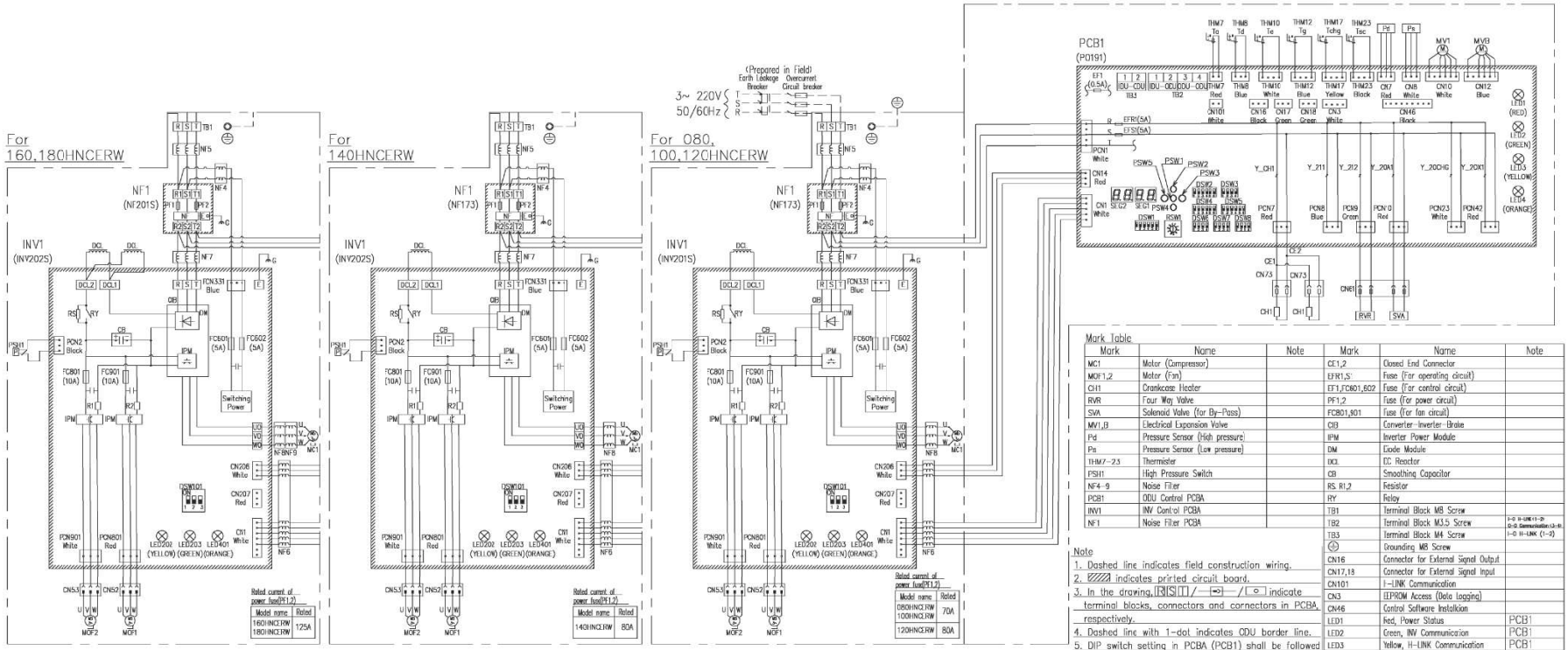
ELECTRICAL WIRING DIAGRAM (FOR MODEL: RAS-080HNCERW, RAS-100HNCERW, RAS-120HNCERW, RAS-140HNCERW, RAS-160HNCERW and RAS-180HNCERW; 220 V/60 HZ)



Mark Table

Mark	Name	Note	Mark	Name	Note
MC1	Motor (Compressor)		CE1,2	Closed End Connector	
MOF1,2	Motor (Fan)		EFR1,S	Fuse (For operating circuit)	
CH1	Crankcase Heater		EF1,FC801,602	Fuse (For control circuit)	
RVR	Four Way Valve		PF1,2	Fuse (For power circuit)	
SVA	Solenoid Valve (for By-Pass)		FC801,901	Fuse (For fan circuit)	
MV1,2	Electrical Expansion Valve		CIB	Converter-Inverter-Brake	
Pd	Pressure Sensor (High pressure)		IPM	Inverter Power Module	
Ps	Pressure Sensor (Low pressure)		DM	Diode Module	
THM7-23	Thermister		DCL	DC Reactor	
PSH1	High Pressure Switch		CB	Smoothing Capacitor	
NF4-9	Noise Filter		RS, R1,2	Resistor	
PCB1	ODU Control PCBA		RY	Relay	
INV1	INV Control PCBA		TB1	Terminal Block M8 Screw	
NF1	Noise Filter PCBA		TB2	Terminal Block M3.5 Screw	I-O H-LINK(1-2) O-O Communication(3-4)
			TB3	Terminal Block M4 Screw	I-O H-LINK (1-2)
			⏚	Grounding M8 Screw	
			CN16	Connector for External Signal Output	
			CN17,18	Connector for External Signal Input	
			CN101	H-LINK Communication	
			CN3	EEPROM Access (Data Logging)	
			CN46	Control Software Installion	
			LED1	Red, Power Status	PCB1
			LED2	Green, INV Communication	PCB1
			LED3	Yellow, H-LINK Communication	PCB1
			LED4	Orange, ODU-ODU Communication	PCB1
			LED202	Yellow, INV Communication	INV1
			LED203	Green, INV Communication	INV1
			LED401	Orange, Power Status	INV1
			E,G	Grounding	

Note
1. Dashed line indicates field construction wiring.
2. ▨ indicates printed circuit board.
3. In the draying, [R][S][T] / —▭— / [○] indicate terminal blocks, connectors and connectors in PCBA, respectively.
4. Dashed line with 1-dot indicates ODU border line.
5. DIP switch setting in PCBA (PCB1) shall be followed by installation manual attached to product.
6. Empty connectors in PCBA are for electric shock prevention. Connectors shall not be detached.

Note
1. 220V power cable must not be connected to TB2,3. (One of main reasons of damage to products)
2. Electrical parts in PCBA (PCB1) shall not be touched during harness installation. (One of main reasons of damage to PCB)
3. Tightening torque of terminal shall be followed right table. (One of main reasons of damage to screws)

13. Miscellaneous Notes

Special Notes

1. Provide a service access door near the unit piping connection part on the false ceiling for the cassette type units.
2. Consider the air distribution from the unit to the space of the room, and select a suitable location so that uniform air temperature in the room can be obtained.
   Cassette and Ceiling Types - Avoid unit installation in a room where the ceiling height (distance between the floor to the false ceiling) exceeds three meters. If the indoor unit is installed in a room with a ceiling more than three meters in height, it is recommended that an air circulation fan be installed separately to obtain uniform air temperature in the room, especially during the heating operation.
3. Check to ensure that the ceiling slab is strong enough and that the false ceiling is flat and level.
4. Avoid obstacles which may restrict the air intake or the discharge flow.
5. Do not install the unit in a machinery shop or kitchen where vapor from oil or its mist can enter the unit. The oil will deposit on the heat exchanger, which may reduce the unit performance, cause deformation, and in the worst case, break the plastic parts of the unit.
6. Pay attention to the following points when the unit is installed in a hospital or other facilities where electromagnetic wave is radiated from medical equipment.
   a. Do not install the unit where the electromagnetic wave is directly radiated to the electrical box, remote control cable or remote control switch.
   b. Install the unit and components as far from an electromagnetic wave radiator (at least three meters) as possible.
   c. Prepare a steel box and install the remote control switch in it. Prepare a steel conduit pipe and wire the remote control cable in it. And then, connect earth wire with the box and the pipe.
   d. Install a noise filter when the power supply emits harmful noise.
7. Do not install the units in an acid or alkaline environment, as the heat exchanger will be damaged by corrosive action. In the case that outdoor units are installed near the sea, it is recommended that optional corrosion-resistant-type outdoor unit be used.
8. Do not install the units in a flammable environment, as there is a danger of an explosion.
9. Regarding cassette type indoor units, consider the direct and reflected sound level, when selecting the unit for spaces where extremely low sound is required.
10. During heating operation, the outdoor heat exchanger produces dew condensation or melted frost water. Install the outdoor unit where such water can be drained, or provide a drain passage.
11. Heating Performance: The heating capacity normally decreases when outdoor temperatures decrease. Therefore, provide an auxiliary heating unit if outdoor temperatures are very low.
12. In the case that an outdoor temperature is low and humidity is high, the outdoor heat exchanger will be covered with frost, resulting in lower heating capacity. In order to remove the frost, the unit operation mode automatically changes to the defrosting mode. During this defrosting operation, the unit stops for approximately 3 to 10 minutes.
13. As this unit is heat pump type by circulating hot air in the whole room space, it takes some time to raise the room temperature.
14. The operating sound data is based on an anechoic chamber. Therefore, the actual operating sound will be higher due to reflected sound from the floor and wall.
15. In the case that the unit is operated for a long time at an indoor temperature of over 27 °C DB, or at an indoor humidity of over 80 %, dew condensation may occur on the cabinets, resulting in dew drops. If dew condensation occurs, it is required to add thermal insulator on the cabinets.
16. Provide snow-protection hoods to prevent snow from clogging the outdoor heat exchanger.
    If the unit is operated in an area where it snows heavily, provide a base under the outdoor unit, which should be 50 cm higher than the presumable maximum snow height.
17. It is recommended that periodical service and maintenance be performed by authorized service engineers before air conditioning seasons, in order to avoid performance decrease due to dust or dirt.
18. This heat pump air conditioner has been designed for normal air conditioning for men. Do not use the product for other purposes such as for food, animals, plants, high precision machines or work of art. Also do not use the product for vehicles or vessels. It will results in water leakage or electrical leakage.
19. It is recommended that the system be installed by authorized engineers. If not, it may cause water leakage, electric shock or fire.
20. In a place where fibers or dusts are floating, the air filter or heat exchangers or the drain pipe may be clogged, resulting in water leakage from the drain pan.

14. Standard Specifications

UNIT

The unit shall be a multi-split system inverter-driven heat pump air conditioner for application with R410A refrigerants, and shall be composed of 4-way cassette type indoor units, or in-the-ceiling type indoor units, 2-way cassette type indoor units, ceiling type indoor units, wall type indoor units, floor type indoor units and an outdoor unit, with a distributed refrigeration cycle, electrical components and enclosing cabinets. Optional accessories shall also be provided upon customer request. The indoor unit shall be constructed for installation, and the outdoor unit shall be completely weather-proofed for outdoor installation. Both indoor unit and the outdoor unit shall be properly assembled, internally piped and wired, throughly tested, and charged with R410A refrigerant at the factory and shall comply with Japanese Industrial Standards and other Japanese standardization statues.

CAPACITY

The total capacity of the multi-split system inverter-driven heat pump air conditioner shall be ____kW or greater with ____°C air inlet dry bulb, ____°C air inlet wet bulb, ____°C outdoor air inlet temperature and ____m^3/min. indoor air flow. The total compressor power inputs shall not exceed ____kW. The total heating capacity of the split-type air conditioners shall be____kW or greater, with ____°C indoor heat exchanger air inlet dry bulb, ____°C outdoor heat exchanger air inlet dry bulb, ____°C outdoor heat exchanger air inlet wet bulb, and ____m^3/min. indoor air flow.
The total compressor power input shall not exceed____kW.

OUTDOOR UNIT

CABINET

The cabinet shall be constructed of galvanized steel sheet, baked with synthetic resin paint. The service panel shall be easily removable for service access to the electrical components and the compressor section.

REFRIGERATION CYCLE

Each refrigeration cycle shall be equipped with (a) scroll compressor(s), a solenoid valve, a heat exchanger, an accumulator, a 4-Way valve and flare connection parts.

COMPRESSOR PROTECTION

The compressor shall be protected against breakdown by a quick response overcurrent relay, a high pressure switch, a wrap-around type oil heater and a discharge gas thermistor.

OUTDOOR FAN AND FAN MOTOR

The outdoor fan(s) shall be the plastic propeller type, dynamically balanced, and the fan shall be directly driven by a ____W motor for vertical-flow air discharge. The fan motor shall be permanently lubricated and be protected from ingress of water.

OUTDOOR HEAT EXCHANGER

The heat exchanger shall be the multi-pass, cross-finned tube type, equipped with highly-efficient aluminum fins, mechanically bonded to oxygen-free copper tubes. The coil shall be cleaned, dehydrated and tested for leakage at the factory.

CONTROL

All electrical control devices, shall be enclosed in the indoor and outdoor units.
In addition to the compressor protection devices, the indoor fan motor shall be equipped with an internal thermostat. The outdoor fan motor shall be protected by an internal thermostat. The indoor fan motor shall be directly supplied with the power source from the control circuit. The functions of these control devices shall compose an electrical sequence of manual starting and stopping, automatic continuous operation whenever the room thermostat requires, and the protection devices allow the operation.

CABINET

The cabinet shall be constructed of galvanized steel sheet.

REFRIGERATION CYCLE

The refrigeration cycle shall be equipped with solenoid valves and flare connections to changeover the cycle in mediating between outdoor unit and indoor unit.

15. Caution on Refrigerant Leakage

The refrigerant gas should be controlled not to exceed the limit concentration in case of the refrigerant leakage in the room where the packaged air conditioner is installed.

15.1 Maximum Permissible Concentration of HFC Gas

Non-flammable and non-toxic is used with this unit. If by any chance the refrigerant gas is leaked and fills the room, the possibility of suffocation may occur.
As SET FREE series multi-type systems involve multiple indoor units connected by long-distance piping, they use a larger amount of refrigerant compared to general individual air conditioners. Before the indoor unit installation, confirm that the room can keep the gas concentration below the limit value that will allow emergency measures to be taken without hindrance in the event of a gas leak.

15.2 Calculation of Refrigerant Concentration

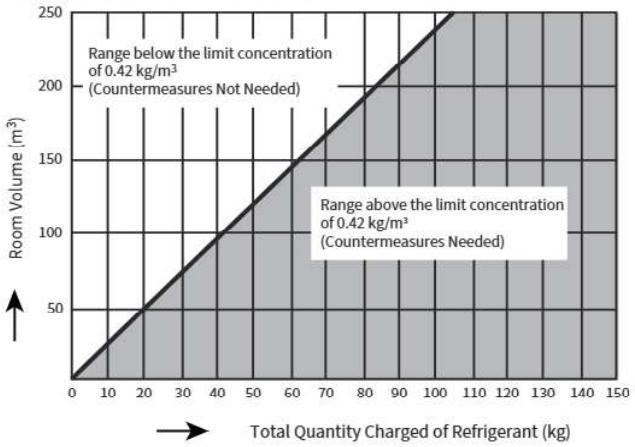
1. Calculate the total quantity of refrigerant R (kg) charged in the system connecting all the indoor units of rooms to be air-conditioned.
2. Calculate the Room Volume V (m^3) of each room.
3. Calculate the refrigerant concentration C (kg/m^3) of the room according to the following equation.

$$\frac{\text{R: Total Quantity of Charged Refrigerant (kg)}}{\text{V: Room Volume } (m^3)} = \text{C: Refrigerant Concentration}$$

$< 0.42\ (kg/m^3)$ for R410A

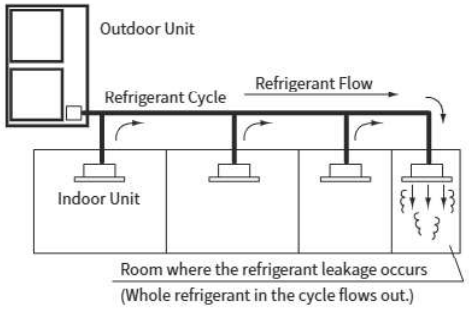
⚠WARNING

- **The refrigerant R410A is non-toxic and non-flammable in its original state. However, in consideration of a state where the refrigerant leaks into the room, measures against refrigerant leaks must be taken in small rooms where the tolerable level could be exceeded. Take countermeasures by installing ventilation devices, etc.**



15. Caution on Refrigerant Leakage

Calculations should prove that the room in which the indoor unit is to be installed is able to keep the gas concentration lower than the limit value. If it cannot be proved but the air conditioner must be installed in this room due to unavoidable circumstances, each of the following countermeasures must be taken.



1. A gas leakage detector & alarm system and interlocking mechanical ventilation equipment (with ventilation capacity over 0.42 m^3/min per refrigerating ton) should be installed. Refer to the following figure.

Region: SEA, MEA, India, Brazil, LA and Others

<Standard Type>

Outdoor Unit	Refrigerating Ton
RAS-080HNCEL(R)W	3.66
RAS-100HNCEL(R)W	4.52
RAS-120HNCEL(R)W	5.05
RAS-140HNCEL(R)W	5.57
RAS-160HNCEL(R)W	6.15
RAS-180HNCEL(R)W	7.42
RAS-200HNCEL(R)WS	9.03
RAS-220HNCEL(R)WS	9.57
RAS-240HNCEL(R)WS	10.10
RAS-260HNCEL(R)WS	10.62
RAS-280HNCEL(R)WS	11.13
RAS-300HNCEL(R)WS	11.71
RAS-320HNCEL(R)WS	12.30
RAS-340HNCEL(R)WS	14.60
RAS-360HNCEL(R)WS	15.13
RAS-380HNCEL(R)WS	15.67
RAS-400HNCEL(R)WS	16.18
RAS-420HNCEL(R)WS	16.70
RAS-440HNCEL(R)WS	17.28
RAS-460HNCEL(R)WS	17.86
RAS-480HNCEL(R)WS	18.45
RAS-500HNCEL(R)WS	20.70
RAS-520HNCEL(R)WS	21.23
RAS-540HNCEL(R)WS	21.81
RAS-560HNCEL(R)WS	22.40
RAS-580HNCEL(R)WS	22.91
RAS-600HNCEL(R)WS	23.43
RAS-620HNCEL(R)WS	24.01
RAS-640HNCEL(R)WS	24.59
RAS-660HNCEL(R)WS	25.86
RAS-680HNCEL(R)WS	27.14
RAS-700HNCEL(R)WS	28.41
RAS-720HNCEL(R)WS	29.68

<Premium Type>

Outdoor Unit	Refrigerating Ton
RAS-080HNCEL(R)W	3.66
RAS-100HNCEL(R)W	4.52
RAS-120HNCEL(R)W	5.05
RAS-140HNCEL(R)W	5.57
RAS-160HNCEL(R)W	7.32
RAS-180HNCEL(R)W	8.17
RAS-200HNCEL(R)WP	8.71
RAS-220HNCEL(R)WP	9.57
RAS-240HNCEL(R)WP	10.97
RAS-260HNCEL(R)WP	11.83
RAS-280HNCEL(R)WP	12.36
RAS-300HNCEL(R)WP	13.22
RAS-320HNCEL(R)WP	13.76
RAS-340HNCEL(R)WP	14.61
RAS-360HNCEL(R)WP	15.15
RAS-380HNCEL(R)WP	15.67
RAS-400HNCEL(R)WP	17.41
RAS-420HNCEL(R)WP	18.27
RAS-440HNCEL(R)WP	18.81
RAS-460HNCEL(R)WP	19.66
RAS-480HNCEL(R)WP	20.20

<Economic Type>

Outdoor Unit	Refrigerating Ton
RAS-080HNCEL(R)W	3.66
RAS-100HNCEL(R)W	4.52
RAS-120HNCEL(R)W	5.05
RAS-140HNCEL(R)W	5.57
RAS-160HNCEL(R)W	6.15
RAS-180HNCEL(R)W	7.42
RAS-200HNCEL(R)WE	9.03
RAS-220HNCEL(R)WE	9.22
RAS-240HNCEL(R)WE	10.08
RAS-260HNCEL(R)WE	10.66
RAS-280HNCEL(R)WE	11.93
RAS-300HNCEL(R)WE	12.47
RAS-320HNCEL(R)WE	12.99
RAS-340HNCEL(R)WE	13.57
RAS-360HNCEL(R)WE	14.84
RAS-380HNCEL(R)WE	16.45
RAS-400HNCEL(R)WE	16.64
RAS-420HNCEL(R)WE	17.50
RAS-440HNCEL(R)WE	18.08
RAS-460HNCEL(R)WE	19.35
RAS-480HNCEL(R)WE	17.52
RAS-500HNCEL(R)WE	20.40
RAS-520HNCEL(R)WE	20.99
RAS-540HNCEL(R)WE	22.26
RAS-560HNCEL(R)WE	23.87
RAS-580HNCEL(R)WE	24.06
RAS-600HNCEL(R)WE	24.92
RAS-620HNCEL(R)WE	25.50
RAS-640HNCEL(R)WE	26.77
RAS-660HNCEL(R)WE	27.31
RAS-680HNCEL(R)WE	27.82
RAS-700HNCEL(R)WE	28.41
RAS-720HNCEL(R)WE	29.68

Region: ANZ

<Standard Type>

Outdoor Unit	Refrigerating Ton
RAS-080HNCELW	3.66
RAS-100HNCELW	4.52
RAS-120HNCELW	5.05
RAS-140HNCELW	5.57
RAS-160HNCELW	6.15
RAS-180HNCELW	8.17
RAS-200HNCELWS	9.03
RAS-220HNCELWS	9.57
RAS-240HNCELWS	10.10
RAS-260HNCELWS	10.62
RAS-280HNCELWS	11.13
RAS-300HNCELWS	11.71
RAS-320HNCELWS	12.30
RAS-340HNCELWS	14.60
RAS-360HNCELWS	15.13
RAS-380HNCELWS	15.67
RAS-400HNCELWS	16.18
RAS-420HNCELWS	16.70
RAS-440HNCELWS	17.28
RAS-460HNCELWS	17.86
RAS-480HNCELWS	18.45
RAS-500HNCELWS	19.57
RAS-520HNCELWS	20.69
RAS-540HNCELWS	21.81

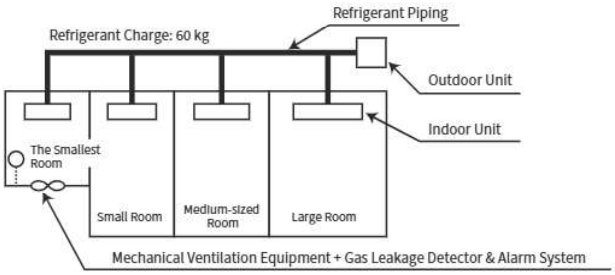
<Premium Type>

Outdoor Unit	Refrigerating Ton
RAS-080HNCELW	3.66
RAS-100HNCELW	4.52
RAS-120HNCELW	5.05
RAS-140HNCELW	5.57
RAS-160HNCELW	7.32
RAS-180HNCELW	8.17
RAS-200HNCELWP	8.71
RAS-220HNCELWP	9.57
RAS-240HNCELWP	10.97
RAS-260HNCELWP	11.83
RAS-280HNCELWP	12.36
RAS-300HNCELWP	13.22
RAS-320HNCELWP	13.76
RAS-340HNCELWP	14.61
RAS-360HNCELWP	15.15
RAS-380HNCELWP	15.67
RAS-400HNCELWP	17.41
RAS-420HNCELWP	18.27
RAS-440HNCELWP	18.81
RAS-460HNCELWP	19.66
RAS-480HNCELWP	20.20

2. Provide an opening*1 for ventilation between adjacent rooms to avoid exceeding the permissible concentration.

*1: An opening in a wall of a room without a door, or an opening at the upper or lower side of a door, which is more than 0.15 % of the floor area.

<Example>



NOTES:

- The quantity of refrigerant gas leakage for each room should be calculated as 60 kg each.
- The refrigerant concentration must be below 0.42 kg/m^3 for each room.

The installer and system specialist must secure for leakage according to local regulations or standards.
The following standards may be applicable, if local regulations are not available.
International Organization for Standardization, ISO5149 or European Standard, EN378 or Japan Standard, KHKS0010.

Specifications in this document are subject to change without notice, in order that Hitachi-Johnson Controls Air Conditioning, Inc. may bring the latest innovations to their customers.

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Catalog No. TCO-21001, 2021

HITACHI

TECHNICAL CATALOG

INVERTER-DRIVEN

AIR CONDITIONERS
air365 Max SERIES
OUTDOOR UNITS

MODELS

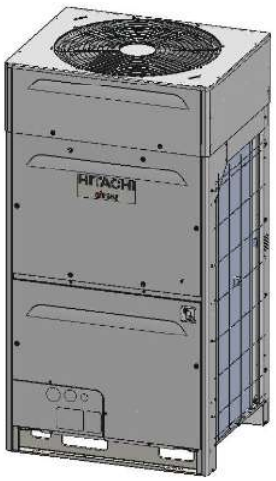
<BASE UNITS>

(Heat Pump)
RAS-080HNCCLW TO RAS-280HNCCLW
RAS-080HNCCLI TO RAS-280HNCCLI
RAS-080HNCBLW TO RAS-220HNCBLW
RAS-080JNCBLI TO RAS-220JNCBLI

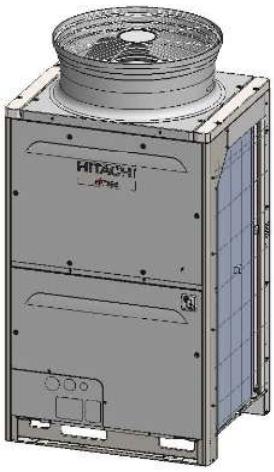
(Heat Recovery) (Universal)
RAS-080RNCCLW TO RAS-280RNCCLW
RAS-080RNCCRW TO RAS-280RNCCRW
RAS-080RNCCLW TO RAS-240RNCCLW(ANZ)
RAS-080RNCBLW TO RAS-200RNCBLW(ANZ)

EN TECHNICAL CATALOG
Original Instructions

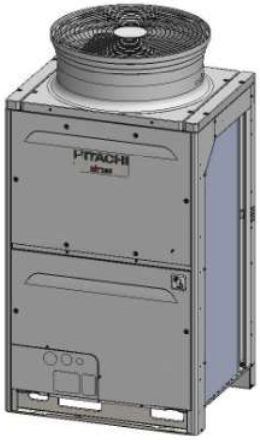
<Appearance>



Type I



Type II



Type III

Cooling & Heating

air

TCO-22001

Models

Applicable Models

System	Heat Pump			
Type	Standard		High Efficiency	High Ambient
Power Supply	3N~ 380-415V 50Hz, 3N~ 380V 60Hz			
8HP	RAS-080HNCCLW	RAS-080HNCCLI	RAS-080HNCBLW	RAS-080JNCBLI
10HP	RAS-100HNCCLW	RAS-100HNCCLI	RAS-100HNCBLW	RAS-100JNCBLI
12HP	RAS-120HNCCLW	RAS-120HNCCLI	RAS-120HNCBLW	RAS-120JNCBLI
14HP	RAS-140HNCCLW	RAS-140HNCCLI	RAS-140HNCBLW	RAS-140JNCBLI
16HP	RAS-160HNCCLW	RAS-160HNCCLI	RAS-160HNCBLW	RAS-160JNCBLI
18HP	RAS-180HNCCLW	RAS-180HNCCLI	RAS-180HNCBLW	RAS-180JNCBLI
20HP	RAS-200HNCCLW	RAS-200HNCCLI	RAS-200HNCBLW	RAS-200JNCBLI
22HP	RAS-220HNCCLW	RAS-220HNCCLI	RAS-220HNCBLW	RAS-220JNCBLI
24HP	RAS-240HNCCLW	RAS-240HNCCLI	-	-
26HP	RAS-260HNCCLW	RAS-260HNCCLI	-	-
28HP	RAS-280HNCCLW	RAS-280HNCCLI	-	-

System	Heat Recovery, Universal		
Type	Standard		High Efficiency
Power Supply	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3~ 220V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
8HP	RAS-080RNCCLW	RAS-080RNCCRW	RAS-080RNCBLW
10HP	RAS-100RNCCLW	RAS-100RNCCRW	RAS-100RNCBLW
12HP	RAS-120RNCCLW	RAS-120RNCCRW	RAS-120RNCBLW
14HP	RAS-140RNCCLW	RAS-140RNCCRW	RAS-140RNCBLW
16HP	RAS-160RNCCLW	RAS-160RNCCRW	RAS-160RNCBLW
18HP	RAS-180RNCCLW	RAS-180RNCCRW	RAS-180RNCBLW
20HP	RAS-200RNCCLW	RAS-200RNCCRW	RAS-200RNCBLW
22HP	RAS-220RNCCLW	RAS-220RNCCRW	-
24HP	RAS-240RNCCLW	RAS-240RNCCRW	-
26HP	RAS-260RNCCLW *1	RAS-260RNCCRW	-
28HP	RAS-280RNCCLW *1	RAS-280RNCCRW	-

*1. For the ANZ region, 26HP and 28HP units are not available in base units but available as combination types.

Unit Nomenclature

RAS -100 H N C C L W

Nomenclature Description

W	Production Location I: BHC India W: BHC Wuhu
L	R: 3~ 220 V 60 Hz/3 Wires L: 3N~ 380-415 V 50 Hz/4 Wires 3N~ 380 V 60 Hz/4 Wires
C	B: High Efficiency C: Standard
C	C: 3rd Generation
N	Refrigerant Type: R410A
H	Air Cooling H: Heat Pump R: Heat Recovery J: Heat Pump (High Ambient)
100	System Capacity (e.g. 100 = 10 HP, H02 = 102 HP)
RAS	Unit Type RAS: Outdoor Unit

Region of Sales

Abbreviations	Regions
ANZ	Australia and New Zealand
IN/SA	India and South Asia
LA	Latin America
MEA	Middle East and Africa
NEU	Non-EU country
SEA	South East Asia

IMPORTANT NOTICE

- Hitachi pursues a policy of continuing improvement in design and performance in its products. As such, Hitachi reserves the right to make changes at any time without prior notice.
- Hitachi cannot anticipate every possible circumstance that might involve a potential hazard.
- This manual provides common descriptions, basic and advanced information to maintain and service this air conditioner which you operate as well for other models.
- The installer and system specialist must safeguard against refrigerant leakage in accordance with local codes. The following standards may be applicable, if local regulations are not available. International Organization for Standardization: (ISO 5149 or European Standard, EN 378). No part of this manual may be reproduced in any way without the expressed written consent of Hitachi.
- This air conditioner is designed for standard air conditioning applications only. Do NOT use this unit for anything other than the purposes for which it was intended for.
- The unit is a partial unit air conditioner, complying with partial unit requirements of the International Standard, and must only be connected to other units that have been confirmed as complying with corresponding partial unit requirements of the International Standard.
- This manual should be considered as a permanent part of the air conditioner and should remain with the air conditioner.
- If you have questions, please contact your distributor or contractor.

Safety Summary

⚠ DANGER : DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING : WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION : CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE : NOTICE is used to address practices not related to personal injury.

NOTE : NOTE is useful information for operation and/or maintenance.

General Precautions

⚠ WARNING

To reduce the risk of serious injury or death, read these instructions thoroughly and follow all warnings or cautions included in all manuals that accompanied the product and are attached to the unit. Refer back to these safety instructions as needed.

- Hitachi will not assume any liability for injuries or damage caused by not following steps outlined or described in this manual. Unauthorized modifications to Hitachi products are prohibited as they:
  - May create hazards that could result in death, serious injury or equipment damage;
  - Will void product warranties;
  - May invalidate product regulatory certifications.
- This system should be installed by personnel certified by Hitachi. Personnel must be qualified according to region and national building and safety codes and regulations. Incorrect installation could cause leaks, electric shock, fire or explosion. In areas where Seismic Performance requirements are specified, the appropriate measures should be taken during installation to guard against possible damage or injury that might occur in an earthquake if the unit is not installed correctly or due to a falling unit.
- This air conditioning system is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- Use appropriate Personal Protective Equipment (PPE), such as gloves and protective goggles and, where appropriate, have a gas mask nearby. Also use electrical protection equipment and tools suited for electrical operation purposes. Keep a quenching cloth and a fire extinguisher nearby during brazing. Use care in handling, rigging, and setting of bulky equipment.
- Before servicing, turn off the power supply and use accepted lockout and tag out procedures at all main switches. Failure to do so can result in damage to internal components with severe or fatal electrical shock.
- This unit is a pressurized system. Never loosen threaded joints while the system is under pressure and never open pressurized system parts.
- When the air conditioner is to be repaired or transported to a new location, contact your distributor or contractor. If the repair and the installation are not completed, electric shock or fire can result.
- When transporting, be careful when picking up, moving and mounting these units. Although the unit may be packed using plastic straps, Do NOT use them for transporting the unit from one location to another. Do NOT stand on or put any material on the unit. Get a partner to help, and bend with your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut fingers, so wear protective gloves.

- Use only recommended/standardized replacement parts provided by Hitachi.
- This air conditioning system can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the air conditioning system in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Do NOT attempt to "clean" indoor unit components with liquid or powdered cleaning agents during maintenance. Electric shock, sparks, flame, and serious or fatal injury can occur.
- When the flat panel is opened (closed) or the air filter is attached (removed), hold them firmly. If not, it may cause falling or injury. (only for wall mounted type)
- Do NOT insert fingers or objects into air inlet/outlet. Injury can result from rotating fan blades or energized electrical components.
- Do NOT touch the main circuit board or electronic components in the controller or remote devices. Make sure that dust and/or moisture does not accumulate on the circuit board.
- Do NOT touch the wired controller with wet hands. Failure of the wired controller or an electrical shock can result.
- If you smell anything burning, shut down the unit and turn off the power at the main power supply. Contact the fire department and your installer or electrical contractor.
- Hair spray, insecticides, lacquers, and other pressurized substances should not be used within 1 m of any air conditioner. It can react with energized electrical components and cause fire.
- For safe operation, the air conditioning system shall be inspected and maintained every 6 months.

⚠CAUTION

To reduce the risk of minor or moderate injury, the following general precautions must be followed.

- About Wireless Controller
  - Pay attention to the following to use the batteries correctly. If not, it may cause liquid spill or burst.
    - Never use new and used batteries together.
    - Never use the different types of batteries (for example manganese battery and alkaline battery) together.
    - When the wireless controller is not used over a prolonged period of time (more than 2 or 3 months), remove the batteries from the wireless controller.
      - After removing the old batteries, wait five or more seconds before inserting the new ones

NOTICE

Take the following precautions to reduce the risk of property damage.

