

HITACHI

Inspire the Next

HITACHI PACKAGED AIR CONDITIONERS AIR-COOLED TYPE

日立氣冷式箱型空調機



Models :

Free-Blow Type

Indoor Units	Outdoor Units
RP-5A4	RCR-5A4
RP-8A4	RCR-8A4
RP-10A4	RCR-10A4

Duct Connection Type

Indoor Units	Outdoor Units
RP-5AL4	RCR-5A4
RP-8AL4	RCR-8A4
RP-10AL4	RCR-10A4
RP-15AL4	RCR-15A4
RP-20AL4	2 × RCR-10A4
RP-30AL5	2 × RCR-16A4

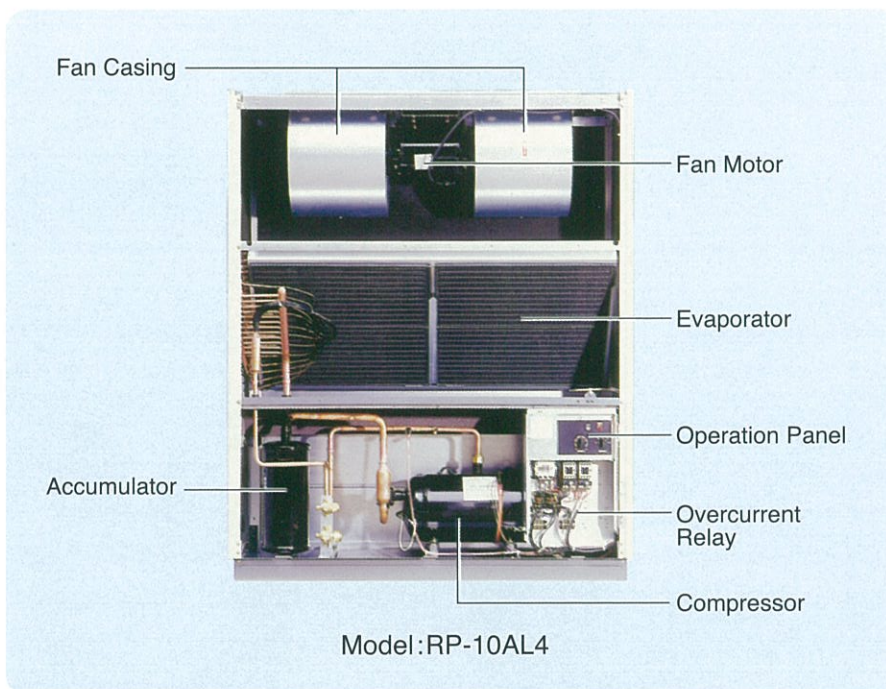
Nominal Capacity Range

12,500 kcal/h	to	78,000 kcal/h	at	50Hz
14,500 W	to	90,700 W	at	50Hz
49,600 Btu/h	to	309,500 Btu/h	at	50Hz

13,500 kcal/h	to	84,000 kcal/h	at	60Hz
15,700 W	to	97,700 W	at	60Hz
53,600 Btu/h	to	333,300 Btu/h	at	60Hz

THE STREAMLINED SHAPE PERFORMANCE EXPAND

HITACHI has developed packaged air conditioners <air-cooled type> with a sleek new look. In addition to excellent performance providing high efficiency, high reliability and low noise, the design has been upgraded. Moreover, a slim design has further relaxed restrictions on installation. The air conditioners of this type are available for use in factories, stations, exhibition halls, art museums and similar places. An extensive lineup features 5 to 30 horsepower models. An extensive lineup features 5 to 30 horsepower models which all adopt with a high efficiency scroll compressor. Users can choose the optimum model according to applications or using purpose.



FEATURES

CENTRALIZED CONTROL ON OPERATION PANEL

Every running status can be controlled from the operation panel installed on front of the unit and checked by indication lamps. The operation panel is excellent in functionality as well as operability.

ENERGY CONSERVATION

HITACHI's unique compressor, evaporator and condenser greatly improve energy efficiency, thus contributing to energy conservation.

MAXIMUM PIPING LENGTH OF 50M

The maximum piping length of 50m enables a remarkable extension of distance compared with the conventional length of 30m. This relaxes restrictions on installation, so the air conditioners can even be installed on the roof.

HIGH RELIABILITY

Safety devices such as a quick response overcurrent relay and a pressure switch assure high reliability.

LOW NOISE AND LOW VIBRATION

Vibration-proof rubber seals and cabinet acoustic materials provide low noise and low vibration.

EASY MAINTENANCE

There is an enough maintenance space inside the unit to further facilitate maintenance.

NEW DESIGN

NEW DESIGNS HAVE FEATURES WITH EASY INSTALLATION AND APPLICATION

Air-Cooled Packaged Air Conditioner has been newly designed with sharp popular horizontal strips on discharge and suction grills. The rounded appearances have produced a soft imagine on air conditioner. The new good-looking design have make easy match in various places like restaurant and commercial office building, etc.

ACCESSORIES

FURTHER FUNCTIONAL EXPANSION

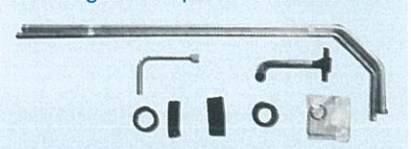
Various options are available such as an electric heater, a hot water heater, a steam heater and a humidifier. Easy installation of such options enables further expansion of functions.

Standard Accessories

1.Hexagon Wrench and Spindle for Stop Valve



2.Refrigerant Pipe Connection Set



AND TOP OF THE LINE POSSIBILITIES

GENERAL DATA (INDOOR UNITS)

