9.6	-10.0	15.5	5.93	15.4	5.93	15.1	5.93	14.9	5.93	14.9	5.93	14.9	5.93	14.0	5.35
	-4.4	-5.0	17.1	5.93	17.0	5.93	16.6	5.93	16.5	5.93	16.5	5.93	16.5	5.93	15.8	5.49
	-1.8	-2.5	18.0	5.93	17.8	5.93	17.5	5.93	17.3	5.93	17.3	5.93	17.3	5.93	15.8	5.06
	0.8	0.0	18.8	5.93	18.7	5.93	18.3	5.93	18.2	5.93	18.2	5.93	18.2	5.93	15.8	4.67
	2.8	2.0	19.6	5.93	19.4	5.93	19.1	5.93	18.9	5.93	18.9	5.93	18.9	5.93	15.8	4.37
	6.0	5.0	20.8	5.93	20.6	5.93	20.1	5.83	19.4	5.54	19.4	5.54	19.4	5.54	15.8	3.94
	7.0	6.0	21.2	5.93	21.0	5.93	20.1	5.62	19.4	5.34	19.4	5.34	19.4	5.34	15.8	3.80
	8.6	7.5	21.8	5.93	21.5	5.85	20.1	5.31	19.4	5.05	19.4	5.05	19.4	5.05	15.8	3.60
	11.2	10.0	22.2	5.55	21.5	5.30	20.1	4.81	19.4	4.58	19.4	4.58	19.4	4.58	15.8	3.30
	16.4	15.0	22.2	4.54	21.5	4.34	20.1	3.96	19.4	3.78	19.4	3.78	19.4	3.78	15.8	2.81
	24.0	18.0	22.2	4.05	21.5	3.89	20.1	3.56	19.4	3.41	19.4	3.41	19.4	3.41	15.8	2.58

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
120%	-19.8	-20.0	12.8	5.38	12.5	5.26	11.8	4.99	11.5	4.86	11.5	4.86	11.5	4.86	9.4	4.03
	-14.7	-15.0	14.3	5.93	14.2	5.93	13.7	5.71	13.3	5.56	13.3	5.56	13.3	5.56	11.0	4.53
	-9.6	-10.0	15.6	5.93	15.5	5.93	15.2	5.93	15.0	5.93	15.0	5.93	15.0	5.93	12.9	4.89
	-4.4	-5.0	17.2	5.93	17.1	5.93	16.7	5.93	16.6	5.93	16.6	5.93	16.6	5.93	14.3	4.87
	-1.8	-2.5	18.1	5.93	17.9	5.93	17.6	5.93	17.4	5.93	17.4	5.93	17.4	5.93	14.3	4.50
	0.8	0.0	19.0	5.93	18.8	5.93	18.4	5.93	18.3	5.93	18.3	5.93	18.3	5.93	14.3	4.15
	2.8	2.0	19.7	5.93	19.5	5.93	19.2	5.93	18.9	5.87	18.9	5.87	18.5	5.34	14.3	3.88
	6.0	5.0	20.9	5.93	20.7	5.93	19.6	5.53	18.9	5.26	18.9	5.26	18.5	4.80	14.3	3.50
	7.0	6.0	21.3	5.93	21.0	5.86	19.6	5.33	18.9	5.07	18.9	5.07	18.5	4.63	14.3	3.38
	8.6	7.5	21.7	5.79	21.0	5.53	19.6	5.03	18.9	4.79	18.9	4.79	18.5	4.38	14.3	3.21
	11.2	10.0	21.7	5.24	21.0	5.01	19.6	4.56	18.9	4.35	18.9	4.35	18.5	3.99	14.3	2.94
	16.4	15.0	21.7	4.30	21.0	4.12	19.6	3.77	18.9	3.60	18.9	3.60	18.5	3.35	14.3	2.51
	24.0	18.0	21.7	3.85	21.0	3.70	19.6	3.40	18.9	3.25	18.9	3.25	18.5	3.05	14.3	2.31

