

# HITACHI PACKAGED AIR CONDITIONERS

## — WATER-COOLED TYPE —

تاسیس ۱۳۶۲

جهان کمپرسور



Jahan Compressor  
Since 1983



### Nominal Capacity Range

12,000 kcal/h	to	96,300 kcal/h	at 50Hz
14,000 W	to	112,000 W	
47,700 Btu/h	to	382,100 Btu/h	
13,800 kcal/h	to	107,500 kcal/h	at 60Hz
16,000 W	to	125,000 W	
54,600 Btu/h	to	426,500 Btu/h	

**REFRIGERANT : R407C**

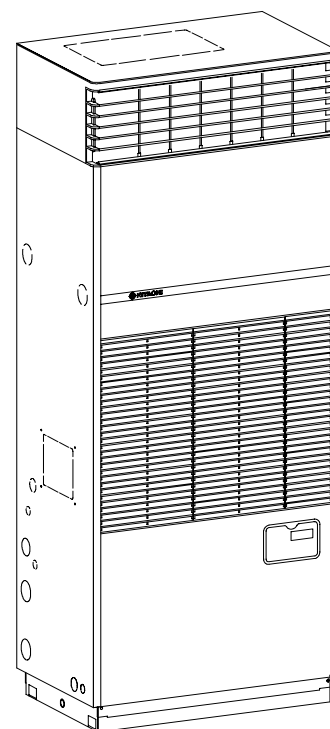
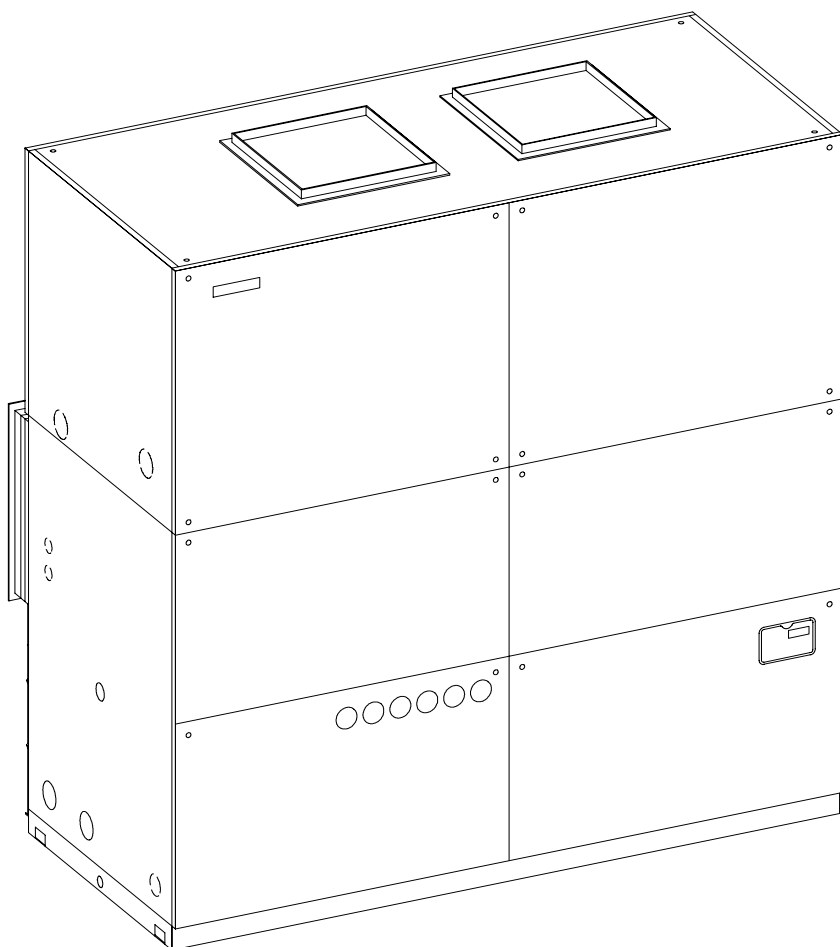
### Technical Catalog I - Design Information -

#### Models: Free-Blow Type

RP-P5W  
RP-P8W  
RP-P10W  
RP-P15W

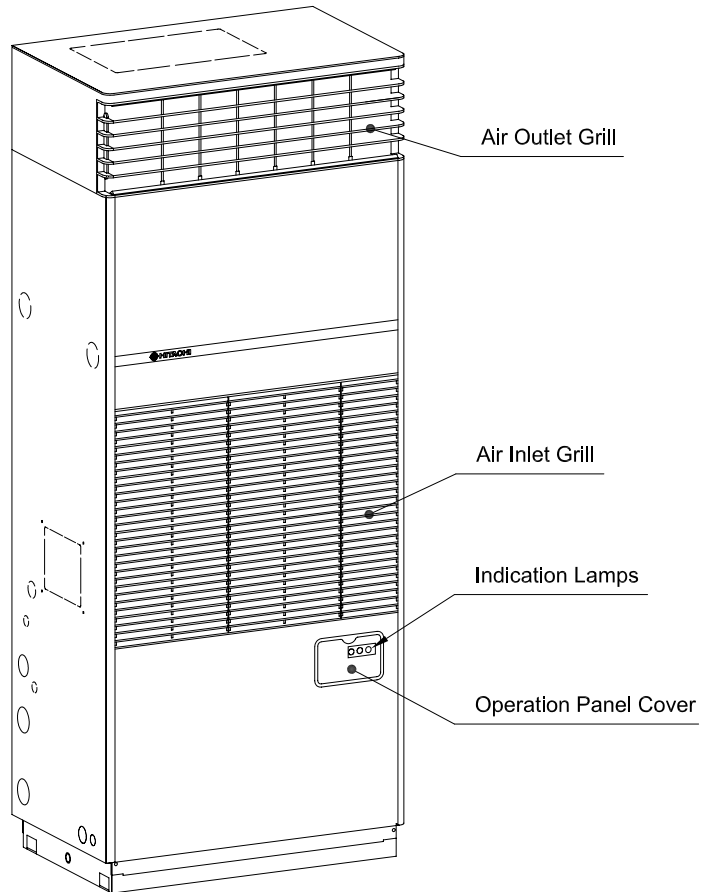
#### Duct Connection Type

RP-P5WP  
RP-P8WP  
RP-P10WP  
RP-P15WP  
RP-P20WP  
RP-P25WP  
RP-P30WP  
RP-P40WP



# STREAMLINED SHAPE AND 5~40HP MODELS

HITACHI has developed a larger packaged air conditioners <Water-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 40 horsepower models. In particular, all models adopt a high-efficiency scroll compressor. Users can choose the optimum model according to applications or purposes.



Model: RP-P5W

## NEW DESIGN

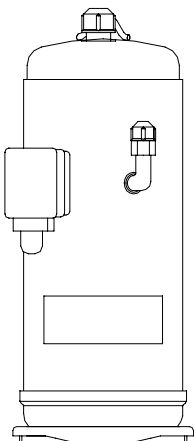
**NEW DESIGNS HAVE FURTHER EASED RESTRICTIONS ON INSTALLATION AND APPLICATION.**

Air conditioners installed indoor units require not only functional elements but also design elements. HITACHI's packaged air conditioners have been newly designed. Popular horizontal stripes are used with discharge and suction grills. The form is generally rounded producing a soft image. A slimmer type models can be installed in various places. The UTOPIA beige color offers easy harmony with any wall.

## SCROLL COMPRESSORS 5~40HP

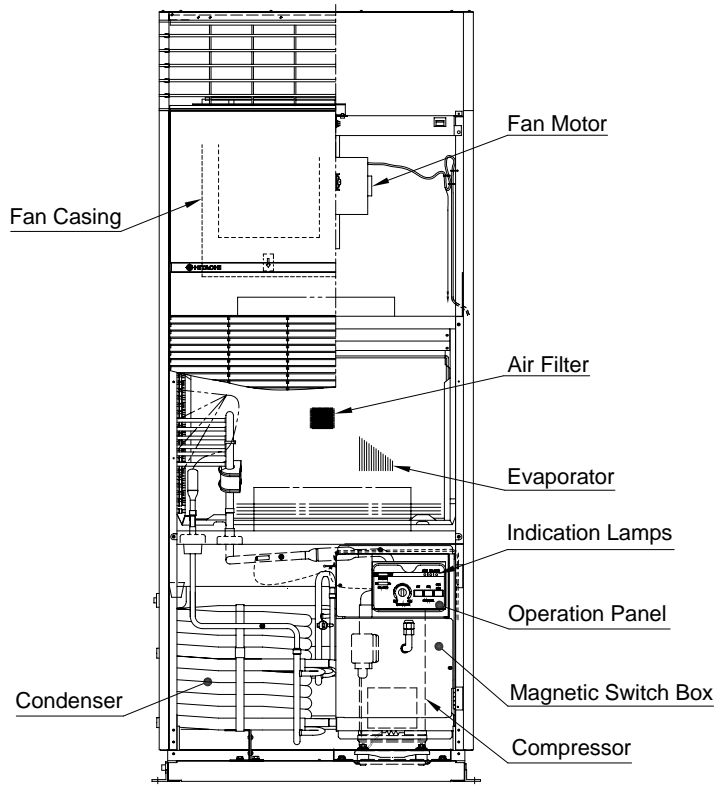
**ADOPTION OF WORLD'S FIRST HIGH-PERFORMANCE SCROLL COMPRESSORS.**

The 5 to 40 horsepower models incorporate the world's first, unique, epoch-making scroll compressors featuring a completely new principle of compression which allows simultaneous operation of suction, compression and discharge, thus providing much less running loss, lower vibration, lower noise and higher reliability.



Scroll Compressor

# TOP OF THE LINE PERFORMANCE WITH A HIGH-EFFICIENCY SCROLL



**Model : RP-P5W**



## 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.

### 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 ensure low noise and low vibration.

### EASY MAINTENANCE

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

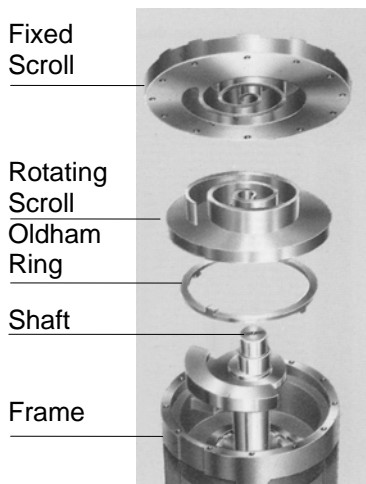
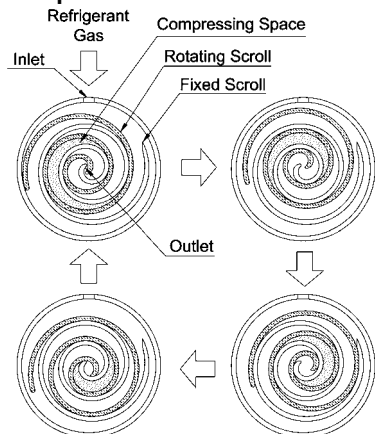
### EXCELLENT ENERGY EFFICIENCY REDUCES RUNNING COSTS.

Excellent energy efficiency results from less loss caused by leakage from the high-pressure section to the low-pressure section and no energy loss due to valve vibration.

### HIGH RELIABILITY.

To get high reliability, each of the scroll compressors consists of only five parts and has no valve, which was one of the main problems with conventional reciprocating units.