Item (unit)			Model	RP-5A4	RP-5AL4	RP-8A4	RP-8AL4	RP-10A4	RP-10AL4	RP-15AL4	RP-20AL4	RP-30AL5
Nominal Cooling Capacity	50Hz	kcal/h		12,500	12,500	18,500	18,500	25,000	25,000	39,000	52,000	78,000
		W		14,500	14,500	21,500	21,500	29,100	29,100	45,300	60,500	90,700
		Btu/h		49,600	49,600	73,400	73,400	99,200	99,200	154,800	206,400	309,500
	60Hz	kcal/h		13,500	13,500	20,000	20,000	26,500	26,500	42,000	56,000	84,000
		W		15,700	15,700	23,300	23,300	30,800	30,800	48,800	65,100	97,700
		Btu/h		53,600	53,600	79,400	79,400	105,200	105,200	166,700	222,200	333,300
Capacity Control			%	100,0	100,0	100,0	100,0	100,0	100,0	100,50,0	100,50,0	100,50,0
Cabinet Color			Synthetic Resin Paint Baked on Finished Steel Plate									
Front Panel, Side Panel (MUNSELL Code)				Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)
Air Outlet Grill (MUNSELL Code)				Gray (2.5Y 4.5/0.7)	—	Gray (2.5Y 4.5/0.7)	—	Gray (2.5Y 4.5/0.7)	—	—	—	—
Outer Dimensions	Height	mm		1,950	1,730	1,950	1,730	1,950	1,730	1,850+30	1,850+30	2,000+30
		(in.)		(76-3/4)	(68-1/8)	(76-3/4)	(68-1/8)	(76-3/4)	(68-1/8)	(72-13/16+1-3/16)	(72-13/16+1-3/16)	(78-3/4+1-3/16)
	Width	mm		800	800	1,100	1,100	1,400	1,400	1,400	1,700	2,000
		(in.)		(31-1/2)	(31-1/2)	(43-5/16)	(43-5/16)	(55-1/8)	(55-1/8)	(55-1/8)	(66-15/16)	(78-3/4)
Depth	mm		500	500	500	500	500	500	500	750	900+65	
	(in.)		(19-11/16)	(19-11/16)	(19-11/16)	(19-11/16)	(19-11/16)	(19-11/16)	(19-11/16)	(29-1/2)	(29-1/2)	(35-7/16+2-9/16)
Net Weight		kg (lbs.)		150 (331)	135 (297)	250 (551)	240 (529)	295 (650)	280 (617)	460 (1014)	530 (1,168)	745 (1,642)
Refrigerant			R-22 (Holding-Charged)									
Flow Control				CPT	CPT	CPT	CPT	CPT	CPT	CPT	CPT	CPT
Number of Circuits				1	1	1	1	1	1	2	2	2
Compressor				Hermetic Scroll 500DH	Hermetic Scroll 500DH	Hermetic Scroll 750EL	Hermetic Scroll 750EL	Hermetic Scroll 1000EL	Hermetic Scroll 1000EL	Hermetic Scroll 750EL	Hermetic Scroll 1000EL	Hermetic Scroll ZR19M3
Model												
Quantity				1	1	1	1	1	1	2	2	2
Evaporator			Multi-Pass Cross-Finned Tube									
Evaporator Fan			Multi-Blade Centrifugal Fan									
Nominal Air Flow (Hi/Lo)	m ³ /min			44	66	66	88	88	130	180	260	
		m ³ /s		0.73/0.63	0.73	1.10	1.10	1.47	1.47	2.17	3.0	4.33
		L/S		733/633	733	1100	1100	1467	1467	2167	3000	4333
Motor	(cfm)			(1,554/1,342)	(1,554)	(2,330)	(2,330)	(3,108)	(3,108)	(4,590)	(6,360)	(9,180)
		kW		0.13	0.28	0.25	0.35	0.3	0.6	2.2	3.7	5.5
		(HP)		(0.17)	(0.37)	(0.33)	(1/2)	(0.4)	(0.8)	(3)	(5)	(7-1/2)
Quantity				1	1	1	1	1	1	1	1	
Connections												
Refrigerant Piping												
Gas Outlet	mm (in.)			15.88** (5/8)	15.88** (5/8)	19.05** (3/4)	19.05** (3/4)	22.2** (7/8)	22.2** (7/8)	19.05** (3/4)	22.2** (7/8)	25.4** (1)
		Type		Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing
Quantity				1	1	1	1	1	1	2	2	2
Liquid Inlet	mm (in.)			12.7** (1/2)	12.7** (1/2)	12.7** (1/2)	12.7** (1/2)	15.88** (5/8)	15.88** (5/8)	15.88** (5/8)	15.88** (5/8)	19.05** (3/4)
		Type		Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing
Quantity				1	1	1	1	1	1	2	2	2
Condensate Drain			Female Piping Thread Screw (Prepared on Both Sides)									
Size	FPT			1	1	1	1	1	1	1	1	1
				1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Emergency Drain												
Size	FPT			1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
				1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Wiring Hole			(Prepared on Both Sides)									
Size	mm (in.)			40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	62 (2-7/16)	62 (2-7/16)	62 (2-7/16)
				40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	40.5 (1-5/8)	62 (2-7/16)	62 (2-7/16)	62 (2-7/16)
Approximate Packing List												
Shipping Weight	kg (lbs.)			195 (430)	175 (386)	300 (661)	280 (617)	355 (783)	335 (739)	570 (1,256)	650 (1,433)	865 (1,907)
				195 (430)	175 (386)	300 (661)	280 (617)	355 (783)	335 (739)	570 (1,256)	650 (1,433)	865 (1,907)
Height	mm (in.)			2,125 (83-11/16)	1,905 (75)	2,125 (83-11/16)	1,905 (75)	2,125 (83-11/16)	1,905 (75)	2,070 (81-1/2)	2,070 (81-1/2)	2,225 (87-5/8)
				2,125 (83-11/16)	1,905 (75)	2,125 (83-11/16)	1,905 (75)	2,125 (83-11/16)	1,905 (75)	2,070 (81-1/2)	2,070 (81-1/2)	2,225 (87-5/8)
Width	mm (in.)			914 (36)	914 (36)	1,214 (47-13/16)	1,214 (47-13/16)	1,514 (59-5/8)	1,514 (59-5/8)	1,510 (59-7/16)	1,810 (71-1/4)	2,160 (85-1/16)
				914 (36)	914 (36)	1,214 (47-13/16)	1,214 (47-13/16)	1,514 (59-5/8)	1,514 (59-5/8)	1,510 (59-7/16)	1,810 (71-1/4)	2,160 (85-1/16)
Depth	mm (in.)			628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	880 (34-5/8)	880 (34-5/8)	1,105 (43-1/2)
				628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	628 (24-3/4)	880 (34-5/8)	880 (34-5/8)	1,105 (43-1/2)
Measurements		m ³		1.22	1.09	1.62	1.45	2.02	1.81	2.75	3.30	5.31

CPT : Capillary Tube

NOTE :

Piping sizes with asterisks (**) indicate the connection sizes of field-supplied copper pipes.

Connection pipes between the refrigerant stop valves in the unit and field-supplied copper pipes are shipped with the unit as a standard accessory.

GENERAL DATA (OUTDOOR UNITS)

Item (unit)		Model	RCR-5A4	RCR-8A4	RCR-10A4	RCR-15A4	RCR-16A4
Cabinet Color			Synthetic Resin Paint Baked on Finished Steel Plate				
Panel (MUNSELL Code)			Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)	Beige (2.5Y 8/2)
Outer Dimensions	Height	mm (in.)	780 (30-11/16)	880 (34-5/8)	1,226 (48-1/4)	1,226 (48-1/4)	955 (37-5/8)
	Width	mm (in.)	795 (31-1/4)	795 (31-1/4)	940 (37)	940 (37)	1,806 (71-1/8)
	Depth	mm (in.)	895 (35-5/8)	895 (35-5/8)	1,155 (45-1/2)	1,850 (72-13/16)	966 (38-1/32)
Net Weight		kg (lbs.)	70 (154)	85 (187)	115 (254)	180 (396)	177 (390)
Refrigerant			R-22 (Holding-Charged)				
Number of Circuits			1	1	1	2	1
Condenser			Multi-Pass Cross-Finned Tube				
Condenser Fan			Direct Drive Propeller Fan				
Motor	kW (HP)		0.25 (1/3)	0.4 (1/2)	0.4 (1/2)	0.3 (1/2.5)	0.6# (1/1.25)
Quantity			1	1	1	2	2
Connections							
Refrigerant Piping							
Gas Inlet							
Size	mm (in.)		15.88 (5/8)	19.05 (3/4)	22.2 (7/8)	19.05 (3/4)	25.4 (1)
Type			Brazing	Brazing	Brazing	Brazing	Brazing
Quantity			1	1	1	2	1
Liquid Outlet							
Size	mm (in.)		12.7 (1/2)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)
Type			Brazing	Brazing	Brazing	Brazing	Brazing
Quantity			1	1	1	2	1
Approximate Packing List							
Shipping Weight	kg (lbs.)		100 (221)	110 (243)	155 (342)	260 (572)	230 (507)
Height	mm (in.)		913 (35-15/16)	1,013 (39-7/8)	1,383 (54-7/16)	1,383 (54-7/16)	1,135 (44-11/16)
Width	mm (in.)		869 (34-5/16)	869 (34-5/16)	1,066 (41-15/16)	1,066 (41-15/16)	2,005 (78-15/16)
Depth	mm (in.)		1,039 (40-15/16)	1,039 (40-15/16)	1,330 (52-3/8)	2,020 (79-1/2)	1,055 (41-9/16)
Measurements	m ³		0.82	0.91	1.96	2.98	2.40

NOTE :

1. The condenser fan motor marked with a sharp (#) for 380V 50Hz and 415V 50Hz, when the power source is 220V 60Hz or 220V 50Hz the output of condenser fan motor will be 0.4 kW.