- Each model number and all matching model numbers within a system must have the same version of software.
  Follow these steps to verify that your product model numbers have the same version of software.
  - Access the main printed circuit board in each product.
  - Locate a white sticker with a P-XXXX number or
  - Connect a service checker and locate the ROM number.
- When installing the unit in a hospital or other facility where electromagnetic waves are generated from nearby medical and or electronic devices, be prepared for noise and electromagnetic interference (EMI). Do NOT install where the waves can directly radiate into the electrical box, controller cable, or controller. Inverters, appliances, high-frequency medical equipment, and radio communications equipment may cause the unit to malfunction. The operation of the unit may also adversely affect these devices. Install the unit at least 3 m away from such devices.
- If there is a source of electrical interference near the power source, install noise suppression equipment (filter).
- If the wired controller is installed in a location where electromagnetic radiation is generated, make sure that the wired controller is shielded and cables are sleeved inside conduit tubing.
- Be careful that moisture, dust, or variant refrigerant compounds not enter the refrigerant cycle during installation work. Foreign matter could damage internal components or cause blockages.

- If air filters are required on this unit, do NOT operate the unit without the air filter set in place. If the air filter is not installed, dust may accumulate and breakdown may result.
- Do NOT install the unit in any location where animals and plants can come into direct contact with the outlet air stream. Exposure could adversely affect the animals and plants.
- Be sure the condensate hose discharges water properly. If connected incorrectly, it may cause leaks.
- Do NOT install the unit with any downward slope to the side of the condensate pipe. If you do, you may have drain water flowing back which may cause leaks.
- Do NOT install the unit in any place where oil can seep into the units, such as a kitchen in restaurants, and so forth. For these locations or social venues, use specialized units with oil-resistant features built into them. In addition, use a specialized ceiling fan designed for restaurant use. These specialized oil-resistant units can be ordered for such applications. However, in places where large quantities of oil can splash onto the unit, such as a factory, even the specialized units cannot be used. These products should not be installed in such locations.
- Do NOT install this unit in any place where silicon gases can coalesce. If the silicon gas comes into contact with the surface of the heat exchanger, the finned surfaces repel water. As a result, moisture can enter from the condensate pan into the electrical box, possibly causing electrical failures.
- Do not place any flammable items or anything that can cause a fire on or around the outdoor unit. It may cause a fire.
- During the test run, check the unit's operation temperature. If the unit is used in an environment where the temperature exceeds the operation boundary, it may cause severe damage. Check the Working Range in the manual.
- The A-weighted emission sound pressure level does not exceed 70 dB (A).

Installation Precautions

⚠WARNING

To reduce the risk of serious injury or death, the following installation precautions must be followed.

- When installing the unit into:
  - A wall: Make sure the wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.
  - A room: Properly insulate any refrigerant piping run inside a room to prevent "condensation" that can cause dripping and water damage to wall and floors.
  - Damp or uneven areas: Use a raised concrete pad or concrete blocks to provide a solid, level foundation for the unit to prevent water damage and abnormal vibration.
  - An area with high winds: Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.
  - A snowy area: Install the outdoor unit on a raised platform that is higher than the average snow level. Provide the snow protection hoods.
- Do NOT install the unit in the following places. Doing so can result in an explosion, fire, deformation, corrosion, or product failure.
  - Explosive or flammable atmosphere
  - Where a fire, oil, steam or powder can directly enter the unit, such as nearby or above a kitchen stove.
  - Where oil (including machinery oil) may be present.
  - Where corrosive gases such as chlorine, bromine, or sulfide can accumulate, such as near a hot tub or a hot spring.
  - Where dense, salt-laden airflow is heavy, such as in coastal regions.
  - Where the air quality is of high acidity.
  - Where harmful gases can be generated from decomposition.
- Do NOT position the condensate pipe for the indoor unit near any sanitary sewers where corrosive gases may be present. If you do, toxic gases can seep into breathable air spaces and can cause respiratory injuries. If the condensate pipe is installed incorrectly, water leakage and damage to the ceiling, floor, furniture, or other possessions may result. If the condensate pipe becomes clogged, water may drip from the indoor unit. Do NOT install the indoor unit where such dripping can cause moisture damage or at uneven locations.
- During transportation, do NOT allow the backrest of the forklift make contact with the unit, otherwise, it may cause damage to the heat exchanger and also may cause injury when stopped or started suddenly.
- Before performing any brazing work, be sure that there are no flammable materials or open flames nearby.
- Remove gas inside the closing pipe when the brazing work is performed. If the brazing filler metal is melted with remaining gas inside, the pipes will be blown off and it may cause injury.

- Be sure to use nitrogen gas for the airtight test. If other gases such as oxygen gas, acetylene gas or fluorocarbon gas are accidentally used, it may cause an explosion or gas intoxication.
- Perform a test run to ensure normal operation. Safety guards, shields, barriers, covers, and protective devices must be in place while the compressor/unit is operating. During the test run, keep fingers and clothing away from any moving parts.
- Do NOT install the indoor unit anywhere discharge airflow can pass directly toward nearby heating equipment (space heaters). It may interfere with the combustion process in these units.
- When the indoor unit is operating with heating equipment, ventilate the room sufficiently. Any leaked refrigerant gas that happens to come into contact with any heat source can become toxic on contact and can cause suffocation in the immediate area.
- Do NOT install this system in close proximity to septic sewer lines where flammable and toxic gases can coalesce.

⚠CAUTION

To reduce the risk of minor or moderate injury, the following installation precautions must be followed.

- Proper handling of this unit requires two people. Safe handling and installation of the indoor unit requires the strength of two people. Mounting the unit alone may cause injury due to a fall of the unit. Although the unit may be girded with plastic bands, do NOT use it for transportation. Avoid contact with finned surfaces of the heat exchanger as sharp edges can cause severe injury to hands and fingers. Use appropriate work gloves for the job.

NOTICE

Take the following precautions to reduce the risk of property damage.

- The optional decorative panel can become deformed if the positioning of the indoor unit's suspension brackets are not stable or level. Condensation can accumulate in low spots as a result due to escaping air through any resulting gaps between the indoor unit and the decorative panel.
- Check to ensure that the condensate hose discharges moisture properly. If connected incorrectly, it can result in leakage and cause damage to furniture.
- Make sure to use the factory-supplied condensate hose and hose clamp. Non-factory supplied condensate hose and hose clamp can cause water leakage.
- Do NOT bend or twist the factory-supplied condensate hose. This could compromise the seal and result in water leakage.
- Do NOT apply excessive force to the condensate pipe connection. This can also compromise the seal properties of the connection.
- Verify that the installed unit is level with floor and ceiling surfaces. Any variance or inclination can cause moisture to back up into the condensate pan, overflow, and seepage onto ceiling or wall surfaces, and cause damage to carpeted surfaces or furniture below.
- Air circulation should be optimized to achieve the best distribution pattern and not settled into isolated pockets that can make people uncomfortable.
- Inspect the condensate pan before the onset of winter to drain away all accumulated water in the pan.
- The heat exchanger of indoor unit overheats whenever there is a slight amount of refrigerant circulating during slowdown or stoppage. As a result, water in the condensate pan evaporates and can condense on ceiling or wall surfaces.
- After the drain check is completed, insert the rubber plug again and seal the gap with a silicon sealant.
- Clean up the site when finished, remembering to check that no metal scraps or bits of wiring have been left inside the unit being installed.
- Do NOT install the decorative panel with motion sensor and radiation sensor or motion sensor kit in the following places. It may cause failure or deterioration of the sensor.
  - Ambient temperature changes drastically.
  - Where excessive force or vibration is applied to the sensor.
  - Where static electricity or electromagnetic waves may generate.
  - Where interference of infrared light such as glasses or mist are in the detecting area.
  - Where the lens for sensor is exposed to high temperature and humidity for a long time.
  - Where fluid and corrosive gas exist.

  - Where direct lights such as sunlight or headlights affect the sensor.
  - Where hot air from a heater, etc. affects directly to the sensor.
  - Where the air flow returns to the sensor by hitting obstacles such as a shelf, locker, etc.
  - Where the blower devices such as ceiling fan, ventilating fan, etc. affect the air flow from the indoor unit.
  - Where weather affects directly the surface of the sensor.
  - Where the lens surface may smudge or be damaged such as a dusty environment.
    Detecting function will decrease if the lens for sensor smudges.
    In this case, wipe off smudges using a cotton swab soaked with alcohol (Isopropyl alcohol is recommended.) or a soft cloth. (When wiping off smudges on the lens for sensor, do NOT apply excessive force. If excessive force is applied, the resin lens may be damaged and this may cause malfunctions such as misdetection or undetectable motion.)
- When using the remote control thermo function, consider the following points when selecting the installation location.
  - Where the average temperature of the room can be detected
  - Where there is no direct sunlight
  - Where there is no heat source nearby
  - Where hot/cold air from the outdoors, or a draft from elsewhere (such as air vents, diffusers or grilles) can affect air circulation.
- When installing the wired controller in the following locations with poor temperature distribution, install remote sensors.
  - Where the unit is exposed to direct sunshine or direct light.
  - Where the unit is in close proximity to a heat source.
  - Where hot/cold air from the outdoors, or a draft from elsewhere (such as air vents, diffusers or grilles) can affect air circulation.
  - In areas with poor air circulation and ventilation.
- When a wireless controller is used, locate at a distance of at least 3 m between the indoor unit and electric lighting. If not, the receiver part of the unit may have difficulty receiving operation commands.

Refrigerant Precautions

⚠WARNING

To reduce the risk of serious injury or death, the following refrigerant precautions must be followed.

- As originally manufactured, this unit contains refrigerant charged by Hitachi. Hitachi uses only refrigerants that have been approved for use in the unit's intended home country or market. Hitachi distributors similarly are only authorized to provide refrigerants that have been approved for use in the countries or markets they serve. The refrigerant used in this unit is identified on the unit's faceplate and/or in the associated manuals. Any additions of refrigerant into this unit must comply with the country's requirements with regard to refrigerant use and should be obtained from Hitachi distributors. Use of any non-approved refrigerant substitutes will void the warranty and will increase the potential risk of injury or death.
- To avoid the possibility of different refrigerant or refrigerant oil being introduced into the cycle, the sizes of the charging connections have been changed from R407C type and R22 type. It is necessary to prepare the following tools listed in "Necessary Tools and Instruments List for Installation" in the "Installation and Maintenance Manual" before performing the installation work. Use refrigerant pipes and joints which are approved for use with R410A.
- The refrigerant R410A is adopted. The refrigerant oil tends to be affected by foreign matters such as moisture, oxide film, (or fat). Perform the installation work with care to prevent moisture, dust, or different refrigerant from entering the refrigerant cycle. Foreign matter can be introduced into the cycle from such parts as expansion valve and the operation may be unavailable.
- The outdoor unit shall only be connected to indoor units suitable for the same refrigerant (R410A).
- The design pressure for this product is 4.15 MPa. The pressure of the refrigerant R410A is 1.4 times higher than that of the refrigerant R22. Therefore, the refrigerant piping for R410A must be thicker than that for R22. Make sure to use the specified refrigerant piping. If not, the refrigerant piping may rupture due to an excessive refrigerant pressure. Besides, pay attention to the piping thickness when using copper refrigerant piping. The thickness of copper refrigerant piping differs depending on its material.

- The maximum operating pressure is 4.15 MPa. This maximum operating pressure shall be considered when connecting the outdoor unit to correlated indoor units.
- When installing the unit, and connecting refrigerant piping, keep all piping runs as short as possible, and make sure to securely connect the refrigerant piping before the compressor starts operating. If the refrigerant piping is not connected and the compressor activates with the stop valve opened, the refrigerant cycle will become subjected to extremely high pressure, which can cause an explosion or fire.
- If installed in a small room, take measures to prevent the refrigerant from exceeding the maximum allowable concentration in the event that refrigerant gases should escape. The installation should meet the requirements in each regional regulation. If refrigerant gas leaks during the installation work, ventilate the room immediately.
- The refrigerant system may be damaged if the slope of the piping connection kit exceeds +15°.
- Tighten the flare nut with a torque wrench in the specified manner. Do NOT apply excessive force to the flare nut when tightening. If you do, the flare nut can crack and refrigerant leakage may occur.
- When maintaining, relocating, and disposing of the unit, dismantle the refrigerant piping after the compressor stops.
- When pipes are removed from under the piping cover, after the insulation work is completed, cover the gap between the piping cover and pipes using a packing material (field-supplied). If the gap is not covered, the unit may be damaged if snow, rain water or small animals enter the unit.
- Do NOT apply excessive force to the spindle valve at the end of opening. Otherwise, the spindle valve flies out due to refrigerant pressure. At the test run, fully open the gas and liquid valves. Otherwise, these devices will be damaged. (It is closed before shipment.)
- Before installation is complete, make sure that the refrigerant leak test has been performed. If refrigerant gases escape into the air, turn off the main switch, extinguish any open flames and contact your service contractor. Refrigerant (Fluorocarbon) for this unit is odorless. If the refrigerant should leak and come into contact with open flames, toxic gas could be generated. Also, because the fluorocarbons are heavier than air, they settle to the floor, which could cause asphyxiation.
- If refrigerant gas should leak, turn off all heating equipment and ventilate the room immediately. Mop down or vacuum floor areas of residual toxic particulate.
- This product contains fluorinated greenhouse gases that its functioning relies upon. Do NOT vent into the atmosphere.
  Refrigerant type: R410A
  For mass of charged refrigerant, refer to chapter 7 in the installation and maintenance manual.
  GWP*1: 2090
  *1. GWP=global warming potential

Electrical Precautions

⚠WARNING

To reduce the risk of serious injury or death, the following electrical precautions must be followed.

- This air conditioning system shall be installed in accordance with national wiring regulations.
- 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 serious injury or death.
- Means for disconnection from the supply mains, which have a contact separation in all poles that provide full disconnection under over voltage category III conditions, must be incorporated in the fixed wiring in accordance with the wiring rules.
- Be sure to use the dedicated circuit and perform all electrical work in strict accordance with this manual and all relevant regulatory standards.
- This air conditioning system is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the air conditioning system by a person responsible for their safety.
  - Children should be supervised to ensure that they do not play with the air conditioning system.
  - If the power supply wiring is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do NOT open the service cover or access panel to indoor or outdoor units without turning off the main power supply. Before servicing, open and tag all disconnect switches. Never assume electrical power is disconnected. Check with a multimeter.

- Turn off all power at the main power source before performing maintenance work. Failure to do so can result in damage to internal components with severe or fatal electrical shock.
- Do NOT operate indoor units with the electrical box and switch panel open and exposed. Incidental contact with energized components can prove fatal.
- Insulate all electrical components and connections from exposure to moisture. Failure to do so can result in an electrical short circuit and fire.
- Do NOT tamper with or attempt to "repair" electrical wiring or connections. Call your installer or electrical contractor. Serious or fatal injury can occur.
- Only use electrical protection equipment and tools suited for this installation.
- The Main Fuse shall be replaced by the professional person.
- Use an exclusive power supply for the air conditioner at the unit's rated voltage.
- Use the specified cables between units.
- Be sure to install circuit breakers such as an earth leakage circuit breaker (ELB)/ground fault interrupter (GFCI), isolating switch, molded case circuit breaker and so on), with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications. If a circuit breaker or fuse is frequently activated, shut down the system and contact your service contractor.
- Shut down at the main power supply if the ELB (GFCI) activates frequently. Contact your distributor or contractor immediately. Failure to act accordingly can result in serious injury and damage to the unit.
- Clamp electrical wires securely with a cable band after all wiring is connected to the terminal block. In addition, run wires securely through the wiring access channel or the electrical conduit.
- When installing the power lines, do NOT apply tension to the cables. Secure the suspended cables at regular intervals, but not too tightly.
- Make sure that the terminals do NOT come into contact with the surface of electrical box. If the terminals are too close to the surface, it may lead to failures at the terminal connection.
- After stopping operation, be sure to wait at least five minutes before turning off the main power switch. Otherwise, water leakage or electrical breakdown may result. Disconnect the power supply completely before attempting any maintenance for electrical parts. Confirm that no residual voltage is present after disconnecting the power supply.
- Residual voltage can cause electric shock. At all times, check for residual voltage after disconnecting from the power source before starting work on the unit.
- The installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable.
- Do NOT clean with, or pour water onto the controller as it could cause an electric shock and/or damage the unit. Do NOT use strong detergent such as a solvent. Clean with a soft cloth.
- Check that the earth (ground) wiring is securely connected. Do NOT connect ground wiring to gas piping, water piping, lightning conductor, or telephone ground wiring.
- Do NOT run the relay wiring for the motion sensor and power supply wiring in parallel. Electromagnetic Interference (EMI) may cause malfunction of the sensor. (Only for indoor unit with motion sensor)
- The polarity of the input terminals is important, so be sure to match the polarity when using contacts that have polarity.
- Before installing the controller or remote devices, ensure the indoor and outdoor unit operation has been stopped. Further, be sure to wait at least five minutes before turning off the main power switch to the indoor or outdoor units. Otherwise, water leakage or electrical breakdown may result.
- Do NOT install the wired controller in the high-temperature and humidity location.
- When connecting the controller cabling to the units, do NOT touch or adjust any safety devices inside the indoor or outdoor units. All safety features, disengagement, and interlocks must be in place and functioning correctly before the equipment is put into operation. If these devices are improperly adjusted or tampered with in any way, a serious accident can occur. Never bypass any safety device or switch.

NOTICE

Take the following precautions to reduce the risk of property damage.

- Use an exclusive power supply with the rated voltage for the controller that requires an external power supply.

- Communication cable must be shielded twist pair cable (0.75 mm^2).
  Shielded cable must be considered for applications and routing in areas of high EMI and other sources of potentially excessive electrical noise to reduce the potential for communication errors. When shielded cable is applied, proper bonding and termination of the cable shield is required as per Hitachi guidelines. Plenum and riser ratings for communication cables must be considered per application and local code requirements.
- The air conditioner may not function normally in the following instances:
  - If electrical power for the air conditioner is supplied from the same transformer as a device[*1] referred to below.
  - If the power source cables for this device[*1] and the air conditioner are located in close proximity to each other.

    *1. A device can include a lift, container crane, rectifier for electric railway, inverter power device, arc furnace, electric furnace, large-sized induction motor and large-sized switch.

  Regarding the cases mentioned above, surge voltage may be inducted into the power supply cables for the air conditioner due to a rapid change in power consumption of the device and an activation of a switch. Check field regulations and standards before performing electrical work in order to protect the power supply for the air conditioner.
- Turn off and disconnect the unit from the power source when handling the service connector. Do NOT open the service cover or access panel to the indoor or outdoor units without turning off the main power supply.

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Appendix (Outdoor Unit Capacity According to Temperature Condition and Connected IDU Capacity Ratio)

<Appendix A>..... For SEA

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<Appendix C> ..... For LA

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1. Features

air365 Max Series

Hitachi proudly introduces the air365 Max series, the highly-efficient and reliable air-conditioning system. Recently, increased numbers of buildings are requiring “Intelligent” facilities - communication networks, office automation, and a comfortable environment. Particularly, comfortable space is required all the day through the year in office buildings.
This multi-split system air conditioner, air365 Max can meet these requirements. The proven combination of the scroll compressor and the inverter provides the best air conditioning for small/medium office buildings.

SYSTEM FREE System

Hitachi has developed the SYSTEM FREE system with its customers always in mind.
This system, which is unique in the world, allows the interconnection of the same indoor units for all the Hitachi systems.

This system provides the end user with greater flexibility for installation, which means that the air-conditioning systems will integrate better with the whole of the installations that make up the building.

Series Configuration

For SEA , MEA , NEU and IN/SA

Type	Heat Pump																	
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Standard	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○
High Efficiency	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○
High Ambient	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○

Type	Heat Pump																	
	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78
Standard	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High Efficiency	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High Ambient	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Type	Heat Pump																
	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112
Standard	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High Efficiency	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—
High Ambient	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—

*For the NEU region, combinations are available up to 64HP.

For MEA and LA

Type	Heat Recovery , Universal																	
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Standard	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○

Type	Heat Recovery , Universal																	
	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78
Standard	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Type	Heat Recovery , Universal																
	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112
Standard	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

For ANZ

Type	Universal																	
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Standard	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○
High Efficiency	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○

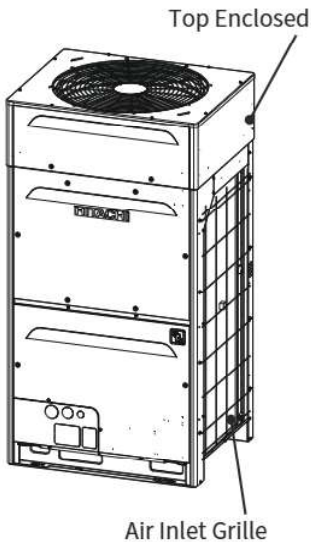
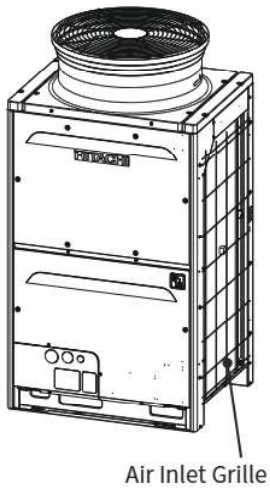
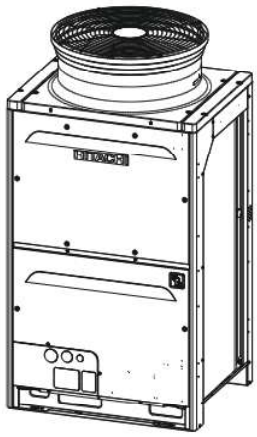
Type	Universal										
	44	46	48	50	52	54	56	58	60	62	64
Standard	○	○	○	○	○	○	○	○	○	○	○
High Efficiency	○	○	○	—	—	—	—	—	—	—	—

●: Single Unit
○: Combination

ALL INVERTER Compressor Model

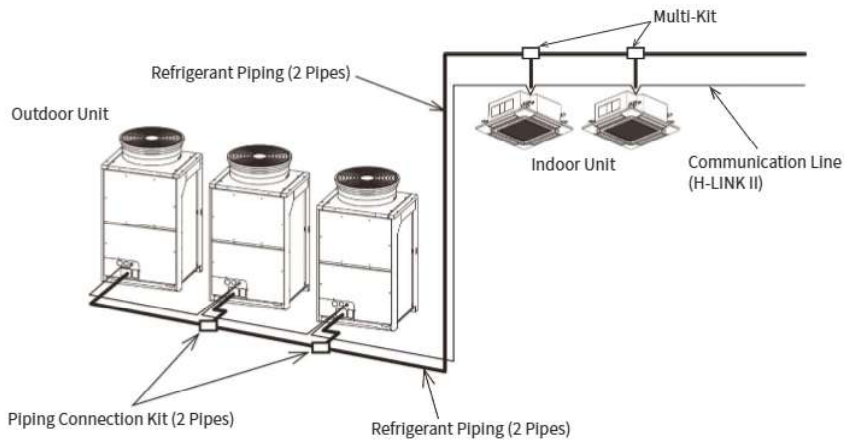
Appearance

Appearance varies depending on the sales region.

Type	I	II	III
Cabinet Appearance			
Abbreviations	MEA, IN/SA, NEU	ANZ, LA	SEA
Air Inlet Grille	√	√	-
Top Enclosed	√	-	-

System Configuration/Appearance

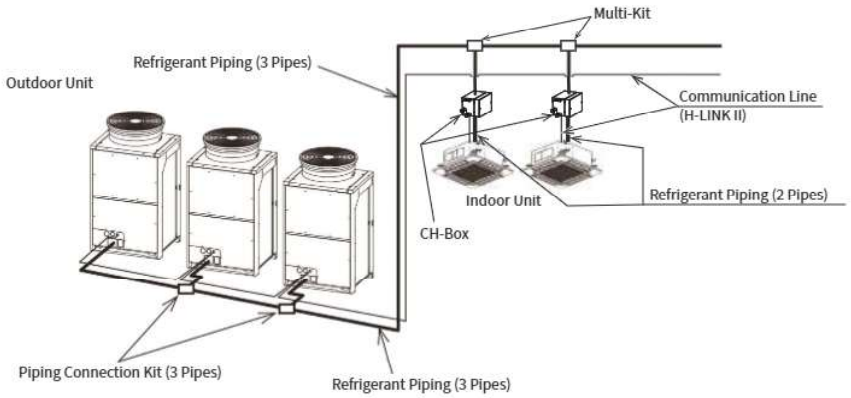
1. Heat Pump System

<table>
<tr><td>System / Appearance</td><td colspan="2">
</td></tr>
<tr><td rowspan="4">System Device</td><td colspan="2">Indoor Unit + Optional Remote Control Switch + Optional Air Panel for Cassette Type + Other Optional Parts</td></tr>
<tr><td colspan="2">Optional Multi-Kit — For Branch Connection of Indoor Units</td></tr>
<tr><td colspan="2">Outdoor Unit + Other Optional Parts (Drain Boss, Air Inlet Grille, Protection Net and Air Outlet Duct-Kit, etc.)</td></tr>
<tr><td colspan="2">Piping Connection Kit — For Branch Connection of Outdoor Units</td></tr>
</table>

: Necessary Equipment for system

: Necessary Equipment depending on usage purpose

2. Heat Recovery System

<table>
<tr><td>System / Appearance</td><td>
</td></tr>
<tr><td rowspan="5">System Device</td><td>Indoor Unit + Optional Remote Control Switch + Optional Air Panel for Cassette Type + Other Optional Parts</td></tr>
<tr><td>CH-Box</td></tr>
<tr><td>Optional Multi-Kit — For Branch Connection of Indoor Units</td></tr>
<tr><td>Outdoor Unit + Other Optional Parts (Drain Boss, Air Inlet Grille, Protection Net and Air Outlet Duct-Kit, etc.)</td></tr>
<tr><td>Piping Connection Kit — For Branch Connection of Outdoor Units</td></tr>
</table>

: Necessary Equipment for system

: Necessary Equipment depending on usage purpose

3. Universal

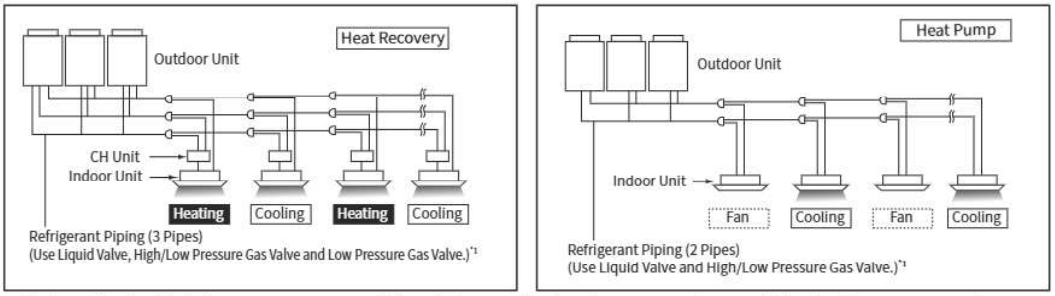
Universal System can provide 2 systems "Heat Pump System" and "Heat Recovery System" depending on a purpose. A custom air conditioning environment can be created to satisfy the specific building conditions.

< Selectable System from Heat Recovery System and Heat Pump System >

Used as **Heat Recovery System**
Simultaneous cooling/heating operation is available.

Common Use for Systems

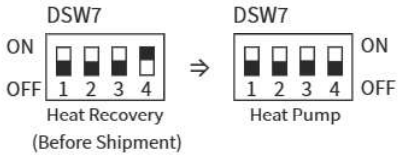
Used as **Heat Pump System**
Cooling or heating operation is available.



*1. Piping size for high/low pressure gas differs between the heat pump system and the heat recovery system. See the Installation Manual.

NOTES:

- Both the heat pump system and the heat recovery system cannot change to another system after installation.
- The system configuration and appearance for the heat pump system is the same as on page 1-6.
- The system configuration and appearance for the heat recovery system is the same as on page 1-7.
- When using the universal model as a heat pump system, turn DSW7-#4 to OFF.



Lineup

This outdoor unit series can build up to a capacity of 8 HP to 112 HP by combining maximum 4 outdoor modules.

Unit Nomenclature
Refer to page ii for the detail.

<Base Unit>

1. Region: MEA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   3N~ 380 V 60 Hz/4 Wires
   • High Ambient

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080JNCBLI	RAS-100JNCBLI	RAS-120JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI

2. Region: IN/SA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080HNCCLI	RAS-100HNCCLI	RAS-120HNCCLI	RAS-140HNCCLI	RAS-160HNCCLI	RAS-180HNCCLI	RAS-200HNCCLI	RAS-220HNCCLI

HP	24HP	26HP	28HP
Model	RAS-240HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI

3. Region: SEA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   • High Efficiency

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080HNCBLW	RAS-100HNCBLW	RAS-120HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW

   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW	RAS-200HNCCLW	RAS-220HNCCLW

HP	24HP	26HP	28HP
Model	RAS-240HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW

4. Region: MEA, NEU
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW	RAS-200HNCCLW	RAS-220HNCCLW

HP	24HP	26HP	28HP
Model	RAS-240HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW

5. Region: ANZ
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   • High Efficiency

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Model	RAS-080RNCBLW	RAS-100RNCBLW	RAS-120RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-180RNCBLW	RAS-200RNCBLW

   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080RNCCLW	RAS-100RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-200RNCCLW	RAS-220RNCCLW

HP	24HP
Model	RAS-240RNCCLW

6. Region: MEA and LA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   3N~ 380 V 60 Hz/4 Wires
   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080RNCCLW	RAS-100RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-200RNCCLW	RAS-220RNCCLW

HP	24HP	26HP	28HP
Model	RAS-240RNCCLW	RAS-260RNCCLW	RAS-28RNCCLW

7. Region: LA
   Power Supply: 3~ 220 V 60 Hz/3 Wires
   • Standard

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model	RAS-080RNCCRW	RAS-100RNCCRW	RAS-120RNCCRW	RAS-140RNCCRW	RAS-160RNCCRW	RAS-180RNCCRW	RAS-200RNCCRW	RAS-220RNCCRW

HP	24HP	26HP	28HP
Model	RAS-240RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW

<Combination of Base Units>

1. Region: MEA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   3N~ 380 V 60 Hz/4 Wires

- High Ambient

HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP
Model	RAS-240JNCBLI	RAS-260JNCBLI	RAS-280JNCBLI	RAS-300JNCBLI	RAS-320JNCBLI	RAS-340JNCBLI	RAS-360JNCBLI	RAS-380JNCBLI
Combination	RAS-120JNCBLI	RAS-140JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI
	RAS-120JNCBLI	RAS-120JNCBLI	RAS-140JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI

HP	40HP	42HP	44HP	46HP	48HP	50HP	52HP	54HP
Model	RAS-400JNCBLI	RAS-420JNCBLI	RAS-440JNCBLI	RAS-460JNCBLI	RAS-480JNCBLI	RAS-500JNCBLI	RAS-520JNCBLI	RAS-540JNCBLI
Combination	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
	-	-	-	RAS-140JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI

HP	56HP	58HP	60HP	62HP	64HP	66HP	68HP	70HP
Model	RAS-560JNCBLI	RAS-580JNCBLI	RAS-600JNCBLI	RAS-620JNCBLI	RAS-640JNCBLI	RAS-660JNCBLI	RAS-680JNCBLI	RAS-700JNCBLI
Combination	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
	-	-	-	-	-	-	RAS-140JNCBLI	RAS-160JNCBLI

HP	72HP	74HP	76HP	78HP	80HP	82HP	84HP	86HP
Model	RAS-720JNCBLI	RAS-740JNCBLI	RAS-760JNCBLI	RAS-780JNCBLI	RAS-800JNCBLI	RAS-820JNCBLI	RAS-840JNCBLI	RAS-860JNCBLI
Combination	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI
	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI

HP	88HP
Model	RAS-880JNCBLI
Combination	RAS-220JNCBLI
	RAS-220JNCBLI
	RAS-220JNCBLI
	RAS-220JNCBLI

2. Region: IN/SA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires

- Standard

HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP
Model	RAS-300HNCCLI	RAS-320HNCCLI	RAS-340HNCCLI	RAS-360HNCCLI	RAS-380HNCCLI	RAS-400HNCCLI	RAS-420HNCCLI	RAS-440HNCCLI
Combination	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI
	RAS-120HNCCLI	RAS-140HNCCLI	RAS-160HNCCLI	RAS-180HNCCLI	RAS-160HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI

HP	46HP	48HP	50HP	52HP	54HP	56HP	58HP	60HP
Model	RAS-460HNCCLI	RAS-480HNCCLI	RAS-500HNCCLI	RAS-520HNCCLI	RAS-540HNCCLI	RAS-560HNCCLI	RAS-580HNCCLI	RAS-600HNCCLI
Combination	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI
	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI
	-	-	-	-	-	-	RAS-180HNCCLI	RAS-180HNCCLI

HP	62HP	64HP	66HP	68HP	70HP	72HP	74HP	76HP
Model	RAS-620HNCCLI	RAS-640HNCCLI	RAS-660HNCCLI	RAS-680HNCCLI	RAS-700HNCCLI	RAS-720HNCCLI	RAS-740HNCCLI	RAS-760HNCCLI
Combination	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI
	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI

HP	78HP	80HP	82HP	84HP	86HP	88HP	90HP	92HP
Model	RAS-780HNCCLI	RAS-800HNCCLI	RAS-820HNCCLI	RAS-840HNCCLI	RAS-860HNCCLI	RAS-880HNCCLI	RAS-900HNCCLI	RAS-920HNCCLI
Combination	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI
	-	-		-	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI

HP	94HP	96HP	98HP	100HP	102HP	104HP	106HP	108HP
Model	RAS-940HNCCLI	RAS-960HNCCLI	RAS-980HNCCLI	RAS-H00HNCCLI	RAS-H02HNCCLI	RAS-H04HNCCLI	RAS-H06HNCCLI	RAS-H08HNCCLI
Combination	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI
	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI
	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI

HP	110HP	112HP
Model	RAS-H10HNCCLI	RAS-H12HNCCLI
Combination	RAS-280HNCCLI	RAS-280HNCCLI
	RAS-280HNCCLI	RAS-280HNCCLI
	RAS-280HNCCLI	RAS-280HNCCLI
	RAS-260HNCCLI	RAS-280HNCCLI

3. Region: SEA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires

- High Efficiency

HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP
Model	RAS-240HNCBLW	RAS-260HNCBLW	RAS-280HNCBLW	RAS-300HNCBLW	RAS-320HNCBLW	RAS-340HNCBLW	RAS-360HNCBLW	RAS-380HNCBLW
Combination	RAS-120HNCBLW	RAS-140HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW
	RAS-120HNCBLW	RAS-120HNCBLW	RAS-140HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW

HP	40HP	42HP	44HP	46HP	48HP	50HP	52HP	54HP
Model	RAS-400HNCBLW	RAS-420HNCBLW	RAS-440HNCBLW	RAS-460HNCBLW	RAS-480HNCBLW	RAS-500HNCBLW	RAS-520HNCBLW	RAS-540HNCBLW
Combination	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
	-	-	-	RAS-140HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW

HP	56HP	58HP	60HP	62HP	64HP	66HP	68HP	70HP
Model	RAS-560HNCBLW	RAS-580HNCBLW	RAS-600HNCBLW	RAS-620HNCBLW	RAS-640HNCBLW	RAS-660HNCBLW	RAS-680HNCBLW	RAS-700HNCBLW
Combination	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
	-	-	-	-	-	-	RAS-140HNCBLW	RAS-160HNCBLW

HP	72HP	74HP	76HP	78HP	80HP	82HP	84HP	86HP
Model	RAS-720HNCBLW	RAS-740HNCBLW	RAS-760HNCBLW	RAS-780HNCBLW	RAS-800HNCBLW	RAS-820HNCBLW	RAS-840HNCBLW	RAS-860HNCBLW
Combination	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW
	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW

HP	88HP
Model	RAS-880HNCBLW
Combination	RAS-220HNCBLW
	RAS-220HNCBLW
	RAS-220HNCBLW
	RAS-220HNCBLW

4. Region: SEA, MEA, NEU
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   • Standard

HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP
Model	RAS-300HNCCLW	RAS-320HNCCLW	RAS-340HNCCLW	RAS-360HNCCLW	RAS-380HNCCLW	RAS-400HNCCLW	RAS-420HNCCLW	RAS-440HNCCLW
Combination	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW
	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW

HP	46HP	48HP	50HP	52HP	54HP	56HP	58HP	60HP
Model	RAS-460HNCCLW	RAS-480HNCCLW	RAS-500HNCCLW	RAS-520HNCCLW	RAS-540HNCCLW	RAS-560HNCCLW	RAS-580HNCCLW	RAS-600HNCCLW
Combination	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
	-	-	-	-	-	-	RAS-180HNCCLW	RAS-180HNCCLW

NEU*1 →

HP	62HP	64HP	66HP	68HP	70HP	72HP	74HP	76HP
Model	RAS-620HNCCLW	RAS-640HNCCLW	RAS-660HNCCLW	RAS-680HNCCLW	RAS-700HNCCLW	RAS-720HNCCLW	RAS-740HNCCLW	RAS-760HNCCLW
Combination	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW

HP	78HP	80HP	82HP	84HP	86HP	88HP	90HP	92HP
Model	RAS-780HNCCLW	RAS-800HNCCLW	RAS-820HNCCLW	RAS-840HNCCLW	RAS-860HNCCLW	RAS-880HNCCLW	RAS-900HNCCLW	RAS-920HNCCLW
Combination	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW
	-	-	-	-	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW

HP	94HP	96HP	98HP	100HP	102HP	104HP	106HP	108HP
Model	RAS-940HNCCLW	RAS-960HNCCLW	RAS-980HNCCLW	RAS-H00HNCCLW	RAS-H02HNCCLW	RAS-H04HNCCLW	RAS-H06HNCCLW	RAS-H08HNCCLW
Combination	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW

HP	110HP	112HP
Model	RAS-H10HNCCLW	RAS-H12HNCCLW
Combination	RAS-280HNCCLW	RAS-280HNCCLW
	RAS-280HNCCLW	RAS-280HNCCLW
	RAS-280HNCCLW	RAS-280HNCCLW
	RAS-260HNCCLW	RAS-280HNCCLW

*1. For the NEU region, combinations are available up to 64HP.