### Compression Principle of Scroll Compressor



## 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.

# GENERAL DATA

## Unit General Data

### Free-Blow Type Units

Model			RP-P5W	RP-P8W	RP-P10W	RP-P15W	
Nominal Cooling Capacity*	50Hz	kcal/h	12,000	19,300	24,100	38,700	
		W	14,000	22,400	28,000	45,000	
	60Hz	Btu/h	47,700	76,400	95,500	153,600	
		kcal/h	13,800	21,500	27,100	43,000	
		W	16,000	25,000	31,500	50,000	
		Btu/h	54,600	85,300	107,500	170,600	
Capacity Control		%	100, 0	100, 0	100, 0	100, 63, 0	
Cabinet Color			Synthetic Resin Paint Baked on Finished Steel Plates				
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)	
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)	Beige (2.5Y 8/2)	
Outer Dimensions	Height	mm	1,950	1,950	1,950	2,150	
		(in)	(76-3/4)	(76-3/4)	(76-3/4)	(84-11/16)	
	Width	mm	800	1,100	1,400	1,400	
		(in)	(31-1/2)	(43-5/16)	(55-1/8)	(55-1/8)	
	Depth	mm	500	500	500	750	
		(in)	(19-11/16)	(19-11/16)	(19-11/16)	(29-1/2)	
Net Weight		kg	170	285	320	495	
		(lbs)	(375)	(628)	(705)	(1,091)	
Refrigerant**			R407C	R407C	R407C	R407C	
Flow Control			CPT	CPT	CPT	CPT	
Number of Circuits			1	1	1	2	
Compressor Type			Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	
Model			G503DH	G750EL	G1000EL	G1000EL+G603DH	
Quantity			1	1	1	1+1	
Evaporator	Multi-Pass Cross-Finned Tube						
Condenser	Coiled Double Tube						
Evaporator Fan	Multi-Blade Centrifugal Fan						
Nominal Air Flow (Hi/Lo)	m <sup>3</sup> /min		44/38	66	88	130	
		m <sup>3</sup> /s	0.73/0.63	1.1	1.47	2.17	
		L/s	733/633	1100	1467	2167	
		(cfm)	(1,554/1,342)	(2,330)	(3,108)	(4,590)	
Motor	kW		0.13	0.25	0.30	1.5	
		(HP)	(0.17)	(0.33)	(0.40)	(2)	
Quantity			1	1	1	1	
Connections	Female Piping Thread Screw ( Prepared on Both Sides )						
Condenser Water Size	FPT	Inlet	1-1/4	1-1/2	1-1/2	2	
		Outlet	1-1/4	1-1/2	1-1/2	2	
Condensate Drain Size	FPT		1	1	1	1	
Emergency Drain Size	FPT		1/2	1/2	1/2	1/2	
Wiring Hole Size	mm		40.5	40.5	40.5	62	
	(in)		(1-5/8)	(1-5/8)	(1-5/8)	(2-7/16)	
Approximate Packing List Shipping Weight	kg		215	335	380	Unit	Plenum Chamber
	(lbs)		(474)	(739)	(838)	520	40
			(1,146)	(88)			
Height	mm		2,125	2,125	2,125	2,070	460
	(in)		(83-5/8)	(83-5/8)	(83-5/8)	(81-1/2)	(18-1/8)
Width	mm		914	1,214	1,514	1,510	1,480
	(in)		(36)	(47-13/16)	(59-5/8)	(59-7/16)	(58-9/32)
Depth	mm		628	628	628	880	850
	(in)		(24-3/4)	(24-3/4)	(24-3/4)	(34-5/8)	(33-13/32)
Measurements	m <sup>3</sup>		1.22	1.62	2.02	2.75	0.58

CPT : Capillary Tube

#### Notes:

- \* The nominal cooling capacity is based on the standard of JIS B8616-1999  
 Evaporator Air Inlet Temperature: 27°C DB (80.6°F DB)  
 19°C WB (66.2°F WB)  
 Condenser Water Inlet Temperature: 30°C (86°F)  
 Condenser Water Outlet Temperature: 35°C (95°F)
- \*\* Factory-Charged

#### Standard Power Supply

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

#### Working Range:

- Evaporator Air Inlet Temperature at Standard Air Flow :
- 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 / 59.0°F WB)
- Condenser Water Outlet Temperature:
- Maximum: 38°C (100.4°F)
  - Minimum: 21°C (69.8°F)

**Unit General Data (Continued)**

**Duct Connection Type Units**

Model			RP-P5WP	RP-P8WP	RP-P10WP	RP-P15WP	RP-P20WP	RP-P25WP	RP-P30WP	RP-P40WP
Nominal Cooling Capacity *	50Hz	kcal/h W Btu/h	12,000 14,000 47,700	19,300 22,400 76,400	24,100 28,000 95,500	38,700 45,000 153,600	48,100 56,000 191,000	61,000 71,000 242,200	77,400 90,000 307,100	96,300 112,000 382,100
	60Hz	kcal/h W Btu/h	13,800 16,000 54,600	21,500 25,000 85,300	27,100 31,500 107,500	43,000 50,000 170,600	54,200 63,000 214,900	68,800 80,000 272,900	86,000 100,000 341,200	107,500 125,000 426,500
Capacity Control	%		100,0	100,0	100,0	100,63,0	100,50,0	100,50,0	100,67,33,0	100,67,33,0
Cabinet Color			Synthetic Resin Paint Baked on Finished Steel Plates							
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)
Air Outlet Grill (MUNSELL Code)			—	—	—	—	—	—	—	—
Outer Dimensions	Height	mm (in)	1,730 (68-1/8)	1,730 (68-1/8)	1,730 (68-1/8)	1,850+30 (72-13/16+1-3/16)	1,850+30 (72-13/16+1-3/16)	2,000+30 (78-3/4+1-3/16)	2,000+30 (78-3/4+1-3/16)	2,000+30 (78-3/4+1-3/16)
	Width	mm (in)	800 (31-1/2)	1,100 (43-5/16)	1,400 (55-1/8)	1,400 (55-1/8)	1,700 (66-15/16)	1,700 (66-15/16)	2,000 (78-3/4)	2,000 (78-3/4)
	Depth	mm (in)	500 (19-11/16)	500 (19-11/16)	500 (19-11/16)	750 (29-1/2)	750 (29-1/2)	900+65 (35-7/16+2-9/16)	900+65 (35-7/16+2-9/16)	1,270+65 (50+2-9/16)
Net Weight	kg (lbs)	165 (364)	275 (606)	305 (672)	480 (1,058)	620 (1,367)	710 (1,565)	900 (1,984)	1,200 (2,646)	
Refrigerant**			R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C
Flow Control			CPT	CPT	CPT	CPT	CPT	CPT	CPT	CPT
Number of Circuits			1	1	1	2	2	2	3	3
Compressor Type			Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll	Hermetic Scroll
Model			G503DH	G750EL	G1000EL	G1000EL+G603DH	G1000EL	G1300EL	G1000EL	G1300EL
Quantity			1	1	1	1+1	2	2	3	3
Evaporator			Multi-Pass Cross-Finned Tube							
Condenser			Coiled Double Tube							
Evaporator Fan			Multi-Blade Centrifugal Fan							
Nominal Air Flow	m <sup>3</sup> /min		44	66	88	130	180	220	260	360
	m <sup>3</sup> /s		0.73	1.1	1.47	2.17	3.0	3.67	4.33	6.0
	L/s (cfm)		733 (1,554)	1100 (2,330)	1467 (3,108)	2167 (4,590)	3000 (6,360)	3667 (7,770)	4333 (9,180)	6000 (12,700)
Motor	kW (HP)		0.55 (0.74)	0.75 (1)	1.5 (2)	2.2 (3)	3.7 (5)	3.7 (5)	5.5 (7.5)	7.5 (10)
	Quantity		1	1	1	1	1	1	1	1
Connections			Female Piping Thread Screw ( Prepared on Both Sides )							
Condenser Water Size	Inlet	FPT	1-1/4	1-1/2	1-1/2	2	2	2-1/2	2-1/2	2-1/2
	Outlet	FPT	1-1/4	1-1/2	1-1/2	2	2	2-1/2	2-1/2	2-1/2
Condensate Drain Size	FPT	1	1	1	1	1	1	1	1	
Emergency Drain Size	FPT	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	
Wiring Hole Size	mm (in)		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)	62 (2-7/16)	80 (3-5/32)
Approximate Packing List Shipping Weight	kg (lbs)		210 (463)	315 (694)	360 (794)	520 (1,157)	705 (1,554)	820 (1,808)	1,020 (2,249)	1,290 (2,844)
Height	mm (in)		1,905 (75)	1,905 (75)	1,905 (75)	2,070 (81-1/2)	2,070 (81-1/2)	2,225 (87-5/8)	2,225 (87-5/8)	2,225 (87-5/8)
Width	mm (in)		914 (36)	1,214 (47-13/16)	1,514 (59-5/8)	1,510 (59-7/16)	1,810 (71-1/4)	1,860 (73-1/4)	2,160 (85-1/16)	2,160 (85-1/16)
Depth	mm (in)		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)	1,105 (43-1/2)	1,475 (58-1/16)
Measurements	m <sup>3</sup>		1.09	1.45	1.81	2.75	3.30	4.57	5.31	7.09

CPT : Capillary Tube

**Notes:**

- \* The nominal cooling capacity is based on the standard of JIS B8616-1999  
 Evaporator Air Inlet Temperature: 27°C DB (80.6°F DB)  
 19°C WB (66.2°F WB)  
 Condenser Water Inlet Temperature: 30°C (86°F)  
 Condenser Water Outlet Temperature: 35°C (95°F)
- \*\* Factory-Charged