2. The nominal cooling capacity is the combined capacity when the indoor unit is connected with the HITACHI standard outdoor unit, and is based on the standard of JIS B8616-1999.

Temperature Conditions : Evaporator Air Inlet Temperature : 27°C DB/19°C WB (80.6°F DB/66.2°F WB)

Condenser Air Inlet Temperature : 35°C DB (95°F DB)

Piping Length : 7.5 Meters

Standard Power Supply

Main (3φ)	Control (1φ)
220V 60Hz	220V 60Hz
220V 50Hz	220V 50Hz
380V 50Hz	220V 50Hz
415V 50Hz	240V 50Hz

HITACHI Standard Combinations

Indoor Units		Outdoor Units
RP-5A4	+	RCR-5A4
RP-5AL4	+	RCR-5A4
RP-8A4	+	RCR-8A4
RP-8AL4	+	RCR-8A4
RP-10A4	+	RCR-10A4
RP-10AL4	+	RCR-10A4
RP-15AL4	+	RCR-15A4
RP-20AL4	+	2 × RCR-10A4
RP-30AL5	+	2 × RCR-16A4

Working Range

(For HITACHI Standard Outdoor Unit Combinations)

Evaporator Air Inlet Temperature:

Maximum: 32°C DB/23°C WB (89.6°F DB/73.4°F WB)

Minimum: 21°C DB/15°C WB (69.8°F DB/59°F WB)

When the unit is operating at outdoor temperature of 52°C DB (125.6°F DB) the maximum wet bulb temperature shall be 18°C WB (64.4°F WB)

Condenser Air Inlet Temperatures:

°C(°F)DB

Unit Power Frequency	Maximum	Minimum
50Hz	52(125.6)**	21(69.8)
60Hz	50(122)**	

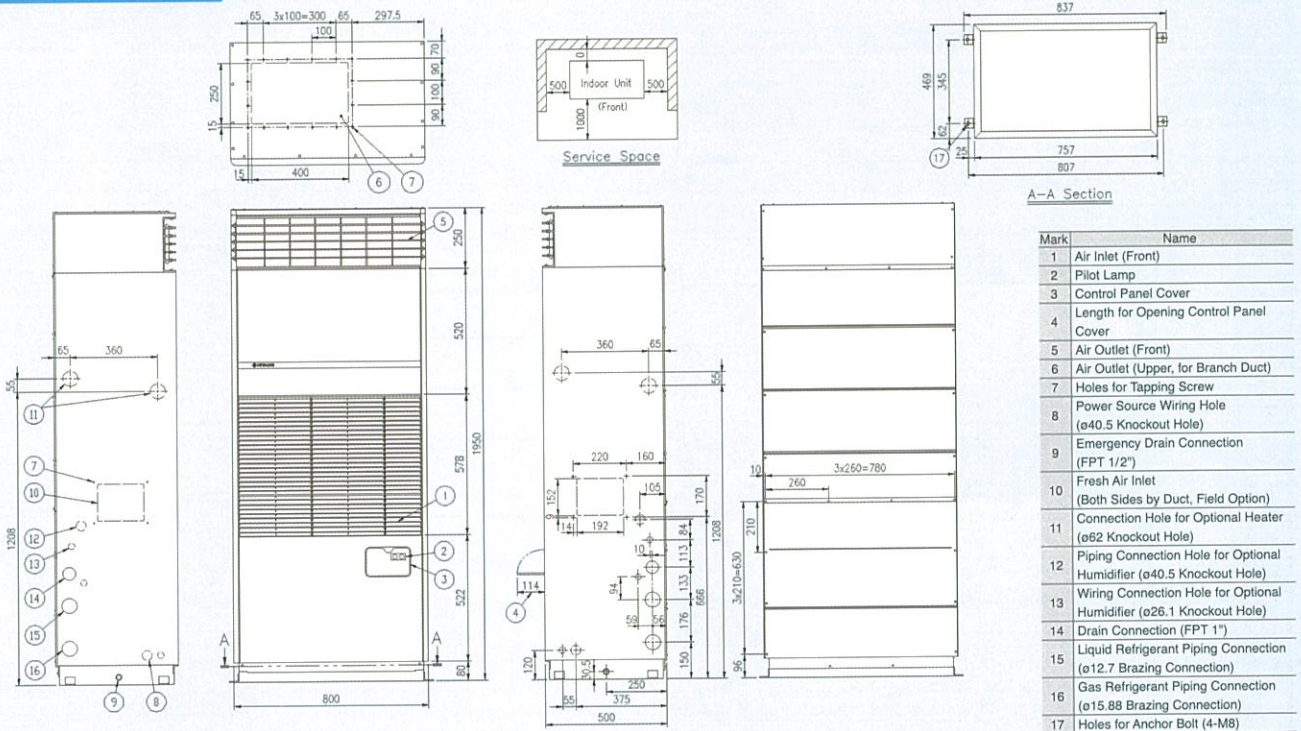
** The air flow cannot be increased exceeding the standard air flow.

Refer to the "Fan Performance Curve".