5. Region: ANZ
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires

- High Efficiency

HP	22HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP
Model	RAS-220RNCBLW	RAS-240RNCBLW	RAS-260RNCBLW	RAS-280RNCBLW	RAS-300RNCBLW	RAS-320RNCBLW	RAS-340RNCBLW	RAS-360RNCBLW
Combination	RAS-120RNCBLW	RAS-120RNCBLW	RAS-140RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-160RNCBLW	RAS-180RNCBLW	RAS-180RNCBLW
	RAS-100RNCBLW	RAS-120RNCBLW	RAS-120RNCBLW	RAS-140RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-160RNCBLW	RAS-180RNCBLW

HP	38HP	40HP	42HP	44HP	46HP	48HP
Model	RAS-380RNCBLW	RAS-400RNCBLW	RAS-420RNCBLW	RAS-440RNCBLW	RAS-460RNCBLW	RAS-480RNCBLW
Combination	RAS-200RNCBLW	RAS-200RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-160RNCBLW	RAS-160RNCBLW
	RAS-180RNCBLW	RAS-200RNCBLW	RAS-140RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-160RNCBLW
	-	-	RAS-140RNCBLW	RAS-140RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW

- Standard

HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP
Model	RAS-260RNCCLW	RAS-280RNCCLW	RAS-300RNCCLW	RAS-320RNCCLW	RAS-340RNCCLW	RAS-360RNCCLW	RAS-380RNCCLW	RAS-400RNCCLW
Combination	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW
	RAS-120RNCCLW	RAS-120RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW

HP	42HP	44HP	46HP	48HP	50HP	52HP	54HP	56HP
Model	RAS-420RNCCLW	RAS-440RNCCLW	RAS-460RNCCLW	RAS-480RNCCLW	RAS-500RNCCLW	RAS-520RNCCLW	RAS-540RNCCLW	RAS-560RNCCLW
Combination	RAS-240RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW
	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW
	-	-	-	-	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-160RNCCLW

HP	58HP	60HP	62HP	64HP
Model	RAS-580RNCCLW	RAS-600RNCCLW	RAS-620RNCCLW	RAS-640RNCCLW
Combination	RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW
	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW
	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW

6. Region: MEA, LA
   Power Supply: 3N~ 380 V - 415 V 50 Hz/4 Wires
   3N~ 380 V 60 Hz/4 Wires

- Standard

HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP
Model	RAS-300RNCCLW	RAS-320RNCCLW	RAS-340RNCCLW	RAS-360RNCCLW	RAS-380RNCCLW	RAS-400RNCCLW	RAS-420RNCCLW	RAS-440RNCCLW
Combination	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW
	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW

HP	46HP	48HP	50HP	52HP	54HP	56HP	58HP	60HP
Model	RAS-460RNCCLW	RAS-480RNCCLW	RAS-500RNCCLW	RAS-520RNCCLW	RAS-540RNCCLW	RAS-560RNCCLW	RAS-580RNCCLW	RAS-600RNCCLW
Combination	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW
	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW
	-	-	-	-	-	-	RAS-180RNCCLW	RAS-180RNCCLW

HP	62HP	64HP	66HP	68HP	70HP	72HP	74HP	76HP
Model	RAS-620RNCCLW	RAS-640RNCCLW	RAS-660RNCCLW	RAS-680RNCCLW	RAS-700RNCCLW	RAS-720RNCCLW	RAS-740RNCCLW	RAS-760RNCCLW
Combination	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW
	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW
	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW

HP	78HP	80HP	82HP	84HP	86HP	88HP	90HP	92HP
Model	RAS-780RNCCLW	RAS-800RNCCLW	RAS-820RNCCLW	RAS-840RNCCLW	RAS-860RNCCLW	RAS-880RNCCLW	RAS-900RNCCLW	RAS-920RNCCLW
Combination	RAS-260RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW
	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW
	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW
	-	-	-	-	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW

HP	94HP	96HP	98HP	100HP	102HP	104HP	106HP	108HP
Model	RAS-940RNCCLW	RAS-960RNCCLW	RAS-980RNCCLW	RAS-H00RNCCLW	RAS-H02RNCCLW	RAS-H04RNCCLW	RAS-H06RNCCLW	RAS-H08RNCCLW
Combination	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW
	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW
	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW
	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW

HP	110HP	112HP
Model	RAS-H10RNCCLW	RAS-H12RNCCLW
Combination	RAS-280RNCCLW	RAS-280RNCCLW
	RAS-280RNCCLW	RAS-280RNCCLW
	RAS-280RNCCLW	RAS-280RNCCLW
	RAS-260RNCCLW	RAS-280RNCCLW

7. Region: LA
   Power Supply: 3~ 220 V 60 Hz/3 Wires

- Standard

HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP
Model	RAS-300RNCCRW	RAS-320RNCCRW	RAS-340RNCCRW	RAS-360RNCCRW	RAS-380RNCCRW	RAS-400RNCCRW	RAS-420RNCCRW	RAS-440RNCCRW
Combination	RAS-180RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW	RAS-220RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-220RNCCRW
	RAS-120RNCCRW	RAS-140RNCCRW	RAS-160RNCCRW	RAS-180RNCCRW	RAS-160RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW	RAS-220RNCCRW

HP	46HP	48HP	50HP	52HP	54HP	56HP	58HP	60HP
Model	RAS-460RNCCRW	RAS-480RNCCRW	RAS-500RNCCRW	RAS-520RNCCRW	RAS-540RNCCRW	RAS-560RNCCRW	RAS-580RNCCRW	RAS-600RNCCRW
Combination	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW	RAS-280RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW
	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW
	-	-	-	-	-	-	RAS-180RNCCRW	RAS-180RNCCRW

HP	62HP	64HP	66HP	68HP	70HP	72HP	74HP	76HP
Model	RAS-620RNCCRW	RAS-640RNCCRW	RAS-660RNCCRW	RAS-680RNCCRW	RAS-700RNCCRW	RAS-720RNCCRW	RAS-740RNCCRW	RAS-760RNCCRW
Combination	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW
	RAS-220RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW
	RAS-180RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW	RAS-220RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW

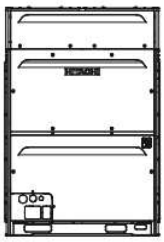
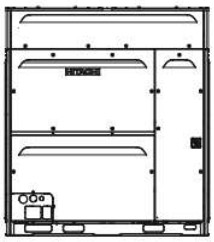
HP	78HP	80HP	82HP	84HP	86HP	88HP	90HP	92HP
Model	RAS-780RNCCRW	RAS-800RNCCRW	RAS-820RNCCRW	RAS-840RNCCRW	RAS-860RNCCRW	RAS-880RNCCRW	RAS-900RNCCRW	RAS-920RNCCRW
Combination	RAS-260RNCCRW	RAS-280RNCCRW	RAS-280RNCCRW	RAS-280RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW
	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW	RAS-280RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW
	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW	RAS-220RNCCRW	RAS-220RNCCRW	RAS-240RNCCRW	RAS-220RNCCRW
	-	-	-	-	RAS-180RNCCRW	RAS-180RNCCRW	RAS-180RNCCRW	RAS-220RNCCRW

HP	94HP	96HP	98HP	100HP	102HP	104HP	106HP	108HP
Model	RAS-940RNCCRW	RAS-960RNCCRW	RAS-980RNCCRW	RAS-H00RNCCRW	RAS-H02RNCCRW	RAS-H04RNCCRW	RAS-H06RNCCRW	RAS-H08RNCCRW
Combination	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW	RAS-280RNCCRW
	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-280RNCCRW
	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW
	RAS-220RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-240RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW	RAS-260RNCCRW

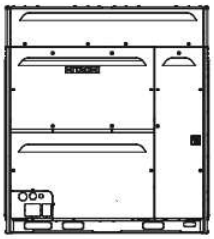
HP	110HP	112HP
Model	RAS-H10RNCCRW	RAS-H12RNCCRW
Combination	RAS-280RNCCRW	RAS-280RNCCRW
	RAS-280RNCCRW	RAS-280RNCCRW
	RAS-280RNCCRW	RAS-280RNCCRW
	RAS-260RNCCRW	RAS-280RNCCRW

Unit Specifications

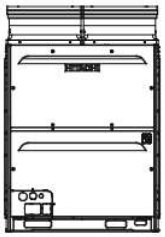
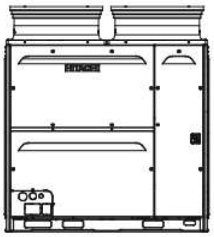
- MEA (High Ambient)

Items \ HP		8	10	12	14	16	18	20	22
Appearance		Type I 		Type I 			Type I 		
Dimension (W x D x H) (mm)		975 × 775 × 1805		1235 × 775 × 1805			1625 × 775 × 1805		
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	47.5	56.0	63.0	69.0
Weight (kg)		229	229	281	317	317	363	390	390
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	56	60	60	61	62	62
	Heat Rating	55	57	59	61	62	63	62	63

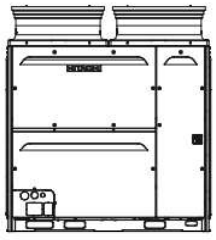
- MEA (Standard), IN/SA

Items \ HP		8	10	12	14	16	18	20	22	24	26	28
Appearance		Type I 			Type I 			Type I 				
Dimension (W x D x H) (mm)		975 × 775 × 1805			1235 × 775 × 1805			1625 × 775 × 1805				
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	77.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	77.5	81.5	86.0
Weight (kg)		207	212	226	281	281	282	364	364	364	390	390
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	57	59	61	61	63	63	61	62	62
	Heat Rating	55	57	59	61	62	63	65	65	64	65	65

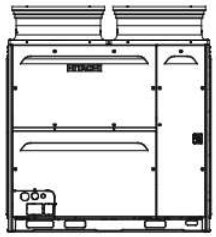
- ANZ (High Efficiency)

Items \ HP		8	10	12	14	16	18	20
Appearance		Type II 		Type II 			Type II 	
Dimension (W x D x H) (mm)		975 × 765 × 1795		1235 × 765 × 1795			1625 × 765 × 1795	
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0
Heating Capacity (kW)		25.0	31.5	37.5	45.0	47.5	56.0	63.0
Weight (kg)		217	217	272	307	307	350	374
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	56	59	61	62	62
	Heat Rating	54	57	59	60	62	63	64
Sound (dB(A), PWL)	Cool Rating	78	81	80	85	85	86	86
	Heat Rating	78	81	82	84	86	88	88

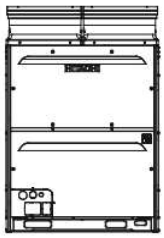
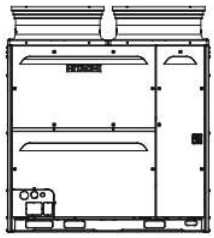
- ANZ (Standard)

Items \ HP		8	10	12	14	16	18	20	22	24
Appearance		Type II 			Type II 			Type II 		
Dimension (W x D x H) (mm)		975 × 765 × 1795			1235 × 765 × 1795			1625 × 765 × 1795		
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	77.5
Weight (kg)		197	203	217	271	272	272	350	350	375
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	57	59	61	61	62	62	61
	Heat Rating	55	57	59	61	62	63	64	63	63
Sound (dB(A), PWL)	Cool Rating	76	81	83	83	84	84	86	87	84
	Heat Rating	79	81	83	85	86	86	88	88	88

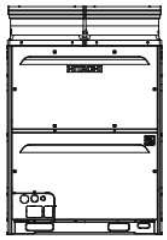
- LA (Standard)

Items \ HP		8	10	12	14	16	18	20	22	24	26	28
Appearance		Type II 			Type II 			Type II 				
Dimension (W x D x H) (mm)		975 × 765 × 1795			1235 × 765 × 1795			1625 × 765 × 1795				
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	77.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	77.5	81.5	86.0
Weight (kg)	380 - 415V	197	203	217	271	272	272	350	350	350	375	375
	220V	222	227	245	302	303	304	386	386	386	392	392
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	57	59	61	61	63	63	61	62	62
	Heat Rating	55	57	59	61	62	63	65	65	64	65	65

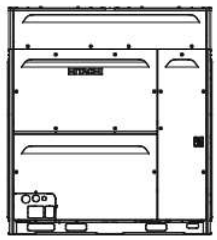
- SEA (High Efficiency)

Items \ HP		8	10	12	14	16	18	20	22
Appearance		Type III 		Type III 			Type III 		
Dimension (W x D x H) (mm)		950 × 765 × 1795		1210 × 765 × 1795			1600 × 765 × 1795		
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0
Weight (kg)		211	211	264	300	300	341	367	367
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	56	60	60	61	62	62
	Heat Rating	54	57	59	62	62	63	64	63

- SEA (Standard)

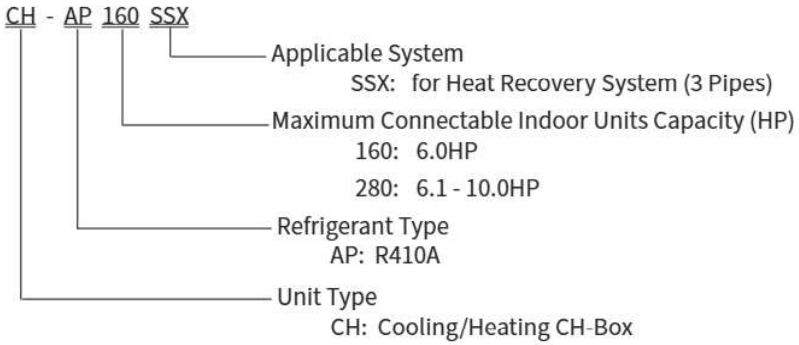
Items \ HP		8	10	12	14	16	18	20	22	24	26	28
Appearance		Type III 			Type III 			Type III 				
Dimension (W x D x H) (mm)		950 × 765 × 1795			1210 × 765 × 1795			1600 × 765 × 1795				
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	77.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	77.5	81.5	86.0
Weight (kg)		191	197	211	264	265	265	341	341	341	367	367
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	57	59	61	61	63	63	61	62	62
	Heat Rating	55	57	59	61	62	63	65	65	64	65	65

- NEU

Items \ HP		8	10	12	14	16	18	20	22	24	26	28
Appearance		Type I 			Type I 			Type I 				
Dimension (W x D x H) (mm)		975 × 775 × 1805			1235 × 775 × 1805			1625 × 775 × 1805				
Cooling Capacity (kW)		22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	77.5
Heating Capacity (kW)		25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	77.5	81.5	86.0
Weight (kg)		207	212	226	281	281	282	364	364	364	390	390
Sound (dB(A), SPL) (Full-anechoic)	Cool Rating	52	55	57	59	61	61	63	63	61	62	62
	Heat Rating	55	57	59	61	62	63	65	65	64	65	65
Sound (dB(A), PWL)	Cool Rating	76	81	83	82	84	84	88	88	85	86	87
	Heat Rating	79	81	83	84	86	86	89	89	87	89	90

- CH-Box

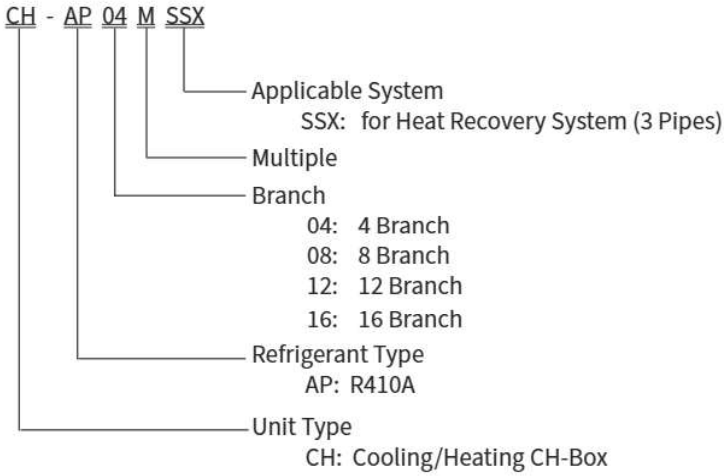
<Single>



Model	Branch	Connectable Indoor Unit Total Capacity	Number of Connectable Indoor Unit*1
CH-AP160SSX	1	6.0HP or less (Max. 16kW)	1 - 7
CH-AP280SSX	1	6.1HP - 10.0HP (Max. 28kW)	1 - 8

*1. When multiple indoor units are connected to the same CH-Box, they are controlled with the same operation mode.

<Multiple>



Model	Branch	Connectable Indoor Unit Total Capacity	Number of Connectable Indoor Unit per Branch*2
CH-AP04MSSX	4	16.0HP or less (Max. 44.8kW)	1 - 6
CH-AP08MSSX	8	30.0HP or less (Max. 85kW)	1 - 6
CH-AP12MSSX	12	30.0HP or less (Max. 85kW)	1 - 6
CH-AP16MSSX	16	30.0HP or less (Max. 85kW)	1 - 6

*2. The indoor units connected to the same branch of the CH-Box are controlled with the same operation mode.

<Single>

CH-AP160SSX

Outer Dimension: W301 x D214 x H191 mm



CH-AP280SSX

Outer Dimension: W301 x D214 x H191 mm



<Multiple>

CH-AP04MSSX

Outer Dimension: W303 x D352 x H260mm



CH-AP08MSSX

Outer Dimension: W543 x D352x H260 mm



CH-AP12MSSX

Outer Dimension: W783 x D352 x H260 mm

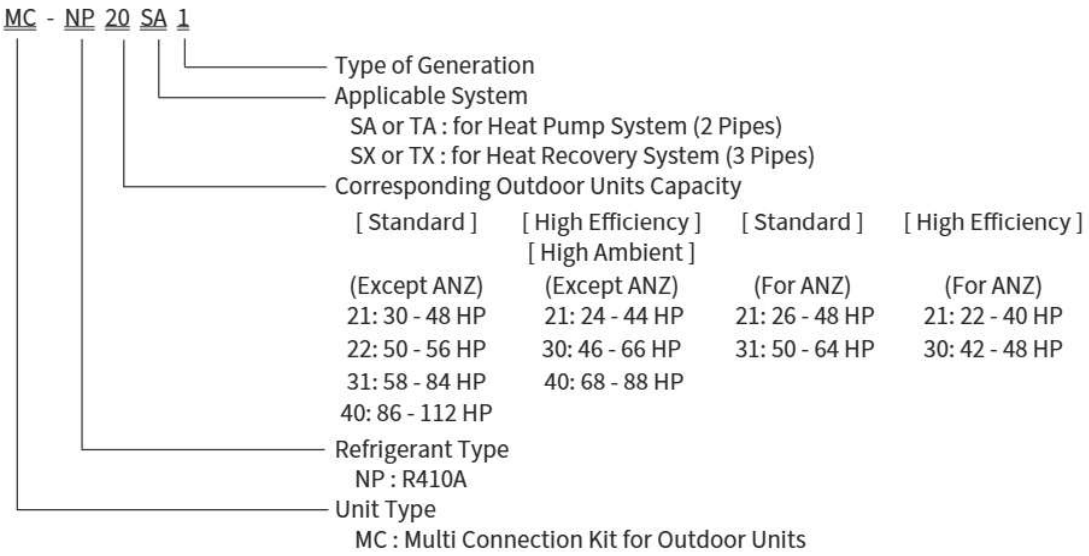


CH-AP16MSSX

Outer Dimension: W1,023 x 352 x H260 mm



- Piping Connection Kit



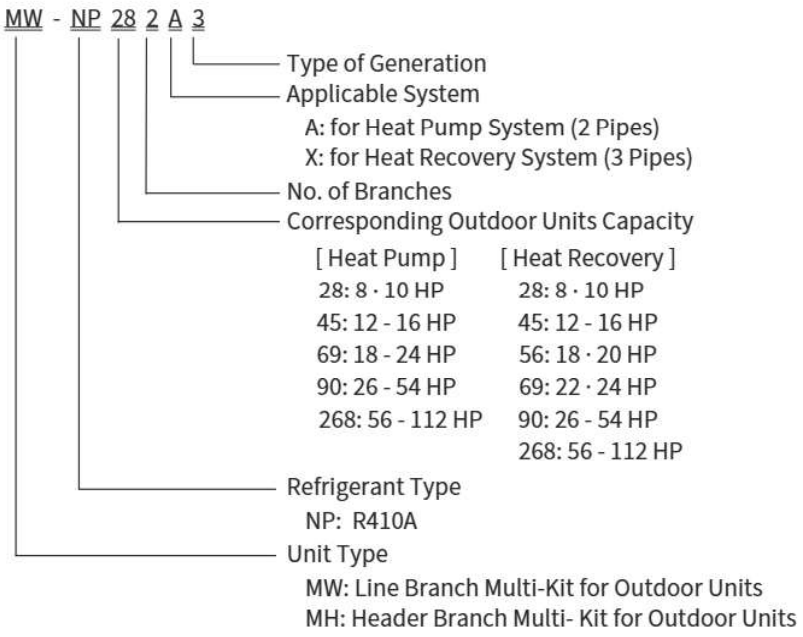
- For Heat Pump (2 pipes)

Model Name	Applicable Outdoor Unit					Remarks
	No. of ODUs	MEA (High Ambient) SEA (High Efficiency)	ANZ (High Efficiency)	ANZ (Standard)	Others	
MC-NP21SA1	2	24 to 44 HP	22 to 40 HP	26 to 48 HP	30 to 48 HP	for Gas: 1 for Liquid: 1
MC-NP22TA		-	-	-	50 to 56 HP	
MC-NP30SA1	3	46 to 66 HP	42 to 48 HP	-	-	for Gas: 2 for Liquid: 2
MC-NP31TA		-	-	50 to 64 HP	58 to 84 HP	
MC-NP40TA	4	68 to 88 HP	-	-	86 to 112 HP	for Gas: 3 for Liquid: 3

- For Heat Recovery (3 pipes)

Model Name	Applicable Outdoor Unit					Remarks
	No. of ODUs	MEA (High Ambient) SEA (High Efficiency)	ANZ (High Efficiency)	ANZ (Standard)	Others	
MC-NP21SX1	2	24 to 44 HP	22 to 40 HP	26 to 48 HP	30 to 48 HP	for Low press. Gas: 1 for High/Low Press. Gas: 1 for Liquid: 1
MC-NP22TX		-	-	-	50 to 56 HP	
MC-NP30SX1	3	46 to 66 HP	42 to 48 HP	-	-	for Low press. Gas: 2 for High/Low Press. Gas: 2 for Liquid: 2
MC-NP31TX		-	-	50 to 64 HP	58 to 84 HP	
MC-NP40TX	4	68 to 88 HP	-	-	86 to 112 HP	for Low press. Gas: 3 for High/Low Press. Gas: 3 for Liquid: 3

- Multi-Kit



- For Heat Pump (2 pipes)

< Line Branch >

First Branch

Outdoor Unit HP	Model
8, 10	MW-NP282A3
12 - 16	MW-NP452A3
18 - 24	MW-NP692A3
26 - 54	MW-NP902A3
56 - 112	MW-NP2682A3

After First Branch

Total Indoor Unit HP	Model
<12	MW-NP282A3
12 - 17.99	MW-NP452A3
18 - 25.99	MW-NP692A3
26 - 55.99	MW-NP902A3
≥56	MW-NP2682A3

< Header Branch >

Total Indoor Unit HP	No. of Header Branches	Model
~ 8	4	MH-NP224A
~ 10	8	MH-NP288A

- For Heat Recovery (3 pipes)

First Branch

Outdoor Unit HP	Model
8, 10	MW-NP282X3
12 16	MW NP452X3
18, 20	MW-NP562X3
22, 24	MW-NP692X3
26 - 54	MW-NP902X3
56 - 112	MW-NP2682X3

After First Branch

Total Indoor Unit HP	Model
< 5.99	MW-NP142X3
6 - 11.99	MW-NP282X3
12 - 17.99	MW-NP452X3
18 - 21.99	MW-NP562X3
22 - 25.99	MW-NP692X3
26 - 55.99	MW-NP902X3
≥ 56	MW-NP2682X3

< Header Branch >

Total Indoor Unit HP	No. of Header Branches	Model
~ 10	8	MH-NP288X

Various Indoor Units and Combinations

Indoor Unit Type List

Indoor Unit Type	Nominal Capacity																							
	0.4	0.6	0.7	0.8	0.9	1	1.1	1.3	1.5	1.6	1.8	2	2.3	2.5	3	3.3	3.6	4	4.5	5	6	8	10	12	16	20
1-Way Cassette				○		○			○			○		○	○											
2-Way Cassette				○		○			○			○		○	○			○		○	○					
4(R)-Way Cassette						○			○			○		○	○			○		○	○					
AC Compact Ducted				○		○		○	○		○	○	○	○												
AC Low Static Ducted				○		○		○	○		○	○	○	○	○	○		○		○	○	○	○			
AC M/H Static Ducted				○		○		○	○		○	○	○	○	○	○		○		○	○	○	○		{○}	{○}
AC Slim/Mini Ducted				○		○		○	○																	
All Fresh Air																				○		○	○	○	○	○
Convertible																									{○}	{○}
DC Low Static Ducted				○		○		○	○		○	○	○	○	○			○		○	○					
DC M/H Static Ducted				○		○			○			○		○	○			○		○	○	○	○			
DX-AHU kit												○						○			○		○			○
Floor Celling											○	○	○	○	○	○		○		○	○					
Floor Concealed						○			○			○		○												
Floor Exposed						○			○			○		○												
Mini 4-Way Cassette		○		○		○			○			○		○												
Wall Mounted		○		○		○		○	○		○	○	○	○	○			○								

○: Available, { }: India only

The number of connectable indoor units is as follows. Comply with these conditions during installation.

- HNCCLW, HNCCLI, RNCCLW, RNCCRW

Outdoor Unit Capacity (HP)	8	10	12	14	16	18	20	22	24	26	28, 30	32 to 36	38 to 54	56	58 or more
Min. Capacity at Individual Operation	1.6kW (0.6HP)														
Max. Number of Connectable IDU	20	25	30	36	40	45	50	55	60	64					
Recommended Number of Connectable IDUs	8	10		16			18	20	26		32		38		
Range of Combination Capacity (%)	50 to 200													50 to 180*1	50 to 150
Total Length between Each IDU and Expansion Valve Kit (m)	40		60	70	80		120			150		180	200		

*1. For ANZ, the range of combination capacity is 50 to 150.

- HNCBLW, JNCBLI, RNCBLW

Outdoor Unit Capacity (HP)	8	10	12	14	16	18	20	22	24	26	28, 30	32 to 36	38 to 54	56 or more
Min. Capacity at Individual Operation	1.6kW (0.6HP)													
Max. Number of Connectable IDU	20	25	30	36	40	45	50	55	60	64				
Recommended Number of Connectable IDUs	8	10		16			18	20	26		32		38	
Range of Combination Capacity (%)	50 to 200													50 to 150
Total Length between Each IDU and Expansion Valve Kit (m)	40		60	70	80		120			150		180	200	

See next page for NOTES.

NOTES:

- The connectable indoor unit capacity ratio can be calculated as follows.
  Connectable Indoor Unit Capacity Ratio = Total Indoor Unit Capacity / Total Outdoor Unit Capacity
- For the system under which all the indoor units are supposed to operate simultaneously, the total indoor unit capacity should be less than outdoor unit capacity. Otherwise, it may cause a decrease of operating performance and operating limit in overload operation.
- For the system under which all the indoor units are not supposed to operate simultaneously, the total indoor unit capacity is available up to 130%, 150%, 180% or 200% depending on the indoor unit type and capacity.
- Maximum number of connectable indoor units differs depending on the model, capacity, environment and installation place of connected indoor units. Refer to "Technical Catalog" for the selection.
- When operating the outdoor unit in cold areas with temperatures of -10°C, or under the high heating load conditions, it is recommended that the total indoor unit capacity is less than 100% against the outdoor unit capacity and the total piping length is less than 300m.
- The air flow volume for indoor units of 0.6 to 1.3HP is set higher than that for indoor units of 1.5HP or more. Make sure to select appropriate indoor units when installing indoor units where cold draft may occur during heating operation. If installing indoor units in such places, refer to the recommended number of connectable indoor units.
- Total Length between Each I.U. and Expansion Valve Kit : This is the summation of the piping length between each wall mounted type without expansion valve and expansion valve kit in the refrigerant system.

  < RESTRICTIONS >

  a. Following indoor units can be allowed to exceed 130% ratio.
     4-way, 2-way, 1-way cassettes, mini-cassettes, wall built-in, ducted, ceiling suspended, wall mounted, floor standing
  b. When connection ratio is over 130%, the FrostWash function cannot be used.
  c. When connection ratio is over 130%, the indoor air flow volume restriction setting (dip switch (DSW5-4: ON) or installation setting "iF" = 1) is required. When the capacity for the indoor unit under cooling or heating thermo-ON operation is over 130%, the air flow volume of all the indoor units may be changed to "Low" in order to prevent drafts and protect the system. In this case, the actual air flow volume may differ from the setting made by the users.
     Note that the function for increasing or decreasing the indoor unit fan speed may be limited.
  d. When a 0.6HP indoor unit is connected, the maximum ratio is 150%.

The load capacity per hour or the possibility of all indoor units simultaneous operation is unknown at the design stage, the total capacity of combined indoor units should be not over 100% against the outdoor unit capacity.