**Standard Power Supply**

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

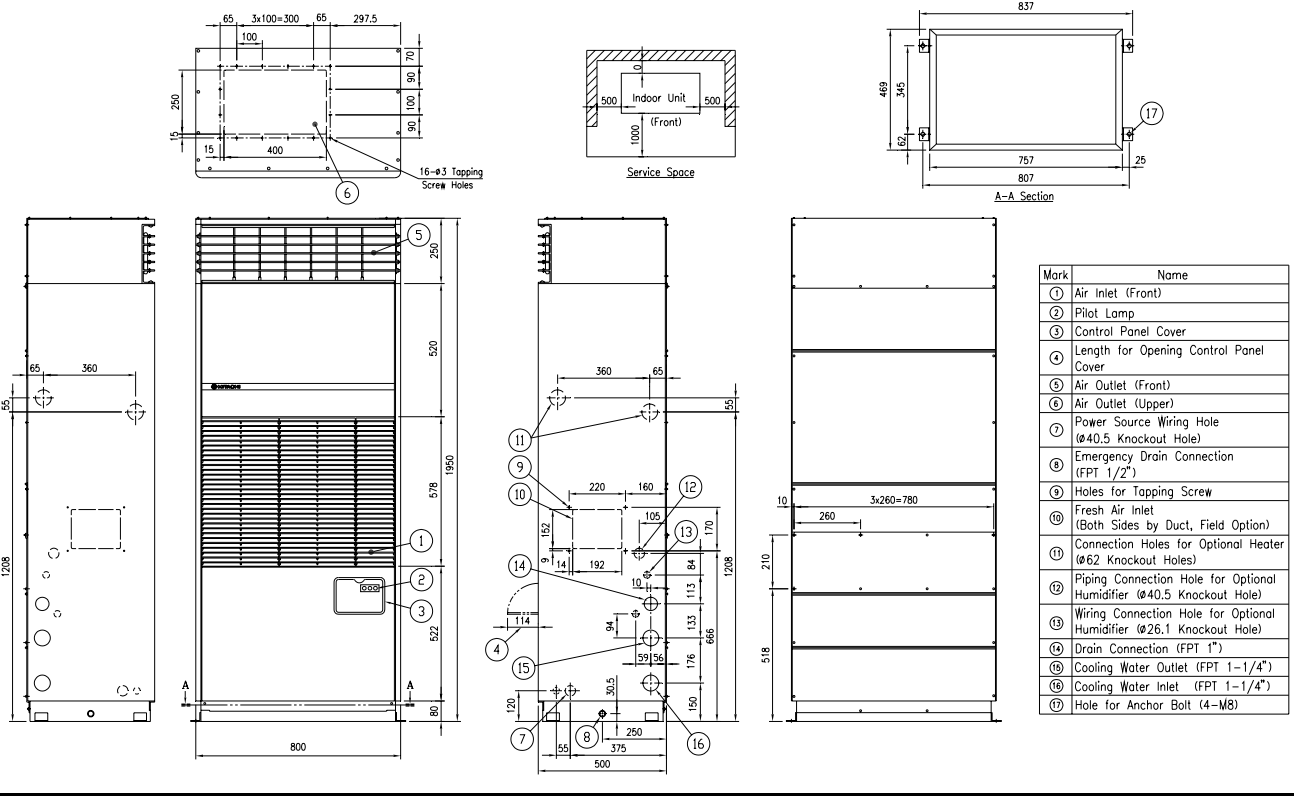
**Working Range:**

- Evaporator Air Inlet Temperature at Standard Air Flow :
- 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 / 59.0°F WB)
- Condenser Water Outlet Temperature:
- Maximum: 38°C (100.4°F)
  - Minimum: 21°C (69.8°F)