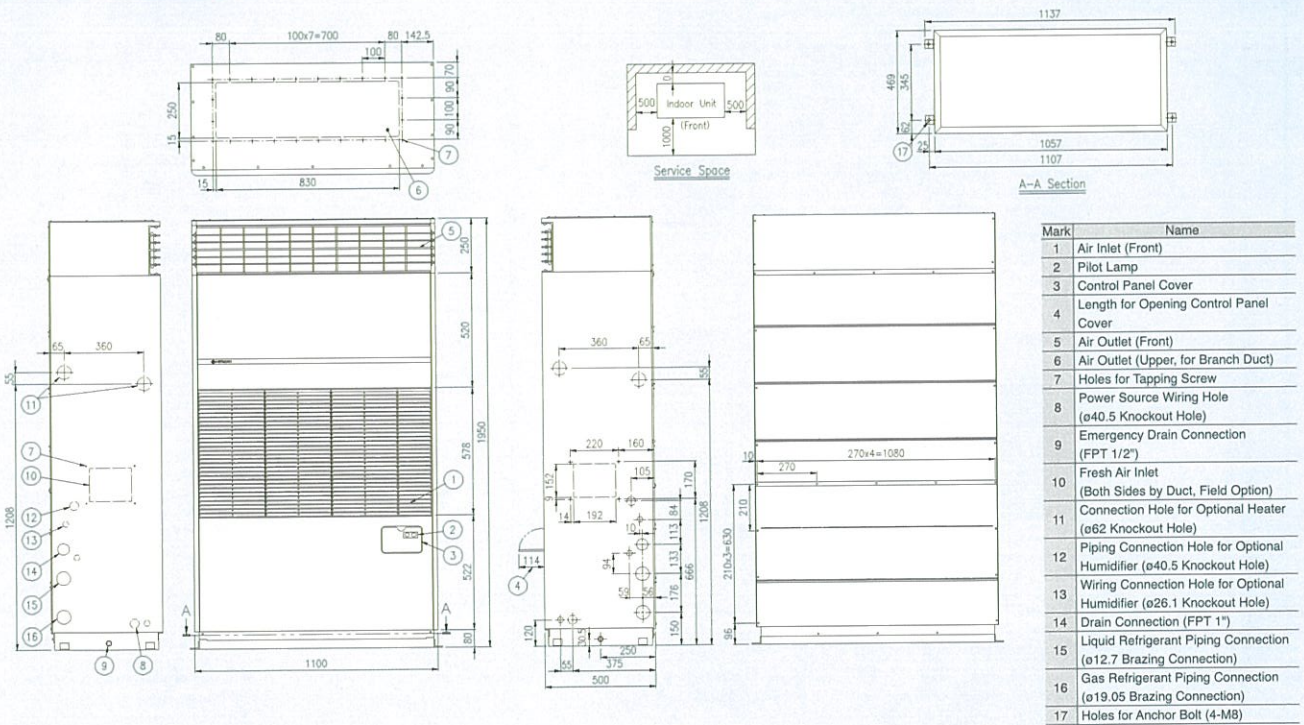
DIMENSIONS

FREE - BLOW TYPE (INDOOR UNITS)

RP-5A4

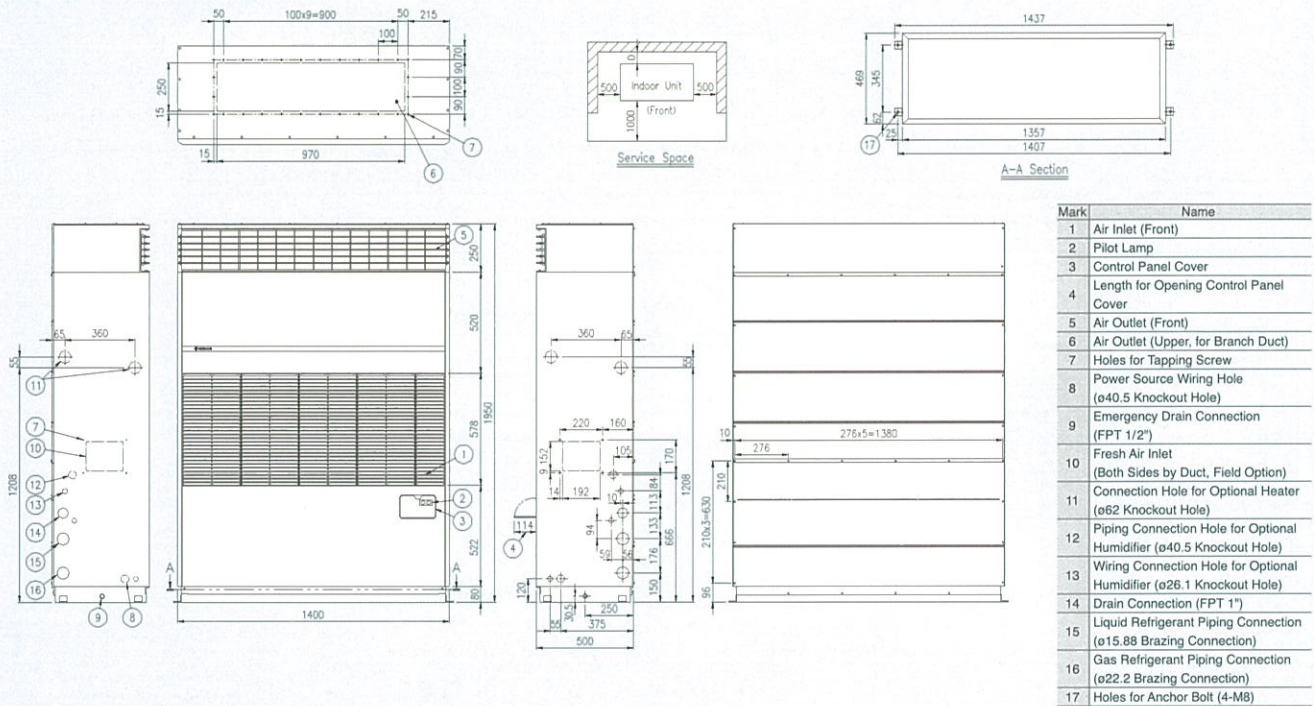


RP-8A4



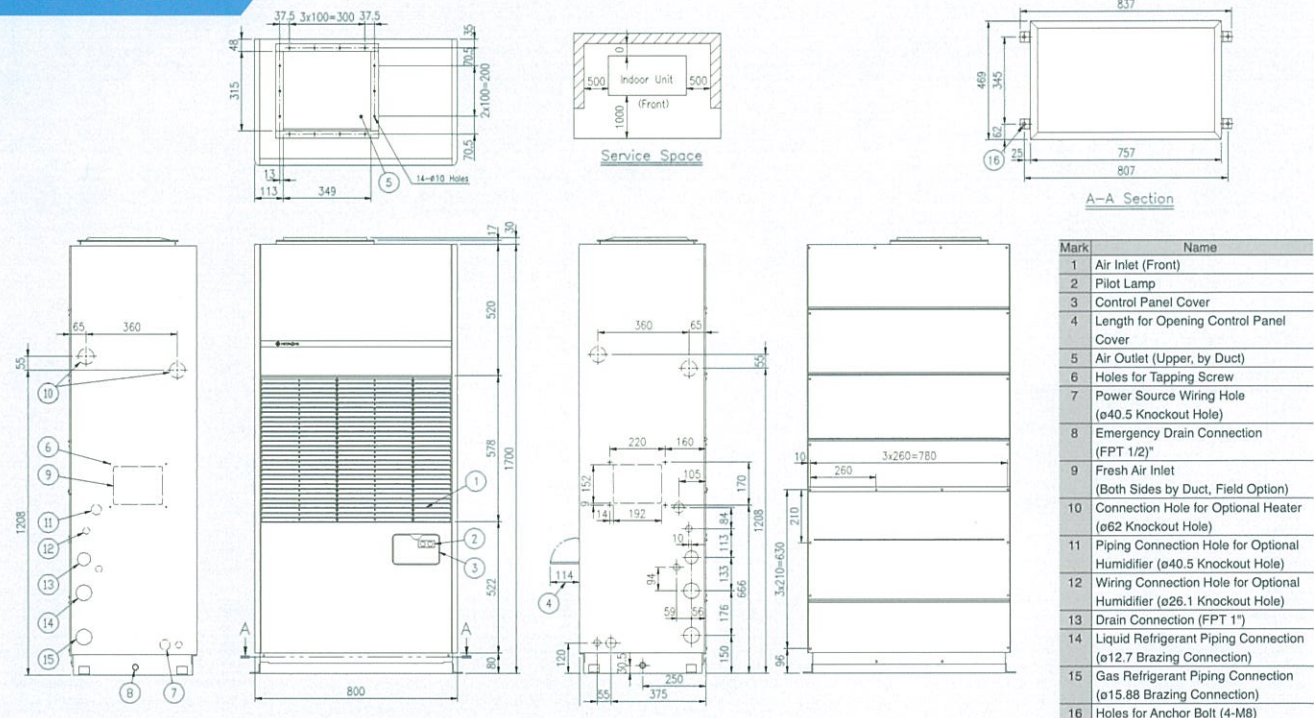
FREE - BLOW TYPE (INDOOR UNITS)