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
110%	-19.8	-20.0	12.8	5.37	12.4	5.24	11.8	4.98	11.5	4.84	11.5	4.84	10.7	4.53	8.6	3.69
	-14.7	-15.0	14.4	5.93	14.3	5.93	13.6	5.67	13.3	5.52	13.3	5.52	12.4	5.13	10.1	4.13
	-9.6	-10.0	15.7	5.93	15.6	5.93	15.3	5.93	15.1	5.93	15.1	5.93	14.4	5.61	11.7	4.45
	-4.4	-5.0	17.3	5.93	17.2	5.93	16.8	5.93	16.7	5.93	16.7	5.93	16.5	5.93	12.8	4.29
	-1.8	-2.5	18.2	5.93	18.0	5.93	17.7	5.93	17.5	5.93	17.5	5.93	16.5	5.45	12.8	3.97
	0.8	0.0	19.1	5.93	18.9	5.93	18.5	5.93	18.4	5.93	18.0	5.60	16.5	5.01	12.8	3.66
	2.8	2.0	19.8	5.93	19.6	5.93	19.1	5.85	18.5	5.57	18.0	5.23	16.5	4.68	12.8	3.43
	6.0	5.0	21.0	5.93	20.5	5.75	19.1	5.24	18.5	4.99	18.0	4.70	16.5	4.21	12.8	3.10
	7.0	6.0	21.2	5.80	20.5	5.54	19.1	5.05	18.5	4.81	18.0	4.53	16.5	4.06	12.8	2.99
	8.6	7.5	21.2	5.47	20.5	5.23	19.1	4.77	18.5	4.54	18.0	4.28	16.5	3.84	12.8	2.84
	11.2	10.0	21.2	4.95	20.5	4.74	19.1	4.33	18.5	4.13	18.0	3.90	16.5	3.51	12.8	2.61
	16.4	15.0	21.2	4.07	20.5	3.90	19.1	3.58	18.5	3.43	18.0	3.26	16.5	2.95	12.8	2.23
	24.0	18.0	21.2	3.66	20.5	3.52	19.1	3.24	18.5	3.11	18.0	2.97	16.5	2.70	12.8	2.06

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20.0	12.7	5.36	12.4	5.23	11.8	4.96	11.4	4.83	10.4	4.41	9.7	4.12	7.8	3.35
	-14.7	-15.0	14.4	5.93	14.3	5.93	13.6	5.62	13.2	5.47	12.1	4.98	11.2	4.63	9.1	3.73
	-9.6	-10.0	15.8	5.93	15.7	5.93	15.3	5.93	15.2	5.93	14.0	5.45	13.1	5.05	10.6	4.01
	-4.4	-5.0	17.4	5.93	17.2	5.93	16.9	5.93	16.7	5.93	16.0	5.77	14.7	5.15	11.3	3.76
	-1.8	-2.5	18.3	5.93	18.1	5.93	17.8	5.93	17.6	5.93	16.0	5.29	14.7	4.74	11.3	3.48
	0.8	0.0	19.2	5.93	19.0	5.93	18.6	5.93	18.0	5.66	16.0	4.86	14.7	4.36	11.3	3.21
	2.8	2.0	19.9	5.93	19.7	5.93	18.7	5.54	18.0	5.28	16.0	4.54	14.7	4.07	11.3	3.01
	6.0	5.0	20.7	5.68	20.0	5.44	18.7	4.96	18.0	4.74	16.0	4.04	14.7	3.63	11.3	2.70
	7.0	6.0	20.7	5.47	20.0	5.24	18.7	4.78	18.0	4.56	16.0	3.93	14.7	3.53	11.3	2.62
	8.6	7.5	20.7	5.16	20.0	4.94	18.7	4.51	18.0	4.31	16.0	3.72	14.7	3.35	11.3	2.49
	11.2	10.0	20.7	4.67	20.0	4.47	18.7	4.09	18.0	3.91	16.0	3.39	14.7	3.06	11.3	2.30
	16.4	15.0	20.7	3.86	20.0	3.71	18.7	3.41	18.0	3.27	16.0	2.86	14.7	2.59	11.3	1.97
	24.0	18.0	20.7	3.47	20.0	3.34	18.7	3.08	18.0	2.95	16.0	2.58	14.7	2.34	11.3	1.77