High Efficiency and Energy Saving

· SEA (High Efficiency)

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080HNCBLW	RAS-100HNCBLW	RAS-120HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	5.60	5.15	4.89	4.76	4.62	4.72
	Heating COP	5.31	5.18	5.10	4.84	4.23	5.05
	Cooling and Heating Average	5.46	5.17	5.00	4.80	4.43	4.89
	IEER (for SGP)	6.15	5.85	5.44	5.43	5.52	5.43

Horsepower		20	22
Outdoor Unit Model		RAS-200HNCBLW	RAS-220HNCBLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	4.60	4.46
	Heating COP	4.98	4.51
	Cooling and Heating Average	4.79	4.49
	IEER (for SGP)	5.18	5.15

· MEA (High Ambient)

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080JNCBLI	RAS-100JNCBLI	RAS-120JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI
Energy Efficiency (Single Outdoor Unit)	Cooling EER T1	5.02	4.80	4.59	4.42	4.29	4.41
	Cooling EER T3	3.58	3.66	3.35	3.49	3.38	3.45
	CSPF	21.25	21.46	21.04	20.90	19.38	19.17
	Heating COP	5.35	4.87	4.63	4.35	3.88	4.56
	Cooling and Heating Average	5.19	4.84	4.61	4.39	4.09	4.49

Horsepower		20	22
Outdoor Unit Model		RAS-200JNCBLI	RAS-220JNCBLI
Energy Efficiency (Single Outdoor Unit)	Cooling EER T1	4.30	4.10
	Cooling EER T3	3.31	3.23
	CSPF	18.12	17.59
	Heating COP	4.50	4.06
	Cooling and Heating Average	4.40	4.08

· SEA (Standard), MEA (Standard) (HP), NEU

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	5.50	4.89	4.65	4.68	4.54	4.30
	Heating COP	5.21	5.10	4.80	4.54	4.13	4.29
	Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34	4.30

Horsepower		20	22	24	26	28
Outdoor Unit Model		RAS-200HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	4.50	4.44	4.14	3.90	3.73
	Heating COP	4.88	4.41	3.89	3.36	2.92
	Cooling and Heating Average	4.69	4.43	4.02	3.63	3.33

· IN/SA

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080HNCCLI	RAS-100HNCCLI	RAS-120HNCCLI	RAS-140HNCCLI	RAS-160HNCCLI	RAS-180HNCCLI
Energy Efficiency (Single Outdoor Unit)	Cooling EER	5.50	4.89	4.65	4.68	4.54	4.30
	Heating COP	5.21	5.10	4.80	4.54	4.13	4.29
	Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34	4.30

Horsepower		20	22	24	26	28
Outdoor Unit Model		RAS-200HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI
Energy Efficiency (Single Outdoor Unit)	Cooling EER	4.50	4.44	4.14	3.90	3.73
	Heating COP	4.88	4.41	3.89	3.36	2.92
	Cooling and Heating Average	4.69	4.43	4.02	3.63	3.33

· **MEA (Standard) (HR)**

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080RNCCLW	RAS-100RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	5.50	4.89	4.65	4.68	4.54	4.30
	Heating COP	5.21	5.10	4.80	4.54	4.13	4.29
	Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34	4.30

Horsepower		20	22	24	26	28
Outdoor Unit Model		RAS-200RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW)	RAS-260RNCCLW	RAS-280RNCCLW
Energy Efficiency (Single Outdoor Unit)	Cooling EER	4.50	4.44	4.14	3.90	3.73
	Heating COP	4.88	4.41	3.89	3.36	2.92
	Cooling and Heating Average	4.69	4.43	4.02	3.63	3.33

· **ANZ (High Efficiency)**

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080RNCBLW	RAS-100RNCBLW	RAS-120RNCBLW	RAS-140RNCBLW	RAS-160RNCBLW	RAS-180RNCBLW
Energy Efficiency (Including Indoor Unit)	Cooling EER	4.98	4.58	4.50	4.37	4.24	4.32
	Cooling AEER	4.63	4.32	4.22	3.95	3.88	3.99
	Heating COP	4.75	4.61	4.58	4.34	3.82	4.49
	Heating ACOP	4.43	4.32	4.31	4.01	3.65	4.17
	Cooling and Heating Average	4.87	4.60	4.54	4.36	4.03	4.41

Horsepower		20
Outdoor Unit Model		RAS-200RNCBLW
Energy Efficiency (Including Indoor Unit)	Cooling EER	4.21
	Cooling AEER	3.94
	Heating COP	4.45
	Heating ACOP	4.15
	Cooling and Heating Average	4.33

· **ANZ (Standard)**

Horsepower		8	10	12	14	16	18
Outdoor Unit Model		RAS-080RNCCLW	RAS-100RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW
Energy Efficiency (Including Indoor Unit)	Cooling EER	4.94	4.26	4.00	3.97	3.69	3.83
	Cooling AEER	4.53	3.97	3.80	3.75	3.54	3.65
	Heating COP	4.70	4.56	4.26	4.25	3.75	3.73
	Heating ACOP	4.33	4.27	4.02	3.91	3.55	3.62
	Cooling and Heating Average	4.82	4.41	4.13	4.11	3.72	3.78

Horsepower		20	22	24
Outdoor Unit Model		RAS-200RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW
Energy Efficiency (Including Indoor Unit)	Cooling EER	4.17	3.90	3.56
	Cooling AEER	3.89	3.68	3.40
	Heating COP	4.39	3.61	3.30
	Heating ACOP	4.05	3.44	3.18
	Cooling and Heating Average	4.28	3.76	3.43

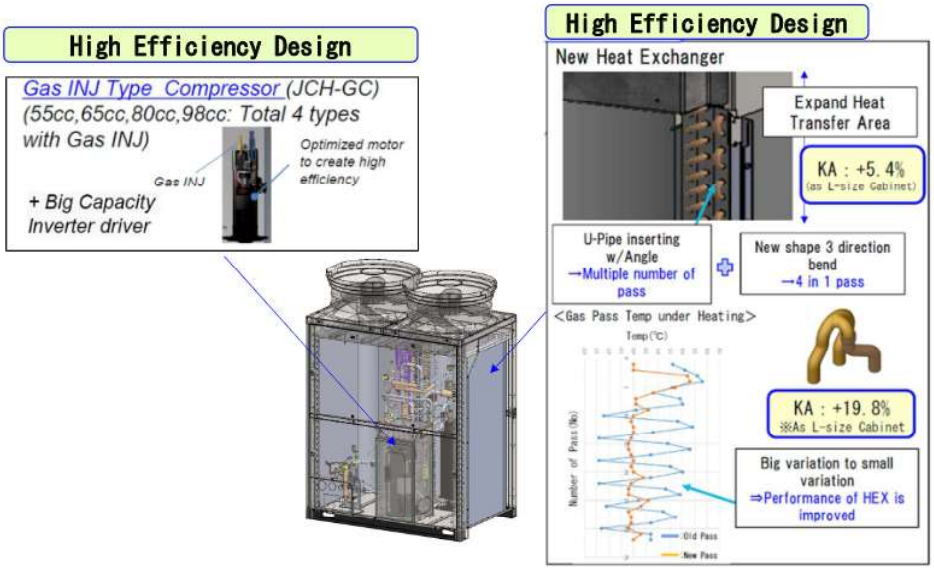
· **LA (Standard)**

Horsepower		8HP	10HP	12HP	14HP	16HP	18HP
Outdoor Unit Model		RAS-080RNCC(L/R)W	RAS-100RNCC(L/R)W	RAS-120RNCC(L/R)W	RAS-140RNCC(L/R)W	RAS-160RNCC(L/R)W	RAS-180RNCC(L/R)W
Energy Efficiency (Single Outdoor Unit)	Cooling EER	5.60	4.89	4.65	4.68	4.54	4.30
	Heating COP	5.85	5.10	4.80	4.54	4.35	4.53
	Cooling and Heating Average	5.73	5.00	4.73	4.61	4.45	4.42

Horsepower		20HP	22HP	24HP	26HP	28HP
Outdoor Unit Model		RAS-200RNCC(L/R)W	RAS-220RNCC(L/R)W	RAS-240RNCC(L/R)W	RAS-260RNCC(L/R)W	RAS-280RNCC(L/R)W
Energy Efficiency (Single Outdoor Unit)	Cooling EER	4.50	4.44	4.14	3.90	3.73
	Heating COP	4.88	4.41	3.90	3.36	2.92
	Cooling and Heating Average	4.69	4.43	4.02	3.63	3.33

New Technology

The new compressor and the new heat exchanger have improved energy efficiency and support for high ambient operation.



New Operation Control

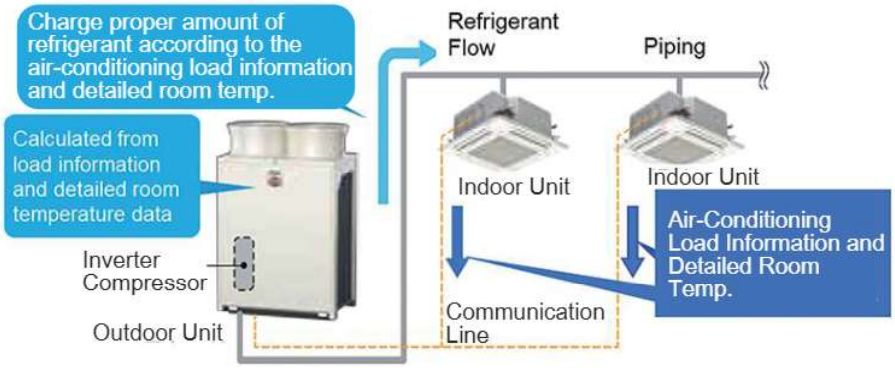
1. Addition of Smooth Drive 2.0 Control System

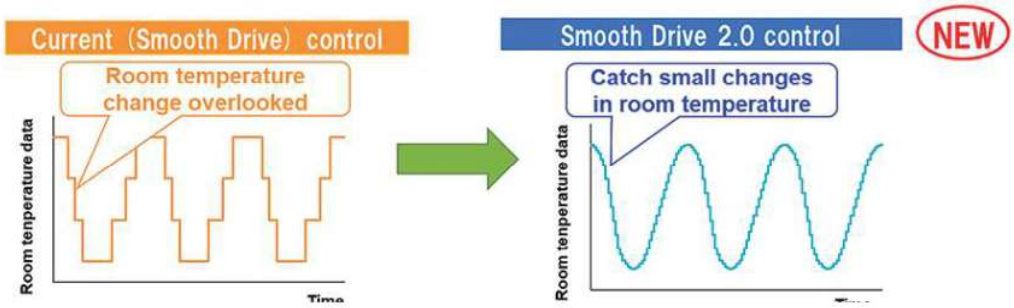
   In Smooth Drive 2.0, detailed room temperature information is added to the current Smooth Drive control, and further, smooth operation is achieved while reducing ON/OFF of the compressor during low load operation to save energy.

   NOTE:

   - For the indoor units that are compatible with Smooth Drive 2.0 control, refer to the local catalog of our products. If indoor units that are not compatible with Smooth Drive 2.0 control are connected to the same refrigerant system, or if the temperature is controlled by the thermistor of a wired controller, the current Smooth Drive control is used.

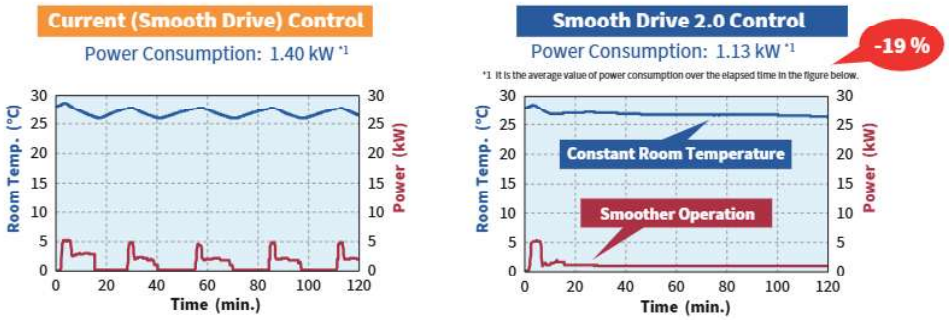
   "Smooth Drive 2.0" Control Flow





Verification example of energy saving effect of "Smooth Drive 2.0" control

Testing has proven that power consumption at a typical cooling factor of 25 % can be reduced by about 19 % compared to the current Smooth Drive Control.



[Conditions]
Add a thermal load of about 7 kW equivalent to a load factor of 25 % with the outside air temperature 22 °C DB, indoor and outdoor piping length 9 m, initial room temperature 27 °C DB/19 °C WB stabilized.
It is a measure of energy saving effect by driving. The effect will vary depending on the installation environment and usage conditions.

2. FrostWash

Generate frost on the coil with low temperature cooling, and then melt the frost to wash the coil.
Regular cleaning [*1] of the heat exchanger prevents clogging of the heat exchanger, suppresses air flow reduction, and contributes to maintaining a comfortable air environment.
For details, see the technical bulletin SG202016A.



*1. In order to use FrostWash Function, the setting is required from both of the outdoor unit and new wired controller.

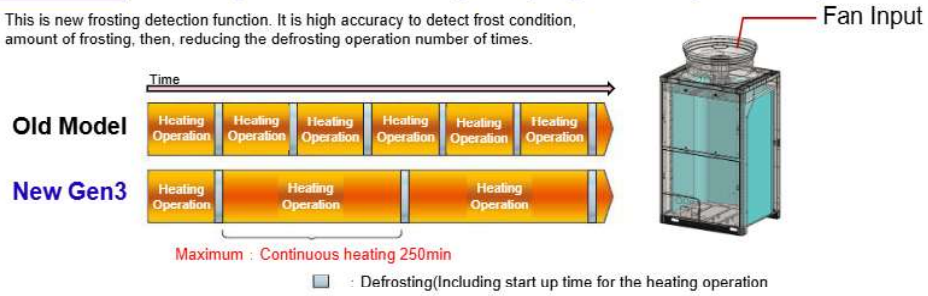
3. Seamless Comfort for End Users

Seamless heating operation in cold climates: Smart defrost operation with high accuracy detective control patents

What is frost formation amount detection function.
Frosting causes the power of the outdoor fan to increase from that when frost is not formed, thereby detecting the amount of frost formation. (Overseas patents also acquired) Only Hitachi is equipped with this standard machine.

Comfortable **Reducing number of times by using high accuracy defrosting control**

This is new frosting detection function. It is high accuracy to detect frost condition, amount of frosting, then, reducing the defrosting operation number of times.

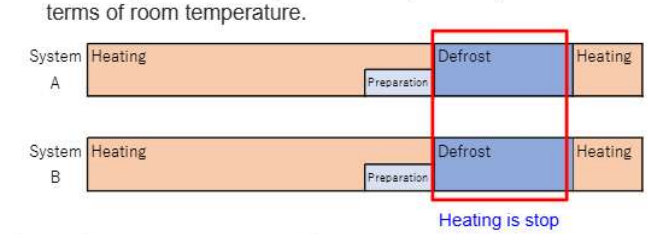


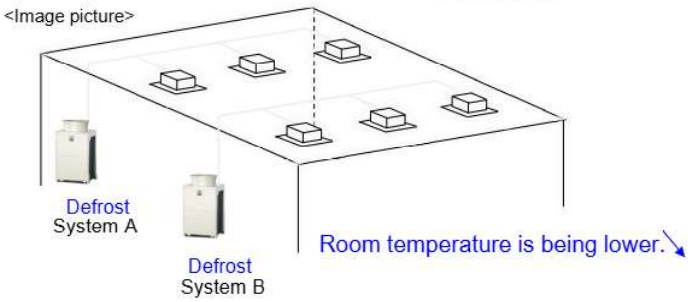
Seamless heating operation in cold climates: Smart defrost with alternative operation in one H-LINK system

When they have systems which is connected by communication cable (H-LINK Ⅱ), each system can be communicated, and if system A is defrosting, system B is kept heating operation. In that case, defrost operation timing for each system is alternately.

W/O Alternative defrosting

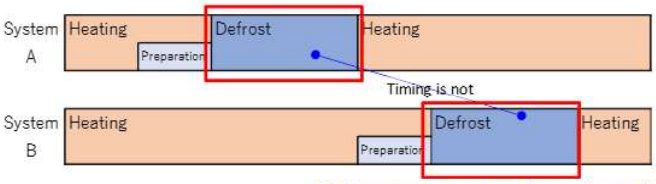
Potentially Defrost timing will be same, and easy to low in terms of room temperature.

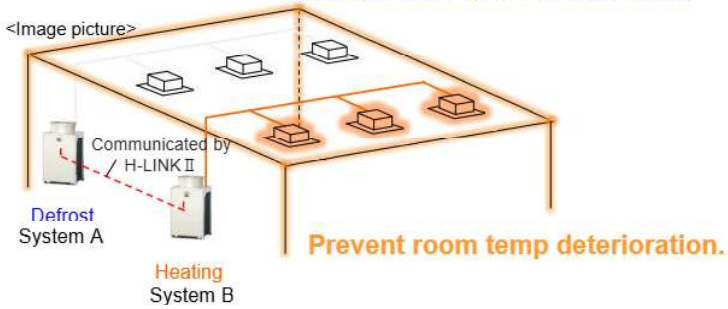




W/O Alternative defrosting

Since Defrost timing is not align each system, prevent room temperature deterioration





Equipped with NFC Functionality

Equipped with NFC functionality that supports installation, inspection and maintenance without opening the service panel. This functionality facilitates making various settings, reading information such as operation data, installation and maintenance from the application (airCloud Tap) screen.

Installation

- Refrigerant cycle and unit number setting
- Function selection setting
- External I/O setting
- Test run operation and data check

Simple Inspection and Maintenance

- Simple operation data check
- Connection information check
- Failure cause check
- Pre-failure data check
- Alarm history check



NOTES:

- airCloud Tap supports iPhone *1 (Model: iPhone7 or later / OS: iOS13 or later) and Android *2.
- The available functions vary by user role selected. There are restrictions on the functions, so please see airCloud Tap manuals.

*1. Apple and iPhone are trademarks of Apple Inc., registered in the United States and other countries and regions. iOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

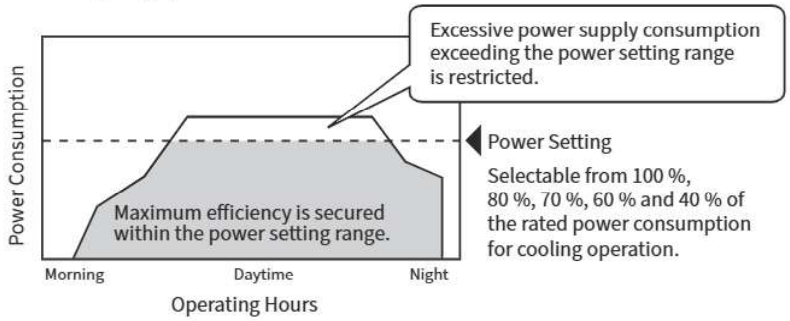
*2. Android is a trademark or registered trademark of Google LLC.

Improvement of Energy-Saving by Schedule Setting of "Self-Demand Function" from Central Station Mini, EX, DX and NT

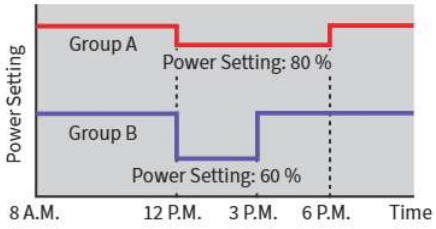
"Self-Demand Function"*1 can be set per outdoor unit from Central Station Mini (PSC-A32MN), DX (PSC-A128WX2 + PSC-AS2048WXB2) and NT (PSC-A128WEB3).
For small and medium buildings, it facilitates the power saving.
The energy-saving operation can be adjusted according to an operating environment and individual needs.

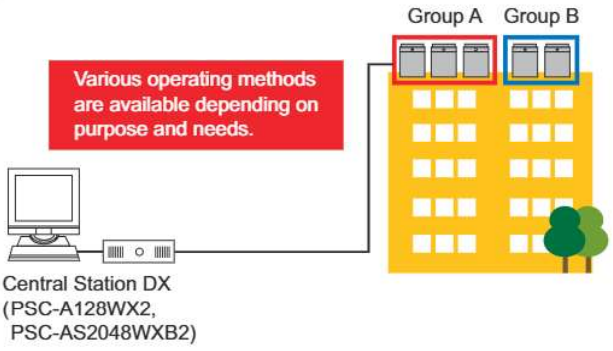
*1. It saves the capacity to prevent from exceeding the demand current control according to the electric power information which the air conditioner detects.

1. Self-Demand Function (Image)



2. Setting e.g. Schedule Setting for Each Group by Central Station DX





The specific outdoor unit and the period of time can be set from Central Station DX.

NOTES:

- The demand current control (%) is indicated by approximate values. The value in this control which is calculated by the current is different precision from the value in the wattmeter.
- If it is required that the maximum power consumption is managed precisely, a field-supplied demand controller should be used.
- The range may temporarily be higher than the power setting range (%) depending on the operating control condition such as protection control.
- When the above self-demand control is set, the performance is restricted because the rotation frequency of compressor is forcibly decreased.

3. High Static Mode

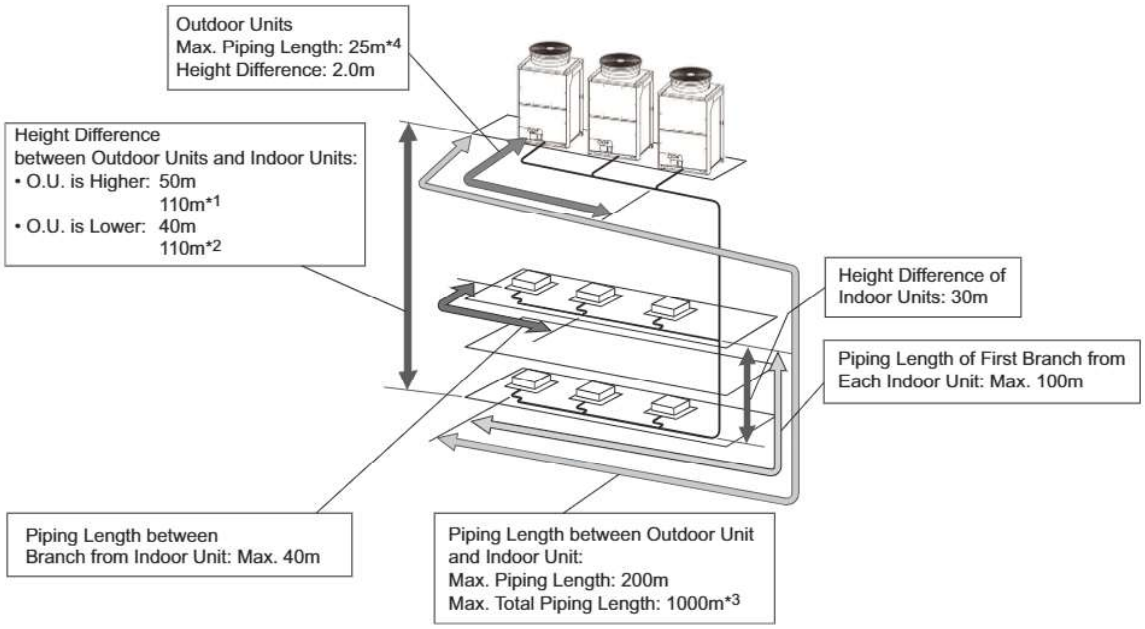
For installation spaces such as balcony or a floor where and external static pressure such as a louver or a duct is required to secure, the 2 step static pressure can be selected (30 Pa or 60 Pa) by the dip switch setting (DSW8).

NOTE:

- Pay attention to the design of the outdoor unit(s) installation. If the outlet air intakes by short-circuit, the operation range is limited due to increasing high pressure in the cooling operation or decreasing low pressure in the heating operation so that may cause failure of unit.

Flexibility of Facility Design

< Heat Pump >



NOTES:

*1. The maximum piping length of 110m is available on request. The following restrictions apply when the height difference between the outdoor units and the indoor units (the outdoor unit is higher) are 50m or more.
- The maximum outdoor temperature during cooling operation is 43°C.
- The height difference between the outdoor units and the indoor units must be 50m or less when the outdoor units are operated at an outside temperature of -10°C or less.
- The connectable indoor unit capacity ratio is ≤ 100%.
- To protect the system, the thermo OFF may be activated to turn the system off when the outside temperature is 38°C or more.
- Performance priority mode is disabled.

*2. The maximum piping length of 110m is available on request. The following restrictions apply when the height difference between the outdoor units and the indoor units (the outdoor unit is lower) are 40m or more.
- The maximum outdoor temperature during cooling operation is 43°C.
- The minimum outdoor temperature during cooling operation is 10°C.
- The connectable indoor unit capacity ratio is ≤ 130%.

*3. Allowable total piping length may become shorter than 1000m due to the limitation of maximum additional refrigerant amount.

*4. The piping length between outdoor units should be La ≤ Lb ≤ Lc ≤ Ld ≤ 25m , Lb - La ≤ 10m, Lc - La ≤ 10m, Ld - La ≤ 10m.
(If the piping length is incorrect, it may cause failure of outdoor unit due to flowing back of the refrigerant.)

Piping Branch Restrictions

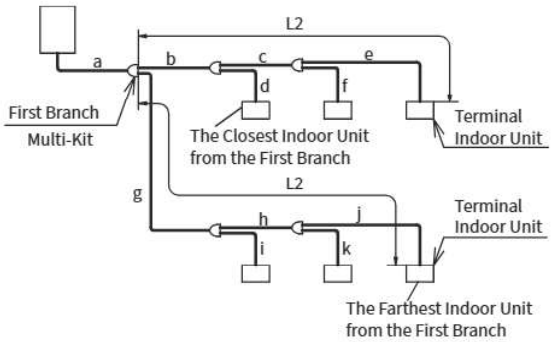
In the case that the piping length L2 from the Multi-Kit at the first branch to the farthest indoor unit is over 40m.

(Example 1): Installation with Main Piping Branch

1. In the case that the piping length L2 is over 40m, the size of gas and liquid pipes (b, c) or (g, h) should be increased by one size *1.
   *1. When L2 longer than 40m and L2 shorter than 40m are in the same system, the size of pipes for L2 longer than 40m only should be increased by one size.

- Restrictions on increasing the pipe size
  When the pipe size is (a) < (b, g) by increasing the pipe size, select the pipe according to the following.
  - When the maximum piping length L1 is less than 100m.
    (i) Increase the size of (a) by one size so that (a) = (b, g).
    (ii) If the pipe size is still (a) < (b, g) by increasing the size of (a) by one size, do not increase the size of the pipes (b, g), but increase the size of (a) so that (a) = (b, g).
    Similarly, if the pipe size is still (a) < (c, h) by increasing the pipe size of (a) by one size, do not increase the size of the pipes (c, h), but increase the size of (a) so that (a) = (c, h).
  - When the maximum piping length L1 is over 100m.
    (a) is the maximum piping length: The pipe size is increased by one size because L1 is over 100m. Follow (ii) above.

2. The difference between the piping length from the first branch to the farthest indoor unit and the piping length from the first branch to the closest indoor unit must be within 60m.
   (g+h+j)-(b+d)≤ 60m

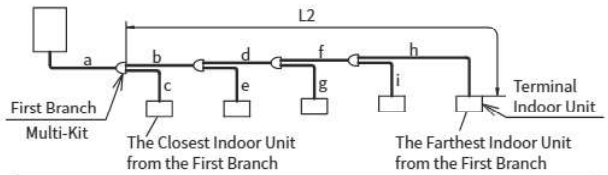


(Example 2): Installation without Main Piping Branch

1. In the case that the piping length L2 is over 40m, the size of gas and liquid pipes (b, d, f) should be increased by one size.

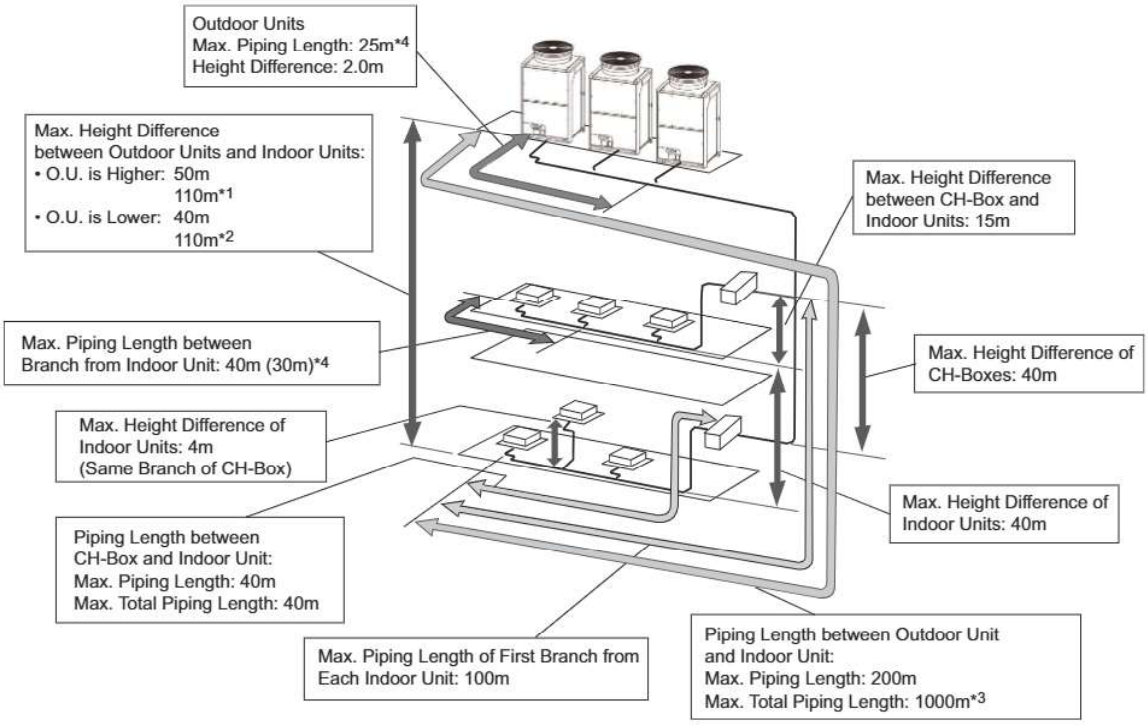
- Restrictions on increasing the pipe size
  When the piping size is (a) < (b) by increasing the pipe size, select the pipe according to the following.
  - When the maximum piping length L1 is less than 100m.
    (i) Increase the size of (a) by one size so that (a) = (b).
    (ii) If the pipe size is still (a) < (b) by increasing the size of (a) by one size, do not increase the size of the pipe (b), but increase the size of (a) so that (a) = (b).
    Similarly, if the pipe size is still (a) < (d, f) by increasing the pipe size of (a) by one size, do not increase the size of the pipes (d, f) but increase the size of (a) so that (a) = (d, f).
  - When the maximum piping length L1 is over 100m.
    (a) is the maximum piping length: The pipe size is increased by one size because L1 is over 100m. Follow (ii) above.

2. The difference between the piping length from the first branch to the farthest indoor unit and the piping length from the first branch to the closest indoor unit must be within 60m.
   (b+d+f+h) - (c) ≤ 60m



Main Piping Branch: Both of the pipes branched from a Multi-Kit are connected to the next Multi-Kits.

< Heat Recovery >



NOTES:

*1. The maximum piping length of 110m is available on request. The following restrictions apply when the height difference between the outdoor units and the indoor units (the outdoor unit is higher) are 50m or more.

- The maximum outdoor temperature during cooling operation is 43°C.
- The height difference between the outdoor units and the indoor units must be 50m or less when the outdoor units are operated at an outside temperature of -10°C or less.
- The connectable indoor unit capacity ratio is ≤ 100%.
- To protect the system, the thermo OFF may be activated to turn the system off when the outside temperature is 38°C or more.
- Performance priority mode is disabled.

*2. The maximum piping length of 110m is available on request. The following restrictions apply when the height difference between the outdoor units and the indoor units (the outdoor unit is lower) are 40m or more.

- The maximum outdoor temperature during cooling operation is 43°C.
- The minimum outdoor temperature during cooling operation is 10°C.
- The connectable indoor unit capacity ratio is ≤ 130%.

*3. Allowable total piping length may become shorter than 1000m due to the limitation of maximum additional refrigerant amount.

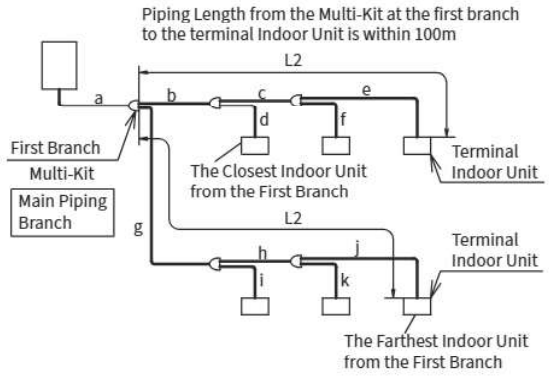
*4. The piping length between outdoor units should be La ≤ Lb ≤ Lc ≤ Ld ≤ 25m, Lb - La ≤ 10m, Lc - La ≤ 10m, Ld - La ≤ 10m.
(If the piping length is incorrect, it may cause failure of outdoor unit due to flowing back of the refrigerant.)

Piping Branch Restrictions (Heat Recovery)

In the case that the piping length L2 from the Multi-Kit at the first branch to the farthest indoor unit is over 40m.

(Example 1): Installation with Main Piping Branch

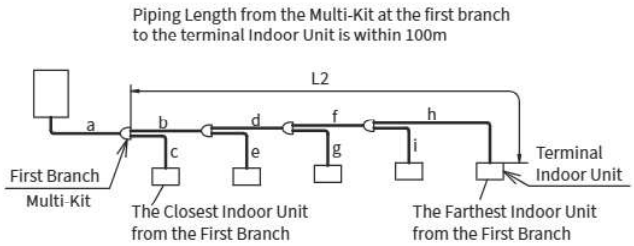
The difference between the piping length from the first branch to the farthest indoor unit and the piping length from the first branch to the closest indoor unit must be within 60m.
(g+h+j)-(b+d)≤ 60m



Main Piping Branch: Both of the pipes branched from a Multi-Kit are connected to the next Multi-Kits.

(Example 2): Installation without Main Piping Branch

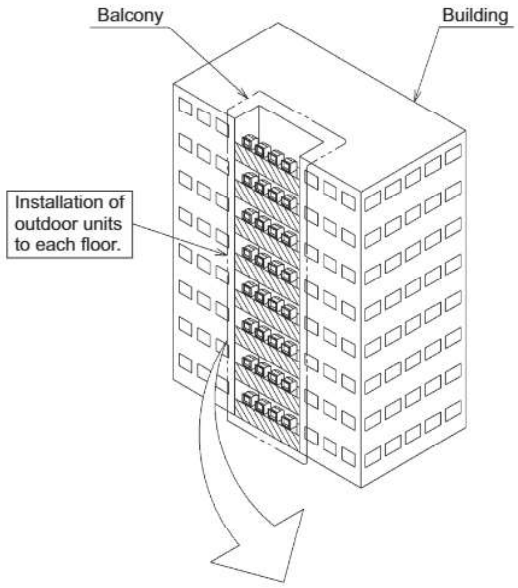
The difference between the piping length from the first branch to the farthest indoor unit and the piping length from the first branch to the closest indoor unit must be within 60m.
(b+d+f+h) - (c) ≤ 60m



■ Installation Flexibility for Expand External Static Pressure

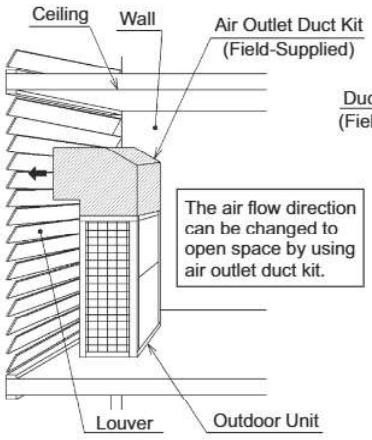
For installation spaces such as a balcony or a floor where an external static pressure such as a louver or a duct is required to secure, the 3 steps external static pressure (80Pa, 60Pa and 30Pa) by the dip switch setting (DSW8) is newly adopted.