RP-10A4



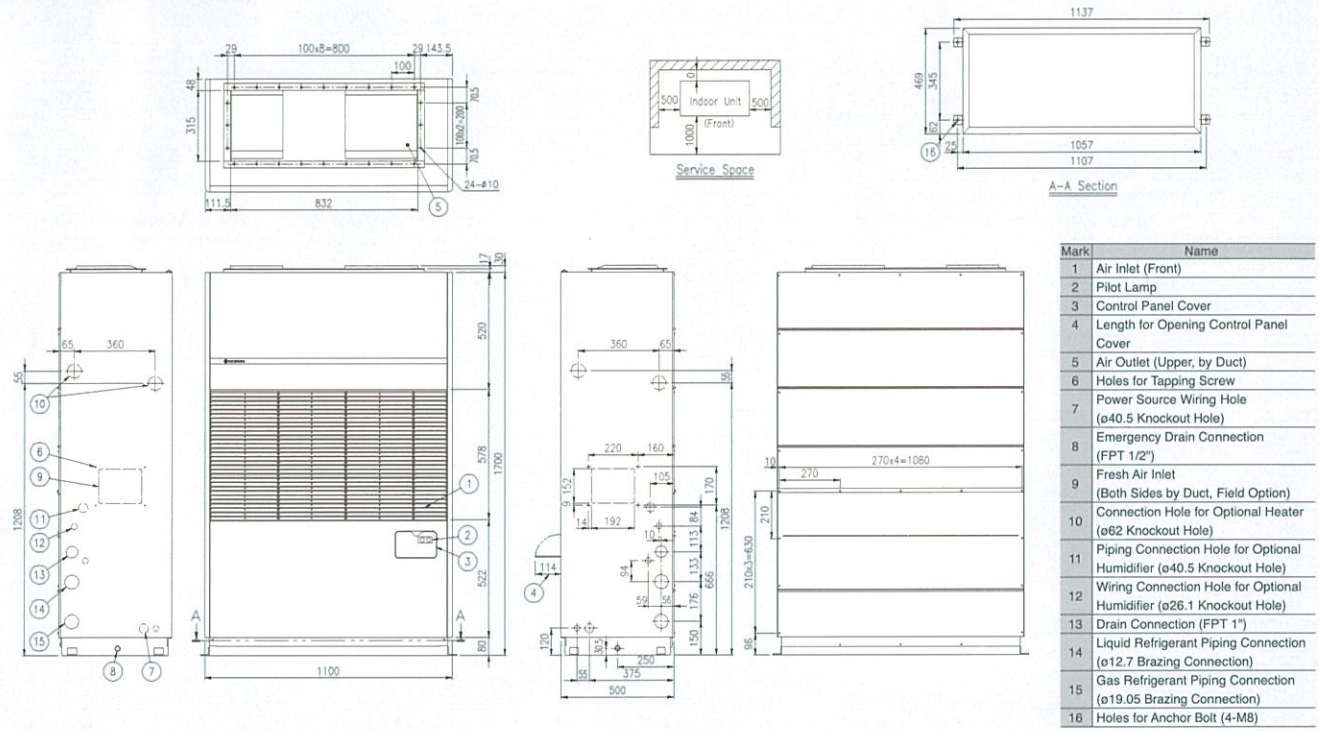
DUCT - CONNECTION TYPE (INDOOR UNITS)

RP-5AL4

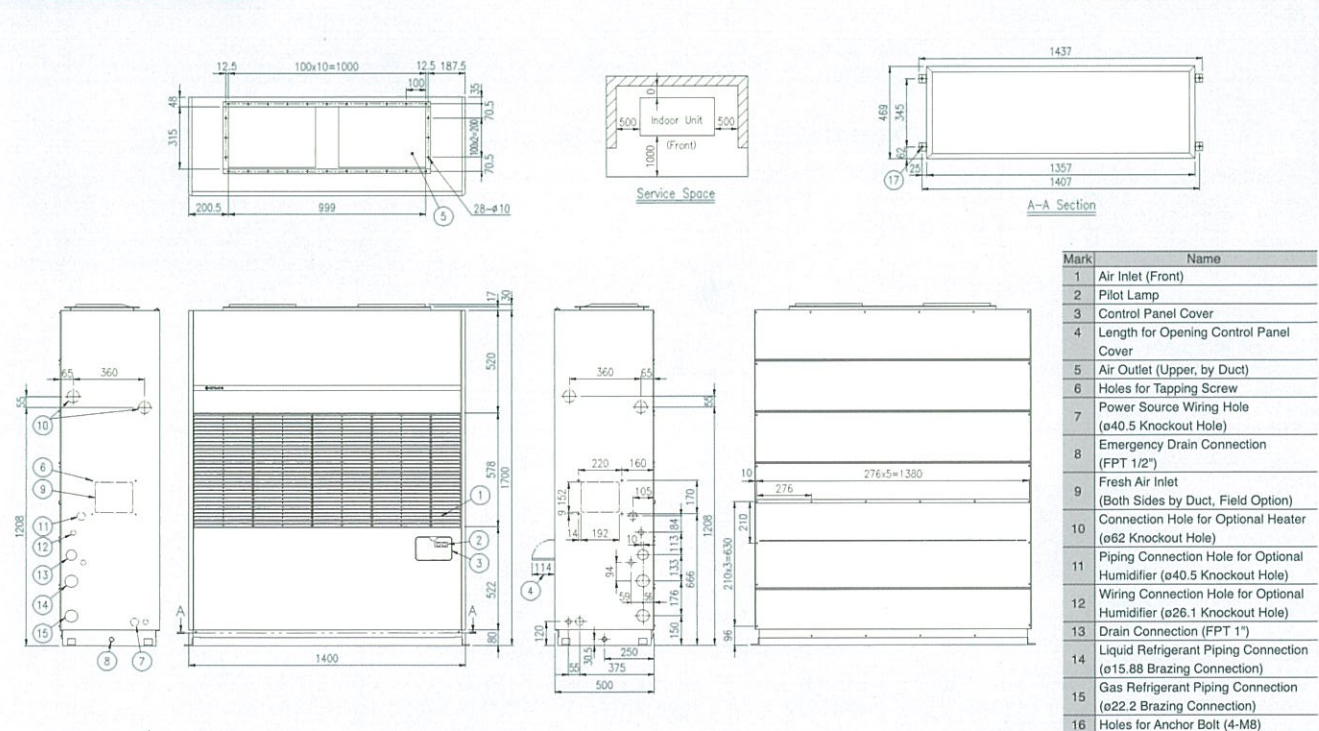


DUCT - CONNECTION TYPE (INDOOR UNITS)

RP-8AL4

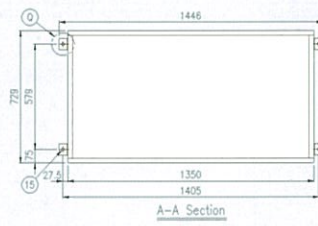
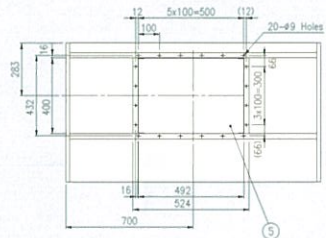
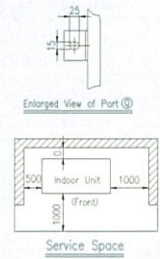