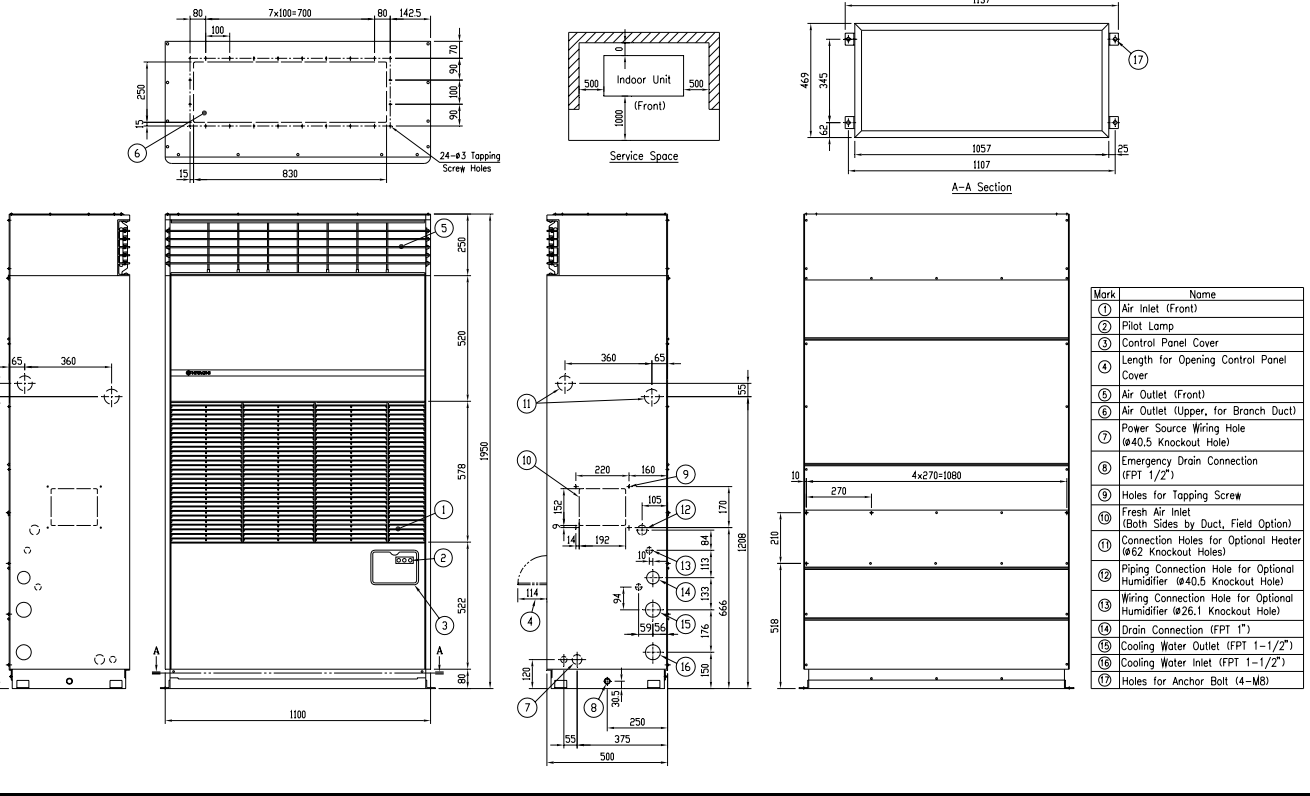
**Unit Dimensions**

**Free-Blow Type Units**

**RP-P5W**



**RP-P8W**

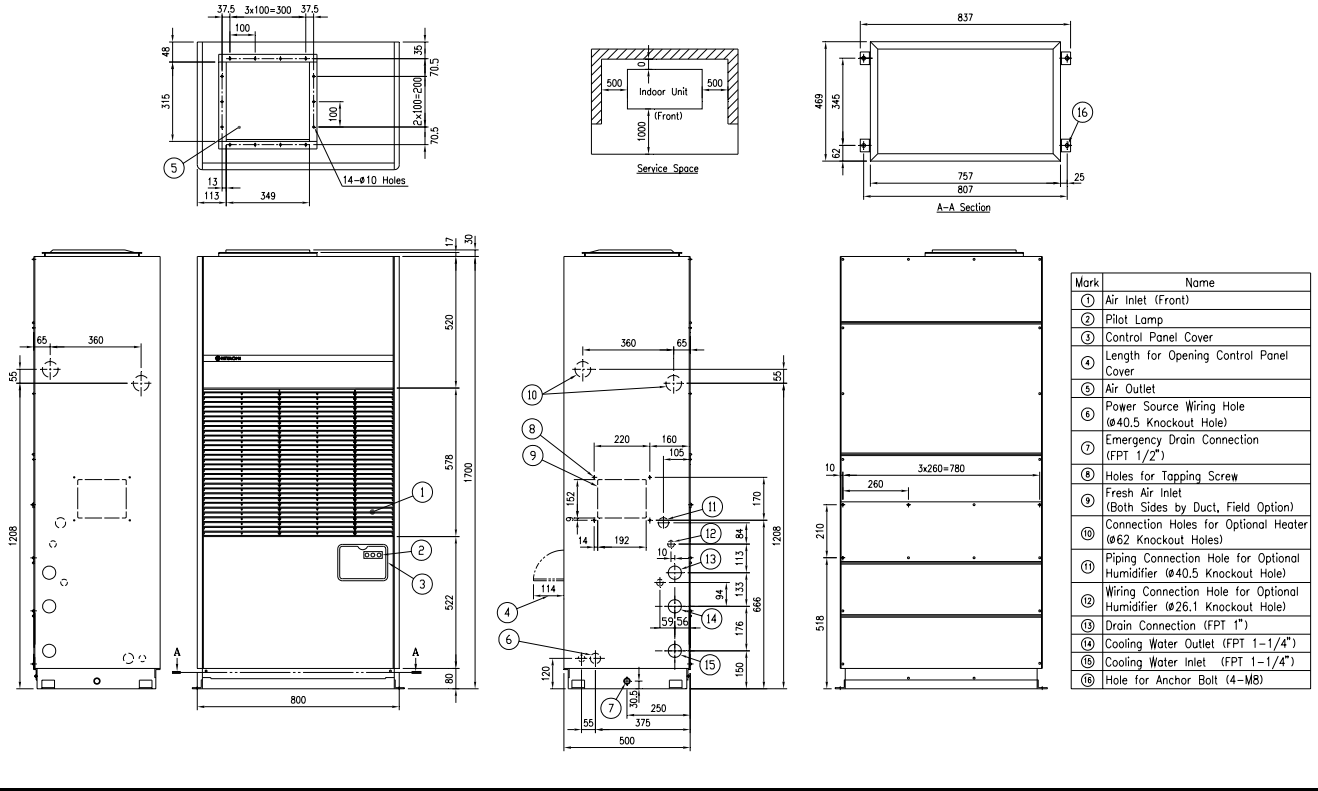




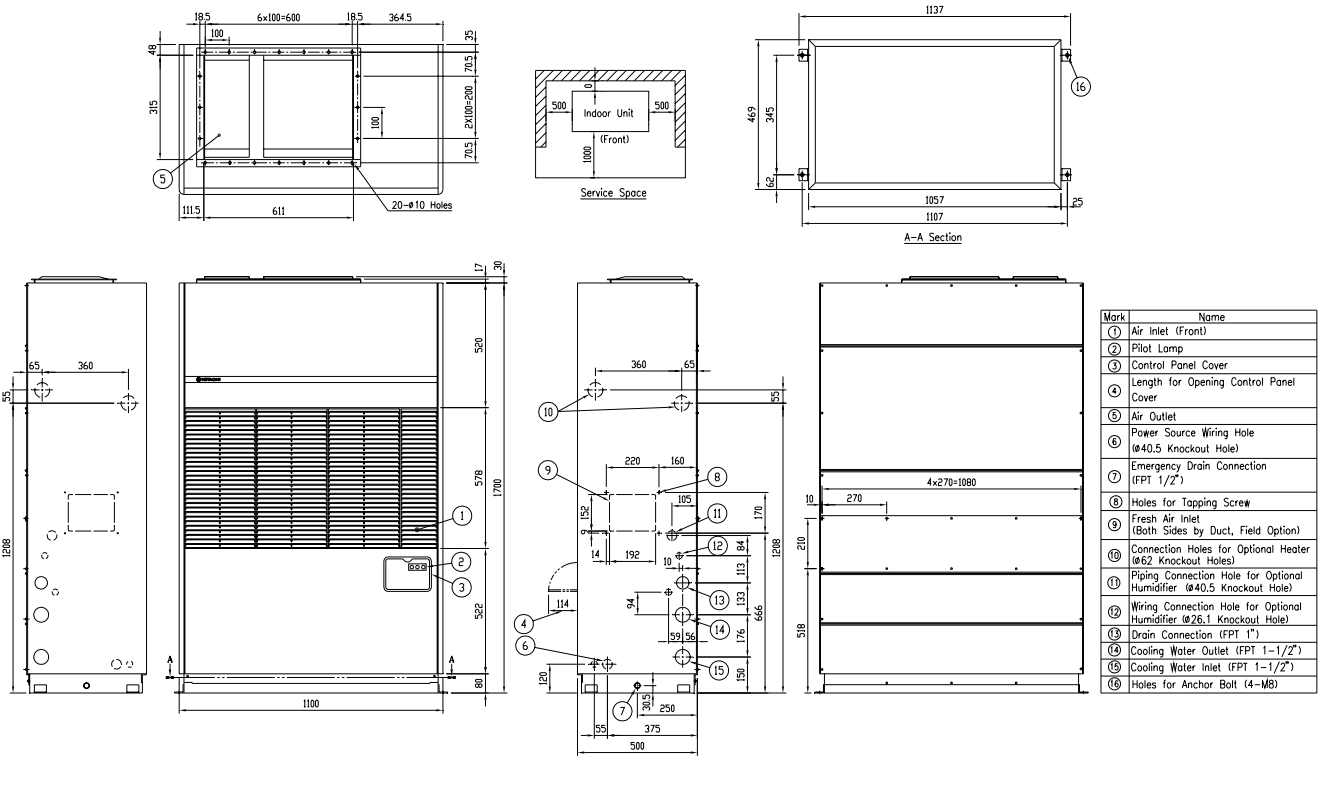
**Unit Dimensions (Continued)**

**Duct Connection Type Units**

**RP-P5WP**



**RP-P8WP**

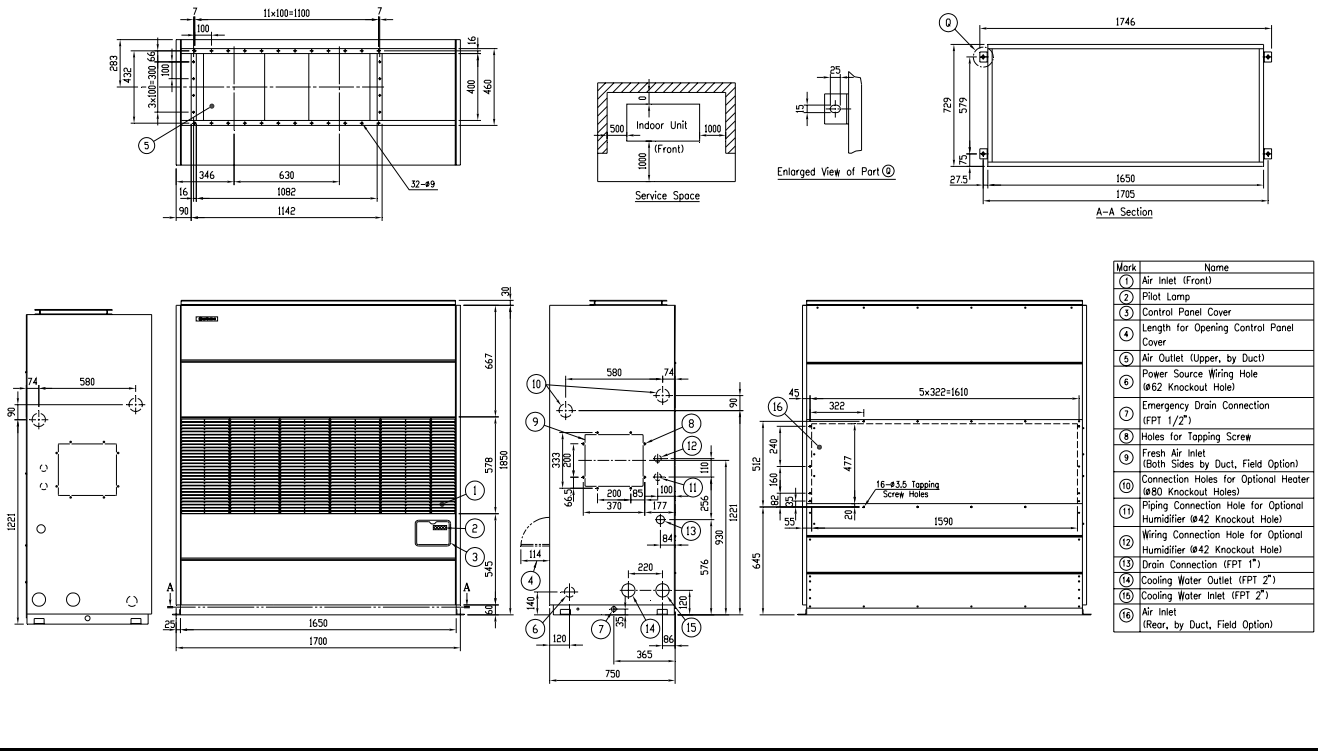




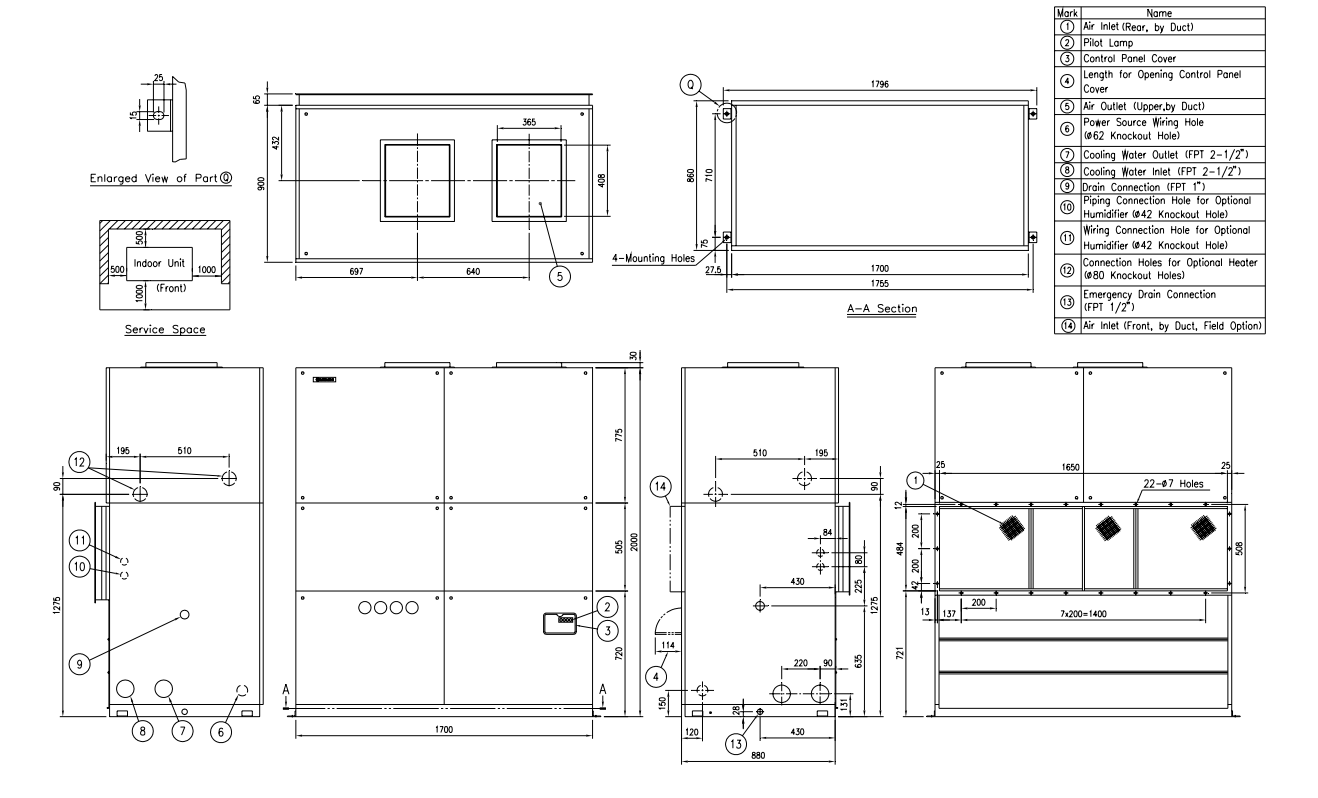
**Unit Dimensions (Continued)**

**Duct Connection Type Units**

**RP-P20WP**



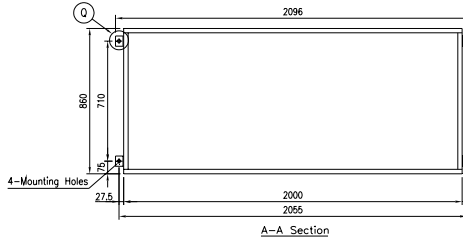
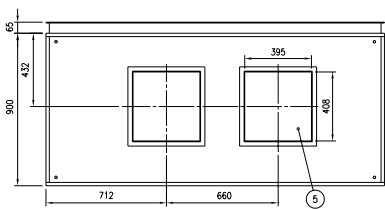
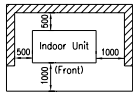
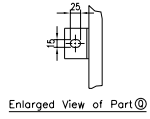
**RP-P25WP**



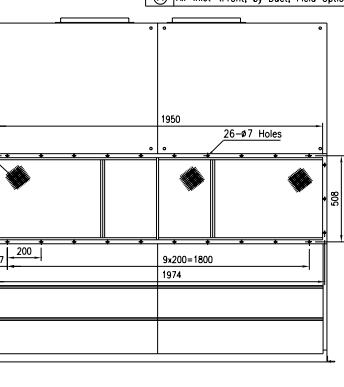
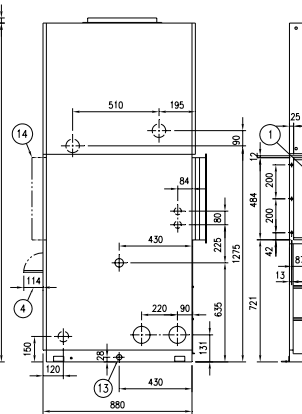
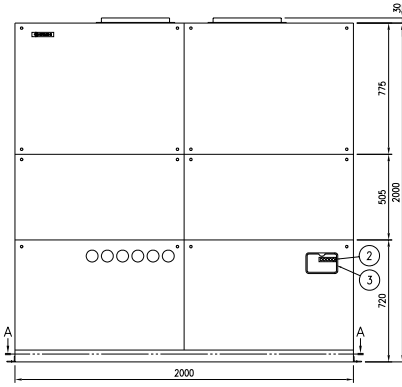
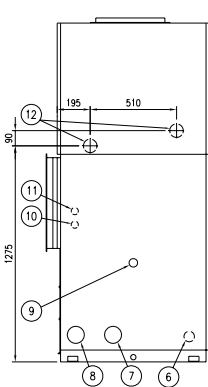
**Unit Dimensions (Continued)**

**Duct Connection Type Units**

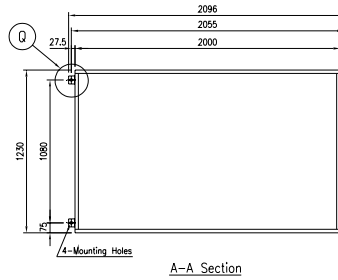
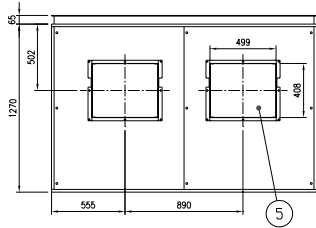
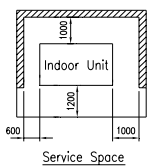
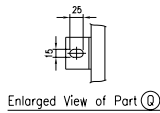
**RP-P30WP**