< Installation Example for Air Outlet Duct Kit >

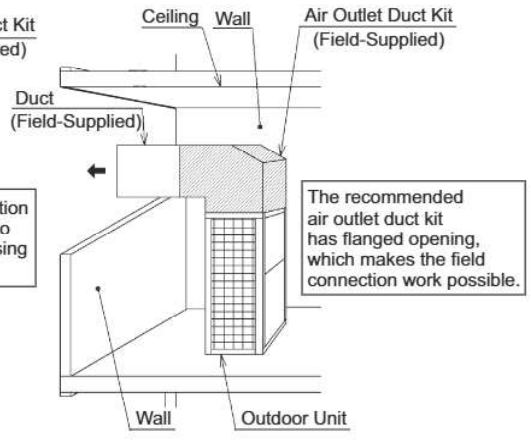


Setting for External Static Pressure	DSW8		
	#1	#2	#3
30Pa	ON	OFF	OFF
60Pa	OFF	ON	OFF
80Pa	ON	ON	OFF

< Case that Open Space is Louver >



< Case that Open Space is Wall >



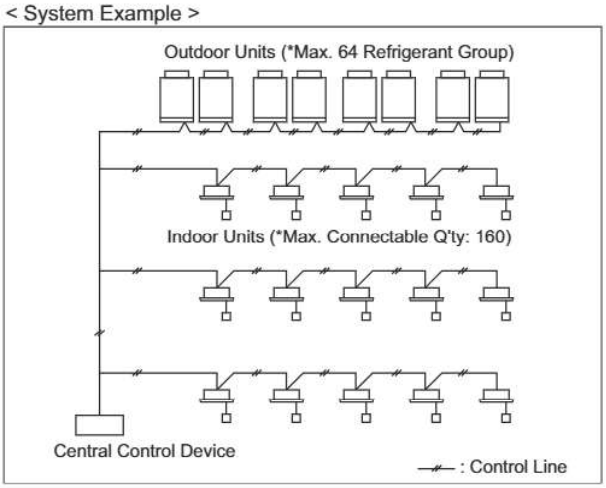
NOTE:

Pay attention to the following case at the design and the installation. If the outlet air intakes by short-circuit, the operation range is limited due to increasing high pressure in the cooling operation or decreasing low pressure in the heating operation so that may cause failure of unit.

Corresponding to H-LINK II System

This air365 Max series outdoor units corresponds to the H-LINK II transmission system.
Maximum 64 refrigerant systems and maximum 160 indoor units can be controlled by only one central control device when the equipment (central control device, indoor units, and wired controller) in the same transmission system all corresponds to H-LINK II

< System Example >



Item	H-LINK II
Number of Max. Ref. Group/System	64
Address Setting Range of Indoor Units/Ref. Group	0 to 63
Number of Max. Indoor Unit/System	160
Total Q'ty of Central Control Devices in the same H-LINK	200
Maximum Wiring Length	Total 1,000 m (5,000 m*1)

*1. In case 4 (four) units of PSC-5HR is used.

H-LINK II System

The H-LINK II wiring system requires only two transmission wires to connect each indoor unit and outdoor unit for up to 64 refrigerant cycles, and to connect wires for all indoor units and outdoor units.

Specifications

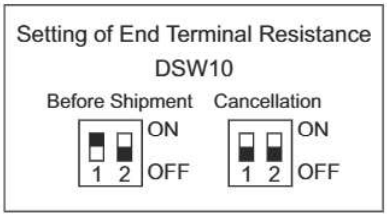
- Transmission Wire: 2-Wire
- Polarity of Transmission Wire: Non-Polar Wire
- Maximum Outdoor Units to be Connected: 64 Units per System
- Maximum Indoor Units to be Connected: 160 Units per H-LINK II System
- Maximum Wiring Length: Total 1,000 m (including CS-NET)
- Recommended Cable: Twist-Pair Cable with Shield, over 0.75 mm^2 (Equivalent to KPEV-S)
- Voltage: DC 5 V

NOTE:

- In case of applying H-LINK II system, the setting of DIP switch for outdoor unit and indoor unit is required. If the DIP switches are not set or set incorrectly, the alarm may occur due to a transmission failure.

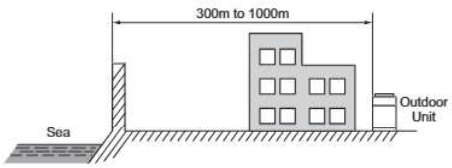
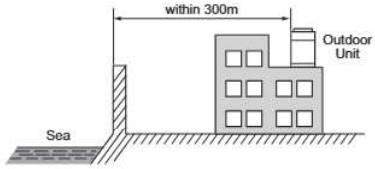
Setting of End Terminal Resistance

Before shipment, No. 1 pin of DSW10 is in the “ON” position.
In the case that the number of outdoor units in the same H-LINK is 2 or more, set No.1 pin of DSW10 at “OFF” from the 2nd unit. If only one outdoor unit is used, no setting is required.



Anti-Corrosion Type (Order Product)

Installation Place

	Anti-Corrosion Type	Heavy Anti-Corrosion Type
Installation Place	The place where a salt air does not blow onto the outdoor unit directly. (However, salt particles are contained in an ambient air.) 	The place is affected by the salt air. (However, a salt water does not spatter on the outdoor unit directly.) 
Condition of Installation Place	The place where the outdoor unit is washed by rain. The place where a salt air is not blown onto the outdoor unit directly. The place where the distance between seacoast and the outdoor unit is 300 m to 1000 m. The place where the outdoor unit is installed behind a building as shown in the figure.	The place where rain is scarce. The place where a salt air blow onto the outdoor unit directly. The place where the distance between seacoast and the outdoor unit is within 300 m. The place where the outdoor unit faces to the seacoast.

Rough Standard of Distance from Installation Place to Seacoast
(The conditions may be changed depending on the installation environments.)

Place where Salt Air Blows Directly

	Rough Standard of Distance from Installation Place		
	300m	500m	1000m
Area Faces to Landlocked Bay	Heavy Anti-Corrosion	Anti-Corrosion	—
Area Faces to Broad Ocean	Heavy Anti-Corrosion		Anti-Corrosion
Isolated Island	Heavy Anti-Corrosion		

Place where Salt Air does Not Blow Directly

	Rough Standard of Distance from Installation Place		
	300m	500m	1000m
Area Faces to Landlocked Bay	Anti-Corrosion		—
Area Faces to Broad Ocean	Heavy Anti-Corrosion		Anti-Corrosion
Isolated Island	Heavy Anti-Corrosion		Anti-Corrosion

Notice for Installation and Maintenance

The using materials and coating thickness for the anti-corrosion type and heavy anti-corrosion type are strengthened. However, it is somewhat less than perfect against corrosion. Therefore, perform the following installation plan and maintenance work to increase the effect of anti-corrosion.

1. Do not install the outdoor units in a place where salt air or mist is directly blown to the units.
   Select an installing place such as behind a building.
   When the outdoor unit is faced to the seacoast, install a windbreak board to avoid direct salt air blowing.
2. Do not cover the outdoor unit with sunshades, etc. so as not to decrease the cleaning effect by rain for the salt particles adhere to the outer covers of the outdoor unit.
3. Install the outdoor unit horizontally for smooth draining. Because remained drain water on the bottom base worsens a corrosion severely.
4. Periodically perform maintenance work by clean water to remove salt particles, etc. on the surface of the outdoor unit's outer covers.
5. Install the unit where the drainage is smooth. Especially provide the drainage around foundation smoothly.
6. Repair scratches which occurred during installation and maintenance work.
7. Periodically check outdoor unit. If needed, provide again the anti-corrosion treatment or replace it with service parts.

Notes for Maintenance

1. Perform the maintenance work sufficiently for the outdoor unit. (Coat the outer covers of the outdoor unit by the resin or wax that sheds water when applying anti-corrosive coating and every three months.)
2. If the outdoor unit has not been operated for a long period such as off-season, take countermeasures to cover the unit, etc.
3. Do not install the outdoor unit where there is a high level of oil mist, flammable gases, salty air or harmful gases such as sulphur and an acidic or alkaline environment.

SPECIFICATIONS OF STANDARD COATING TREATMENT

No	Component	Material and Specification	Specifications		
		Standard Corrosion	Standard Corrosion	Anti-Corrosion	Heavy Anti-Corrosion
1	Outer Plates	Alloy Processing Zinc Steel	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 30 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 120 μm
2	Bottom Base	Alloy Processing Zinc Steel	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 30 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 120 μm
3	Foot	Alloy Processing Zinc Steel	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 30 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 120 μm
4	Separating plate	Alloy Processing Zinc Steel	-	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm
5	Electrical Box (Front Side)	Alloy Processing Zinc Steel	-	-	-
6	Electrical Box (Back Side)/ Valve base	Alloy Processing Zinc Steel	-	-	Baked with Polyester Type Resin Coating over Whole Surface Total Thickness: ≥ 60 μm
7	Motor Clamp	Alloy Processing Zinc Steel and Carbon Steel Pipe	Baked with Polyester Type Resin Coating over Whole Surface	Baked with Polyester Type Resin Coating over Whole Surface	Baked with Polyester Type Resin Coating over Whole Surface
8	Heat Exchanger Fin	Aluminum with Resin Coating Treatment	(Anti-Corrosion Film) Baked with Acrylic Type Resin Coating over Whole Surface One Side Thickness: 0.8 ~ 1.2 g/m^2 (Hydrophilic Lubricating Film) Baked with Acrylic Type Resin Coating over Whole Surface One Side Thickness: 0.2 ~ 0.3 g/m^2	(Anti-Corrosion Film) Baked with Epoxy Type Resin Coating over Whole Surface One Side Thickness: 1.05 ~ 1.35 g/m^2 (Hydrophilic Lubricating Film) Baked with Acrylic Type Resin Coating over Whole Surface One Side Thickness: 0.2 ~ 0.4 g/m^2	(Anti-Corrosion Film) Baked with Epoxy Type Resin Coating over Whole Surface One Side Thickness: 1.05 ~ 1.35 g/m^2 (Hydrophilic Lubricating Film) Baked with Acrylic Type Resin Coating over Whole Surface One Side Thickness: 0.2 ~ 0.4 g/m^2
9	Heat Exchanger Side Plate	Alloy Processing Zinc Steel	-	-	-
10	Refrigeration Piping	Copper	-	-	-
11	Motor	Aluminum Die-Casting and Polyester Resin	-	-	-
12	Air Outlet Grille	PP Resin	-	-	-
13	Fan Blade	AS-G Resin	-	-	-
14	Accumulator	Carbon Steel Pipe	Baked with Epoxy Type Resin Coating over Outer Surface Total Thickness ≥ 60 μm	Baked with Epoxy Type Resin Coating over Outer Surface Total Thickness ≥ 60 μm	Baked with Epoxy Type Resin Coating over Outer Surface Total Thickness ≥ 60 μm
15	Oil Separator	Copper	-	-	-
16	Fixing Screw for Outer Panel	Stainless Steel	-	-	-
17	PCBA		-	Coating	Coating

NOTES:

- The coating thickness of the part where a screw, hole, cut end or corner laps on a steel plate, which is not directly exposed to the atmosphere, is thinner than the above specifications. Also, the coating thickness of a panel which is not directly exposed to outdoor rain water is thinner than the above specifications.
- In order to improve our products, the specifications are subject to change without notice.

2. General Data

2.1 Outdoor Units

- SEA (High Efficiency)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080HNCBLW	RAS-100HNCBLW	RAS-120HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)			25.0	31.5	37.5	45.0	50.0
Outer Dimensions W x D x H (mm)			950×765×1795	950×765×1795	1210×765×1795	1210×765×1795	1210×765×1795
Product Net Weight (kg)			211	211	264	300	300
Product Gross Weight (kg)			230	230	285	321	321
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	56	60	60
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		54	57	59	62	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		50	51	55	53	54
Electric Characteristics	Power Consumption (kW)	Cooling	4.00	5.44	6.85	8.41	9.73
		Heating	4.71	6.08	7.36	9.29	11.8
	Operating Current (A)	Cooling	7.9	9.7	13.3	16.6	18.7
		Heating	9.3	10.7	14.0	17.9	22.2
	MAX Input (kW)		8.91	12.1	12.9	15.9	17.8
	MAX Current (A)		16.1	19.5	22.4	28.0	30.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	5.60	5.15	4.89	4.76	4.62
		Heating COP	5.31	5.18	5.10	4.84	4.23
		Cooling and Heating Average	5.46	5.17	5.00	4.80	4.43
		IEER (for SGP)	6.15	5.85	5.44	5.43	5.52
Compressor	Motor Output (kW)		4.00	5.22	6.24	3.87×2	5.05×2
Fan	Rated Air Volume (m^3/min)		168	181	219	256	256
	Motor Output (kW)		0.27	0.34	0.24×2	0.35×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		8.3	8.3	9.3	10.3	10.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.9	8.4	8.4
Main Pipe Size (mm)	Heat Pump	Gas Piping	19.05	22.2	25.4	25.4	28.58
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-240HNCBLW	RAS-260HNCBLW
	Configuring Outdoor Unit		-	-	-	RAS-120HNCBLW	RAS-140HNCBLW
			-	-	-	RAS-120HNCBLW	RAS-120HNCBLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			50.4	56.0	61.5	67.0	73.5
Heating Capacity (kW)			56.0	63.0	69.0	75.0	82.5
Outer Dimensions W x D x H (mm)			1600×765×1795	1600×765×1795	1600×765×1795	2440×765×1795	2440×765×1795
Product Net Weight (kg)			341	367	367	264+264	300+264
Product Gross Weight (kg)			365	391	391	285+285	321+285
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	62	62	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	64	63	62	64
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		56	60	60	58	57
Electric Characteristics	Power Consumption (kW)	Cooling	10.7	12.2	13.8	13.7	15.3
		Heating	11.1	12.6	15.3	14.7	16.7
	Operating Current (A)	Cooling	20.3	22.6	24.9	26.6	29.9
		Heating	20.8	23.1	27.0	28.0	31.9
	MAX Input (kW)		20.4	22.3	25.5	25.8	28.6
	MAX Current (A)		35.0	37.4	41.2	44.9	50.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.72	4.60	4.46	4.89	4.82
		Heating COP	5.05	4.98	4.51	5.10	4.95
		Cooling and Heating Average	4.89	4.79	4.49	5.00	4.89
		IEER (for SGP)	5.43	5.18	5.15	5.44	5.43
Compressor	Motor Output (kW)		4.5×2	5.14×2	6.38×2	(6.24)×2	3.87×2+6.24
Fan	Rated Air Volume (m^3/min)		362	375	375	219×2	256+219
	Motor Output (kW)		0.52×2	0.58×2	0.58×2	(0.24×2)×2	0.35×2+0.24×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.1	11.1	11.1	18.6	19.6
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	8.4	8.4	13.8	15.3
Main Pipe Size (mm)	Heat Pump	Gas Piping	28.58	28.58	28.58	28.58	31.75
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280HNCBLW	RAS-300HNCBLW	RAS-320HNCBLW	RAS-340HNCBLW	RAS-360HNCBLW
	Configuring Outdoor Unit		RAS-140HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
			RAS-140HNCBLW	RAS-140HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			80.0	85.0	90.0	95.4	100.8
Heating Capacity (kW)			90.0	95.0	100.0	106.0	112.0
Outer Dimensions W x D x H (mm)			2440×765×1795	2440×765×1795	2440×765×1795	2830×765×1795	3220×765×1795
Product Net Weight (kg)			300+300	300+300	300+300	341+300	341+341
Product Gross Weight (kg)			321+321	321+321	321+321	365+321	365+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	63	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		60	60	60	60	60
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		56	57	57	58	59
Electric Characteristics	Power Consumption (kW)	Cooling	16.8	18.1	19.5	20.4	21.4
		Heating	18.6	21.1	23.6	22.9	22.2
	Operating Current (A)	Cooling	33.2	35.3	37.4	39.0	40.6
		Heating	35.8	40.1	44.4	43.0	41.6
	MAX Input (kW)		31.8	33.7	35.6	38.2	40.8
	MAX Current (A)		56.0	58.6	61.2	65.6	70.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.76	4.69	4.62	4.67	4.72
		Heating COP	4.84	4.50	4.23	4.63	5.05
		Cooling and Heating Average	4.80	4.60	4.43	4.65	4.89
		IEER (for SGP)	5.43	5.48	5.52	5.47	5.43
Compressor	Motor Output (kW)		(3.87×2)×2	5.05×2+3.87×2	(5.05×2)×2	4.5×2+5.05×2	(4.5×2)×2
Fan	Rated Air Volume (m^3/min)		256×2	256+256	256×2	362+256	362×2
	Motor Output (kW)		(0.35×2)×2	0.35×2+0.35×2	(0.35×2)×2	0.52×2+0.35×2	(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.6	20.6	20.6	21.4	22.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.10
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380HNCBLW	RAS-400HNCBLW	RAS-420HNCBLW	RAS-440HNCBLW	RAS-460HNCBLW
	Configuring Outdoor Unit		RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-160HNCBLW
			RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-160HNCBLW
			-	-	-	-	RAS-140HNCBLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			106.4	112.0	117.5	123.0	130.0
Heating Capacity (kW)			119.0	126.0	132.0	138.0	145.0
Outer Dimensions W x D x H (mm)			3220×765×1795	3220×765×1795	3220×765×1795	3220×765×1795	3670×765×1795
Product Net Weight (kg)			367+341	367+367	367+367	367+367	300+300+300
Product Gross Weight (kg)			391+365	391+391	391+391	391+391	321+321+321
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	65	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	66	67
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	63	63	63	58
Electric Characteristics	Power Consumption (kW)	Cooling	22.9	24.4	26.0	27.6	27.9
		Heating	23.7	25.3	27.9	30.6	32.9
	Operating Current (A)	Cooling	42.9	45.2	47.5	49.8	54.0
		Heating	43.9	46.2	50.1	54.0	62.3
	MAX Input (kW)		42.7	44.6	48.0	50.9	51.3
	MAX Current (A)		72.4	74.8	78.6	82.4	89.2
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.65	4.60	4.52	4.46	4.66
		Heating COP	5.02	4.98	4.72	4.61	4.41
		Cooling and Heating Average	4.84	4.79	4.62	4.49	4.54
		IEER (for SGP)	5.29	5.18	5.17	5.15	5.49
Compressor	Motor Output (kW)		5.14×2+4.5×2	(5.14×2)×2	6.38×2+5.14×2	(6.38×2)×2	(5.05×2)×2+3.87×2
Fan	Rated Air Volume (m^3/min)		375+362	375×2	375+375	375×2	256×2+256
	Motor Output (kW)		0.58×2+0.52×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2	(0.35×2)×2+0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		22.2	22.2	22.2	22.2	30.9
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.10	38.10	38.10	38.10	38.10
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480HNCBLW	RAS-500HNCBLW	RAS-520HNCBLW	RAS-540HNCBLW	RAS-560HNCBLW
	Configuring Outdoor Unit		RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW
			RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
			RAS-160HNCBLW	RAS-160HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			135.0	140.4	145.8	151.2	156.8
Heating Capacity (kW)			150.0	156.0	162.0	168.0	175.0
Outer Dimensions W x D x H (mm)			3670×765×1795	4060×765×1795	4450×765×1795	4840×765×1795	4840×765×1795
Product Net Weight (kg)			300+300+300	341+300+300	341+341+300	341+341+341	367+341+341
Product Gross Weight (kg)			321+321+321	365+321+321	365+365+321	365+365+365	391+365+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	66	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		59	60	60	61	63
Electric Characteristics	Power Consumption (kW)	Cooling	29.2	30.1	31.1	32.0	33.5
		Heating	35.4	34.7	34.0	33.2	34.8
	Operating Current (A)	Cooling	56.1	57.7	59.3	60.9	63.2
		Heating	66.6	65.2	63.8	62.4	64.7
	MAX Input (kW)		53.5	56.0	58.6	61.1	63.3
	MAX Current (A)		91.8	96.2	100.6	105.0	107.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.62	4.66	4.69	4.72	4.68
		Heating COP	4.23	4.50	4.77	5.05	5.03
		Cooling and Heating Average	4.43	4.58	4.73	4.89	4.86
		IEER (for SGP)	5.52	5.48	5.45	5.43	5.34
Compressor	Motor Output (kW)		(5.05×2)×3	4.5×2+(5.05×2)×2	(4.5×2)×2+5.05×2	(4.5×2)×3	5.14×2+(4.5×2)×2
Fan	Rated Air Volume (m^3/min)		266×3	362+266×2	362×2+266	362×3	376+362×2
	Motor Output (kW)		(0.35×2)×3	0.52×2+(0.35×2)×2	(0.52×2)×2+0.35×2	(0.52×2)×3	0.58×2+(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		30.9	31.7	32.5	33.3	33.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.10	38.10	38.10	38.10	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580HNCBLW	RAS-600HNCBLW	RAS-620HNCBLW	RAS-640HNCBLW	RAS-660HNCBLW
	Configuring Outdoor Unit		RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
			RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
			RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			162.4	168.0	173.5	179.0	184.5
Heating Capacity (kW)			182.0	189.0	195.0	201.0	207.0
Outer Dimensions W x D x H (mm)			4840×765×1795	4840×765×1795	4840×765×1795	4840×765×1795	4840×765×1795
Product Net Weight (kg)			367+367+341	367+367+367	367+367+367	367+367+367	367+367+367
Product Gross Weight (kg)			391+391+365	391+391+391	391+391+391	391+391+391	391+391+391
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		66	67	67	67	67
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	69	68	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Electric Characteristics	Power Consumption (kW)	Cooling	35.0	36.5	38.2	39.8	41.4
		Heating	36.4	37.9	40.6	43.2	45.9
	Operating Current (A)	Cooling	65.5	67.8	70.1	72.4	74.7
		Heating	67.0	69.3	73.2	77.1	81.0
	MAX Input (kW)		64.7	66.9	70.0	73.2	76.4
	MAX Current (A)		109.8	112.2	116.0	119.8	123.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.63	4.60	4.55	4.50	4.46
		Heating COP	5.01	4.98	4.81	4.66	4.61
		Cooling and Heating Average	4.82	4.79	4.68	4.58	4.49
		IEER (for SGP)	5.25	5.18	5.17	5.16	5.15
Compressor	Motor Output (kW)		(5.14×2)×2+4.5×2	(5.14×2)×3	6.38×2+(5.14×2)×2	(6.38×2)×2+5.14×2	(6.38×2)×3
Fan	Rated Air Volume (m^3/min)		376×2+362	376×3	376+376×2	376×2+376	376×3
	Motor Output (kW)		(0.58×2)×2+0.52×2	(0.58×2)×3	0.58×2+(0.58×2)×2	(0.58×2)×2+0.58×2	(0.58×2)×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		33.3	33.3	33.3	33.3	33.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			68	70	72	74	76
Outdoor Unit Model			RAS-680HNCBLW	RAS-700HNCBLW	RAS-720HNCBLW	RAS-740HNCBLW	RAS-760HNCBLW
	Configuring Outdoor Unit		RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW
			RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-200HNCBLW
			RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
			RAS-140HNCBLW	RAS-160HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW	RAS-180HNCBLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			191.2	196.2	201.6	207.2	212.8
Heating Capacity (kW)			213.0	218.0	224.0	231.0	238.0
Outer Dimensions W x D x H (mm)			6070×765×1795	6070×765×1795	6460×765×1795	6460×765×1795	6460×765×1795
Product Net Weight (kg)			341+341+341+300	341+341+341+300	341+341+341+341	367+341+341+341	367+367+341+341
Product Gross Weight (kg)			365+365+365+321	365+365+365+321	365+365+365+365	391+365+365+365	391+391+365+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	62	62	63	64
Electric Characteristics	Power Consumption (kW)	Cooling	40.5	41.8	42.7	44.2	45.7
		Heating	42.5	45.1	44.3	45.9	47.4
	Operating Current (A)	Cooling	77.5	79.6	81.2	83.5	85.8
		Heating	80.3	84.6	83.2	85.5	87.8
	MAX Input (kW)		76.5	79.0	81.5	83.9	85.4
	MAX Current (A)		133.0	135.6	140.0	142.4	144.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.73	4.70	4.72	4.69	4.65
		Heating COP	5.01	4.84	5.05	5.03	5.02
		Cooling and Heating Average	4.87	4.77	4.89	4.86	4.84
		IEER (for SGP)	5.43	5.45	5.43	5.36	5.29
Compressor	Motor Output (kW)		(4.5×2)×3+3.87×2	(4.5×2)×3+5.05×2	(4.5×2)×4	5.14×2+(4.5×2)×3	(5.14×2)×2 +(4.5×2)×2
Fan	Rated Air Volume (m^3/min)		362×3+256	362×3+256	362×4	375+362×3	375×2+362×2
	Motor Output (kW)		(0.52×2)×3+0.35×2	(0.52×2)×3+0.35×2	(0.52×2)×4	0.58×2+(0.52×2)×3	(0.58×2)×2 +(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		43.6	43.6	44.4	44.4	44.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			78	80	82	84	86
Outdoor Unit Model			RAS-780HNCBLW	RAS-800HNCBLW	RAS-820HNCBLW	RAS-840HNCBLW	RAS-860HNCBLW
	Configuring Outdoor Unit		RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
			RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW	RAS-220HNCBLW
			RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-220HNCBLW
			RAS-180HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW	RAS-200HNCBLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			218.4	224.0	229.5	235.0	240.5
Heating Capacity (kW)			245.0	252.0	258.0	264.0	270.0
Outer Dimensions W x D x H (mm)			6460×765×1795	6460×765×1795	6460×765×1795	6460×765×1795	6460×765×1795
Product Net Weight (kg)			367+367+367+341	367+367+367+367	367+367+367+367	367+367+367+367	367+367+367+367
Product Gross Weight (kg)			391+391+391+365	391+391+391+391	391+391+391+391	391+391+391+391	391+391+391+391
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	68	68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	70	70	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		65	66	66	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	47.2	48.7	50.3	51.9	53.6
		Heating	49.0	50.6	53.2	55.9	58.5
	Operating Current (A)	Cooling	88.1	90.4	92.7	95.0	97.3
		Heating	90.1	92.4	96.3	100.2	104.1
	MAX Input (kW)		87.8	89.3	92.6	96.1	98.4
	MAX Current (A)		147.2	149.0	153.4	157.2	161.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.63	4.60	4.56	4.52	4.49
		Heating COP	5.00	4.98	4.85	4.72	4.61
		Cooling and Heating Average	4.82	4.79	4.71	4.62	4.55
		IEER (for SGP)	5.24	5.18	5.17	5.17	5.16
Compressor	Motor Output (kW)		(5.14×2)×3+4.5×2	(5.14×2)×4	6.38×2+(5.14×2)×3	(6.38×2)×2 +(5.14×2)×2	(6.38×2)×3+5.14×2
Fan	Rated Air Volume (m^3/min)		375×3+362	375×4	375+375×3	375×2+375×2	375×3+375
	Motor Output (kW)		(0.58×2)×3+0.52×2	(0.58×2)×4	0.58×2+(0.58×2)×3	(0.58×2)×2 +(0.58×2)×2	(0.58×2)×3+0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		44.4	44.4	44.4	44.4	44.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			88
Outdoor Unit Model			RAS-880HNCBLW
	Configuring Outdoor Unit		RAS-220HNCBLW
			RAS-220HNCBLW
			RAS-220HNCBLW
			RAS-220HNCBLW
Power Source Specifications			3N~ 380-415V 50Hz
Cooling Capacity (kW)			246.0
Heating Capacity (kW)			276.0
Outer Dimensions W x D x H (mm)			6460×765×1795
Product Net Weight (kg)			367+367+367+367
Product Gross Weight (kg)			391+391+391+391
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66
Electric Characteristics	Power Consumption (kW)	Cooling	55.2
		Heating	61.2
	Operating Current (A)	Cooling	99.6
		Heating	108.0
	MAX Input (kW)		101.9
	MAX Current (A)		164.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.46
		Heating COP	4.51
		Cooling and Heating Average	4.49
		IEER (for SGP)	5.15
Compressor	Motor Output (kW)		(6.38×2)×4
Fan	Rated Air Volume (m^3/min)		375×4
	Motor Output (kW)		(0.58×2)×4
Refrigerant	Type		R410A
	Initial Charge Amount (kg)		44.4
Refrigerant Oil	Type		FVC68D
	Charge Amount (L)		33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8
		Liquid Piping	22.2