RP-10AL4

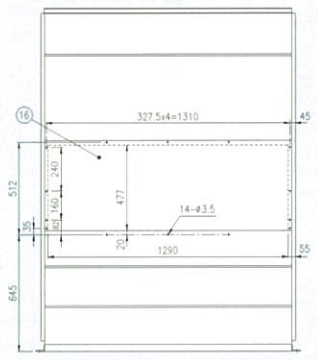
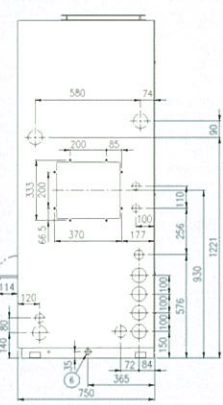
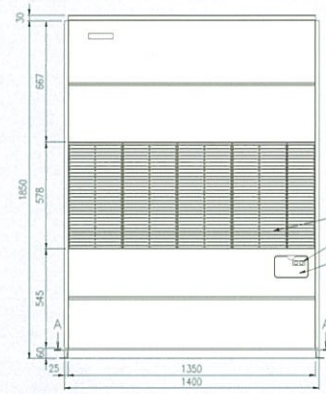
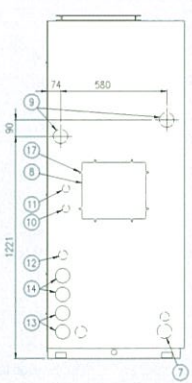


DUCT - CONNECTION TYPE (INDOOR UNITS)

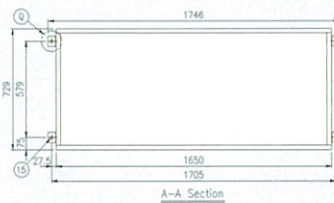
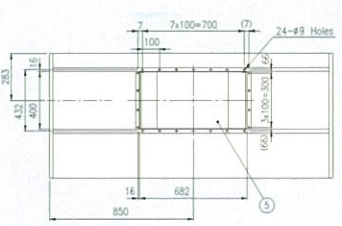
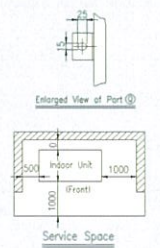
RP-15AL4



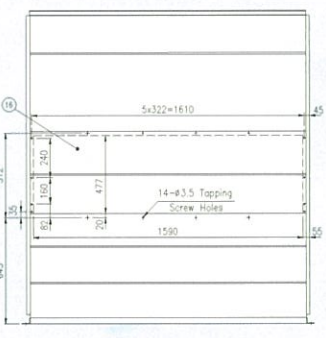
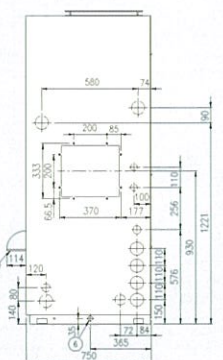
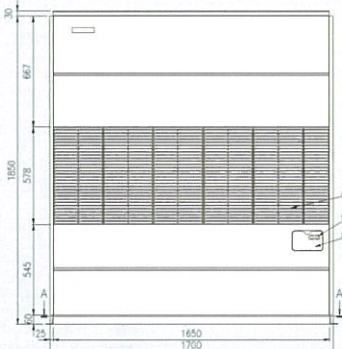
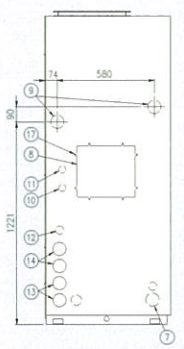
Mark	Name
1	Air Inlet (Front)
2	Pilot Lamp
3	Control Panel Cover
4	Length for Opening Control Panel Cover
5	Air Outlet (Upper, by Duct)
6	Emergency Drain Connection (FPT 1/2")
7	Power Source Wiring Hole (ϕ62 Knockout Hole)
8	Fresh Air Inlet (Both Sides by Duct, Field Option)
9	Connection Hole for Optional Heater (ϕ80 Knockout Hole)
10	Piping Connection Hole for Optional Humidifier (ϕ42 Knockout Hole)
11	Wiring Connection Hole for Optional Humidifier (ϕ42 Knockout Hole)
12	Drain Connection (FPT 1")
13	Cas Refrigerant Piping Connection (ϕ19.05 Brazing Connection)
14	Liquid Refrigerant Piping Connection (ϕ15.88 Brazing Connection)
15	Holes for Anchor Bolt
16	Air Inlet (Rear, by Duct, Field Option)
17	Holes for Tapping Screw



RP-20AL4

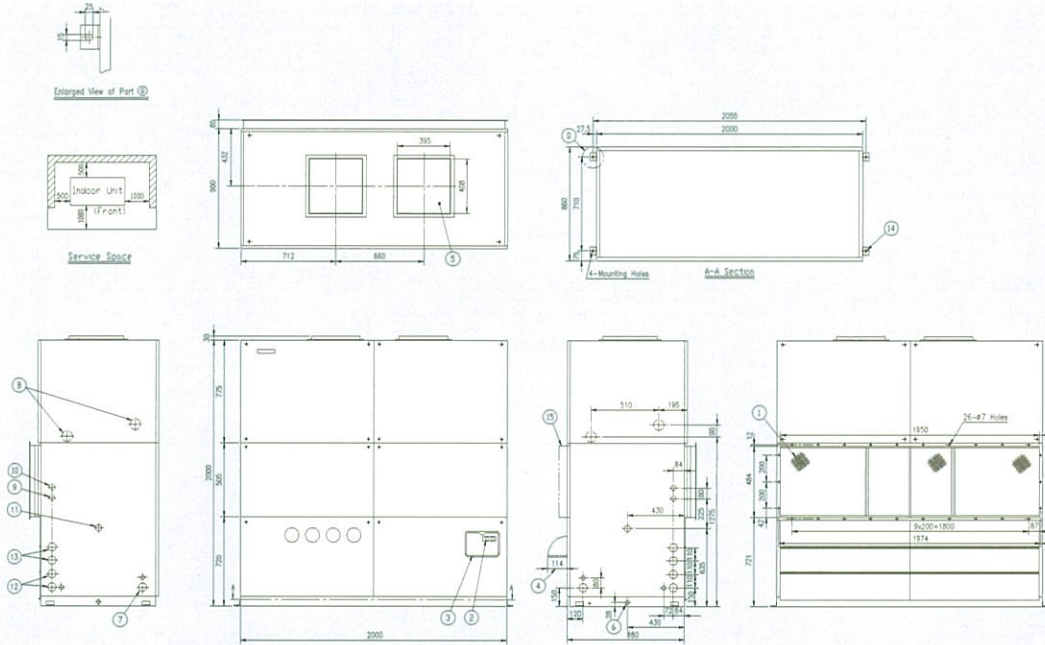


Mark	Name
1	Air Inlet (Front)
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5	Air Outlet (Upper, by Duct)
6	Emergency Drain Connection (FPT 1/2")
7	Power Source Wiring Hole (ϕ62 Knockout Hole)
8	Fresh Air Inlet (Both Sides by Duct, Field Option)
9	Connection Hole for Optional Heater (ϕ80 Knockout Hole)
10	Piping Connection Hole for Optional Humidifier (ϕ42 Knockout Hole)
11	Wiring Connection Hole for Optional Humidifier (ϕ42 Knockout Hole)
12	Drain Connection (FPT 1")
13	Cas Refrigerant Piping Connection (ϕ22.2 Brazing Connection)
14	Liquid Refrigerant Piping Connection (ϕ15.88 Brazing Connection)
15	Holes for Anchor Bolt
16	Air Inlet (Rear, by Duct, Field Option)
17	Holes for Tapping Screw