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
90%	-19.8	-20.0	12.6	5.27	12.3	5.14	11.6	4.88	11.3	4.74	10.2	4.32	9.5	4.03	7.6	3.27
	-14.7	-15.0	14.6	5.82	14.2	5.67	13.4	5.38	13.1	5.23	11.9	4.75	11.1	4.42	8.9	3.55
	-9.6	-10.0	16.2	5.93	16.0	5.93	15.6	5.89	15.2	5.71	13.9	5.17	12.9	4.79	10.2	3.68
	-4.4	-5.0	17.8	5.93	17.7	5.93	16.8	5.63	16.2	5.38	14.4	4.67	13.2	4.22	10.2	3.16
	-1.8	-2.5	18.6	5.87	18.0	5.64	16.8	5.18	16.2	4.95	14.4	4.31	13.2	3.90	10.2	2.93
	0.8	0.0	18.6	5.39	18.0	5.17	16.8	4.76	16.2	4.55	14.4	3.97	13.2	3.59	10.2	2.68
	2.8	2.0	18.6	5.02	18.0	4.82	16.8	4.43	16.2	4.25	14.4	3.67	13.2	3.33	10.2	2.53
	6.0	5.0	18.6	4.59	18.0	4.40	16.8	4.05	16.2	3.88	14.4	3.38	13.2	3.06	10.2	2.33
	7.0	6.0	18.6	4.46	18.0	4.29	16.8	3.94	16.2	3.77	14.4	3.29	13.2	2.98	10.2	2.26
	8.6	7.5	18.6	4.20	18.0	4.04	16.8	3.72	16.2	3.56	14.4	3.11	13.2	2.82	10.2	2.15
	11.2	10.0	18.6	3.81	18.0	3.67	16.8	3.38	16.2	3.24	14.4	2.85	13.2	2.59	10.2	1.98
	16.4	15.0	18.6	3.18	18.0	3.07	16.8	2.85	16.2	2.74	14.4	2.42	13.2	2.21	10.2	1.71
24.0	18.0	18.6	2.88	18.0	2.78	16.8	2.58	16.2	2.48	14.4	2.19	13.2	2.00	10.2	1.54	

1. Capacity Ratio of Outdoor Unit

U-6LE1E8 (Heating)

Capacity Ratio 30-130%

TC: Total capacity (kW), PI: Power input (kW)

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	12.4	4.87	12.0	4.76	11.3	4.52	11.0	4.40	9.9	4.03	9.2	3.76	7.3	3.05
	-14.7	-15.0	14.4	5.27	14.0	5.14	13.1	4.79	12.6	4.62	11.2	4.10	10.3	3.76	7.9	2.93
	-9.6	-10.0	14.5	4.53	14.0	4.39	13.1	4.10	12.6	3.95	11.2	3.52	10.3	3.24	7.9	2.53
	-4.4	-5.0	14.5	3.87	14.0	3.74	13.1	3.51	12.6	3.39	11.2	3.03	10.3	2.80	7.9	2.22
	-1.8	-2.5	14.5	3.62	14.0	3.50	13.1	3.28	12.6	3.16	11.2	2.83	10.3	2.61	7.9	2.08
	0.8	0.0	14.5	3.37	14.0	3.26	13.1	3.05	12.6	2.95	11.2	2.64	10.3	2.44	7.9	1.94
	2.8	2.0	14.5	3.18	14.0	3.08	13.1	2.88	12.6	2.78	11.2	2.49	10.3	2.30	7.9	1.83
	6.0	5.0	14.5	2.92	14.0	2.82	13.1	2.64	12.6	2.55	11.2	2.29	10.3	2.11	7.9	1.67
	7.0	6.0	14.5	2.84	14.0	2.75	13.1	2.57	12.6	2.48	11.2	2.22	10.3	2.05	7.9	1.62
	8.6	7.5	14.5	2.68	14.0	2.60	13.1	2.44	12.6	2.35	11.2	2.11	10.3	1.95	7.9	1.55
	11.2	10.0	14.5	2.46	14.0	2.39	13.1	2.24	12.6	2.17	11.2	1.95	10.3	1.81	7.9	1.44
	16.4	15.0	14.5	2.12	14.0	2.06	13.1	1.93	12.6	1.87	11.2	1.69	10.3	1.57	7.9	1.26
	24.0	18.0	14.5	2.09	14.0	2.03	13.1	1.91	12.6	1.85	11.2	1.66	10.3	1.54	7.9	1.23