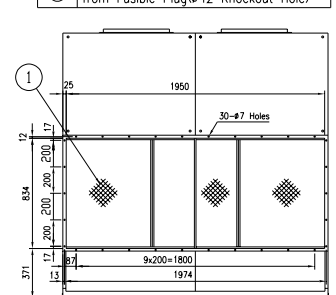
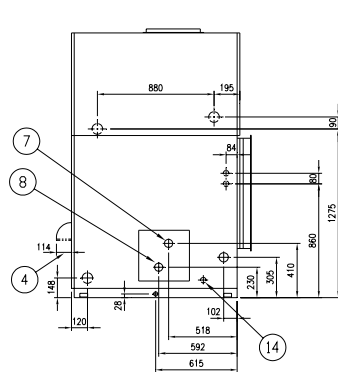
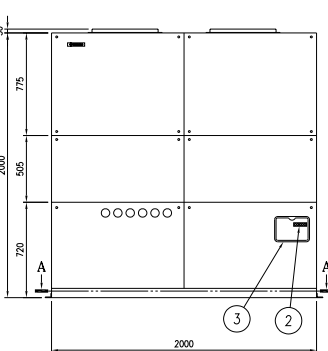
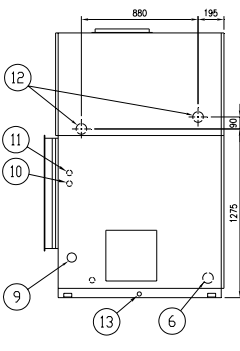
Mark	Name
①	Air Inlet (Rear, by Duct)
②	Pilot Lamp
③	Control Panel Cover
④	Length for Opening Control Panel Cover
⑤	Air Outlet (Upper, by Duct)
⑥	Power Source Wiring Hole (ø62 Knockout Hole)
⑦	Cooling Water Outlet (FPT 2-1/2")
⑧	Cooling Water Inlet (FPT 2-1/2")
⑨	Drain Connection (FPT 1")
⑩	Piping Connection Hole for Optional Humidifier (ø42 Knockout Hole)
⑪	Wiring Connection Hole for Optional Humidifier (ø42 Knockout Hole)
⑫	Connection Holes for Optional Heater (ø80 Knockout Holes)
⑬	Emergency Drain Connection (FPT 1/2")
⑭	Air Inlet (Front, by Duct, Field Option)



**RP-P40WP**

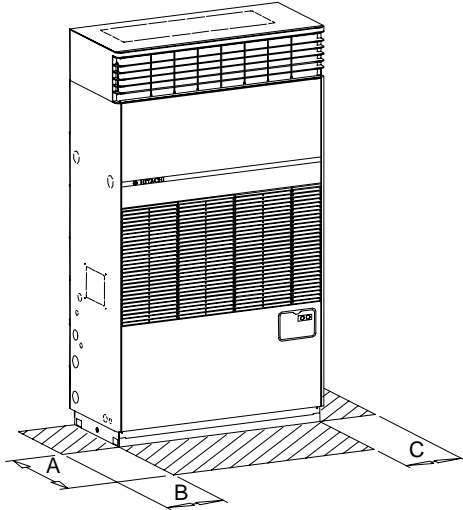


Mark	Name
①	Air Inlet
②	Pilot Lamp
③	Control Panel Cover
④	Length for Opening Control Panel Cover
⑤	Air Outlet (Upper, by Duct)
⑥	Power Source Wiring Hole (ø80 Knockout Hole)
⑦	Cooling Water Outlet (FPT 2-1/2")
⑧	Cooling Water Inlet (FPT 2-1/2")
⑨	Drain Connection (FPT 1")
⑩	Piping Connection Hole for Optional Humidifier (ø42 Knockout Hole)
⑪	Wiring Connection Hole for Optional Humidifier (ø42 Knockout Hole)
⑫	Connection Holes for Optional Heater (ø80 Knockout Holes)
⑬	Emergency Drain Connection (FPT 1/2")
⑭	Connection Hole for Refrigerant Exhaust from Fusible Plug (ø42 Knockout Hole)



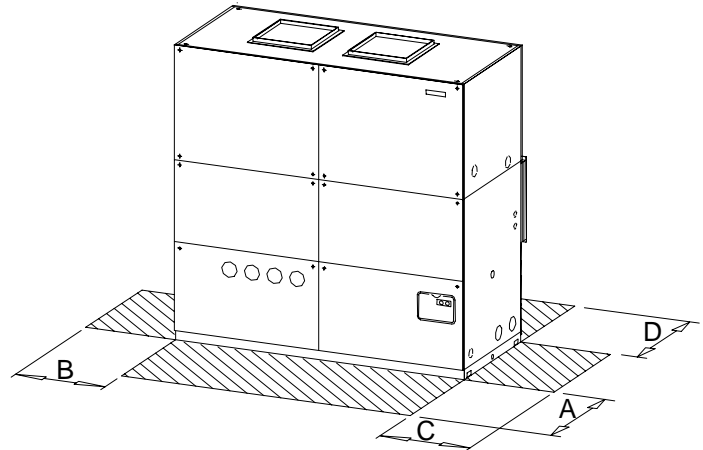
# SELECTION DATA

## Operation Space



For Models RP-P5W through RP-P20WP

Model	Dimensions(mm)			
	A	B	C	D
RP-P5W	1,000	500	800	—
RP-P5WP	1,000	500	800	—
RP-P8W	1,000	500	800	—
RP-P8WP	1,000	500	800	—
RP-P10W	1,000	500	1,000	—
RP-P10WP	1,000	500	1,000	—
RP-P15W	1,000	500	1,000	—
RP-P15WP	1,000	500	1,000	—
RP-P20WP	1,000	500	1,000	—
RP-P25WP	1,000	500	1,000	500
RP-P30WP	1,000	500	1,000	500
RP-P40WP	1,200	600	1,000	1,000

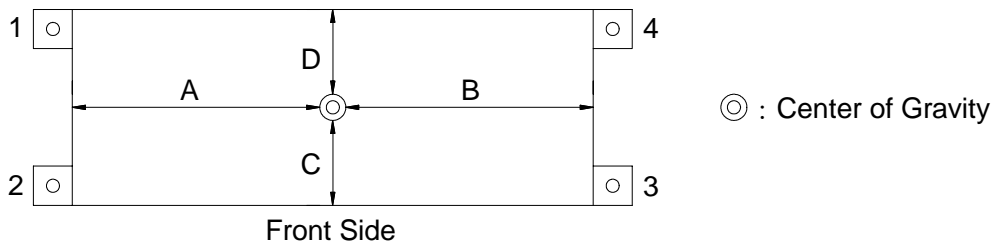


For Models RP-P25WP through RP-P40WP

### NOTES:

1. Interchange "B" and "C" when left-hand side water piping is prepared.
2. Dimension "D" for models RP-P25WP through RP-P40WP indicates the case where suction duct is not installed. Change dimension "D" to 1,500 mm, when the suction duct is required.
3. Dimension "C" for models RP-P25WP through RP-P40WP indicates the service space for the air filter equipped with the unit. Change dimension "B" to 1,000 mm, when the service space for the air filter from left side is required.

## Weight Balance



Model	RP-P5W	RP-P5WP	RP-P8W	RP-P8WP	RP-P10W	RP-P10WP	RP-P15W	RP-P15WP	RP-P20WP	RP-P25WP	RP-P30WP	RP-P40WP
Location	Weight Distribution (kg)											
1	48	46	70	68	77	73	120	116	129	166	225	223
2	35	34	62	60	56	53	138	134	156	198	257	347
3	37	36	72	69	79	75	126	123	183	188	223	383
4	50	49	81	78	108	104	111	107	152	158	195	247
Length	Center of Gravity (mm)											
A	410	410	590	590	820	820	670	670	920	830	930	1050
B	390	390	510	510	580	580	730	730	780	870	1070	950
C	290	290	265	265	290	290	350	350	340	440	450	490
D	210	210	235	235	210	210	400	400	410	460	450	780
	Approximate Operating Weight (kg)											
	170	165	285	275	320	305	495	480	620	710	900	1,200

## Selection Guide

### Selection Example

#### 1. Determine the System Requirements

Calculate the total cooling load, sensible heat load and external static pressure of the evaporator fan, if required, according to the design conditions which include the condenser water inlet temperature, evaporator air inlet dry bulb temperature, evaporator air inlet wet bulb temperature and evaporator air flow. Clarify the power source frequency and the air supply system (free blow or duct distribution).

#### Given Conditions:

Total Cooling Load	12,000	kcal/h
Sensible Heat Load	9,300	kcal/h
Evaporator Air Inlet Dry Bulb	29	°C
Evaporator Air Inlet Wet Bulb	20	°C
Evaporator Air Flow	46	m <sup>3</sup> /min
Condenser Water Inlet Temperature	26	°C
External Static Pressure	6	mmAq
Air Supply System	By Duct	
Power Source Frequency	50	Hz

#### 2. Select a Matching Packaged Air Conditioner

Select model RP-P5WP by 38°C condensing temperature and 20°C evaporator air inlet wet bulb (WB) at 44 m<sup>3</sup>/min evaporator air flow (QA) in the cooling capacity table.

#### 3. Read the Performances

The total cooling capacity ( TC ), sensible heat capacity (SHC\*) at the dry bulb given in the table, compressor power input (IPT), heat pump rate(HPR) and sensible heat correction factor (CR) can be determined by interpolation (or some can be directly read from the table when the conditions coincide with the tabulated figures).

#### At 20°CWB

	TC	SHC*	IPT	HPR	CR
At 44 m <sup>3</sup> /min QA	12.5	9.0	3.6	15.9	0.675
At 48 m <sup>3</sup> /min QA	12.8	9.5	3.6	16.3	0.729
At 46 m <sup>3</sup> /min QA	12.65	9.25	3.6	16.1	0.702

(By Interpolation)

#### 4. Correct the Sensible Heat Capacity (If Required)

Correct the sensible heat capacity for the given 29°C evaporator air inlet dry bulb from the tabulated 27°C DB\* according to the following formula.

$$SHC = SHC^* + CR \times (DB - DB^*), \text{ where}$$

SHC : corrected sensible heat capacity  
(×1,000kcal/h),

SHC\* : sensible heat capacity given in the table (×1,000kcal/h),

DB : given evaporator air inlet dry bulb (°C),

DB\* : evaporator air inlet dry bulb given for each wet bulb in the table (°C)

For this example,

$$SHC = 9.25 + 0.702 \times (29 - 27) = 10.65 (\times 1,000 \text{ kcal/h}).$$

#### 5. Determine the Condenser Water Requirements

From the condenser water data, the required water flow rate by interpolation 16.1 HPR at 12 °C temperature difference between the 38 °C condensing temperature and 26°C condenser water inlet 38°C temperature is determined as 2.52 m<sup>3</sup>/h. The water head loss through the condenser can be read as 2.5mAq.

#### NOTES:

- The cooling capacities in the table are deducted by heat dissipation of the evaporator fan motor, which is operated with the standard (factory-set) fan speed.
- Direct interpolation is permissible. Do not extrapolate.
- When the condenser water outlet temperature is given in the system, assume a condensing temperature which is 4°C to 6°C higher than the outlet temperature.