DUCT - CONNECTION TYPE (INDOOR UNITS)

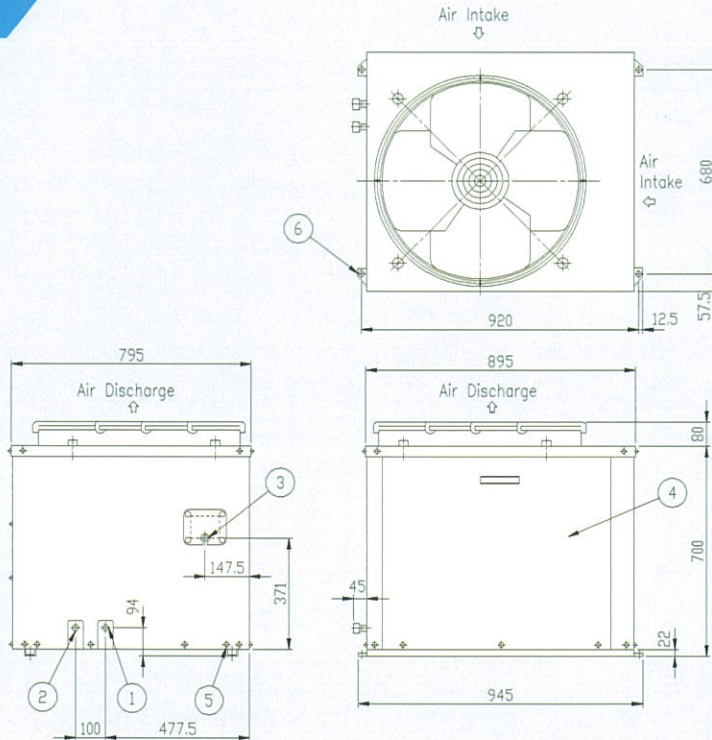
RP-30AL5



Mark	Name
1	Air Inlet (Rear, by Duct)
2	Pilot Lamp
3	Control Panel Cover
4	Length for Opening Control Panel Cover
5	Air Outlet (Upper, by Duct)
6	Emergency Drain Connection (FPT 1/2")
7	Power Source Wiring Hole (ø62 Knockout Hole)
8	Connection Hole for Hot Water of Steam Heater (ø80 Knockout Hole)
9	Piping Connection Hole for Optional Humidifier (ø42 Knockout Hole)
10	Wiring Connection Hole for Optional Humidifier (ø42 Knockout Hole)
11	Drain Connection (FPT 1")
12	Cas Refrigerant Piping Connection (ø25.4 Brazing Connection)
13	Liquid Refrigerant Piping Connection (ø19.05 Brazing Connection)
14	Holes for Anchor Bolt
15	Air Inlet (Front, by Duct, Field Option)