- MEA (High Ambient)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080JNCBLI	RAS-100JNCBLI	RAS-120JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35˚C)			76,000	96,000	114,000	136,000	152,000
Cooling Capacity (Btu/h)T3(46˚C)			76,000	87,000	102,000	119,000	136,000
Heating Capacity (Btu/h)			85,000	107,000	128,000	154,000	162,000
Cooling Capacity (kW)T1(35˚C)			22.4	28.0	33.5	40.0	45.0
Cooling Capacity (kW)T3(46˚C)			22.4	25.6	30.0	35.0	40.4
Heating Capacity (kW)			25.0	31.5	37.5	45.0	47.5
Outer Dimensions W x D x H (mm)			975×775×1805	975×775×1805	1235×775×1805	1235×775×1805	1235×775×1805
Product Net Weight (kg)			229	229	281	317	317
Product Gross Weight (kg)			248	248	302	338	338
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	56	60	60
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		55	57	59	61	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		50	53	55	53	54
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	4.46	5.83	7.30	9.04	10.5
		Cooling T3(46°C)	6.26	6.99	8.96	10.0	11.9
		Heating	4.67	6.47	8.10	10.3	12.2
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	7.4	9.7	12.2	15.1	17.5
		Cooling T3(46°C)	10.5	11.7	15.0	16.8	19.9
		Heating	7.8	10.8	13.5	17.3	20.4
	MAX Input (kW)		10.5	12.8	14.7	18.3	20.0
	MAX Current (A)		16.1	19.5	22.4	28.0	30.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	17.00	16.45	15.60	15.00	14.45
		Cooling EER T3(Btu/h/w)	12.10	12.45	11.35	11.85	11.35
		Cooling EER T1	5.02	4.80	4.59	4.42	4.29
		Cooling EER T3	3.58	3.66	3.35	3.49	3.38
		CSPF	21.25	21.46	21.04	20.90	19.38
		Heating COP	5.35	4.87	4.63	4.35	3.88
		Cooling and Heating Average	5.19	4.84	4.61	4.39	4.09
Compressor	Motor Output (kW)		3.95	5.57	6.94	4.36×2	5.25×2
Fan	Rated Air Volume (m³/min)		168	181	219	256	256
	Motor Output (kW)		0.27	0.34	0.24×2	0.35×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		8.3	8.3	9.3	10.3	10.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.9	8.4	8.4
Main Pipe Size (mm)	Heat Pump	Gas Piping	19.05	22.2	25.4	25.4	28.58
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-240JNCBLI	RAS-260JNCBLI
	Configuring Outdoor Unit		-	-	-	RAS-120JNCBLI	RAS-140JNCBLI
			-	-	-	RAS-120JNCBLI	RAS-120JNCBLI
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35˚C)			170,000	192,000	210,000	228,000	250,000
Cooling Capacity (Btu/h)T3(46˚C)			154,000	166,000	184,000	204,000	220,000
Heating Capacity (Btu/h)			192,000	214,000	236,000	256,000	282,000
Cooling Capacity (kW)T1(35˚C)			50.4	56.0	61.5	67.0	73.5
Cooling Capacity (kW)T3(46˚C)			45.5	49.1	54.0	60.0	65.0
Heating Capacity (kW)			56.0	63.0	69.0	75.0	82.5
Outer Dimensions W x D x H (mm)			1625×775×1805	1625×775×1805	1625×775×1805	2490×775×1805	2490×775×1805
Product Net Weight (kg)			363	390	390	281+281	317+281
Product Gross Weight (kg)			388	414	414	302+302	338+302
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	62	62	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	62	63	62	63
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		58	60	60	58	57
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	11.4	13.0	15.0	14.6	16.3
		Cooling T3(46°C)	13.2	14.8	16.7	17.9	19.0
		Heating	12.3	14.0	17.0	16.2	18.4
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	19.1	21.8	25.1	24.4	27.3
		Cooling T3(46°C)	22.0	24.7	27.9	30.0	31.8
		Heating	20.5	23.4	28.4	27.0	30.8
	MAX Input (kW)		22.9	24.5	27.0	29.3	33.0
	MAX Current (A)		35.0	37.4	41.2	44.8	50.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.85	14.70	13.95	15.60	15.30
		Cooling EER T3(Btu/h/w)	11.65	11.20	11.00	11.35	11.55
		Cooling EER T1	4.41	4.30	4.10	4.59	4.50
		Cooling EER T3	3.45	3.31	3.23	3.35	3.42
		CSPF	19.17	18.12	17.59	21.04	20.97
		Heating COP	4.56	4.50	4.06	4.63	4.47
		Cooling and Heating Average	4.49	4.40	4.08	4.61	4.49
Compressor	Motor Output (kW)		5.07×2	5.78×2	7.19×2	(6.94)×2	4.36×2+6.94
Fan	Rated Air Volume (m³/min)		362	375	375	219×2	256+219
	Motor Output (kW)		0.52×2	0.58×2	0.58×2	(0.24×2)×2	0.35×2+0.24×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.1	11.1	11.1	18.6	19.6
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	8.4	8.4	13.8	15.3
Main Pipe Size (mm)	Heat Pump	Gas Piping	28.58	28.58	28.58	28.58	31.75
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280JNCBLI	RAS-300JNCBLI	RAS-320JNCBLI	RAS-340JNCBLI	RAS-360JNCBLI
	Configuring Outdoor Unit		RAS-140JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
			RAS-140JNCBLI	RAS-140JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35°C)			272,000	288,000	304,000	322,000	340,000
Cooling Capacity (Btu/h)T3(46°C)			238,000	254,000	272,000	290,000	308,000
Heating Capacity (Btu/h)			308,000	316,000	324,000	354,000	384,000
Cooling Capacity (kW)T1(35°C)			80.0	85.0	90.0	95.4	100.8
Cooling Capacity (kW)T3(46°C)			70.0	75.4	80.8	85.9	91.0
Heating Capacity (kW)			90.0	92.5	95.0	103.5	112.0
Outer Dimensions W x D x H (mm)			2490×775×1805	2490×775×1805	2490×775×1805	2880×775×1805	3270×775×1805
Product Net Weight (kg)			317+317	317+317	317+317	363+317	363+363
Product Gross Weight (kg)			338+338	338+338	338+338	388+338	388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	63	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		56	57	57	59	61
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	18.1	19.5	21.0	21.9	22.8
		Cooling T3(46°C)	20.1	22.0	23.9	25.1	26.3
		Heating	20.7	22.6	24.5	24.5	24.6
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	30.2	32.6	35.0	36.6	38.2
		Cooling T3(46°C)	33.6	36.7	39.8	41.9	44.0
		Heating	34.6	37.7	40.8	40.9	41.0
	MAX Input (kW)		36.6	38.3	40.0	42.9	45.8
	MAX Current (A)		56.0	58.6	61.2	65.6	70.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	15.00	14.75	14.45	14.70	14.85
		Cooling EER T3(Btu/h/w)	11.85	11.55	11.35	11.55	11.65
		Cooling EER T1	4.42	4.35	4.29	4.35	4.41
		Cooling EER T3	3.49	3.43	3.38	3.42	3.45
		CSPF	20.90	20.05	19.38	19.28	19.17
		Heating COP	4.35	4.10	3.88	4.22	4.56
		Cooling and Heating Average	4.39	4.23	4.09	4.29	4.49
Compressor	Motor Output (kW)		(4.36×2)×2	5.25×2+4.36×2	(5.25×2)×2	5.07×2+5.25×2	(5.07×2)×2
Fan	Rated Air Volume (m³/min)		256×2	256+256	256×2	362+256	362×2
	Motor Output (kW)		(0.35×2)×2	0.35×2+0.35×2	(0.35×2)×2	0.52×2+0.35×2	(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.6	20.6	20.6	21.4	22.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380JNCBLI	RAS-400JNCBLI	RAS-420JNCBLI	RAS-440JNCBLI	RAS-460JNCBLI
	Configuring Outdoor Unit		RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-160JNCBLI
			RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-160JNCBLI
			-	-	-	-	RAS-140JNCBLI
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35°C)			362,000	384,000	402,000	420,000	440,000
Cooling Capacity (Btu/h)T3(46°C)			320,000	332,000	350,000	368,000	390,000
Heating Capacity (Btu/h)			406,000	428,000	450,000	472,000	478,000
Cooling Capacity (kW)T1(35°C)			106.4	112.0	117.5	123.0	130.0
Cooling Capacity (kW)T3(46°C)			94.6	98.2	103.1	108.0	115.8
Heating Capacity (kW)			119.0	126.0	132.0	138.0	140.0
Outer Dimensions W x D x H (mm)			3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805	3745×775×1805
Product Net Weight (kg)			390+363	390+390	390+390	390+390	317+317+317
Product Gross Weight (kg)			414+388	414+414	414+414	414+414	338+338+338
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	65	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		66	65	66	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	63	63	63	58
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	24.5	26.1	28.0	30.0	30.0
		Cooling T3(46°C)	28.0	29.6	31.5	33.4	33.9
		Heating	26.3	28.0	31.0	34.0	34.8
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	40.9	43.6	46.9	50.2	50.1
		Cooling T3(46°C)	46.7	49.4	52.6	55.8	56.6
		Heating	43.9	46.8	51.8	56.8	58.1
	MAX Input (kW)		47.4	48.9	51.4	53.9	58.4
	MAX Current (A)		72.4	74.8	78.6	82.4	89.2
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.80	14.70	14.30	13.95	14.65
		Cooling EER T3(Btu/h/w)	11.40	11.20	11.10	11.00	11.50
		Cooling EER T1	4.35	4.30	4.19	4.10	4.33
		Cooling EER T3	3.38	3.31	3.27	3.23	3.41
		CSPF	18.61	18.12	17.84	17.59	19.85
		Heating COP	4.53	4.50	4.26	4.06	4.02
		Cooling and Heating Average	4.44	4.40	4.23	4.08	4.18
Compressor	Motor Output (kW)		5.78×2+5.07×2	(5.78×2)×2	7.19×2+5.78×2	(7.19×2)×2	(5.25×2)×2+4.36×2
Fan	Rated Air Volume (m³/min)		375+362	375×2	375+375	375×2	256×2+256
	Motor Output (kW)		0.58×2+0.52×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2	(0.35×2)×2+0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		22.2	22.2	22.2	22.2	30.9
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480JNCBLI	RAS-500JNCBLI	RAS-520JNCBLI	RAS-540JNCBLI	RAS-560JNCBLI
	Configuring Outdoor Unit		RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI
			RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
			RAS-160JNCBLI	RAS-160JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35°C)			456,000	474,000	492,000	510,000	532,000
Cooling Capacity (Btu/h)T3(46°C)			408,000	426,000	444,000	462,000	474,000
Heating Capacity (Btu/h)			486,000	516,000	546,000	576,000	598,000
Cooling Capacity (kW)T1(35°C)			135.0	140.4	145.8	151.2	156.8
Cooling Capacity (kW)T3(46°C)			121.2	126.3	131.4	136.5	140.1
Heating Capacity (kW)			142.5	151.0	159.5	168.0	175.0
Outer Dimensions W x D x H (mm)			3745×775×1805	4135×775×1805	4525×775×1805	4915×775×1805	4915×775×1805
Product Net Weight (kg)			317+317+317	363+317+317	363+363+317	363+363+363	390+363+363
Product Gross Weight (kg)			338+338+338	388+338+338	388+388+338	388+388+388	414+388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	66	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	67
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		59	61	62	63	64
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	31.5	32.4	33.3	34.3	35.9
		Cooling T3(46°C)	35.8	37.1	38.3	39.5	41.2
		Heating	36.7	36.8	36.8	36.9	38.6
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	52.5	54.1	55.7	57.3	60.0
		Cooling T3(46°C)	59.7	61.8	63.9	66.0	68.7
		Heating	61.2	61.3	61.4	61.5	64.4
	MAX Input (kW)		60.1	62.9	65.8	68.7	70.3
	MAX Current (A)		91.8	96.2	100.6	105.0	107.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.45	14.60	14.75	14.85	14.80
		Cooling EER T3(Btu/h/w)	11.35	11.50	11.60	11.65	11.50
		Cooling EER T1	4.29	4.33	4.37	4.41	4.37
		Cooling EER T3	3.38	3.41	3.43	3.45	3.40
		CSPF	19.38	19.32	19.25	19.17	18.79
		Heating COP	3.88	4.11	4.33	4.56	4.54
		Cooling and Heating Average	4.09	4.22	4.35	4.49	4.46
Compressor	Motor Output (kW)		(5.25×2)×3	5.07×2+(5.25×2)×2	(5.07×2)×2+5.25×2	(5.07×2)×3	5.78×2+(5.07×2)×2
Fan	Rated Air Volume (m³/min)		256×3	362+256×2	362×2+256	362×3	375+362×2
	Motor Output (kW)		(0.35×2)×3	0.52×2+(0.35×2)×2	(0.52×2)×2+0.35×2	(0.52×2)×3	0.58×2+(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		30.9	31.7	32.5	33.3	33.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580JNCBLI	RAS-600JNCBLI	RAS-620JNCBLI	RAS-640JNCBLI	RAS-660JNCBLI
	Configuring Outdoor Unit		RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
			RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
			RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35°C)			554,000	576,000	594,000	612,000	630,000
Cooling Capacity (Btu/h)T3(46°C)			486,000	498,000	516,000	534,000	552,000
Heating Capacity (Btu/h)			620,000	642,000	664,000	686,000	708,000
Cooling Capacity (kW)T1(35°C)			162.4	168.0	173.5	179.0	184.5
Cooling Capacity (kW)T3(46°C)			143.7	147.3	152.2	157.1	162.0
Heating Capacity (kW)			182.0	189.0	195.0	201.0	207.0
Outer Dimensions W x D x H (mm)			4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805
Product Net Weight (kg)			390+390+363	390+390+390	390+390+390	390+390+390	390+390+390
Product Gross Weight (kg)			414+414+388	414+414+414	414+414+414	414+414+414	414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		66	67	67	67	67
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	37.5	39.1	41.1	43.1	45.0
		Cooling T3(46°C)	42.8	44.5	46.4	48.2	50.1
		Heating	40.3	42.0	45.0	48.0	51.0
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	62.7	65.4	68.7	72.0	75.3
		Cooling T3(46°C)	71.4	74.1	77.3	80.5	83.7
		Heating	67.3	70.2	75.2	80.2	85.2
	MAX Input (kW)		71.8	73.4	75.9	78.4	80.9
	MAX Current (A)		109.8	112.2	116.0	119.8	123.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.70	14.70	14.45	14.20	13.95
		Cooling EER T3(Btu/h/w)	11.35	11.20	11.10	11.05	11.00
		Cooling EER T1	4.33	4.30	4.22	4.16	4.10
		Cooling EER T3	3.36	3.31	3.28	3.26	3.23
		CSPF	18.43	18.12	17.95	17.77	17.59
		Heating COP	4.52	4.50	4.33	4.19	4.06
		Cooling and Heating Average	4.43	4.40	4.28	4.18	4.08
Compressor	Motor Output (kW)		(5.78×2)×2+5.07×2	(5.78×2)×3	7.19×2+(5.78×2)×2	(7.19×2)×2+5.78×2	(7.19×2)×3
Fan	Rated Air Volume (m³/min)		375×2+362	375×3	375+375×2	375×2+375	375×3
	Motor Output (kW)		(0.58×2)×2+0.52×2	(0.58×2)×3	0.58×2+(0.58×2)×2	(0.58×2)×2+0.58×2	(0.58×2)×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		33.3	33.3	33.3	33.3	33.3
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			68	70	72	74	76
Outdoor Unit Model			RAS-680JNCBLI	RAS-700JNCBLI	RAS-720JNCBLI	RAS-740JNCBLI	RAS-760JNCBLI
	Configuring Outdoor Unit		RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI
			RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-200JNCBLI
			RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
			RAS-140JNCBLI	RAS-160JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI	RAS-180JNCBLI
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35˚C)			646,000	662,000	680,000	702,000	724,000
Cooling Capacity (Btu/h)T3(46˚C)			580,000	598,000	616,000	628,000	640,000
Heating Capacity (Btu/h)			730,000	738,000	768,000	790,000	812,000
Cooling Capacity (kW)T1(35˚C)			191.2	196.2	201.6	207.2	212.8
Cooling Capacity (kW)T3(46˚C)			171.5	176.9	182.0	185.6	189.2
Heating Capacity (kW)			213.0	215.5	224.0	231.0	238.0
Outer Dimensions W x D x H (mm)			6170×775×1805	6170×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			363+363+363+317	363+363+363+317	363+363+363+363	390+363+363+363	390+390+363+363
Product Gross Weight (kg)			388+388+388+338	388+388+388+338	388+388+388+388	414+388+388+388	414+414+388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	64	65	65
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	43.3	44.8	45.7	47.3	48.9
		Cooling T3(46°C)	49.6	51.5	52.7	54.3	56.0
		Heating	47.2	49.1	49.2	50.9	52.6
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	72.4	74.8	76.4	79.1	81.8
		Cooling T3(46°C)	82.8	85.9	88.0	90.7	93.4
		Heating	78.8	81.9	82.0	84.9	87.8
	MAX Input (kW)		87.0	88.7	91.6	93.2	94.7
	MAX Current (A)		133.0	135.6	140.0	142.4	144.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.90	14.75	14.85	14.80	14.80
		Cooling EER T3(Btu/h/w)	11.70	11.60	11.65	11.55	11.40
		Cooling EER T1	4.42	4.38	4.41	4.38	4.35
		Cooling EER T3	3.46	3.44	3.45	3.42	3.38
		CSPF	19.49	19.21	19.17	18.88	18.61
		Heating COP	4.51	4.39	4.56	4.54	4.53
		Cooling and Heating Average	4.47	4.39	4.49	4.46	4.44
Compressor	Motor Output (kW)		(5.07×2)×3+4.36×2	(5.07×2)×3+5.25×2	(5.07×2)×4	5.78×2+(5.07×2)×3	(5.78×2)×2 +(5.07×2)×2
Fan	Rated Air Volume (m³/min)		362×3+256	362×3+256	362×4	375+362×3	375×2+362×2
	Motor Output (kW)		(0.52×2)×3+0.35×2	(0.52×2)×3+0.35×2	(0.52×2)×4	0.58×2+(0.52×2)×3	(0.58×2)×2 +(0.52×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		43.6	43.6	44.4	44.4	44.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			78	80	82	84	86
Outdoor Unit Model			RAS-780JNCBLI	RAS-800JNCBLI	RAS-820JNCBLI	RAS-840JNCBLI	RAS-860JNCBLI
	Configuring Outdoor Unit		RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
			RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI	RAS-220JNCBLI
			RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-220JNCBLI
			RAS-180JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI	RAS-200JNCBLI
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz	3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35˚C)			746,000	768,000	786,000	804,000	822,000
Cooling Capacity (Btu/h)T3(46˚C)			652,000	664,000	682,000	700,000	718,000
Heating Capacity (Btu/h)			834,000	856,000	878,000	900,000	922,000
Cooling Capacity (kW)T1(35˚C)			218.4	224.0	229.5	235.0	240.5
Cooling Capacity (kW)T3(46˚C)			192.8	196.4	201.3	206.2	211.1
Heating Capacity (kW)			245.0	252.0	258.0	264.0	270.0
Outer Dimensions W x D x H (mm)			6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			390+390+390+363	390+390+390+390	390+390+390+390	390+390+390+390	390+390+390+390
Product Gross Weight (kg)			414+414+414+388	414+414+414+414	414+414+414+414	414+414+414+414	414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	68	68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66	66	66	66	66
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	50.5	52.1	54.1	56.1	58.1
		Cooling T3(46°C)	57.6	59.3	61.2	63.1	65.0
		Heating	54.3	56.0	59.0	62.0	65.0
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	84.5	87.2	90.5	93.8	97.1
		Cooling T3(46°C)	96.1	98.8	102.0	105.2	108.4
		Heating	90.7	93.6	98.6	103.6	108.6
	MAX Input (kW)		96.3	97.9	100.3	102.8	105.3
	MAX Current (A)		147.2	149.6	153.4	157.2	161.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	14.75	14.70	14.50	14.30	14.15
		Cooling EER T3(Btu/h/w)	11.30	11.20	11.15	11.10	11.05
		Cooling EER T1	4.32	4.30	4.24	4.19	4.14
		Cooling EER T3	3.35	3.31	3.29	3.27	3.25
		CSPF	18.37	18.12	17.98	17.84	17.73
		Heating COP	4.51	4.50	4.37	4.26	4.15
		Cooling and Heating Average	4.42	4.40	4.31	4.23	4.15
Compressor	Motor Output (kW)		(5.78×2)×3+5.07×2	(5.78×2)×4	7.19×2+(5.78×2)×3	(7.19×2)×2 +(5.78×2)×2	(7.19×2)×3+5.78×2
Fan	Rated Air Volume (m³/min)		375×3+362	375×4	375+375×3	375×2+375×2	375×3+375
	Motor Output (kW)		(0.58×2)×3+0.52×2	(0.58×2)×4	0.58×2+(0.58×2)×3	(0.58×2)×2 +(0.58×2)×2	(0.58×2)×3+0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		44.4	44.4	44.4	44.4	44.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			88
Outdoor Unit Model			RAS-880JNCBLI
	Configuring Outdoor Unit		RAS-220JNCBLI
			RAS-220JNCBLI
			RAS-220JNCBLI
			RAS-220JNCBLI
Power Source Specifications			3N~ 380-415V 50Hz 3N~ 380V 60Hz
Cooling Capacity (Btu/h)T1(35°C)			840,000
Cooling Capacity (Btu/h)T3(46°C)			736,000
Heating Capacity (Btu/h)			944,000
Cooling Capacity (kW)T1(35°C)			246.0
Cooling Capacity (kW)T3(46°C)			216.0
Heating Capacity (kW)			276.0
Outer Dimensions W x D x H (mm)			6560×775×1805
Product Net Weight (kg)			390+390+390+390
Product Gross Weight (kg)			414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66
Electric Characteristics	Power Consumption (kW)	Cooling T1(35°C)	60.0
		Cooling T3(46°C)	66.8
		Heating	68.0
	Operating Current (A) (50/60Hz)	Cooling T1(35°C)	100.4
		Cooling T3(46°C)	111.6
		Heating	113.6
	MAX Input (kW)		107.8
	MAX Current (A)		164.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER T1(Btu/h/w)	13.95
		Cooling EER T3(Btu/h/w)	11.00
		Cooling EER T1	4.10
		Cooling EER T3	3.23
		CSPF	17.59
		Heating COP	4.06
		Cooling and Heating Average	4.08
Compressor	Motor Output (kW)		(7.19×2)×4
Fan	Rated Air Volume (m^3/min)		375×4
	Motor Output (kW)		(0.58×2)×4
Refrigerant	Type		R410A
	Initial Charge Amount (kg)		44.4
Refrigerant Oil	Type		FVC68D
	Charge Amount (L)		33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8
		Liquid Piping	22.2

- SEA (Standard)

Horsepower				8	10	12	14	16
Outdoor Unit Model				RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW
	Configuring Outdoor Unit			-	-	-	-	-
				-	-	-	-	-
				-	-	-	-	-
				-	-	-	-	-
Power Source Specifications				3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)				22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)				25.0	31.5	37.5	45.0	50.0
Outer Dimensions W x D x H (mm)				950×765×1795	950×765×1795	950×765×1795	1210×765×1795	1210×765×1795
Product Net Weight (kg)				191	197	211	264	265
Product Gross Weight (kg)				210	216	230	285	286
Exterior Color (Munsell Symbol)				Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)			52	55	57	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)			55	57	59	61	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)			49	50	52	57	58
Electric Characteristics	Power Consumption (kW)		Cooling	4.07	5.73	7.21	8.55	9.91
			Heating	4.80	6.18	7.81	9.91	12.1
	Operating Current (A)		Cooling	6.9	10.2	14.0	16.9	19.1
			Heating	8.1	10.9	14.8	19.1	22.7
	MAX Input (kW)			10.4	12.4	13.4	15.7	19.0
	MAX Current (A)			16.1	20.0	23.3	27.7	32.7
Energy Efficiency (Single Outdoor Unit)			Cooling EER	5.50	4.89	4.65	4.68	4.54
			Heating COP	5.21	5.10	4.80	4.54	4.13
			Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34
Compressor	Motor Output (kW)			4.12	5.40	6.72	8.48	10.42
Fan	Rated Air Volume (m^3/min)			175	175	198	239	256
	Motor Output (kW)			0.26	0.26	0.43	0.3×2	0.35×2
Refrigerant	Type			R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)			5.6	5.6	8.3	8.9	9.5
Refrigerant Oil	Type			FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)			6.0	6.0	6.0	6.9	6.9
Main Pipe Size (mm)	Heat Pump		Gas Piping	19.05	22.2	25.4	25.4	28.58
			Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower				18	20	22	24	26
Outdoor Unit Model				RAS-180HNCCLW	RAS-200HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
	Configuring Outdoor Unit			-	-	-	-	-
				-	-	-	-	-
				-	-	-	-	-
				-	-	-	-	-
Power Source Specifications				3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)				50.4	56.0	61.5	67.0	73.0
Heating Capacity (kW)				56.0	63.0	69.0	77.5	81.5
Outer Dimensions W x D x H (mm)				1210×765×1795	1600×765×1795	1600×765×1795	1600×765×1795	1600×765×1795
Product Net Weight (kg)				265	341	341	341	367
Product Gross Weight (kg)				286	365	365	365	392
Exterior Color (Munsell Symbol)				Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)			61	63	63	61	62
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)			63	65	65	64	65
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)			57	56	57	57	60
Electric Characteristics	Power Consumption (kW)		Cooling	11.7	12.4	13.8	16.2	18.7
			Heating	13.0	12.9	15.6	19.9	24.2
	Operating Current (A)		Cooling	22.2	23.0	25.6	30.0	34.7
			Heating	24.5	23.6	28.6	36.5	44.4
	MAX Input (kW)			23.1	23.9	25.5	31.6	34.8
	MAX Current (A)			39.7	40.0	42.7	53.0	58.3
Energy Efficiency (Single Outdoor Unit)			Cooling EER	4.30	4.50	4.44	4.14	3.90
			Heating COP	4.29	4.88	4.41	3.89	3.36
			Cooling and Heating Average	4.30	4.69	4.43	4.02	3.63
Compressor	Motor Output (kW)			11.22	5.5×2	6.77×2	8.7×2	10.55×2
Fan	Rated Air Volume (m^3/min)			263	329	329	348	375
	Motor Output (kW)			0.38×2	0.4×2	0.4×2	0.47×2	0.58×2
Refrigerant	Type			R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)			10.2	11.2	11.2	11.5	11.5
Refrigerant Oil	Type			FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)			6.9	8.4	8.4	8.4	8.4
Main Pipe Size (mm)	Heat Pump		Gas Piping	28.58	28.58	28.58	28.58	31.75
			Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280HNCCLW	RAS-300HNCCLW	RAS-320HNCCLW	RAS-340HNCCLW	RAS-360HNCCLW
	Configuring Outdoor Unit		-	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
			-	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			77.5	83.9	90.4	95.4	100.8
Heating Capacity (kW)			86.0	93.5	101.0	106.0	112.0
Outer Dimensions W x D x H (mm)			1600×765×1795	2180×765×1795	2440×765×1795	2440×765×1795	2440×765×1795
Product Net Weight (kg)			367	265+211	265+264	265+265	265+265
Product Gross Weight (kg)			392	286+230	286+285	286+286	286+286
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	63	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		66	64	66	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	58	60	61	60
Electric Characteristics	Power Consumption (kW)	Cooling	20.8	18.9	20.3	21.6	23.4
		Heating	29.5	20.9	23.0	25.2	26.1
	Operating Current (A)	Cooling	38.4	36.2	39.1	41.3	44.4
		Heating	53.9	39.3	43.6	47.2	49.0
	MAX Input (kW)		35.4	36.7	38.8	42.2	46.2
	MAX Current (A)		59.4	63.0	67.4	72.4	79.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.73	4.43	4.46	4.41	4.30
		Heating COP	2.92	4.48	4.40	4.21	4.29
		Cooling and Heating Average	3.33	4.46	4.43	4.31	4.30
Compressor	Motor Output (kW)		12.98×2	11.22+6.72	11.22+8.48	11.22+10.42	(11.22)×2
Fan	Rated Air Volume (m^3/min)		375	263+198	263+239	263+256	263×2
	Motor Output (kW)		0.58×2	0.38×2+0.43	0.38×2+0.3×2	0.38×2+0.35×2	(0.38×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.5	18.5	19.1	19.7	20.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	12.9	13.8	13.8	13.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380HNCCLW	RAS-400HNCCLW	RAS-420HNCCLW	RAS-440HNCCLW	RAS-460HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-160HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			106.5	111.9	117.4	123.0	128.5
Heating Capacity (kW)			119.0	125.0	133.5	138.0	146.5
Outer Dimensions W x D x H (mm)			2830×765×1795	2830×765×1795	2830×765×1795	3220×765×1795	3220×765×1795
Product Net Weight (kg)			341+265	341+265	341+265	341+341	341+341
Product Gross Weight (kg)			365+286	365+286	365+286	365+365	365+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	64	66	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	60	60	60	60
Electric Characteristics	Power Consumption (kW)	Cooling	23.8	25.6	27.9	27.7	30.0
		Heating	27.8	28.7	33.0	31.3	35.6
	Operating Current (A)	Cooling	44.7	47.8	52.2	51.2	55.6
		Heating	51.3	53.1	61.0	57.2	65.1
	MAX Input (kW)		44.4	48.6	54.6	51.0	57.1
	MAX Current (A)		75.4	82.4	92.7	85.4	95.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.48	4.38	4.21	4.44	4.28
		Heating COP	4.29	4.36	4.05	4.41	4.12
		Cooling and Heating Average	4.39	4.37	4.13	4.43	4.20
Compressor	Motor Output (kW)		6.77×2+10.42	6.77×2+11.22	8.7×2+11.22	(6.77×2)×2	8.7×2+6.77×2
Fan	Rated Air Volume (m^3/min)		329+256	329+263	348+263	329×2	348+329
	Motor Output (kW)		0.4×2+0.35×2	0.4×2+0.38×2	0.47×2+0.38×2	(0.4×2)×2	0.47×2+0.4×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.7	21.4	21.7	22.4	22.7
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		15.3	15.3	15.3	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480HNCCLW	RAS-500HNCCLW	RAS-520HNCCLW	RAS-540HNCCLW	RAS-560HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			134.0	140.0	146.0	150.5	155.0
Heating Capacity (kW)			155.0	159.0	163.0	167.5	172.0
Outer Dimensions W x D x H (mm)			3220×765×1795	3220×765×1795	3220×765×1795	3220×765×1795	3220×765×1795
Product Net Weight (kg)			341+341	367+341	367+367	367+367	367+367
Product Gross Weight (kg)			365+365	392+365	392+392	392+392	392+392
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Heating Ratinz	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	62	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	32.3	34.9	37.5	39.5	41.5
		Heating	39.9	44.2	48.5	53.7	58.9
	Operating Current (A)	Cooling	60.0	64.7	69.4	73.1	76.8
		Heating	73.0	80.9	88.8	98.3	107.8
	MAX Input (kW)		63.2	66.4	69.6	70.2	70.9
	MAX Current (A)		106.0	111.3	116.6	117.7	118.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.14	4.01	3.90	3.81	3.73
		Heating COP	3.89	3.60	3.36	3.12	2.92
		Cooling and Heating Average	4.02	3.81	3.63	3.47	3.33
Compressor	Motor Output (kW)		(8.7×2)×2	10.55×2+8.7×2	(10.55×2)×2	12.98×2+10.55×2	(12.98×2)×2
Fan	Rated Air Volume (m^3/min)		348×2	375+348	375×2	375+375	375×2
	Motor Output (kW)		(0.47×2)×2	0.58×2+0.47×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		23.0	23.0	23.0	23.0	23.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580HNCCLW	RAS-600HNCCLW	RAS-620HNCCLW	RAS-640HNCCLW	RAS-660HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			162.3	167.8	173.4	178.9	184.4
Heating Capacity (kW)			181.0	189.5	194.0	202.5	211.0
Outer Dimensions W x D x H (mm)			4060×765×1795	4060×765×1795	4450×765×1795	4450×765×1795	4450×765×1795
Product Net Weight (kg)			341+265+265	341+265+265	341+341+265	341+341+265	341+341+265
Product Gross Weight (kg)			365+286+286	365+286+286	365+365+286	365+365+286	365+365+286
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	66	67	67	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	68	69	69	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	62	62
Electric Characteristics	Power Consumption (kW)	Cooling	37.3	39.6	39.4	41.7	44.1
		Heating	41.7	46.0	44.3	48.6	52.9
	Operating Current (A)	Cooling	70.0	74.4	73.4	77.8	82.2
		Heating	77.6	85.5	81.7	89.6	97.5
	MAX Input (kW)		72.0	78.0	73.7	79.8	85.9
	MAX Current (A)		122.1	132.4	125.1	135.4	145.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.36	4.24	4.40	4.29	4.19
		Heating COP	4.34	4.12	4.38	4.17	3.99
		Cooling and Heating Average	4.35	4.18	4.39	4.23	4.09
Compressor	Motor Output (kW)		8.77×2 ı (11.22)×2	8.7×2 ı (11.22)×2	(8.77×2)×2 ı 11.22	8.7×2 ı 8.77×2 ı 11.22	(8.7×2)×2 ı 11.22
Fan	Rated Air Volume (m^3/min)		329+263×2	348+263×2	329×2+263	348+329+263	348×2+263
	Motor Output (kW)		0.4×2+(0.38×2)×2	0.47×2+(0.38×2)×2	(0.4×2)×2+0.38×2	0.47×2+0.4×2 +0.38×2	(0.47×2)×2+0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		31.6	31.9	32.6	32.9	33.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		22.2	22.2	23.7	23.7	23.7
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			68	70	72	74	76
Outdoor Unit Model			RAS-680HNCCLW	RAS-700HNCCLW	RAS-720HNCCLW	RAS-740HNCCLW	RAS-760HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
			RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			190.0	195.5	201.0	207.0	213.0
Heating Capacity (kW)			215.5	224.0	232.5	236.5	240.5
Outer Dimensions W x D x H (mm)			4840×765×1795	4840×765×1795	4840×765×1795	4840×765×1795	4840×765×1795
Product Net Weight (kg)			341+341+341	341+341+341	341+341+341	367+341+341	367+367+341
Product Gross Weight (kg)			365+365+365	365+365+365	365+365+365	392+365+365	392+392+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	66	66	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	63	64
Electric Characteristics	Power Consumption (kW)	Cooling	43.9	46.2	48.5	51.1	53.6
		Heating	51.2	55.5	59.8	64.1	68.4
	Operating Current (A)	Cooling	81.2	85.6	90.0	94.7	99.4
		Heating	93.7	101.6	109.5	117.4	125.3
	MAX Input (kW)		82.6	88.7	94.9	98.0	101.2
	MAX Current (A)		138.4	148.7	159.0	164.3	169.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.33	4.23	4.14	4.05	3.97
		Heating COP	4.21	4.04	3.89	3.69	3.52
		Cooling and Heating Average	4.27	4.14	4.02	3.87	3.75
Compressor	Motor Output (kW)		8.7×2+(6.77×2)×2	(8.7×2)×2+6.77×2	(8.7×2)×3	10.55×2+(8.7×2)×2	(10.55×2)×2+8.7×2
Fan	Rated Air Volume (m^3/min)		348+329×2	348×2+329	348×3	375+348×2	375×2+348
	Motor Output (kW)		0.47×2+(0.4×2)×2	(0.47×2)×2+0.4×2	(0.47×2)×3	0.58×2+(0.47×2)×2	(0.58×2)×2+0.47×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		33.9	34.2	34.5	34.5	34.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			78	80	82	84	86
Outdoor Unit Model			RAS-780HNCCLW	RAS-800HNCCLW	RAS-820HNCCLW	RAS-840HNCCLW	RAS-860HNCCLW
	Configuring Outdoor Unit		RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-240HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW
			-	-	-	-	RAS-180HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			219.0	223.5	228.0	232.5	240.4
Heating Capacity (kW)			244.5	249.0	253.5	258.0	271.5
Outer Dimensions W x D x H (mm)			4840×765×1795	4840×765×1795	4840×765×1795	4840×765×1795	6070×765×1795
Product Net Weight (kg)			367+367+367	367+367+367	367+367+367	367+367+367	341+341+341+265
Product Gross Weight (kg)			392+392+392	392+392+392	392+392+392	392+392+392	365+365+365+286
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	70	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	65	63
Electric Characteristics	Power Consumption (kW)	Cooling	56.2	58.2	60.2	62.3	55.6
		Heating	72.7	77.9	83.1	88.4	64.3
	Operating Current (A)	Cooling	104.1	107.8	111.5	115.2	103.4
		Heating	133.2	142.7	152.2	161.7	118.2
	MAX Input (kW)		104.4	105.0	105.7	106.3	106.3
	MAX Current (A)		174.9	176.0	177.1	178.2	178.1
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.90	3.84	3.79	3.73	4.33
		Heating COP	3.36	3.21	3.05	2.92	4.23
		Cooling and Heating Average	3.63	3.53	3.42	3.33	4.28
Compressor	Motor Output (kW)		(10.55×2)×3	12.98×2+(10.55×2)×2	(12.98×2)×2 +10.55×2	(12.98×2)×3	8.7×2+(6.77×2)×2 +11.22
Fan	Rated Air Volume (m^3/min)		375×3	375+375×2	375×2+375	375×3	348+329×2+263
	Motor Output (kW)		(0.58×2)×3	0.58×2+(0.58×2)×2	(0.58×2)×2+0.58×2	(0.58×2)×3	0.47×2+(0.4×2)×2 +0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		34.5	34.5	34.5	34.5	44.1
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	32.1
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			88	90	92	94	96
Outdoor Unit Model			RAS-880HNCCLW	RAS-900HNCCLW	RAS-920HNCCLW	RAS-940HNCCLW	RAS-960HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			245.9	251.4	257.0	262.5	268.0
Heating Capacity (kW)			280.0	288.5	293.0	301.5	310.0
Outer Dimensions W x D x H (mm)			6070×765×1795	6070×765×1795	6460×765×1795	6460×765×1795	6460×765×1795
Product Net Weight (kg)			341+341+341+265	341+341+341+265	341+341+341+341	341+341+341+341	341+341+341+341
Product Gross Weight (kg)			365+365+365+286	365+365+365+286	365+365+365+365	365+365+365+365	365+365+365+365
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	67	68	68	67
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	71	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	57.9	60.2	60.0	62.4	64.7
		Heating	68.5	72.8	71.1	75.4	79.7
	Operating Current (A)	Cooling	107.8	112.2	111.2	115.6	120.0
		Heating	126.1	134.0	130.2	138.1	146.0
	MAX Input (kW)		112.4	118.6	114.2	120.3	126.5
	MAX Current (A)		188.4	198.7	191.4	201.7	212.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.25	4.17	4.28	4.21	4.14
		Heating COP	4.09	3.96	4.12	4.00	3.89
		Cooling and Heating Average	4.17	4.07	4.20	4.11	4.02
Compressor	Motor Output (kW)		(8.7×2)×2+6.77×2 +11.22	(8.7×2)×3+11.22	(8.7×2)×2 +(6.77×2)×2	(8.7×2)×3+6.77×2	(8.7×2)×4
Fan	Rated Air Volume (m^3/min)		348×2+329+263	348×3+263	348×2+329×2	348×3+329	348×4
	Motor Output (kW)		(0.47×2)×2+0.4×2 +0.38×2	(0.47×2)×3+0.38×2	(0.47×2)×2 +(0.4×2)×2	(0.47×2)×3+0.4×2	(0.47×2)×4
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		44.4	44.7	45.4	45.7	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		32.1	32.1	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	25.4	25.4	25.4	25.4