# SELECTION DATA

## Cooling Capacities

- 50Hz -

Model	Evaporator Inlet Air			Condensing Temperature(°C)																			
	QA -CR-	WB (°C)	DB*	32				35				38				41				44			
				TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR
RP-P5W	38 -0.590-	16	23	11.2	8.7	3.0	14.1	10.7	8.5	3.2	13.8	10.4	8.3	3.4	13.6	10.0	8.2	3.5	13.4	9.8	8.0	3.7	13.2
		18	25	12.1	8.7	3.1	15.0	11.6	8.5	3.3	14.7	11.2	8.3	3.5	14.5	10.9	8.2	3.6	14.3	10.5	8.1	3.8	14.1
		20	27	12.8	8.6	3.1	15.8	12.3	8.4	3.3	15.5	11.9	8.3	3.5	15.3	11.5	8.1	3.7	15.0	11.2	8.0	3.8	14.8
		22	30	13.4	9.0	3.2	16.5	12.9	8.8	3.4	16.2	12.5	8.7	3.6	15.9	12.1	8.5	3.7	15.6	11.8	8.4	3.9	15.4
	44 -0.675-	16	23	11.7	9.4	3.0	14.6	11.2	9.2	3.2	14.3	10.8	9.0	3.4	14.1	10.5	8.9	3.6	13.9	10.2	8.8	3.7	13.7
		18	25	12.6	9.4	3.1	15.6	12.1	9.2	3.3	15.3	11.7	9.1	3.5	15.0	11.4	8.9	3.7	14.8	11.0	8.8	3.8	14.6
		20	27	13.4	9.4	3.2	16.5	12.9	9.2	3.4	16.1	12.5	9.0	3.6	15.8	12.1	8.8	3.7	15.6	11.7	8.7	3.9	15.4
		22	30	14.1	9.8	3.2	17.1	13.5	9.6	3.4	16.8	13.1	9.5	3.6	16.5	12.7	9.3	3.8	16.2	12.3	9.2	3.9	16.0
RP-P5WP	35 -0.547-	18	25	11.8	8.3	3.1	14.8	11.3	8.1	3.3	14.5	10.9	8.0	3.4	14.3	10.6	7.8	3.6	14.1	10.3	7.7	3.7	13.9
		20	27	12.5	8.3	3.1	15.6	12.0	8.1	3.3	15.3	11.6	7.9	3.5	15.1	11.3	7.8	3.7	14.9	11.0	7.6	3.8	14.7
		22	30	13.1	8.6	3.2	16.3	12.6	8.4	3.4	16.0	12.2	8.3	3.5	15.7	11.8	8.1	3.7	15.5	11.5	8.0	3.9	15.2
	40 -0.619-	16	23	11.3	8.9	3.0	14.3	10.9	8.7	3.2	14.1	10.5	8.5	3.4	13.8	10.2	8.4	3.5	13.7	9.9	8.3	3.7	13.5
		18	25	12.2	8.9	3.1	15.3	11.8	8.7	3.3	15.0	11.4	8.6	3.5	14.8	11.0	8.4	3.6	14.6	10.7	8.3	3.8	14.4
		20	27	13.0	8.9	3.2	16.2	12.5	8.7	3.4	15.8	12.1	8.5	3.5	15.6	11.7	8.4	3.7	15.3	11.4	8.2	3.8	15.1
		22	30	13.7	9.3	3.2	16.8	13.1	9.1	3.4	16.5	12.7	9.0	3.6	16.2	12.3	8.8	3.7	16.0	12.0	8.7	3.9	15.7
	44 -0.675-	16	23	11.7	9.4	3.0	14.7	11.2	9.2	3.2	14.4	10.8	9.0	3.4	14.2	10.5	8.9	3.6	14.0	10.2	8.8	3.7	13.8
		18	25	12.6	9.4	3.1	15.7	12.1	9.2	3.3	15.4	11.7	9.1	3.5	15.1	11.4	8.9	3.7	14.9	11.0	8.8	3.8	14.7
		20	27	13.4	9.4	3.2	16.6	12.9	9.2	3.4	16.2	12.5	9.0	3.6	15.9	12.1	8.8	3.7	15.7	11.7	8.7	3.9	15.5
		22	30	14.1	9.8	3.2	17.2	13.5	9.6	3.4	16.9	13.1	9.5	3.6	16.6	12.7	9.3	3.8	16.3	12.3	9.2	3.9	16.1
	48 -0.729-	16	23	12.0	9.9	3.1	15.1	11.5	9.7	3.2	14.8	11.2	9.5	3.4	14.5	10.8	9.4	3.6	14.3	10.5	9.2	3.7	14.1
		18	25	13.0	9.9	3.1	16.1	12.5	9.7	3.3	15.8	12.1	9.5	3.5	15.5	11.7	9.4	3.7	15.3	11.4	9.3	3.8	15.1
		20	27	13.8	9.8	3.2	17.0	13.3	9.6	3.4	16.6	12.8	9.5	3.6	16.3	12.4	9.3	3.7	16.1	12.1	9.2	3.9	15.9
		22	30	14.5	10.4	3.2	17.7	13.9	10.2	3.4	17.3	13.5	10.0	3.6	17.0	13.1	9.9	3.8	16.7	12.7	9.7	3.9	16.5
	53 -0.797-	14	20	11.3	9.6	3.0	14.3	10.9	9.4	3.2	14.0	10.5	9.2	3.3	13.8	10.2	9.1	3.5	13.6	9.9	9.0	3.6	13.4
16		23	12.5	10.5	3.1	15.5	12.0	10.3	3.3	15.2	11.6	10.1	3.4	14.9	11.2	10.0	3.6	14.7	10.9	9.8	3.7	14.5	
18		25	13.5	10.5	3.1	16.6	12.9	10.3	3.3	16.2	12.5	10.1	3.5	15.9	12.1	10.0	3.7	15.7	11.8	9.8	3.8	15.5	
20		27	14.3	10.4	3.2	17.5	13.8	10.2	3.4	17.1	13.3	10.1	3.6	16.8	12.9	9.9	3.8	16.5	12.5	9.8	3.9	16.3	
22	30	15.0	11.0	3.2	18.2	14.4	10.8	3.4	17.8	14.0	10.7	3.6	17.5	13.5	10.5	3.8	17.2	13.1	10.4	3.9	17.0		
RP-P8W RP-P8WP	50 -0.804-	18	25	18.9	12.9	4.8	23.4	18.1	12.6	5.1	22.9	17.5	12.3	5.4	22.6	17.0	12.1	5.7	22.2	16.5	11.9	5.9	21.9
		20	27	20.1	12.8	4.9	24.7	19.3	12.5	5.2	24.2	18.6	12.2	5.5	23.8	18.1	12.0	5.8	23.4	17.5	11.8	6.0	23.1
		22	30	21.0	13.3	5.0	25.7	20.2	13.0	5.3	25.2	19.6	12.8	5.6	24.8	19.0	12.5	5.8	24.4	18.4	12.3	6.1	24.0
	60 -0.953-	16	23	18.4	14.2	4.8	22.9	17.7	13.8	5.1	22.4	17.1	13.5	5.4	22.1	16.5	13.3	5.6	21.8	16.1	13.1	5.8	21.5
		18	25	19.9	14.2	4.9	24.5	19.1	13.9	5.2	23.9	18.4	13.6	5.5	23.6	17.9	13.3	5.7	23.2	17.4	13.1	6.0	22.9
		20	27	21.1	14.1	5.0	25.8	20.3	13.8	5.3	25.3	19.6	13.5	5.6	24.8	19.0	13.2	5.9	24.5	18.5	13.0	6.1	24.1
		22	30	22.2	14.7	5.0	26.9	21.3	14.4	5.4	26.3	20.6	14.2	5.7	25.9	20.0	13.9	5.9	25.5	19.4	13.7	6.1	25.1
	66 -1.045-	16	23	18.9	14.9	4.8	23.5	18.2	14.6	5.1	23.0	17.6	14.3	5.4	22.6	17.0	14.1	5.6	22.3	16.6	13.9	5.9	22.0
		18	25	20.5	15.0	4.9	25.1	19.7	14.6	5.2	24.6	19.0	14.3	5.5	24.1	18.4	14.1	5.8	23.8	17.9	13.9	6.0	23.5
		20	27	21.8	14.8	5.0	26.5	20.9	14.5	5.3	25.9	20.2	14.2	5.6	25.5	19.6	14.0	5.9	25.1	19.0	13.8	6.1	24.7
		22	30	22.8	15.6	5.1	27.6	22.0	15.3	5.4	27.0	21.2	15.0	5.7	26.5	20.6	14.7	5.9	26.1	20.0	14.5	6.2	25.7
	72 -1.131-	16	23	19.5	15.7	4.8	24.0	18.7	15.4	5.1	23.5	18.1	15.1	5.4	23.1	17.6	14.8	5.7	22.8	17.1	14.6	5.9	22.5
		18	25	21.1	15.7	4.9	25.7	20.2	15.4	5.3	25.2	19.6	15.1	5.6	24.7	19.0	14.9	5.8	24.4	18.4	14.6	6.0	24.0
		20	27	22.4	15.6	5.0	27.1	21.6	15.3	5.4	26.6	20.8	15.0	5.7	26.1	20.2	14.7	5.9	25.7	19.6	14.5	6.2	25.3
		22	30	23.5	16.4	5.1	28.3	22.6	16.1	5.4	27.7	21.9	15.8	5.7	27.2	21.2	15.6	6.0	26.7	20.6	15.4	6.2	26.3
	80 -1.244-	14	20	18.4	15.3	4.7	22.8	17.7	15.0	5.0	22.4	17.0	14.7	5.3	22.0	16.5	14.5	5.5	21.7	16.1	14.2	5.7	21.4
		16	23	20.3	16.7	4.8	24.8	19.4	16.4	5.2	24.3	18.8	16.1	5.4	23.9	18.2	15.8	5.7	23.5	17.7	15.6	5.9	23.2
		18	25	21.9	16.8	5.0	26.5	21.0	16.4	5.3	26.0	20.3	16.1	5.6	25.5	19.7	15.9	5.8	25.1	19.1	15.6	6.1	24.7
		20	27	23.3	16.6	5.1	28.0	22.4	16.3	5.4	27.4	21.6	16.0	5.7	26.9	21.0	15.7	6.0	26.5	20.4	15.5	6.2	26.1
	22	30	24.4	17.5	5.1	29.2	23.5	17.2	5.4	28.6	22.7	16.9	5.7	28.0	22.0	16.7	6.0	27.6	21.4	16.4	6.2	27.2	
RP-P10W RP-P10WP	65 -1.047-	18	25	23.2	16.2	5.9	28.9	22.3	15.8	6.2	28.3	21.5	15.4	6.6	27.8	20.9	15.2	6.9	27.4	20.3	14.9	7.2	27.1
		20	27	24.7	16.0	6.0	30.5	23.7	15.7	6.4	29.8	22.9	15.3	6.7	29.3	22.2	15.0	7.0	28.9	21.6	14.8	7.3	28.5
		22	30	25.9	16.8	6.0	31.7	24.9	16.4	6.4	31.1	24.1	16.1	6.8	30.6	23.3	15.8	7.1	30.1	22.7	15.5	7.4	29.7
	78 -1.240-	16	23	22.6	17.8	5.8	28.2	21.7	17.4	6.2	27.6	21.0	17.0	6.5	27.2	20.3	16.8	6.8	26.8	19.8	16.5	7.1	26.5
		18	25	24.4	17.8	5.9	30.2	23.5	17.4	6.3	29.5	22.7	17.1	6.7	29.0	22.0	16.8	7.0	28.6	21.4	16.5	7.2	28.2
		20	27	26.0	17.7	6.1	31.8	25.0	17.3	6.4	31.2	24.1	16.9	6.8	30.6	23.4	16.7	7.1	30.1	22.7	16.4	7.4	29.7
		22	30	27.2	18.5	6.1	33.1	26.2	18.2	6.5	32.5	25.4	17.8	6.9	31.9	24.6	17.6	7.2	31.4	23.9	17.3	7.5	30.9
	88 -1.385-	16	23	23.5	19.1	5.8	29.1	22.5	18.6	6.2	28.5	21.8	18.3	6.6	28.0	21.1	18.0	6.9	27.7	20.5	17.7	7.1	27.3
		18	25	25.4	19.1	6.0	31.1	24.4	18.7	6.4	30.5	23.5	18.3	6.7	30.0	22.8	18.0	7.0	29.5	22.2	17.8	7.3	29.1
		20	27	27.0	18.9	6.1	32.9	25.9	18.5	6.5	32.2	25.1	18.2	6.9	31.6	24.3	17.9	7.2	31.1	23.6	17.6	7.5	30.6
		22	30	28.3	19.9	6.2	34.2	27.2	19.5	6.6	33.5	26.3	19.2	6.9	32.9	25.5	18.9	7.2	32.4	24.8	18.7	7.5	31.9
	98 -1.527																						