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
60%	-19.8	-20.0	12.4	4.73	12.0	4.60	11.2	4.32	10.8	4.18	9.6	3.76	8.8	3.48	6.8	2.76
	-14.7	-15.0	12.4	4.04	12.0	3.92	11.2	3.69	10.8	3.58	9.6	3.22	8.8	2.99	6.8	2.38
	-9.6	-10.0	12.4	3.47	12.0	3.37	11.2	3.19	10.8	3.09	9.6	2.80	8.8	2.61	6.8	2.11
	-4.4	-5.0	12.4	3.03	12.0	2.95	11.2	2.79	10.8	2.70	9.6	2.46	8.8	2.29	6.8	1.86
	-1.8	-2.5	12.4	2.82	12.0	2.75	11.2	2.60	10.8	2.52	9.6	2.29	8.8	2.13	6.8	1.73
	0.8	0.0	12.4	2.63	12.0	2.55	11.2	2.41	10.8	2.34	9.6	2.13	8.8	1.98	6.8	1.62
	2.8	2.0	12.4	2.48	12.0	2.41	11.2	2.28	10.8	2.21	9.6	2.01	8.8	1.88	6.8	1.52
	6.0	5.0	12.4	2.28	12.0	2.22	11.2	2.09	10.8	2.03	9.6	1.85	8.8	1.72	6.8	1.38
	7.0	6.0	12.4	2.21	12.0	2.15	11.2	2.03	10.8	1.97	9.6	1.79	8.8	1.66	6.8	1.34
	8.6	7.5	12.4	2.11	12.0	2.05	11.2	1.94	10.8	1.88	9.6	1.71	8.8	1.59	6.8	1.29
	11.2	10.0	12.4	1.95	12.0	1.90	11.2	1.80	10.8	1.74	9.6	1.59	8.8	1.48	6.8	1.21
	16.4	15.0	12.4	1.82	12.0	1.77	11.2	1.66	10.8	1.61	9.6	1.45	8.8	1.35	6.8	1.08
	24.0	18.0	12.4	1.82	12.0	1.77	11.2	1.66	10.8	1.61	9.6	1.45	8.8	1.35	6.8	1.08

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-19.8	-20.0	10.3	3.53	10.0	3.44	9.3	3.26	9.0	3.17	8.0	2.89	7.3	2.70	5.7	2.19
	-14.7	-15.0	10.3	3.05	10.0	2.98	9.3	2.83	9.0	2.76	8.0	2.53	7.3	2.37	5.7	1.94
	-9.6	-10.0	10.3	2.67	10.0	2.61	9.3	2.49	9.0	2.43	8.0	2.23	7.3	2.09	5.7	1.72
	-4.4	-5.0	10.3	2.32	10.0	2.27	9.3	2.17	9.0	2.11	8.0	1.94	7.3	1.83	5.7	1.51
	-1.8	-2.5	10.3	2.16	10.0	2.11	9.3	2.01	9.0	1.97	8.0	1.81	7.3	1.70	5.7	1.41
	0.8	0.0	10.3	2.01	10.0	1.96	9.3	1.88	9.0	1.83	8.0	1.69	7.3	1.59	5.7	1.31
	2.8	2.0	10.3	1.90	10.0	1.86	9.3	1.77	9.0	1.73	8.0	1.60	7.3	1.50	5.7	1.23
	6.0	5.0	10.3	1.75	10.0	1.71	9.3	1.63	9.0	1.59	8.0	1.46	7.3	1.37	5.7	1.13
	7.0	6.0	10.3	1.70	10.0	1.66	9.3	1.58	9.0	1.54	8.0	1.41	7.3	1.33	5.7	1.10
	8.6	7.5	10.3	1.63	10.0	1.59	9.3	1.51	9.0	1.48	8.0	1.36	7.3	1.27	5.7	1.06
	11.2	10.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.38	8.0	1.27	7.3	1.19	5.7	0.99
	16.4	15.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.37	8.0	1.24	7.3	1.15	5.7	0.93
	24.0	18.0	10.3	1.55	10.0	1.50	9.3	1.42	9.0	1.37	8.0	1.24	7.3	1.15	5.7	0.93