Horsepower			98	100	102	104	106
Outdoor Unit Model			RAS-980HNCCLW	RAS-H00HNCCLW	RAS-H02HNCCLW	RAS-H04HNCCLW	RAS-H06HNCCLW
	Configuring Outdoor Unit		RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			274.0	280.0	286.0	292.0	296.5
Heating Capacity (kW)			314.0	318.0	322.0	326.0	330.5
Outer Dimensions W x D x H (mm)			6460×765×1795	6460×765×1795	6460×765×1795	6460×765×1795	6460×765×1795
Product Net Weight (kg)			367+341+341+341	367+367+341+341	367+367+367+341	367+367+367+367	367+367+367+367
Product Gross Weight (kg)			392+365+365+365	392+392+365+365	392+392+392+365	392+392+392+392	392+392+392+392
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	71	71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	67.2	69.8	72.4	74.9	76.9
		Heating	84.0	88.3	92.6	96.9	102.1
	Operating Current (A)	Cooling	124.7	129.4	134.1	138.8	142.5
		Heating	153.9	161.8	169.7	177.6	187.1
	MAX Input (kW)		129.6	132.8	136.0	139.1	139.8
	MAX Current (A)		217.3	222.6	227.9	233.2	234.3
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.07	4.01	3.95	3.90	3.85
		Heating COP	3.74	3.60	3.48	3.36	3.24
		Cooling and Heating Average	3.91	3.81	3.72	3.63	3.55
Compressor	Motor Output (kW)		10.55×2+(8.7×2)×3	(10.55×2)×2 +(8.7×2)×2	(10.55×2)×3+8.7×2	(10.55×2)×4	12.98×2 +(10.55×2)×3
Fan	Rated Air Volume (m^3/min)		375+348×2	375×2+348×2	375×3+348	375×4	375+375×3
	Motor Output (kW)		0.58×2+(0.47×2)×3	(0.58×2)×2 +(0.47×2)×2	(0.58×2)×3+0.47×2	(0.58×2)×4	0.58×2+(0.58×2)×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4	25.4	25.4

Horsepower			108	110	112
Outdoor Unit Model			RAS-H08HNCCLW	RAS-H10HNCCLW	RAS-H12HNCCLW
	Configuring Outdoor Unit		RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			301.0	305.5	310.0
Heating Capacity (kW)			335.0	339.5	344.0
Outer Dimensions W x D x H (mm)			6460×765×1795	6460×765×1795	6460×765×1795
Product Net Weight (kg)			367+367+367+367	367+367+367+367	367+367+367+367
Product Gross Weight (kg)			392+392+392+392	392+392+392+392	392+392+392+392
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	79.0	81.0	83.0
		Heating	107.4	112.6	117.8
	Operating Current (A)	Cooling	146.2	149.9	153.6
		Heating	196.6	206.1	215.6
	MAX Input (kW)		140.4	141.1	141.8
	MAX Current (A)		235.4	236.5	237.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.81	3.77	3.73
		Heating COP	3.12	3.02	2.92
		Cooling and Heating Average	3.47	3.40	3.33
Compressor	Motor Output (kW)		(12.98×2)×2 +(10.55×2)×2	(12.98×2)×3+10.55×2	(12.98×2)×4
Fan	Rated Air Volume (m^3/min)		375×2+375×2	375×3+375	375×4
	Motor Output (kW)		(0.58×2)×2 +(0.58×2)×2	(0.58×2)×3+0.58×2	(0.58×2)×4
Refrigerant	Type		R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4

- MEA (Standard)(Heat Pump)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)			25.0	31.5	37.5	45.0	50.0
Outer Dimensions W x D x H (mm)			975×775×1805	975×775×1805	975×775×1805	1235×775×1805	1235×775×1805
Product Net Weight (kg)			207	212	226	281	281
Product Gross Weight (kg)			226	231	245	302	303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	57	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		55	57	59	61	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		49	50	52	57	58
Electric Characteristics	Power Consumption (kW)	Cooling	4.07	5.73	7.21	8.55	9.91
		Heating	4.80	6.18	7.81	9.91	12.1
	Operating Current (A)	Cooling	6.9	10.2	14.0	16.9	19.1
		Heating	8.1	10.9	14.8	19.1	22.7
	MAX Input (kW)		10.42	12.36	13.4	15.73	19.04
	MAX Current (A)		16.1	20	23.3	27.7	32.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	5.5	4.89	4.65	4.68	4.54
		Heating COP	5.21	5.1	4.8	4.54	4.13
		Cooling and Heating Average	5.36	5	4.73	4.61	4.34
Compressor	Motor Output (kW)		4.12	5.40	6.72	8.48	10.42
Fan	Rated Air Volume (m^3/min)		175	175	198	239	256
	Motor Output (kW)		0.26	0.26	0.43	0.3×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		5.6	5.6	8.3	8.9	9.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.0	6.9	6.9
Main Pipe Size (mm)	Heat Pump	Gas Piping	19.05	22.2	25.4	25.4	28.58
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180HNCCLW	RAS-200HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			50.4	56.0	61.5	67.0	73.0
Heating Capacity (kW)			56.0	63.0	69.0	77.5	81.5
Outer Dimensions W x D x H (mm)			1235×775×1805	1625×775×1805	1625×775×1805	1625×775×1805	1625×775×1805
Product Net Weight (kg)			282	364	364	364	390
Product Gross Weight (kg)			303	388	388	388	414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	63	63	61	62
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	65	65	64	65
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		57	56	57	57	60
Electric Characteristics	Power Consumption (kW)	Cooling	11.7	12.4	13.8	16.2	18.7
		Heating	13.0	12.9	15.6	19.9	24.2
	Operating Current (A)	Cooling	22.2	23.0	25.6	30.0	34.7
		Heating	24.5	23.6	28.6	36.5	44.4
	MAX Input (kW)		23.11	23.86	25.48	31.62	34.78
	MAX Current (A)		39.7	40	42.7	53	58.3
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.3	4.5	4.44	4.14	3.9
		Heating COP	4.29	4.88	4.41	3.89	3.36
		Cooling and Heating Average	4.3	4.69	4.43	4.02	3.63
Compressor	Motor Output (kW)		11.22	5.5×2	6.77×2	8.7×2	10.55×2
Fan	Rated Air Volume (m^3/min)		263	329	329	348	375
	Motor Output (kW)		0.38×2	0.4×2	0.4×2	0.47×2	0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		10.2	11.2	11.2	11.5	11.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.9	8.4	8.4	8.4	8.4
Main Pipe Size (mm)	Heat Pump	Gas Piping	28.58	28.58	28.58	28.58	31.75
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280HNCCLW	RAS-300HNCCLW	RAS-320HNCCLW	RAS-340HNCCLW	RAS-360HNCCLW
	Configuring Outdoor Unit		-	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
			-	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			77.5	83.9	90.4	95.4	100.8
Heating Capacity (kW)			86.0	93.5	101.0	106.0	112.0
Outer Dimensions W x D x H (mm)			1625×775×1805	2230×775×1805	2490×775×1805	2490×775×1805	2490×775×1805
Product Net Weight (kg)			390	282+226	282+281	282+281	282+282
Product Gross Weight (kg)			414	303+245	303+302	303+303	303+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	63	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	64	65	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	58	60	61	60
Electric Characteristics	Power Consumption (kW)	Cooling	20.8	18.9	20.3	21.6	23.4
		Heating	29.5	20.9	23.0	25.2	26.1
	Operating Current (A)	Cooling	38.4	36.2	39.1	41.3	44.4
		Heating	53.9	39.3	43.6	47.2	49.0
	MAX Input (kW)		35.44	36.68	38.76	42.15	46.23
	MAX Current (A)		59.4	63	67.4	72.4	79.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.73	4.43	4.46	4.41	4.3
		Heating COP	2.92	4.48	4.4	4.21	4.29
		Cooling and Heating Average	3.33	4.46	4.43	4.31	4.3
Compressor	Motor Output (kW)		12.98×2	11.22+6.72	11.22+8.48	11.22+10.42	(11.22)×2
Fan	Rated Air Volume (m^3/min)		375	263+198	263+239	263+256	263×2
	Motor Output (kW)		0.68×2	0.38×2+0.43	0.38×2+0.3×2	0.38×2+0.36×2	(0.38×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.5	18.5	19.1	19.7	20.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	12.9	13.8	13.8	13.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380HNCCLW	RAS-400HNCCLW	RAS-420HNCCLW	RAS-440HNCCLW	RAS-460HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-160HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			106.5	111.9	117.4	123.0	128.5
Heating Capacity (kW)			119.0	125.0	133.5	138.0	146.5
Outer Dimensions W x D x H (mm)			2880×775×1805	2880×775×1805	2880×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+281	364+282	364+282	364+364	364+364
Product Gross Weight (kg)			388+303	388+303	388+303	388+388	388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	64	66	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	60	60	60	60
Electric Characteristics	Power Consumption (kW)	Cooling	23.8	25.6	27.9	27.7	30.0
		Heating	27.8	28.7	33.0	31.3	35.6
	Operating Current (A)	Cooling	44.7	47.8	52.2	51.2	55.6
		Heating	51.3	53.1	61.0	57.2	65.1
	MAX Input (kW)		44.44	48.57	54.64	50.95	57.1
	MAX Current (A)		75.4	82.4	92.7	85.4	95.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.48	4.38	4.21	4.44	4.28
		Heating COP	4.29	4.36	4.05	4.41	4.12
		Cooling and Heating Average	4.39	4.37	4.13	4.43	4.2
Compressor	Motor Output (kW)		6.77×2+10.42	6.77×2+11.22	6.7×2+11.22	(6.77×2)×2	6.7×2+6.77×2
Fan	Rated Air Volume (m^3/min)		329+256	329+263	348+263	329×2	348+329
	Motor Output (kW)		0.4×2+0.35×2	0.4×2+0.38×2	0.47×2+0.38×2	(0.4×2)×2	0.47×2+0.4×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.7	21.4	21.7	22.4	22.7
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		15.3	15.3	15.3	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480HNCCLW	RAS-500HNCCLW	RAS-520HNCCLW	RAS-540HNCCLW	RAS-560HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			134.0	140.0	146.0	150.5	155.0
Heating Capacity (kW)			155.0	159.0	163.0	167.5	172.0
Outer Dimensions W x D x H (mm)			3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+364	390+364	390+390	390+390	390+390
Product Gross Weight (kg)			388+388	414+388	414+414	414+414	414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	62	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	32.3	34.9	37.5	39.5	41.5
		Heating	39.9	44.2	48.5	53.7	58.9
	Operating Current (A)	Cooling	60.0	64.7	69.4	73.1	76.8
		Heating	73.0	80.9	88.8	98.3	107.8
	MAX Input (kW)		63.24	66.4	69.56	70.22	70.88
	MAX Current (A)		106	111.3	116.6	117.7	118.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.14	4.01	3.9	3.81	3.73
		Heating COP	3.89	3.6	3.36	3.12	2.92
		Cooling and Heating Average	4.02	3.81	3.63	3.47	3.33
Compressor	Motor Output (kW)		(8.7×2)×2	10.55×2+8.7×2	(10.55×2)×2	12.98×2+10.55×2	(12.98×2)×2
Fan	Rated Air Volume (m^3/min)		348×2	375+348	375×2	375+375	375×2
	Motor Output (kW)		(0.47×2)×2	0.58×2+0.47×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		23.0	23.0	23.0	23.0	23.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580HNCCLW	RAS-600HNCCLW	RAS-620HNCCLW	RAS-640HNCCLW	RAS-660HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			162.3	167.8	173.4	178.9	184.4
Heating Capacity (kW)			181.0	189.5	194.0	202.5	211.0
Outer Dimensions W x D x H (mm)			4135×775×1805	4135×775×1805	4525×775×1805	4525×775×1805	4525×775×1805
Product Net Weight (kg)			364+282+282	364+282+282	364+364+282	364+364+282	364+364+282
Product Gross Weight (kg)			388+303+303	388+303+303	388+388+303	388+388+303	388+388+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	66	67	67	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	68	69	69	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	62	62
Electric Characteristics	Power Consumption (kW)	Cooling	37.3	39.6	39.4	41.7	44.1
		Heating	41.7	46.0	44.3	48.6	52.9
	Operating Current (A)	Cooling	70.0	74.4	73.4	77.8	82.2
		Heating	77.6	85.5	81.7	89.6	97.5
	MAX Input (kW)		71.97	78.04	73.74	79.81	85.88
	MAX Current (A)		122.1	132.4	125.1	135.4	145.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.36	4.24	4.4	4.29	4.19
		Heating COP	4.34	4.12	4.38	4.17	3.99
		Cooling and Heating Average	4.35	4.18	4.39	4.23	4.09
Compressor	Motor Output (kW)		8.77×2+(11.22)×2	8.77×2+(11.22)×2	(8.77×2)×2+11.22	8.77×2+8.77×2+11.22	(8.77×2)×2+11.22
Fan	Rated Air Volume (m^3/min)		329+263×2	348+263×2	329×2+263	348+329+263	348×2+263
	Motor Output (kW)		0.4×2+(0.38×2)×2	0.47×2+(0.38×2)×2	(0.4×2)×2+0.38×2	0.47×2+0.4×2 +0.38×2	(0.47×2)×2+0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		31.6	31.9	32.6	32.9	33.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		22.2	22.2	23.7	23.7	23.7
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			68	70	72	74	76
Outdoor Unit Model			RAS-680HNCCLW	RAS-700HNCCLW	RAS-720HNCCLW	RAS-740HNCCLW	RAS-760HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
			RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			190.0	195.5	201.0	207.0	213.0
Heating Capacity (kW)			215.5	224.0	232.5	236.5	240.5
Outer Dimensions W x D x H (mm)			4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805
Product Net Weight (kg)			364+364+364	364+364+364	364+364+364	390+364+364	390+390+364
Product Gross Weight (kg)			388+388+388	388+388+388	388+388+388	414+388+388	414+414+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	66	66	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	63	64
Electric Characteristics	Power Consumption (kW)	Cooling	43.9	46.2	48.5	51.1	53.6
		Heating	51.2	55.5	59.8	64.1	68.4
	Operating Current (A)	Cooling	81.2	85.6	90.0	94.7	99.4
		Heating	93.7	101.6	109.5	117.4	125.3
	MAX Input (kW)		82.57	88.72	94.86	98.02	101.18
	MAX Current (A)		138.4	148.7	159	164.3	169.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.33	4.23	4.14	4.05	3.97
		Heating COP	4.21	4.04	3.89	3.69	3.52
		Cooling and Heating Average	4.27	4.14	4.02	3.87	3.75
Compressor	Motor Output (kW)		8.7×2+(6.77×2)×2	(8.7×2)×2+6.77×2	(8.7×2)×3	10.55×2+(8.7×2)×2	(10.55×2)×2+8.7×2
Fan	Rated Air Volume (m^3/min)		348+329×2	348×2+329	348×3	375+348×2	375×2+348
	Motor Output (kW)		0.47×2+(0.4×2)×2	(0.47×2)×2+0.4×2	(0.47×2)×3	0.58×2+(0.47×2)×2	(0.58×2)×2+0.47×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		33.9	34.2	34.5	34.5	34.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			78	80	82	84	86
Outdoor Unit Model			RAS-780HNCCLW	RAS-800HNCCLW	RAS-820HNCCLW	RAS-840HNCCLW	RAS-860HNCCLW
	Configuring Outdoor Unit		RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-240HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-220HNCCLW
			-	-	-	-	RAS-180HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			219.0	223.5	228.0	232.5	240.4
Heating Capacity (kW)			244.5	249.0	253.5	258.0	271.5
Outer Dimensions W x D x H (mm)			4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805	6170×775×1805
Product Net Weight (kg)			390+390+390	390+390+390	390+390+390	390+390+390	364+364+364+282
Product Gross Weight (kg)			414+414+414	414+414+414	414+414+414	414+414+414	388+388+388+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	70	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	65	63
Electric Characteristics	Power Consumption (kW)	Cooling	56.2	58.2	60.2	62.3	55.6
		Heating	72.7	77.9	83.1	88.4	64.3
	Operating Current (A)	Cooling	104.1	107.8	111.5	115.2	103.4
		Heating	133.2	142.7	152.2	161.7	118.2
	MAX Input (kW)		104.35	105	105.66	106.31	106.26
	MAX Current (A)		174.9	176	177.1	178.2	178.1
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.9	3.84	3.79	3.73	4.33
		Heating COP	3.36	3.21	3.05	2.92	4.23
		Cooling and Heating Average	3.63	3.53	3.42	3.33	4.28
Compressor	Motor Output (kW)		(10.55×2)×3	12.98×2 +(10.55×2)×2	(12.98×2)×2 +10.55×2	(12.98×2)×3	8.7×2+(6.77×2)×2 +11.22
Fan	Rated Air Volume (m^3/min)		375×3	375+375×2	375×2+375	375×3	348+329×2+263
	Motor Output (kW)		(0.58×2)×3	0.58×2 +(0.58×2)×2	(0.58×2)×2+0.58×2	(0.58×2)×3	0.47×2+(0.4×2)×2 +0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		34.5	34.5	34.5	34.5	44.1
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	32.1
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			88	90	92	94	96
Outdoor Unit Model			RAS-880HNCCLW	RAS-900HNCCLW	RAS-920HNCCLW	RAS-940HNCCLW	RAS-960HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-220HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			245.9	251.4	257.0	262.5	268.0
Heating Capacity (kW)			280.0	288.5	293.0	301.5	310.0
Outer Dimensions W x D x H (mm)			6170×775×1805	6170×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			364+364+364+282	364+364+364+282	364+364+364+364	364+364+364+364	364+364+364+364
Product Gross Weight (kg)			388+388+388+303	388+388+388+303	388+388+388+388	388+388+388+388	388+388+388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	67	68	68	67
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	71	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	57.9	60.2	60.0	62.4	64.7
		Heating	68.5	72.8	71.1	75.4	79.7
	Operating Current (A)	Cooling	107.8	112.2	111.2	115.6	120.0
		Heating	126.1	134.0	130.2	138.1	146.0
	MAX Input (kW)		112.4	118.55	114.19	120.34	126.48
	MAX Current (A)		188.4	198.7	191.4	201.7	212
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.25	4.17	4.28	4.21	4.14
		Heating COP	4.09	3.96	4.12	4	3.89
		Cooling and Heating Average	4.17	4.07	4.2	4.11	4.02
Compressor	Motor Output (kW)		(8.7×2)×2+6.77×2 +11.22	(8.7×2)×3+11.22	(8.7×2)×2 +(6.77×2)×2	(8.7×2)×3+6.77×2	(8.7×2)×4
Fan	Rated Air Volume (m^3/min)		348×2+329+263	348×3+263	348×2+329×2	348×3+329	348×4
	Motor Output (kW)		(0.47×2)×2+0.4×2+0.38×	(0.47×2)×3+0.38×2	(0.47×2)×2 +(0.4×2)×2	(0.47×2)×3+0.4×2	(0.47×2)×4
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		44.4	44.7	45.4	45.7	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		32.1	32.1	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	25.4	25.4	25.4	25.4

Horsepower			98	100	102	104	106
Outdoor Unit Model			RAS-980HNCCLW	RAS-H00HNCCLW	RAS-H02HNCCLW	RAS-H04HNCCLW	RAS-H06HNCCLW
	Configuring Outdoor Unit		RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacilty (kW)			274.0	280.0	286.0	292.0	296.5
Heating Capacity (kW)			314.0	318.0	322.0	326.0	330.5
Outer Dimensions W x D x H (mm)			6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			390+364+364+364	390+390+364+364	390+390+390+364	390+390+390+390	390+390+390+390
Product Gross Weight (kg)			414+388+388+388	414+414+388+388	414+414+414+388	414+414+414+414	414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	71	71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	67.2	69.8	72.4	74.9	76.9
		Heating	84.0	88.3	92.6	96.9	102.1
	Operating Current (A)	Cooling	124.7	129.4	134.1	138.8	142.5
		Heating	153.9	161.8	169.7	177.6	187.1
	MAX Input (kW)		129.64	132.8	135.97	139.13	139.78
	MAX Current (A)		217.3	222.6	227.9	233.2	234.3
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.07	4.01	3.95	3.9	3.85
		Heating COP	3.74	3.6	3.48	3.36	3.24
		Cooling and Heating Average	3.91	3.81	3.72	3.63	3.55
Compressor	Motor Output (kW)		10.55×2+(8.7×2)×3	(10.55×2)×2 +(8.7×2)×2	(10.55×2)×3+8.7×2	(10.55×2)×4	12.98×2 +(10.55×2)×3
Fan	Rated Air Volume (m^3/min)		3/5+348×3	3/5×2+348×2	3/5×3+348	3/5×4	3/5+3/5×3
	Motor Output (kW)		0.58×2+(0.47×2)×3	(0.58×2)×2 +(0.47×2)×2	(0.58×2)×3+0.47×2	(0.58×2)×4	0.58×2+(0.58×2)×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4	25.4	25.4

Horsepower			108	110	112
Outdoor Unit Model			RAS-H08HNCCLW	RAS-H10HNCCLW	RAS-H12HNCCLW
	Configuring Outdoor Unit		RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-280HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			301.0	305.5	310.0
Heating Capacity (kW)			335.0	339.5	344.0
Outer Dimensions W x D x H (mm)			6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			390+390+390+390	390+390+390+390	390+390+390+390
Product Gross Weight (kg)			414+414+414+414	414+414+414+414	414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	79.0	81.0	83.0
		Heating	107.4	112.6	117.8
	Operating Current (A)	Cooling	146.2	149.9	153.6
		Heating	196.6	206.1	215.6
	MAX Input (kW)		140.44	141.1	141.75
	MAX Current (A)		235.4	236.5	237.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.81	3.77	3.73
		Heating COP	3.12	3.02	2.92
		Cooling and Heating Average	3.47	3.4	3.33
Compressor	Motor Output (kW)		(12.98×2)×2 +(10.55×2)×2	(12.98×2)×3+10.55×2	(12.98×2)×4
Fan	Rated Air Volume (m^3/min)		375×2+375×2	375×3+375	375×4
	Motor Output (kW)		(0.58×2)×2 +(0.58×2)×2	(0.58×2)×3+0.58×2	(0.58×2)×4
Refrigerant	Type		R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4

- Non-EU (Standard)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080HNCCLW	RAS-100HNCCLW	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)			25.0	31.5	37.5	45.0	50.0
Outer Dimensions W x D x H (mm)			975×775×1805	975×775×1805	975×775×1805	1235×775×1805	1235×775×1805
Product Net Weight (kg)			207	212	226	281	281
Product Gross Weight (kg)			226	231	245	302	303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	57	59	61
	Operating Sound (dB(A), PWL)		76	81	83	82	84
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		55	57	59	61	62
	Operating Sound (dB(A), PWL)		79	81	83	84	86
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		49	50	52	57	58
Electric Characteristics	Power Consumption (kW)	Cooling	4.07	5.73	7.21	8.55	9.91
		Heating	4.80	6.18	7.81	9.91	12.1
	Operating Current (A)	Cooling	6.9	10.2	14.0	16.9	19.1
		Heating	8.1	10.9	14.8	19.1	22.7
	MAX Input (kW)		10.4	12.4	13.4	15.7	19.0
	MAX Current (A)		16.1	20.0	23.3	27.7	32.7
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	5.50	4.89	4.65	4.68	4.54
		Heating COP	5.21	5.10	4.80	4.54	4.13
		Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34
Compressor	Motor Output (kW)		4.12	5.40	6.72	8.48	10.42
Fan	Rated Air Volume (m^3/min)		176	176	198	239	266
	Motor Output (kW)		0.26	0.26	0.43	0.3×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		5.6	5.6	8.3	8.9	9.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.0	6.9	6.9
Main Pipe Size (mm)	Heat Pump	Gas Piping	19.05	22.2	25.4	25.4	28.58
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180HNCCLW	RAS-200HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			50.4	56.0	61.5	67.0	73.0
Heating Capacity (kW)			56.0	63.0	69.0	77.5	81.5
Outer Dimensions W x D x H (mm)			1235×775×1805	1625×775×1805	1625×775×1805	1625×775×1805	1625×775×1805
Product Net Weight (kg)			282	364	364	364	390
Product Gross Weight (kg)			303	388	388	388	414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	63	63	61	62
	Operating Sound (dB(A), PWL)		84	88	88	85	86
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	65	65	64	65
	Operating Sound (dB(A), PWL)		86	89	89	87	89
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		57	56	57	57	60
Electric Characteristics	Power Consumption (kW)	Cooling	11.7	12.4	13.8	16.2	18.7
		Heating	13.0	12.9	15.6	19.9	24.2
	Operating Current (A)	Cooling	22.2	23.0	25.6	30.0	34.7
		Heating	24.5	23.6	28.6	36.5	44.4
	MAX Input (kW)		23.1	23.9	25.5	31.6	34.8
	MAX Current (A)		39.7	40.0	42.7	53.0	58.3
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.30	4.50	4.44	4.14	3.90
		Heating COP	4.29	4.66	4.41	3.89	3.36
		Cooling and Heating Average	4.30	4.69	4.43	4.02	3.63
Compressor	Motor Output (kW)		11.22	5.5×2	6.77×2	8.7×2	10.55×2
Fan	Rated Air Volume (m^3/min)		263	329	329	348	375
	Motor Output (kW)		0.38×2	0.4×2	0.4×2	0.47×2	0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		10.2	11.2	11.2	11.5	11.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.9	8.4	8.4	8.4	8.4
Main Pipe Size (mm)	Heat Pump	Gas Piping	28.58	28.58	28.58	28.58	31.75
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280HNCCLW	RAS-300HNCCLW	RAS-320HNCCLW	RAS-340HNCCLW	RAS-360HNCCLW
	Configuring Outdoor Unit		-	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
			-	RAS-120HNCCLW	RAS-140HNCCLW	RAS-160HNCCLW	RAS-180HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			77.5	83.9	90.4	95.4	100.8
Heating Capacity (kW)			86.0	93.5	101.0	106.0	112.0
Outer Dimensions W x D x H (mm)			1625×775×1805	2230×775×1805	2490×775×1805	2490×775×1805	2490×775×1805
Product Net Weight (kg)			390	282+226	282+281	282+281	282+282
Product Gross Weight (kg)			414	303+245	303+302	303+303	303+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	63	64	64
	Operating Sound (dB(A), PWL)		87	87	86	87	87
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		66	64	66	66	66
	Operating Sound (dB(A), PWL)		90	88	88	89	89
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	58	60	61	60
Electric Characteristics	Power Consumption (kW)	Cooling	20.8	18.9	20.3	21.6	23.4
		Heating	29.5	20.9	23.0	25.2	26.1
	Operating Current (A)	Cooling	38.4	36.2	39.1	41.3	44.4
		Heating	53.9	39.3	43.6	47.2	49.0
	MAX Input (kW)		35.4	36.7	38.8	42.2	46.2
	MAX Current (A)		59.4	63.0	67.4	72.4	79.4
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	3.73	4.43	4.46	4.41	4.30
		Heating COP	2.92	4.48	4.40	4.21	4.29
		Cooling and Heating Average	3.33	4.46	4.43	4.31	4.30
Compressor	Motor Output (kW)		12.98×2	11.22+6.72	11.22+8.48	11.22+10.42	(11.22)×2
Fan	Rated Air Volume (m^3/min)		375	263+198	263+239	263+256	263×2
	Motor Output (kW)		0.58×2	0.38×2+0.43	0.38×2+0.3×2	0.38×2+0.35×2	(0.38×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.5	18.5	19.1	19.7	20.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	12.9	13.8	13.8	13.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380HNCCLW	RAS-400HNCCLW	RAS-420HNCCLW	RAS-440HNCCLW	RAS-460HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-160HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			106.5	111.9	117.4	123.0	128.5
Heating Capacity (kW)			119.0	125.0	133.5	138.0	146.5
Outer Dimensions W x D x H (mm)			2880×775×1805	2880×775×1805	2880×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+281	364+282	364+282	364+364	364+364
Product Gross Weight (kg)			388+303	388+303	388+303	388+388	388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	64	66	65
	Operating Sound (dB(A), PWL)		89	89	88	91	90
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
	Operating Sound (dB(A), PWL)		91	91	90	92	91
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	60	60	60	60
Electric Characteristics	Power Consumption (kW)	Cooling	23.8	25.6	27.9	27.7	30.0
		Heating	27.8	28.7	33.0	31.3	35.6
	Operating Current (A)	Cooling	44.7	47.8	52.2	51.2	55.6
		Heating	51.3	53.1	61.0	57.2	65.1
	MAX Input (kW)		44.4	48.6	54.6	51.0	57.1
	MAX Current (A)		75.4	82.4	92.7	85.4	95.7
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.48	4.38	4.21	4.44	4.28
		Heating COP	4.29	4.36	4.05	4.41	4.12
		Cooling and Heating Average	4.39	4.37	4.13	4.43	4.20
Compressor	Motor Output (kW)		6.77×2+10.42	6.77×2+11.22	8.7×2+11.22	(6.77×2)×2	8.7×2+6.77×2
Fan	Rated Air Volume (m^3/min)		329+256	329+263	348+263	329×2	348+329
	Motor Output (kW)		0.4×2+0.35×2	0.4×2+0.38×2	0.47×2+0.38×2	(0.4×2)×2	0.47×2+0.4×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.7	21.4	21.7	22.4	22.7
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		15.3	15.3	15.3	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480HNCCLW	RAS-500HNCCLW	RAS-520HNCCLW	RAS-540HNCCLW	RAS-560HNCCLW
	Configuring Outdoor Unit		RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW	RAS-280HNCCLW
			RAS-240HNCCLW	RAS-240HNCCLW	RAS-260HNCCLW	RAS-260HNCCLW	RAS-280HNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			134.0	140.0	146.0	150.5	155.0
Heating Capacity (kW)			155.0	159.0	163.0	167.5	172.0
Outer Dimensions W x D x H (mm)			3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+364	390+364	390+390	390+390	390+390
Product Gross Weight (kg)			388+388	414+388	414+414	414+414	414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
	Operating Sound (dB(A), PWL)		88	89	89	90	90
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
	Operating Sound (dB(A), PWL)		90	91	92	93	93
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	62	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	32.3	34.9	37.5	39.5	41.5
		Heating	39.9	44.2	48.5	53.7	58.9
	Operating Current (A)	Cooling	60.0	64.7	69.4	73.1	76.8
		Heating	73.0	80.9	88.8	98.3	107.8
	MAX Input (kW)		63.2	66.4	69.6	70.2	70.9
	MAX Current (A)		106.0	111.3	116.6	117.7	118.8
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.14	4.01	3.90	3.81	3.73
		Heating COP	3.89	3.60	3.36	3.12	2.92
		Cooling and Heating Average	4.02	3.81	3.63	3.47	3.33
Compressor	Motor Output (kW)		(8.7×2)×2	10.55×2+8.7×2	(10.55×2)×2	12.98×2+10.55×2	(12.98×2)×2
Fan	Rated Air Volume (m^3/min)		348×2	375+348	375×2	375+375	375×2
	Motor Output (kW)		(0.47×2)×2	0.58×2+0.47×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		23.0	23.0	23.0	23.0	23.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64
Outdoor Unit Model			RAS-580HNCCLW	RAS-600HNCCLW	RAS-620HNCCLW	RAS-640HNCCLW
	Configuring Outdoor Unit		RAS-220HNCCLW	RAS-240HNCCLW	RAS-220HNCCLW	RAS-240HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-220HNCCLW	RAS-220HNCCLW
			RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW	RAS-180HNCCLW
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			162.3	167.8	173.4	178.9
Heating Capacity (kW)			181.0	189.5	194.0	202.5
Outer Dimensions W x D x H (mm)			4135×775×1805	4135×775×1805	4525×775×1805	4525×775×1805
Product Net Weight (kg)			364+282+282	364+282+282	364+364+282	364+364+282
Product Gross Weight (kg)			388+303+303	388+303+303	388+388+303	388+388+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	66	67	67
	Operating Sound (dB(A), PWL)		91	89	92	91
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	68	69	69
	Operating Sound (dB(A), PWL)		92	91	93	92
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	62
Electric Characteristics	Power Consumption (kW)	Cooling	37.3	39.6	39.4	41.7
		Heating	41.7	46.0	44.3	48.6
	Operating Current (A)	Cooling	70.0	74.4	73.4	77.8
		Heating	77.6	85.5	81.7	89.6
	MAX Input (kW)		72.0	78.0	73.7	79.8
	MAX Current (A)		122.1	132.4	125.1	135.4
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.36	4.24	4.40	4.29
		Heating COP	4.34	4.12	4.38	4.17
		Cooling and Heating Average	4.35	4.18	4.39	4.23
Compressor	Motor Output (kW)		6.77×2+(11.22)×2	8.7×2+(11.22)×2	(6.77×2)×2+11.22	8.7×2+6.77×2+11.22
Fan	Rated Air Volume (m^3/min)		329+263×2	348+263×2	329×2+263	348+329+263
	Motor Output (kW)		0.4×2+(0.38×2)×2	0.47×2+(0.38×2)×2	(0.4×2)×2+0.38×2	0.47×2+0.4×2 +0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		31.6	31.9	32.6	32.9
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		22.2	22.2	23.7	23.7
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05