**Cooling Capacities (Continued)**

- 50Hz -

Model	Evaporator Inlet Air			Condensing Temperature(°C)																				
	QA	WB	DB*	32				35				38				41				44				
	-CR-	(°C)		TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	
RP-P15W RP-P15WP	95 -1.574-	18	25	37.5	25.5	9.5	46.8	36.0	24.8	10.1	45.8	34.8	24.3	10.7	45.1	33.8	23.8	11.2	44.5	32.8	23.4	11.7	43.9	
		20	27	39.9	25.3	9.7	49.3	38.4	24.7	10.4	48.3	37.1	24.1	10.9	47.5	35.9	23.6	11.4	46.8	34.9	23.2	11.9	46.2	
		22	30	41.9	26.3	9.8	51.4	40.3	25.7	10.5	50.4	38.9	25.2	11.0	49.5	37.7	24.7	11.5	48.7	36.7	24.3	12.0	48.1	
	115 -1.885-	16	23	36.6	28.1	9.4	45.8	35.2	27.4	10.0	44.9	34.0	26.8	10.6	44.2	33.0	26.4	11.1	43.6	32.0	26.0	11.5	43.0	
		18	25	39.6	28.2	9.7	49.0	38.0	27.5	10.3	47.9	36.7	26.9	10.9	47.2	35.6	26.4	11.4	46.5	34.6	26.0	11.8	45.8	
		20	27	42.1	27.9	9.9	51.6	40.5	27.3	10.5	50.6	39.1	26.7	11.1	49.7	37.9	26.2	11.6	48.9	36.8	25.8	12.1	48.3	
	130 -2.115-	14	20	34.6	27.6	9.2	43.6	33.2	26.9	9.8	42.7	32.0	26.4	10.4	42.0	31.1	25.9	10.9	41.5	30.2	25.5	11.3	41.0	
		16	23	38.1	30.1	9.5	47.3	36.5	29.4	10.1	46.3	35.3	28.8	10.7	45.6	34.2	28.4	11.2	44.9	33.3	27.9	11.6	44.3	
		18	25	41.1	30.2	9.7	50.6	39.5	29.5	10.4	49.5	38.2	28.9	11.0	48.7	37.0	28.4	11.5	47.9	36.0	28.0	11.9	47.3	
		20	27	43.7	29.9	9.9	53.4	42.1	29.3	10.6	52.2	40.6	28.7	11.2	51.3	39.4	28.2	11.7	50.5	38.2	27.8	12.2	49.8	
	145 -2.341-	14	20	35.8	29.4	9.3	44.9	34.4	28.7	9.9	44.0	33.2	28.2	10.4	43.3	32.3	27.7	10.9	42.7	31.3	27.3	11.4	42.2	
		16	23	39.5	32.1	9.6	48.8	37.9	31.4	10.2	47.7	36.6	30.8	10.8	46.9	35.5	30.4	11.3	46.3	34.5	29.9	11.7	45.7	
		18	25	42.7	32.2	9.8	52.2	41.0	31.5	10.4	51.0	39.6	30.9	11.0	50.2	38.4	30.4	11.5	49.4	37.3	30.0	12.0	48.7	
	155 -2.490-	14	20	36.7	30.6	9.3	45.8	35.3	29.9	9.9	44.9	34.0	29.3	10.5	44.1	33.0	28.9	11.0	43.5	32.1	28.5	11.4	43.0	
		16	23	40.4	33.5	9.6	49.8	38.8	32.8	10.2	48.7	37.5	32.2	10.8	47.9	36.4	31.7	11.3	47.2	35.3	31.2	11.7	46.5	
		18	25	43.7	33.5	9.8	53.2	42.0	32.8	10.5	52.0	40.6	32.2	11.1	51.1	39.3	31.7	11.6	50.3	38.2	31.3	12.0	49.6	
		20	27	46.5	33.2	10.0	56.2	44.7	32.5	10.7	54.9	43.2	32.0	11.3	53.9	41.8	31.5	11.8	53.1	40.6	31.0	12.3	52.3	
	RP-P20W RP-P20WP	130 -2.146-	18	25	46.7	32.8	12.2	59.2	44.8	31.9	13.0	58.0	43.3	31.3	13.8	57.2	42.0	30.7	14.4	56.4	40.8	30.2	15.0	55.7
20			27	49.6	32.5	12.5	62.4	47.7	31.7	13.3	61.2	46.1	31.0	14.0	60.2	44.7	30.5	14.7	59.3	43.4	30.0	15.3	58.5	
22			30	52.1	33.9	12.6	64.9	50.1	33.2	13.4	63.7	48.4	32.6	14.2	62.6	46.9	32.0	14.8	61.7	45.6	31.5	15.4	60.9	
160 -2.611-		16	23	45.8	36.6	12.1	58.2	43.9	35.8	12.9	57.1	42.4	35.1	13.6	56.2	41.2	34.5	14.3	55.5	40.0	34.0	14.8	54.8	
		18	25	49.5	36.7	12.4	62.2	47.5	35.8	13.2	60.9	45.9	35.2	14.0	59.9	44.5	34.6	14.6	59.1	43.2	34.1	15.2	58.3	
		20	27	52.6	36.4	12.7	65.5	50.6	35.6	13.5	64.2	48.8	34.9	14.2	63.1	47.3	34.3	14.9	62.2	46.0	33.8	15.5	61.3	
180 -2.915-		14	20	43.1	35.9	11.9	55.3	41.4	35.1	12.6	54.3	39.9	34.4	13.3	53.4	38.8	33.9	14.0	52.8	37.7	33.4	14.5	52.2	
		16	23	47.5	39.2	12.2	60.0	45.6	38.4	13.0	58.8	44.0	37.7	13.7	57.9	42.7	37.2	14.4	57.1	41.5	36.6	14.9	56.4	
		18	25	51.3	39.3	12.5	64.1	49.3	38.5	13.3	62.8	47.6	37.8	14.1	61.7	46.2	37.2	14.7	60.8	44.9	36.7	15.3	60.0	
		20	27	54.6	39.0	12.8	67.6	52.5	38.2	13.6	66.2	50.7	37.5	14.4	65.0	49.1	36.9	15.0	64.1	47.7	36.4	15.6	63.2	
200 -3.214-		14	20	44.7	38.2	11.9	57.0	42.9	37.4	12.7	55.9	41.4	36.7	13.4	55.0	40.2	36.2	14.0	54.3	39.0	35.6	14.6	53.6	
		16	23	49.2	41.9	12.3	61.8	47.2	41.0	13.1	60.5	45.6	40.3	13.8	59.5	44.3	39.7	14.5	58.7	43.0	39.2	15.0	57.9	
		18	25	53.2	41.9	12.6	66.0	51.1	41.1	13.4	64.6	49.3	40.4	14.2	63.5	47.8	39.8	14.8	62.6	46.5	39.2	15.4	61.7	
		20	27	56.5	41.6	12.9	69.6	54.4	40.8	13.7	68.2	52.5	40.0	14.4	67.0	50.9	39.4	15.1	65.9	49.4	38.9	15.7	65.0	
		22	30	59.3	43.9	13.0	72.5	57.1	43.1	13.8	71.0	55.2	42.5	14.6	69.7	53.5	41.9	15.3	68.6	52.0	41.3	15.9	67.6	
215 -3.436-		14	20	45.8	40.0	12.0	58.2	44.0	39.1	12.8	57.0	42.5	38.4	13.5	56.1	41.2	37.9	14.1	55.4	40.1	37.4	14.6	54.7	
		16	23	50.5	43.8	12.3	63.1	48.5	43.0	13.1	61.8	46.8	42.3	13.9	60.8	45.4	41.7	14.5	59.9	44.1	41.1	15.1	59.1	
		18	25	54.6	43.9	12.6	67.4	52.4	43.0	13.5	66.0	50.6	42.3	14.2	64.9	49.1	41.7	14.9	63.9	47.7	41.1	15.5	63.0	
RP-P25W RP-P25WP		160 -2.603-	18	25	59.0	40.8	15.4	75.2	56.7	39.8	16.4	73.7	54.8	38.9	17.3	72.6	53.1	38.2	18.1	71.6	51.6	37.6	18.8	70.8
			20	27	62.8	40.5	15.7	79.2	60.4	39.5	16.7	77.7	58.3	38.6	17.7	76.4	56.5	37.9	18.5	75.4	54.9	37.3	19.2	74.4
			22	30	65.9	42.2	15.9	82.4	63.4	41.3	16.9	80.9	61.3	40.5	17.9	79.6	59.4	39.7	18.7	78.4	57.7	39.1	19.4	77.3
		200 -3.209-	16	23	58.2	45.9	15.3	74.3	55.9	44.8	16.3	72.8	54.0	43.9	17.2	71.7	52.3	43.2	18.0	70.7	50.9	42.6	18.7	69.9
	18		25	62.9	46.0	15.7	79.3	60.4	44.9	16.7	77.7	58.4	44.1	17.6	76.4	56.6	43.3	18.4	75.3	55.0	42.6	19.2	74.4	
	20		27	66.9	45.6	16.0	83.5	64.3	44.6	17.0	81.9	62.1	43.7	18.0	80.5	60.2	43.0	18.8	79.3	58.5	42.3	19.5	78.2	
	22		30	70.1	47.8	16.1	86.9	67.5	46.9	17.2	85.2	65.3	46.0	18.1	83.8	63.2	45.3	19.0	82.5	61.4	44.7	19.7	81.4	
	220 -3.505-	14	20	54.4	44.4	14.9	70.2	52.3	43.4	15.9	68.9	50.4	42.5	16.8	67.8	49.0	41.8	17.6	67.0	47.6	41.2	18.3	66.2	
		16	23	60.0	48.5	15.4	76.1	57.6	47.4	16.4	74.6	55.6	46.5	17.3	73.4	53.9	45.8	18.1	72.4	52.4	45.1	18.8	71.5	
		18	25	64.8	48.6	15.8	81.3	62.2	47.5	16.8	79.6	60.1	46.6	17.7	78.3	58.3	45.9	18.5	77.2	56.6	45.2	19.3	76.1	
		20	27	68.9	48.2	16.1	85.7	66.3	47.1	17.1	83.9	64.0	46.2	18.1	82.5	62.0	45.5	18.9	81.2	60.3	44.8	19.7	80.1	
	240 -3.797-	14	20	56.0	46.7	15.0	71.9	53.8	45.7	16.0	70.5	51.9	44.8	16.9	69.4	50.4	44.1	17.7	68.5	49.0	43.4	18.4	67.7	
		16	23	61.7	51.1	15.5	78.0	59.3	50.0	16.5	76.3	57.2	49.1	17.4	75.1	55.5	48.3	18.2	74.1	54.0	47.7	18.9	73.2	
		18	25	66.7	51.1	15.8	83.3	64.1	50.1	16.9	81.5	61.9	49.2	17.8	80.2	60.0	48.4	18.6	79.0	58.3	47.7	19.4	77.9	
		20	27	70.9	50.7	16.2	87.8	68.2	49.7	17.2	86.0	65.9	48.8	18.2	84.5	63.9	48.0	19.0	83.1	62.0	47.3	19.8	82.0	
	260 -4.084-	14	20	57.7	49.0	15.1	73.5	55.4	47.9	16.0	72.1	53.4	47.0	16.9	70.9	51.9	46.3	17.7	70.0	50.4	45.7	18.4	69.2	
		16	23	63.5	53.6	15.5	79.8	61.0	52.5	16.5	78.1	58.9	51.6	17.5	76.8	57.1	50.9	18.3	75.8	55.				