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
40%	-19.8	-20.0	8.3	2.60	8.0	2.55	7.5	2.44	7.2	2.39	6.4	2.21	5.9	2.08	4.5	1.74
	-14.7	-15.0	8.3	2.28	8.0	2.24	7.5	2.15	7.2	2.10	6.4	1.95	5.9	1.84	4.5	1.54
	-9.6	-10.0	8.3	1.99	8.0	1.96	7.5	1.88	7.2	1.84	6.4	1.72	5.9	1.62	4.5	1.36
	-4.4	-5.0	8.3	1.73	8.0	1.70	7.5	1.64	7.2	1.60	6.4	1.50	5.9	1.42	4.5	1.19
	-1.8	-2.5	8.3	1.61	8.0	1.58	7.5	1.52	7.2	1.49	6.4	1.39	5.9	1.32	4.5	1.11
	0.8	0.0	8.3	1.50	8.0	1.48	7.5	1.42	7.2	1.39	6.4	1.30	5.9	1.22	4.5	1.03
	2.8	2.0	8.3	1.43	8.0	1.40	7.5	1.35	7.2	1.32	6.4	1.22	5.9	1.15	4.5	0.97
	6.0	5.0	8.3	1.31	8.0	1.29	7.5	1.24	7.2	1.21	6.4	1.12	5.9	1.06	4.5	0.90
	7.0	6.0	8.3	1.28	8.0	1.25	7.5	1.20	7.2	1.18	6.4	1.09	5.9	1.03	4.5	0.88
	8.6	7.5	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.05	5.9	1.00	4.5	0.85
	11.2	10.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.80
	16.4	15.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.78
	24.0	18.0	8.3	1.28	8.0	1.24	7.5	1.17	7.2	1.13	6.4	1.03	5.9	0.96	4.5	0.78

Combination(%): Indoor/outdoor capacity ratio	Outdoor air temp.		Indoor air temp. : °CDB													
			16.0		17.0		19.0		20.0		23.0		25.0		30.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
30%	°CDB	°CWB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
	-19.8	-20.0	6.2	1.86	6.0	1.83	5.6	1.76	5.4	1.73	4.8	1.62	4.4	1.53	3.4	1.30
	-14.7	-15.0	6.2	1.63	6.0	1.60	5.6	1.55	5.4	1.52	4.8	1.43	4.4	1.36	3.4	1.16
	-9.6	-10.0	6.2	1.42	6.0	1.40	5.6	1.36	5.4	1.33	4.8	1.26	4.4	1.20	3.4	1.02
	-4.4	-5.0	6.2	1.24	6.0	1.22	5.6	1.18	5.4	1.16	4.8	1.09	4.4	1.04	3.4	0.89
	-1.8	-2.5	6.2	1.16	6.0	1.14	5.6	1.10	5.4	1.08	4.8	1.02	4.4	0.97	3.4	0.83
	0.8	0.0	6.2	1.08	6.0	1.06	5.6	1.03	5.4	1.01	4.8	0.95	4.4	0.90	3.4	0.78
	2.8	2.0	6.2	1.02	6.0	1.01	5.6	0.97	5.4	0.96	4.8	0.90	4.4	0.86	3.4	0.74
	6.0	5.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.83	4.4	0.80	3.4	0.69
	7.0	6.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.78	3.4	0.68
	8.6	7.5	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.66
	11.2	10.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63
16.4	15.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63	
24.0	18.0	6.2	1.00	6.0	0.98	5.6	0.92	5.4	0.90	4.8	0.82	4.4	0.77	3.4	0.63	