OUTDOOR UNITS

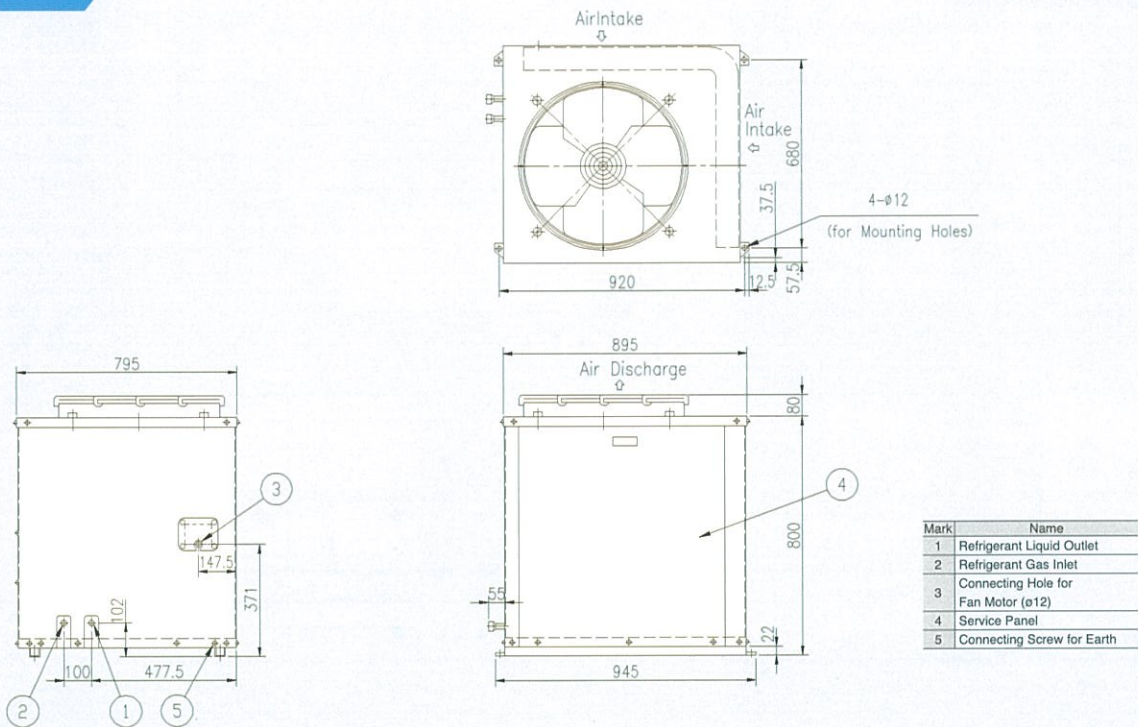
RCR-5A4



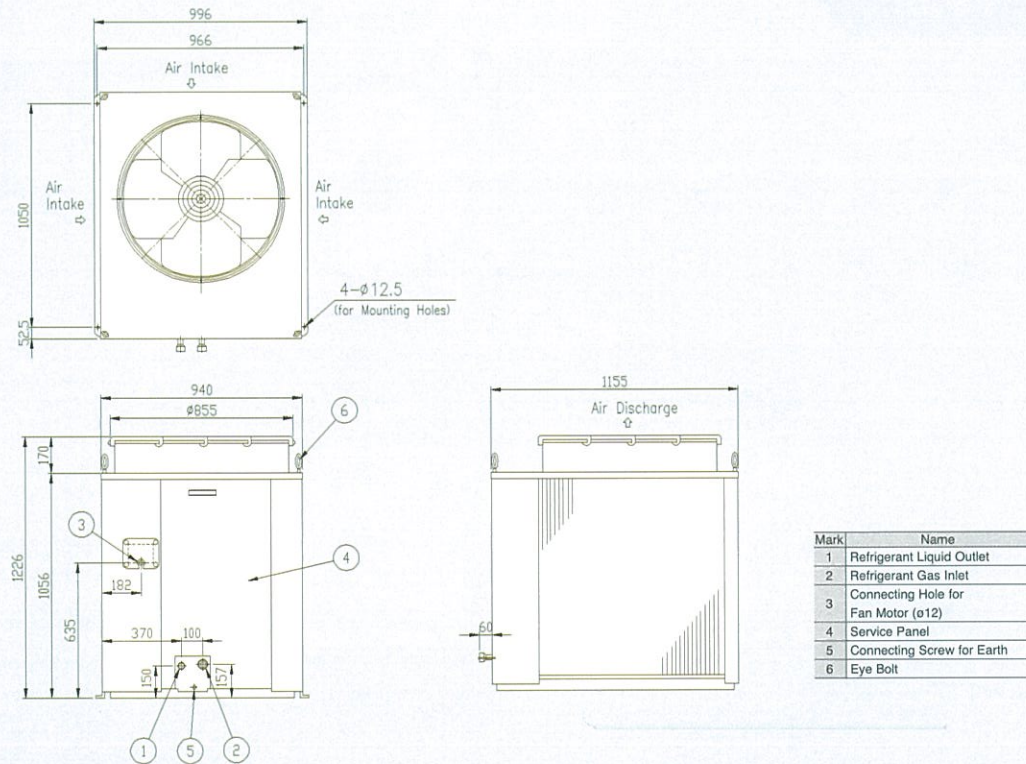
Mark	Name
1	Refrigerant Liquid Outlet
2	Refrigerant Gas Inlet
3	Connecting Hole for Fan Motor (ø12)
4	Service Panel
5	Connecting Screw for Earth

OUTDOOR UNITS

RCR-8A4

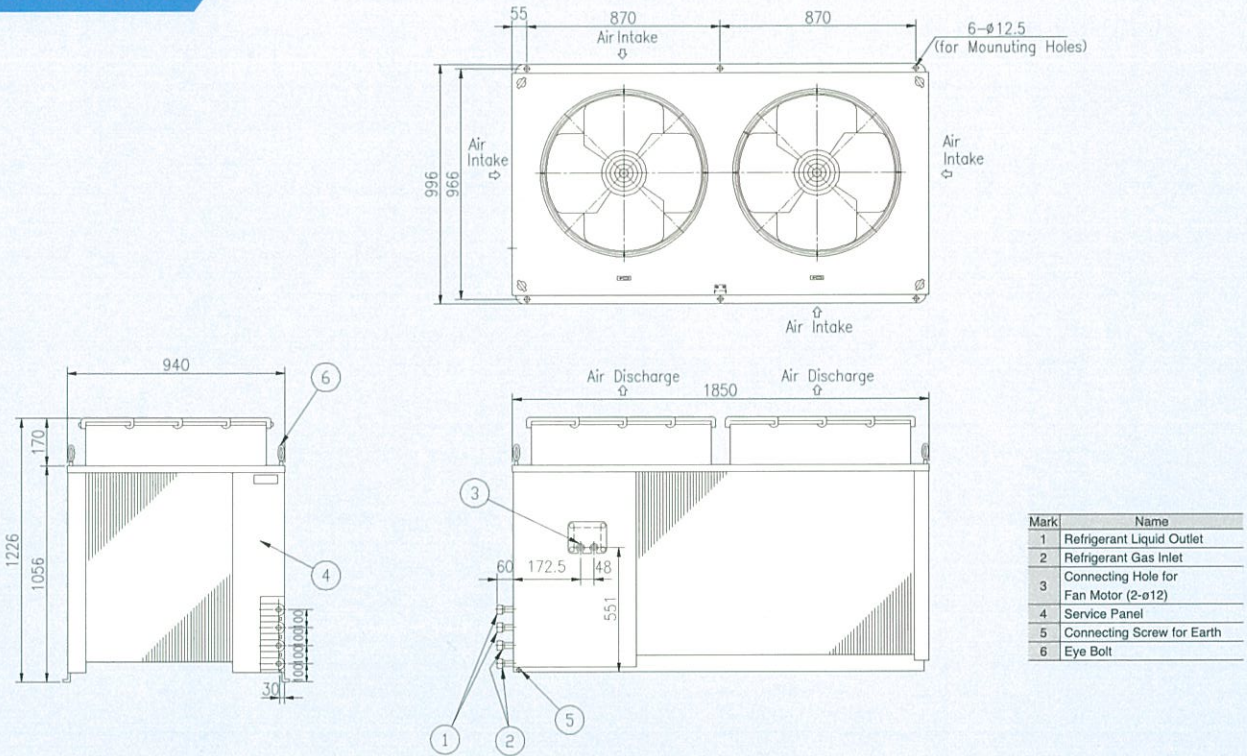


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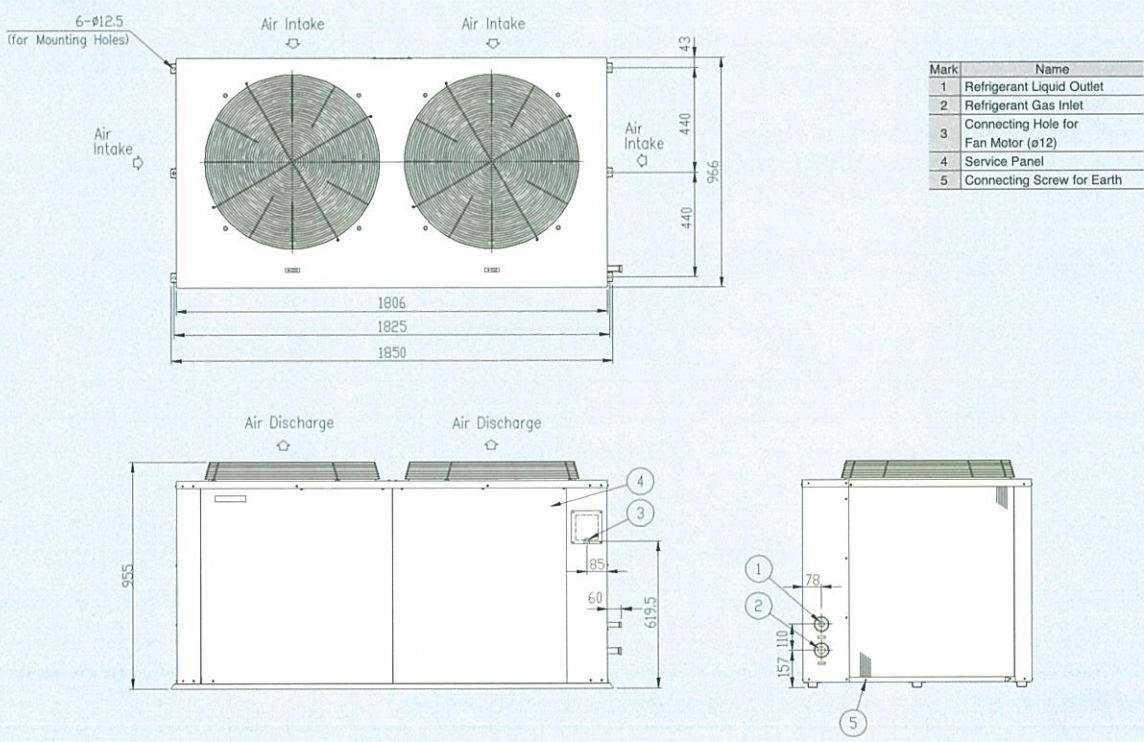


OUTDOOR UNITS

RCR-15A4



RCR-16A4





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