- IN/SA (Standard)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080HNCCLI	RAS-100HNCCLI	RAS-120HNCCLI	RAS-140HNCCLI	RAS-160HNCCLI
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)			25.0	31.5	37.5	45.0	50.0
Cooling Capacity (kW) (43°C)			22.4	25.6	30.0	35.0	40.4
Outer Dimensions W x D x H (mm)			975×775×1805	975×775×1805	975×775×1805	1235×775×1805	1235×775×1805
Product Net Weight (kg)			207	212	226	281	281
Product Gross Weight (kg)			226	231	245	302	303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	57	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		55	57	59	61	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		49	50	52	57	58
Electric Characteristics	Power Consumption (kW)	Cooling	4.07	5.73	7.21	8.55	9.91
		Heating	4.80	6.18	7.81	9.91	12.1
	Operating Current (A)	Cooling	6.9	10.2	14.0	16.9	19.1
		Heating	8.1	10.9	14.8	19.1	22.7
	MAX Input (kW)		10.4	12.4	13.4	15.7	19.0
	MAX Current (A)		16.1	20.0	23.3	27.7	32.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	5.50	4.89	4.65	4.68	4.54
		Heating COP	5.21	5.10	4.80	4.54	4.13
		Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34
Compressor	Motor Output (kW)		4.12	5.40	6.72	8.48	10.42
Fan	Rated Air Volume (m^3/min)		176	176	198	239	266
	Motor Output (kW)		0.26	0.26	0.43	0.3×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		5.6	5.6	8.3	8.9	9.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.0	6.9	6.9
Main Pipe Size (mm)	Heat Pump	Gas Piping	19.05	22.2	25.4	25.4	28.58
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180HNCCLI	RAS-200HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			50.4	56.0	61.5	67.0	73.0
Heating Capacity (kW)			56.0	63.0	69.0	77.5	81.5
Cooling Capacity (kW) (43°C)			45.5	49.1	54.0	58.0	63.0
Outer Dimensions W x D x H (mm)			1235×775×1805	1625×775×1805	1625×775×1805	1625×775×1805	1625×775×1805
Product Net Weight (kg)			282	364	364	364	390
Product Gross Weight (kg)			303	388	388	388	414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	63	63	61	62
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	65	65	64	65
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		57	56	57	57	60
Electric Characteristics	Power Consumption (kW)	Cooling	11.7	12.4	13.8	16.2	18.7
		Heating	13.0	12.9	15.6	19.9	24.2
	Operating Current (A)	Cooling	22.2	23.0	25.6	30.0	34.7
		Heating	24.5	23.6	28.6	36.5	44.4
	MAX Input (kW)		23.1	23.9	25.5	31.6	34.8
	MAX Current (A)		39.7	40.0	42.7	53.0	58.3
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.30	4.50	4.44	4.14	3.90
		Heating COP	4.29	4.88	4.41	3.89	3.36
		Cooling and Heating Average	4.30	4.69	4.43	4.02	3.63
Compressor	Motor Output (kW)		11.22	5.5×2	6.77×2	8.7×2	10.55×2
Fan	Rated Air Volume (m^3/min)		263	329	329	348	375
	Motor Output (kW)		0.38×2	0.4×2	0.4×2	0.47×2	0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		10.2	11.2	11.2	11.5	11.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.9	8.4	8.4	8.4	8.4
Main Pipe Size (mm)	Heat Pump	Gas Piping	28.58	28.58	28.58	28.58	31.75
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280HNCCLI	RAS-300HNCCLI	RAS-320HNCCLI	RAS-340HNCCLI	RAS-360HNCCLI
	Configuring Outdoor Unit		-	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI
			-	RAS-120HNCCLI	RAS-140HNCCLI	RAS-160HNCCLI	RAS-180HNCCLI
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			77.5	83.9	90.4	95.4	100.8
Heating Capacity (kW)			86.0	93.5	101.0	106.0	112.0
Cooling Capacity (kW) (43°C)			67.0	75.5	80.5	85.9	91.0
Outer Dimensions W x D x H (mm)			1625×775×1805	2230×775×1805	2490×775×1805	2490×775×1805	2490×775×1805
Product Net Weight (kg)			390	282+226	282+281	282+281	282+282
Product Gross Weight (kg)			414	303+245	303+302	303+303	303+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	64	65	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	58	60	61	60
Electric Characteristics	Power Consumption (kW)	Cooling	20.8	18.9	20.3	21.6	23.4
		Heating	29.5	20.9	23.0	25.2	26.1
	Operating Current (A)	Cooling	38.4	36.2	39.1	41.3	44.4
		Heating	53.9	39.3	43.6	47.2	49.0
	MAX Input (kW)		35.4	36.7	38.8	42.2	46.2
	MAX Current (A)		59.4	63.0	67.4	72.4	79.4
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.73	4.43	4.46	4.41	4.30
		Heating COP	2.92	4.48	4.40	4.21	4.29
		Cooling and Heating Average	3.33	4.46	4.43	4.31	4.30
Compressor	Motor Output (kW)		12.98×2	11.22+6.72	11.22+8.48	11.22+10.42	(11.22)×2
Fan	Rated Air Volume (m^3/min)		376	263+198	263+239	263+266	263×2
	Motor Output (kW)		0.58×2	0.38×2+0.43	0.38×2+0.3×2	0.38×2+0.35×2	(0.38×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.5	18.5	19.1	19.7	20.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	12.9	13.8	13.8	13.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380HNCCLI	RAS-400HNCCLI	RAS-420HNCCLI	RAS-440HNCCLI	RAS-460HNCCLI
	Configuring Outdoor Unit		RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI
			RAS-160HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			106.5	111.9	117.4	123.0	128.5
Heating Capacity (kW)			119.0	125.0	133.5	138.0	146.5
Cooling Capacity (kW) (43°C)			94.4	99.5	103.5	108.0	112.0
Outer Dimensions W x D x H (mm)			2880×775×1805	2880×775×1805	2880×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+281	364+282	364+282	364+364	364+364
Product Gross Weight (kg)			388+303	388+303	388+303	388+388	388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	64	66	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	60	60	60	60
Electric Characteristics	Power Consumption (kW)	Cooling	23.8	25.6	27.9	27.7	30.0
		Heating	27.8	28.7	33.0	31.3	35.6
	Operating Current (A)	Cooling	44.7	47.8	52.2	51.2	55.6
		Heating	51.3	53.1	61.0	57.2	65.1
	MAX Input (kW)		44.4	48.6	54.6	51.0	57.1
	MAX Current (A)		75.4	82.4	92.7	85.4	95.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.48	4.38	4.21	4.44	4.28
		Heating COP	4.29	4.36	4.05	4.41	4.12
		Cooling and Heating Average	4.39	4.37	4.13	4.43	4.20
Compressor	Motor Output (kW)		6.77×2+10.42	6.77×2+11.22	8.7×2+11.22	(6.77×2)×2	8.7×2+6.77×2
Fan	Rated Air Volume (m^3/min)		329+256	329+263	348+263	329×2	348+329
	Motor Output (kW)		0.4×2+0.35×2	0.4×2+0.38×2	0.47×2+0.38×2	(0.4×2)×2	0.47×2+0.4×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.7	21.4	21.7	22.4	22.7
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		15.3	15.3	15.3	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480HNCCLI	RAS-500HNCCLI	RAS-520HNCCLI	RAS-540HNCCLI	RAS-560HNCCLI
	Configuring Outdoor Unit		RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI
			RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			134.0	140.0	146.0	150.5	155.0
Heating Capacity (kW)			155.0	159.0	163.0	167.5	172.0
Cooling Capacity (kW) (43°C)			116.0	121.0	126.0	130.0	134.0
Outer Dimensions W x D x H (mm)			3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			364+364	390+364	390+390	390+390	390+390
Product Gross Weight (kg)			388+388	414+388	414+414	414+414	414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	62	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	32.3	34.9	37.5	39.5	41.5
		Heating	39.9	44.2	48.5	53.7	58.9
	Operating Current (A)	Cooling	60.0	64.7	69.4	73.1	76.8
		Heating	73.0	80.9	88.8	98.3	107.8
	MAX Input (kW)		63.2	66.4	69.6	70.2	70.9
	MAX Current (A)		106.0	111.3	116.6	117.7	118.8
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.14	4.01	3.90	3.81	3.73
		Heating COP	3.89	3.60	3.36	3.12	2.92
		Cooling and Heating Average	4.02	3.81	3.63	3.47	3.33
Compressor	Motor Output (kW)		(8.7×2)×2	10.55×2+8.7×2	(10.55×2)×2	12.98×2+10.55×2	(12.98×2)×2
Fan	Rated Air Volume (m^3/min)		348×2	375+348	375×2	375+375	375×2
	Motor Output (kW)		(0.47×2)×2	0.58×2+0.47×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		23.0	23.0	23.0	23.0	23.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Pump	Gas Piping	38.1	38.1	38.1	38.1	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580HNCCLI	RAS-600HNCCLI	RAS-620HNCCLI	RAS-640HNCCLI	RAS-660HNCCLI
	Configuring Outdoor Unit		RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
			RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI
			RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI	RAS-180HNCCLI
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			162.3	167.8	173.4	178.9	184.4
Heating Capacity (kW)			181.0	189.5	194.0	202.5	211.0
Cooling Capacity (kW) (43°C)			145.0	149.0	153.5	157.5	161.5
Outer Dimensions W x D x H (mm)			4135×775×1805	4135×775×1805	4525×775×1805	4525×775×1805	4525×775×1805
Product Net Weight (kg)			364+282+282	364+282+282	364+364+282	364+364+282	364+364+282
Product Gross Weight (kg)			388+303+303	388+303+303	388+388+303	388+388+303	388+388+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	66	67	67	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	68	69	69	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	62	62
Electric Characteristics	Power Consumption (kW)	Cooling	37.3	39.6	39.4	41.7	44.1
		Heating	41.7	46.0	44.3	48.6	52.9
	Operating Current (A)	Cooling	70.0	74.4	73.4	77.8	82.2
		Heating	77.6	85.5	81.7	89.6	97.5
	MAX Input (kW)		72.0	78.0	73.7	79.8	85.9
	MAX Current (A)		122.1	132.4	125.1	135.4	145.7
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.36	4.24	4.40	4.29	4.19
		Heating COP	4.34	4.12	4.36	4.17	3.99
		Cooling and Heating Average	4.35	4.18	4.39	4.23	4.09
Compressor	Motor Output (kW)		6.77×2+(11.22)×2	8.7×2+(11.22)×2	(6.77×2)×2+11.22	8.7×2+6.77×2+11.22	(8.7×2)×2+11.22
Fan	Rated Air Volume (m^3/min)		329+263×2	348+263×2	329×2+263	348+329+263	348×2+263
	Motor Output (kW)		0.4×2+(0.38×2)×2	0.47×2+(0.38×2)×2	(0.4×2)×2+0.38×2	0.47×2+0.4×2 +0.38×2	(0.47×2)×2+0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		31.6	31.9	32.6	32.9	33.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		22.2	22.2	23.7	23.7	23.7
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	44.45	44.45
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			68	70	72	74	76
Outdoor Unit Model			RAS-680HNCCLI	RAS-700HNCCLI	RAS-720HNCCLI	RAS-740HNCCLI	RAS-760HNCCLI
	Configuring Outdoor Unit		RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
			RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI
			RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			190.0	195.5	201.0	207.0	213.0
Heating Capacity (kW)			215.5	224.0	232.5	236.5	240.5
Cooling Capacity (kW) (43°C)			166.0	170.0	174.0	179.0	184.0
Outer Dimensions W x D x H (mm)			4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805
Product Net Weight (kg)			364+364+364	364+364+364	364+364+364	390+364+364	390+390+364
Product Gross Weight (kg)			388+388+388	388+388+388	388+388+388	414+388+388	414+414+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	66	66	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	69	69	69	69
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	63	64
Electric Characteristics	Power Consumption (kW)	Cooling	43.9	46.2	48.5	51.1	53.6
		Heating	51.2	55.5	59.8	64.1	68.4
	Operating Current (A)	Cooling	81.2	85.6	90.0	94.7	99.4
		Heating	93.7	101.6	109.5	117.4	125.3
	MAX Input (kW)		82.6	88.7	94.9	98.0	101.2
	MAX Current (A)		138.4	148.7	159.0	164.3	169.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.33	4.23	4.14	4.05	3.97
		Heating COP	4.21	4.04	3.89	3.69	3.52
		Cooling and Heating Average	4.27	4.14	4.02	3.87	3.75
Compressor	Motor Output (kW)		8.7×2+(6.77×2)×2	(8.7×2)×2+6.77×2	(8.7×2)×3	10.55×2+(8.7×2)×2	(10.55×2)×2+8.7×2
Fan	Rated Air Volume (m^3/min)		348+329×2	348×2+329	348×3	375+348×2	375×2+348
	Motor Output (kW)		0.47×2+(0.4×2)×2	(0.47×2)×2+0.4×2	(0.47×2)×3	0.58×2+(0.47×2)×2	(0.58×2)×2+0.47×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		33.9	34.2	34.5	34.5	34.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	25.2
Main Pipe Size (mm)	Heat Pump	Gas Piping	44.45	44.45	44.45	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			78	80	82	84	86
Outdoor Unit Model			RAS-780HNCCLI	RAS-800HNCCLI	RAS-820HNCCLI	RAS-840HNCCLI	RAS-860HNCCLI
	Configuring Outdoor Unit		RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-240HNCCLI
			RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI	RAS-220HNCCLI
			RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI	RAS-220HNCCLI
			-	-	-	-	RAS-180HNCCLI
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			219.0	223.5	228.0	232.5	240.4
Heating Capacity (kW)			244.5	249.0	253.5	258.0	271.5
Cooling Capacity (kW) (43°C)			189.0	193.0	197.0	201.0	211.5
Outer Dimensions W x D x H (mm)			4915×775×1805	4915×775×1805	4915×775×1805	4915×775×1805	6170×775×1805
Product Net Weight (kg)			390+390+390	390+390+390	390+390+390	390+390+390	364+364+364+282
Product Gross Weight (kg)			414+414+414	414+414+414	414+414+414	414+414+414	388+388+388+303
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	67	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	70	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	65	65	63
Electric Characteristics	Power Consumption (kW)	Cooling	56.2	58.2	60.2	62.3	55.6
		Heating	72.7	77.9	83.1	88.4	64.3
	Operating Current (A)	Cooling	104.1	107.8	111.5	115.2	103.4
		Heating	133.2	142.7	152.2	161.7	118.2
	MAX Input (kW)		104.4	105.0	105.7	106.3	106.3
	MAX Current (A)		174.9	176.0	177.1	178.2	178.1
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.90	3.84	3.79	3.73	4.33
		Heating COP	3.66	3.61	3.55	2.92	4.23
		Cooling and Heating Average	3.63	3.53	3.42	3.33	4.28
Compressor	Motor Output (kW)		(10.55×2)×3	12.98×2 +(10.55×2)×2	(12.98×2)×2 +10.55×2	(12.98×2)×3	8.7×2+(6.77×2)×2 +11.22
Fan	Rated Air Volume (m^3/min)		375×3	375+375×2	375×2+375	375×3	348+329×2+263
	Motor Output (kW)		(0.58×2)×3	0.58×2+(0.58×2)×2	(0.58×2)×2+0.58×2	(0.58×2)×3	0.47×2+(0.4×2)×2 +0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		34.5	34.5	34.5	34.5	44.1
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		25.2	25.2	25.2	25.2	32.1
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	22.2	22.2	22.2	22.2

Horsepower			88	90	92	94	96
Outdoor Unit Model			RAS-880HNCCLI	RAS-900HNCCLI	RAS-920HNCCLI	RAS-940HNCCLI	RAS-960HNCCLI
	Configuring Outdoor Unit		RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
			RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
			RAS-220HNCCLI	RAS-240HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI
			RAS-180HNCCLI	RAS-180HNCCLI	RAS-220HNCCLI	RAS-220HNCCLI	RAS-240HNCCLI
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			245.9	251.4	257.0	262.5	268.0
Heating Capacity (kW)			280.0	288.5	293.0	301.5	310.0
Cooling Capacity (kW) (43°C)			215.5	219.5	224.0	228.0	232.0
Outer Dimensions W x D x H (mm)			6170×775×1805	6170×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			364+364+364+282	364+364+364+282	364+364+364+364	364+364+364+364	364+364+364+364
Product Gross Weight (kg)			388+388+388+303	388+388+388+303	388+388+388+388	388+388+388+388	388+388+388+388
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	67	68	68	67
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	70	71	70	70
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		63	63	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	57.9	60.2	60.0	62.4	64.7
		Heating	68.5	72.8	71.1	75.4	79.7
	Operating Current (A)	Cooling	107.8	112.2	111.2	115.6	120.0
		Heating	126.1	134.0	130.2	138.1	146.0
	MAX Input (kW)		112.4	118.6	114.2	120.3	126.5
	MAX Current (A)		188.4	198.7	191.4	201.7	212.0
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.25	4.17	4.28	4.21	4.14
		Heating COP	4.09	3.96	4.12	4.00	3.89
		Cooling and Heating Average	4.17	4.07	4.20	4.11	4.02
Compressor	Motor Output (kW)		(8.7×2)×2 +6.77×2+11.22	(8.7×2)×3+11.22	(8.7×2)×2 +(6.77×2)×2	(8.7×2)×3+6.77×2	(8.7×2)×4
Fan	Rated Air Volume (m^3/min)		348×2+329+263	348×3+263	348×2+329×2	348×3+329	348×4
	Motor Output (kW)		(0.47×2)×2+0.4×2 +0.38×2	(0.47×2)×3+0.38×2	(0.47×2)×2 +(0.4×2)×2	(0.47×2)×3+0.4×2	(0.47×2)×4
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		44.4	44.7	45.4	45.7	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		32.1	32.1	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	50.8	50.8	50.8	50.8	50.8
		Liquid Piping	22.2	25.4	25.4	25.4	25.4

Horsepower			98	100	102	104	106
Outdoor Unit Model			RAS-980HNCCLI	RAS-H00HNCCLI	RAS-H02HNCCLI	RAS-H04HNCCLI	RAS-H06HNCCLI
	Configuring Outdoor Unit		RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI
			RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
			RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
			RAS-240HNCCLI	RAS-240HNCCLI	RAS-240HNCCLI	RAS-260HNCCLI	RAS-260HNCCLI
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			274.0	280.0	286.0	292.0	296.5
Heating Capacity (kW)			314.0	318.0	322.0	326.0	330.5
Cooling Capacity (kW) (43°C)			237.0	242.0	247.0	252.0	256.0
Outer Dimensions W x D x H (mm)			6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			390+364+364+364	390+390+364+364	390+390+390+364	390+390+390+390	390+390+390+390
Product Gross Weight (kg)			414+388+388+388	414+414+388+388	414+414+414+388	414+414+414+414	414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		70	71	71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	67.2	69.8	72.4	74.9	76.9
		Heating	84.0	88.3	92.6	96.9	102.1
	Operating Current (A)	Cooling	124.7	129.4	134.1	138.8	142.5
		Heating	153.9	161.8	169.7	177.6	187.1
	MAX Input (kW)		129.6	132.8	136.0	139.1	139.8
	MAX Current (A)		217.3	222.6	227.9	233.2	234.3
Energy Efficiency (Single Outdoor Unit)		Cooling EER	4.07	4.01	3.95	3.90	3.85
		Heating COP	3.74	3.60	3.48	3.36	3.24
		Cooling and Heating Average	3.91	3.81	3.72	3.63	3.55
Compressor	Motor Output (kW)		10.55×2+(8.7×2)×3	(10.55×2)×2 +(8.7×2)×2	(10.55×2)×3+8.7×2	(10.55×2)×4	12.98×2+(10.55×2)×3
Fan	Rated Air Volume (m^3/min)		375+348×3	375×2+348×2	375×3+348	375×4	375+375×3
	Motor Output (kW)		0.58×2+(0.47×2)×3	(0.58×2)×2 +(0.47×2)×2	(0.58×2)×3+0.47×2	(0.58×2)×4	0.58×2+(0.58×2)×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4	25.4	25.4

Horsepower			108	110	112
Outdoor Unit Model			RAS-H08HNCCLI	RAS-H10HNCCLI	RAS-H12HNCCLI
	Configuring Outdoor Unit		RAS-280HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI
			RAS-280HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI
			RAS-260HNCCLI	RAS-280HNCCLI	RAS-280HNCCLI
			RAS-260HNCCLI	RAS-260HNCCLI	RAS-280HNCCLI
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			301.0	305.5	310.0
Heating Capacity (kW)			335.0	339.5	344.0
Cooling Capacity (kW) (43°C)			260.0	264.0	268.0
Outer Dimensions W x D x H (mm)			6560×775×1805	6560×775×1805	6560×775×1805
Product Net Weight (kg)			390+390+390+390	390+390+390+390	390+390+390+390
Product Gross Weight (kg)			414+414+414+414	414+414+414+414	414+414+414+414
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		68	68	68
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		71	71	71
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		66	66	66
Electric Characteristics	Power Consumption (kW)	Cooling	79.0	81.0	83.0
		Heating	107.4	112.6	117.8
	Operating Current (A)	Cooling	146.2	149.9	153.6
		Heating	196.6	206.1	215.6
	MAX Input (kW)		140.4	141.1	141.8
	MAX Current (A)		235.4	236.5	237.6
Energy Efficiency (Single Outdoor Unit)		Cooling EER	3.81	3.77	3.73
		Heating COP	3.12	3.02	2.92
		Cooling and Heating Average	3.47	3.40	3.33
Compressor	Motor Output (kW)		(12.98×2)×2 +(10.55×2)×2	(12.98×2)×3+10.55×2	(12.98×2)×4
Fan	Rated Air Volume (m^3/min)		375×2+375×2	375×3+375	375×4
	Motor Output (kW)		(0.58×2)×2 +(0.58×2)×2	(0.58×2)×3+0.58×2	(0.58×2)×4
Refrigerant	Type		R410A	R410A	R410A
	Initial Charge Amount (kg)		46.0	46.0	46.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D
	Charge Amount (L)		33.6	33.6	33.6
Main Pipe Size (mm)	Heat Pump	Gas Piping	54.0	54.0	54.0
		Liquid Piping	25.4	25.4	25.4

- MEA (Standard) (Heat Recovery)

Horsepower			8	10	12	14	16
Outdoor Unit Model			RAS-080RNCCLW	RAS-100RNCCLW	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			22.4	28.0	33.5	40.0	45.0
Heating Capacity (kW)			25.0	31.5	37.5	45.0	50.0
Outer Dimensions W x D x H (mm)			975×775×1805	975×775×1805	975×775×1805	1235×775×1805	1235×775×1805
Product Net Weight (kg)			210	215	230	285	286
Product Gross Weight (kg)			229	234	249	306	307
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		52	55	57	59	61
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		55	57	59	61	62
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		49	50	52	57	58
Electric Characteristics	Power Consumption (kW)	Cooling	4.07	5.73	7.21	8.56	9.91
		Heating	4.80	6.18	7.81	9.91	12.1
	Operating Current (A)	Cooling	6.9	10.2	14.0	16.9	19.1
		Heating	8.1	10.9	14.8	19.1	22.7
	MAX Input (kW)		10.4	12.4	13.4	15.7	19.0
	MAX Current (A)		16.1	20.0	23.3	27.7	32.7
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	5.50	4.89	4.65	4.68	4.54
		Heating COP	5.21	5.10	4.80	4.54	4.13
		Cooling and Heating Average	5.36	5.00	4.73	4.61	4.34
Compressor	Motor Output (kW)		4.12	5.40	6.72	8.48	10.42
Fan	Rated Air Volume (m^3/min)		175	175	198	239	256
	Motor Output (kW)		0.26	0.26	0.43	0.3×2	0.35×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		5.6	5.6	8.3	8.9	9.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.0	6.0	6.0	6.9	6.9
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	19.05	22.2	25.4	25.4	28.58
		Gas Piping (High/Low Pressure)	15.88	19.05	22.2	22.2	22.2
		Liquid Piping	9.52	9.52	12.7	12.7	12.7

Horsepower			18	20	22	24	26
Outdoor Unit Model			RAS-180RNCCLW	RAS-200RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW
	Configuring Outdoor Unit		-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			50.4	56.0	61.5	67.0	73.0
Heating Capacity (kW)			56.0	63.0	69.0	77.5	81.5
Outer Dimensions W x D x H (mm)			1235×775×1805	1625×775×1805	1625×775×1805	1625×775×1805	1625×775×1805
Product Net Weight (kg)			286	368	368	368	393
Product Gross Weight (kg)			307	392	392	392	417
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		61	63	63	61	62
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		63	65	65	64	65
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		57	56	57	57	60
Electric Characteristics	Power Consumption (kW)	Cooling	11.7	12.4	13.8	16.2	18.7
		Heating	13.0	12.9	15.6	19.9	24.2
	Operating Current (A)	Cooling	22.2	23.0	25.6	30.0	34.7
		Heating	24.5	23.6	28.6	36.5	44.4
	MAX Input (kW)		23.1	23.9	25.5	31.6	34.8
	MAX Current (A)		39.7	40.0	42.7	53.0	58.3
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.30	4.50	4.44	4.14	3.90
		Heating COP	4.29	4.88	4.41	3.89	3.36
		Cooling and Heating Average	4.30	4.69	4.43	4.02	3.63
Compressor	Motor Output (kW)		11.22	5.5×2	6.77×2	8.7×2	10.55×2
Fan	Rated Air Volume (m^3/min)		263	329	329	348	375
	Motor Output (kW)		0.38×2	0.4×2	0.4×2	0.47×2	0.58×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		10.2	11.2	11.2	11.5	11.5
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		6.9	8.4	8.4	8.4	8.4
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	28.58	28.58	28.58	28.58	31.75
		Gas Piping (High/Low Pressure)	22.2	22.2	25.4	25.4	25.4
		Liquid Piping	15.88	15.88	15.88	15.88	19.05

Horsepower			28	30	32	34	36
Outdoor Unit Model			RAS-280RNCCLW	RAS-300RNCCLW	RAS-320RNCCLW	RAS-340RNCCLW	RAS-360RNCCLW
	Configuring Outdoor Unit		-	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW
			-	RAS-120RNCCLW	RAS-140RNCCLW	RAS-160RNCCLW	RAS-180RNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			77.5	83.9	90.4	95.4	100.8
Heating Capacity (kW)			86.0	93.5	101.0	106.0	112.0
Outer Dimensions W x D x H (mm)			1625×775×1805	2230×775×1805	2490×775×1805	2490×775×1805	2490×775×1805
Product Net Weight (kg)			393	286+230	286+285	286+286	286+286
Product Gross Weight (kg)			417	307+249	307+306	307+307	307+307
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	63	64	64
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	64	65	66	66
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	58	60	61	60
Electric Characteristics	Power Consumption (kW)	Cooling	20.8	18.9	20.3	21.6	23.4
		Heating	29.5	20.9	23.0	25.2	26.1
	Operating Current (A)	Cooling	38.4	36.2	39.1	41.3	44.4
		Heating	53.9	39.3	43.6	47.2	49.0
	MAX Input (kW)		35.4	36.7	38.8	42.2	46.2
	MAX Current (A)		59.4	63.0	67.4	72.4	79.4
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	3.73	4.43	4.46	4.41	4.30
		Heating COP	2.92	4.48	4.40	4.21	4.29
		Cooling and Heating Average	3.33	4.46	4.43	4.31	4.30
Compressor	Motor Output (kW)		12.98×2	11.22+6.72	11.22+8.48	11.22+10.42	(11.22)×2
Fan	Rated Air Volume (m^3/min)		375	263+198	263+239	263+256	263×2
	Motor Output (kW)		0.58×2	0.38×2+0.43	0.38×2+0.3×2	0.38×2+0.36×2	(0.38×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		11.5	18.5	19.1	19.7	20.4
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		8.4	12.9	13.8	13.8	13.8
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	31.75	31.75	31.75	31.75	38.1
		Gas Piping (High/Low Pressure)	28.58	28.58	28.58	28.58	28.58
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			38	40	42	44	46
Outdoor Unit Model			RAS-380RNCCLW	RAS-400RNCCLW	RAS-420RNCCLW	RAS-440RNCCLW	RAS-460RNCCLW
	Configuring Outdoor Unit		RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW
			RAS-160RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			106.5	111.9	117.4	123.0	128.5
Heating Capacity (kW)			119.0	125.0	133.5	138.0	146.5
Outer Dimensions W x D x H (mm)			2880×775×1805	2880×775×1805	2880×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			368+286	368+286	368+286	368+368	368+368
Product Gross Weight (kg)			392+307	392+307	392+307	392+392	392+392
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		65	65	64	66	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	67	67	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		61	60	60	60	60
Electric Characteristics	Power Consumption (kW)	Cooling	23.8	25.6	27.9	27.7	30.0
		Heating	27.8	28.7	33.0	31.3	35.6
	Operating Current (A)	Cooling	44.7	47.8	52.2	51.2	55.6
		Heating	51.3	53.1	61.0	57.2	65.1
	MAX Input (kW)		44.4	48.6	54.6	51.0	57.1
	MAX Current (A)		75.4	82.4	92.7	85.4	95.7
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.48	4.38	4.21	4.44	4.28
		Heating COP	4.29	4.36	4.05	4.41	4.12
		Cooling and Heating Average	4.39	4.37	4.13	4.43	4.20
Compressor	Motor Output (kW)		6.77×2+10.42	6.77×2+11.22	8.7×2+11.22	(6.77×2)×2	8.7×2+6.77×2
Fan	Rated Air Volume (m^3/min)		329+256	329+263	348+263	329×2	348+329
	Motor Output (kW)		0.4×2+0.35×2	0.4×2+0.38×2	0.47×2+0.38×2	(0.4×2)×2	0.47×2+0.4×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		20.7	21.4	21.7	22.4	22.7
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		15.3	15.3	15.3	16.8	16.8
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	38.1	38.1	38.1	38.1	38.1
		Gas Piping (High/Low Pressure)	31.75	31.75	31.75	31.75	31.75
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			48	50	52	54	56
Outdoor Unit Model			RAS-480RNCCLW	RAS-500RNCCLW	RAS-520RNCCLW	RAS-540RNCCLW	RAS-560RNCCLW
	Configuring Outdoor Unit		RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW	RAS-280RNCCLW
			RAS-240RNCCLW	RAS-240RNCCLW	RAS-260RNCCLW	RAS-260RNCCLW	RAS-280RNCCLW
			-	-	-	-	-
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			134.0	140.0	146.0	150.5	155.0
Heating Capacity (kW)			155.0	159.0	163.0	167.5	172.0
Outer Dimensions W x D x H (mm)			3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805	3270×775×1805
Product Net Weight (kg)			368+368	393+368	393+393	393+393	393+393
Product Gross Weight (kg)			392+392	417+392	417+417	417+417	417+417
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		64	65	65	65	65
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	68	68	68	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		60	62	63	63	63
Electric Characteristics	Power Consumption (kW)	Cooling	32.3	34.9	37.5	39.5	41.5
		Heating	39.9	44.2	48.5	53.7	58.9
	Operating Current (A)	Cooling	60.0	64.7	69.4	73.1	76.8
		Heating	73.0	80.9	88.8	98.3	107.8
	MAX Input (kW)		63.2	66.4	69.6	70.2	70.9
	MAX Current (A)		106.0	111.3	116.6	117.7	118.8
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.14	4.01	3.90	3.81	3.73
		Heating COP	3.89	3.60	3.36	3.12	2.92
		Cooling and Heating Average	4.02	3.81	3.63	3.47	3.33
Compressor	Motor Output (kW)		(8.7×2)×2	10.55×2+8.7×2	(10.55×2)×2	12.98×2+10.55×2	(12.98×2)×2
Fan	Rated Air Volume (m^3/min)		348×2	375+348	375×2	375+375	375×2
	Motor Output (kW)		(0.47×2)×2	0.58×2+0.47×2	(0.58×2)×2	0.58×2+0.58×2	(0.58×2)×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		23.0	23.0	23.0	23.0	23.0
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		16.8	16.8	16.8	16.8	16.8
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	38.1	38.1	38.1	38.1	44.45
		Gas Piping (High/Low Pressure)	31.75	31.75	31.75	31.75	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05

Horsepower			58	60	62	64	66
Outdoor Unit Model			RAS-580RNCCLW	RAS-600RNCCLW	RAS-620RNCCLW	RAS-640RNCCLW	RAS-660RNCCLW
	Configuring Outdoor Unit		RAS-220RNCCLW	RAS-240RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW	RAS-240RNCCLW
			RAS-180RNCCLW	RAS-180RNCCLW	RAS-220RNCCLW	RAS-220RNCCLW	RAS-240RNCCLW
			RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW	RAS-180RNCCLW
			-	-	-	-	-
Power Source Specifications			3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz	3N~ 380-415V 50Hz
Cooling Capacity (kW)			162.3	167.8	173.4	178.9	184.4
Heating Capacity (kW)			181.0	189.5	194.0	202.5	211.0
Outer Dimensions W x D x H (mm)			4135×775×1805	4135×775×1805	4525×775×1805	4525×775×1805	4525×775×1805
Product Net Weight (kg)			368+286+286	368+286+286	368+368+286	368+368+286	368+368+286
Product Gross Weight (kg)			392+307+307	392+307+307	392+392+307	392+392+307	392+392+307
Exterior Color (Munsell Symbol)			Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)	Natural gray (1.0Y 8.5/0.5)
Cooling Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		67	66	67	67	66
Heating Rating	Operating Sound (dB(A), SPL)(Full-anechoic)		69	68	69	69	68
Night Shift	Operating Sound (dB(A), SPL)(Full-anechoic)		62	62	62	62	62
Electric Characteristics	Power Consumption (kW)	Cooling	37.3	39.6	39.4	41.7	44.1
		Heating	41.7	46.0	44.3	48.6	52.9
	Operating Current (A)	Cooling	70.0	74.4	73.4	77.8	82.2
		Heating	77.6	85.5	81.7	89.6	97.5
	MAX Input (kW)		72.0	78.0	73.7	79.8	85.9
	MAX Current (A)		122.1	132.4	125.1	135.4	145.7
Coefficient of Performance (Single Outdoor Unit)		Cooling EER	4.36	4.24	4.40	4.29	4.19
		Heating COP	4.34	4.12	4.38	4.17	3.99
		Cooling and Heating Average	4.35	4.18	4.39	4.23	4.09
Compressor	Motor Output (kW)		6.77×2+(11.22)×2	8.7×2+(11.22)×2	(6.77×2)×2+11.22	8.7×2+6.77×2+11.22	(8.7×2)×2+11.22
Fan	Rated Air Volume (m^3/min)		329+263×2	348+263×2	329×2+263	348+329+263	348×2+263
	Motor Output (kW)		0.4×2+(0.38×2)×2	0.47×2+(0.38×2)×2	(0.4×2)×2+0.38×2	0.47×2+0.4×2+0.38×2	(0.47×2)×2+0.38×2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount (kg)		31.6	31.9	32.6	32.9	33.2
Refrigerant Oil	Type		FVC68D	FVC68D	FVC68D	FVC68D	FVC68D
	Charge Amount (L)		22.2	22.2	23.7	23.7	23.7
Main Pipe Size (mm)	Heat Recovery	Gas Piping (Low Pressure)	44.45	44.45	44.45	44.45	44.45
		Gas Piping (High/Low Pressure)	38.1	38.1	38.1	38.1	38.1
		Liquid Piping	19.05	19.05	19.05	19.05	19.05