**Cooling Capacities (Continued)**

- 60Hz -

Model	Evaporator Inlet Air			Condensing Temperature(°C)																				
	QA -CR-	WB (°C)	DB*	32				35				38				41				44				
				TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	
RP-P5W	38 -0.590-	16	23	12.8	9.5	3.5	16.2	12.3	9.2	3.7	15.9	11.9	9.0	3.9	15.6	11.5	8.9	4.1	15.4	11.2	8.7	4.3	15.2	
		18	25	13.9	9.5	3.6	17.3	13.3	9.2	3.8	16.9	12.9	9.0	4.0	16.7	12.5	8.9	4.2	16.4	12.1	8.7	4.4	16.2	
		20	27	14.7	9.4	3.7	18.2	14.2	9.2	3.9	17.9	13.7	9.0	4.1	17.6	13.3	8.8	4.3	17.3	12.9	8.7	4.5	17.1	
	44 -0.675-	22	30	15.5	9.8	3.7	19.0	14.9	9.6	3.9	18.6	14.4	9.4	4.2	18.3	13.9	9.2	4.3	18.0	13.5	9.1	4.5	17.8	
		16	23	13.4	10.2	3.5	16.8	12.9	10.0	3.8	16.5	12.4	9.8	4.0	16.2	12.1	9.6	4.2	16.0	11.7	9.4	4.3	15.8	
		18	25	14.5	10.2	3.6	18.0	13.9	10.0	3.9	17.6	13.5	9.8	4.1	17.3	13.1	9.6	4.3	17.0	12.7	9.5	4.4	16.8	
RP-P5WP	35 -0.547-	20	27	14.4	9.1	3.6	17.9	13.8	8.8	3.9	17.6	13.4	8.6	4.1	17.3	13.0	8.4	4.3	17.1	12.6	8.3	4.4	16.8	
		22	30	15.1	9.4	3.7	18.7	14.5	9.2	3.9	18.3	14.0	9.0	4.1	18.0	13.6	8.8	4.3	17.7	13.2	8.7	4.5	17.5	
		16	23	13.0	9.7	3.5	16.5	12.5	9.5	3.7	16.1	12.1	9.3	3.9	15.9	11.7	9.1	4.1	15.7	11.4	8.9	4.3	15.5	
	40 -0.619-	18	25	14.1	9.7	3.6	17.6	13.5	9.5	3.8	17.2	13.1	9.3	4.0	17.0	12.7	9.1	4.2	16.7	12.3	9.0	4.4	16.5	
		20	27	15.0	9.7	3.7	18.5	14.4	9.4	3.9	18.2	13.9	9.2	4.1	17.9	13.5	9.1	4.3	17.6	13.1	8.9	4.5	17.4	
		22	30	15.7	10.1	3.7	19.3	15.1	9.9	3.9	18.9	14.6	9.7	4.2	18.6	14.2	9.5	4.4	18.3	13.8	9.3	4.5	18.1	
	44 -0.675-	16	23	13.4	10.2	3.5	16.9	12.9	10.0	3.8	16.5	12.4	9.8	4.0	16.3	12.1	9.6	4.2	16.1	11.7	9.4	4.3	15.9	
		18	25	14.5	10.2	3.6	18.0	13.9	10.0	3.9	17.7	13.5	9.8	4.1	17.4	13.1	9.6	4.3	17.1	12.7	9.5	4.4	16.9	
		20	27	15.4	10.2	3.7	19.0	14.8	9.9	3.9	18.6	14.3	9.7	4.2	18.3	13.9	9.5	4.3	18.0	13.5	9.4	4.5	17.8	
	48 -0.729-	22	30	16.2	10.6	3.7	19.8	15.6	10.4	4.0	19.4	15.0	10.2	4.2	19.1	14.6	10.0	4.4	18.8	14.2	9.9	4.6	18.5	
		16	23	13.8	10.7	3.6	17.3	13.3	10.5	3.8	16.9	12.8	10.3	4.0	16.7	12.4	10.1	4.2	16.4	12.1	9.9	4.3	16.2	
		18	25	14.9	10.8	3.6	18.5	14.3	10.5	3.9	18.1	13.9	10.3	4.1	17.8	13.4	10.1	4.3	17.5	13.1	10.0	4.4	17.3	
	53 -0.797-	20	27	15.9	10.7	3.7	19.5	15.3	10.4	4.0	19.1	14.7	10.2	4.2	18.8	14.3	10.0	4.4	18.5	13.9	9.9	4.5	18.2	
		22	30	16.6	11.2	3.8	20.3	16.0	10.9	4.0	19.9	15.5	10.7	4.2	19.5	15.0	10.6	4.4	19.2	14.6	10.4	4.6	18.9	
		14	20	13.0	10.4	3.5	16.4	12.5	10.2	3.7	16.1	12.0	10.0	3.9	15.8	11.7	9.8	4.1	15.6	11.4	9.6	4.2	15.4	
	50 -0.804-	16	23	14.3	11.4	3.6	17.8	13.7	11.1	3.8	17.4	13.3	10.9	4.0	17.1	12.9	10.7	4.2	16.9	12.5	10.5	4.4	16.7	
		18	25	15.5	11.4	3.7	19.0	14.9	11.1	3.9	18.6	14.4	10.9	4.1	18.3	13.9	10.7	4.3	18.0	13.5	10.6	4.5	17.8	
		20	27	16.4	11.3	3.7	20.1	15.8	11.0	4.0	19.6	15.3	10.8	4.2	19.3	14.8	10.6	4.4	19.0	14.4	10.5	4.6	18.7	
RP-P8W RP-P8WP	60 -0.953-	22	30	17.2	11.8	3.8	20.9	16.6	11.6	4.0	20.5	16.0	11.4	4.2	20.1	15.6	11.2	4.4	19.8	15.1	11.1	4.6	19.5	
		18	25	21.0	13.9	5.6	26.2	20.2	13.5	5.9	25.7	19.5	13.2	6.3	25.3	18.9	12.9	6.5	25.0	18.4	12.7	6.8	24.7	
		20	27	22.3	13.8	5.7	27.7	21.5	13.4	6.0	27.1	20.7	13.1	6.4	26.7	20.1	12.8	6.7	26.3	19.5	12.6	6.9	25.9	
	66 -1.045-	22	30	23.4	14.3	5.7	28.8	22.6	14.0	6.1	28.2	21.8	13.6	6.4	27.8	21.1	13.4	6.7	27.4	20.5	13.1	7.0	27.0	
		16	23	20.5	15.1	5.5	25.7	19.7	14.8	5.9	25.1	19.0	14.4	6.2	24.8	18.4	14.2	6.5	24.4	17.9	13.9	6.7	24.1	
		18	25	22.1	15.2	5.6	27.4	21.2	14.8	6.0	26.9	20.5	14.5	6.3	26.4	19.9	14.2	6.6	26.1	19.3	14.0	6.9	25.7	
	72 -1.131-	20	27	23.5	15.1	5.7	28.9	22.6	14.7	6.1	28.3	21.9	14.4	6.5	27.9	21.2	14.1	6.8	27.4	20.6	13.9	7.0	27.1	
		22	30	24.7	15.7	5.8	30.1	23.8	15.4	6.2	29.5	23.0	15.0	6.5	29.0	22.3	14.8	6.8	28.6	21.6	14.5	7.1	28.2	
		16	23	21.1	15.9	5.5	26.3	20.3	15.5	5.9	25.8	19.6	15.2	6.2	25.4	19.0	15.0	6.5	25.0	18.4	14.7	6.8	24.7	
	80 -1.244-	18	25	22.8	16.0	5.7	28.1	21.9	15.6	6.0	27.5	21.2	15.3	6.4	27.1	20.5	15.0	6.7	26.7	19.9	14.7	6.9	26.3	
		20	27	24.2	15.9	5.8	29.7	23.3	15.5	6.2	29.1	22.5	15.1	6.5	28.6	21.8	14.9	6.8	28.1	21.2	14.6	7.1	27.7	
		22	30	25.4	16.6	5.8	30.9	24.5	16.2	6.2	30.3	23.7	15.9	6.6	29.8	22.9	15.6	6.9	29.3	22.3	15.4	7.1	28.9	
	RP-P10W RP-P10WP	88 -1.385-	16	23	21.7	16.7	5.6	27.0	20.9	16.3	5.9	26.4	20.1	16.0	6.3	26.0	19.5	15.7	6.5	25.6	19.0	15.5	6.8	25.3
			18	25	23.5	16.8	5.7	28.8	22.5	16.4	6.1	28.2	21.8	16.0	6.4	27.7	21.1	15.8	6.7	27.3	20.5	15.5	7.0	27.0
			20	27	25.0	16.6	5.8	30.4	24.0	16.2	6.2	29.8	23.2	15.9	6.5	29.3	22.5	15.6	6.8	28.8	21.8	15.4	7.1	28.4
		98 -1.527-	22	30	26.2	17.4	5.9	31.7	25.2	17.0	6.2	31.0	24.4	16.7	6.6	30.5	23.6	16.4	6.9	30.0	22.9	16.2	7.2	29.6
			14	20	20.5	16.3	5.4	25.6	19.7	15.9	5.8	25.1	19.0	15.6	6.1	24.7	18.4	15.3	6.4	24.4	17.9	15.1	6.6	24.1
			16	23	22.6	17.8	5.6	27.8	21.7	17.4	6.0	27.2	20.9	17.0	6.3	26.8	20.3	16.8	6.6	26.4	19.7	16.5	6.8	26.0
105 -1.625-		18	25	24.4	17.8	5.7	29.7	23.4	17.4	6.1	29.1	22.6	17.1	6.4	28.6	21.9	16.8	6.7	28.2	21.3	16.5	7.0	27.8	
		20	27	25.9	17.7	5.8	31.4	24.9	17.3	6.2	30.7	24.1	16.9	6.6	30.2	23.3	16.7	6.9	29.7	22.7	16.4	7.1	29.3	
		22	30	27.2	18.5	5.9	32.7	26.2	18.2	6.3	32.0	25.3	17.8	6.6	31.4	24.5	17.6	6.9	30.9	23.8	17.3	7.2	30.5	
RP-P10WP		65 -1.047-	14	20	20.5	16.3	5.4	25.6	19.7	15.9	5.8	25.1	19.0	15.6	6.1	24.7	18.4	15.3	6.4	24.4	17.9	15.1	6.6	24.1
			18	25	22.6	17.8	5.6	27.8	21.7	17.4	6.0	27.2	20.9	17.0	6.3	26.8	20.3	16.8	6.6	26.4	19.7	16.5	6.8	26.0
			20	27	24.4	17.8	5.7	29.7	23.4	17.4	6.1	29.1	22.6	17.1	6.4	28.6	21.9	16.8	6.7	28.2	21.3	16.5	7.0	27.8
	78 -1.240-	22	30	25.9	17.7	5.8	31.4	24.9	17.3	6.2	30.7	24.1	16.9	6.6	30.2	23.3	16.7	6.9	29.7	22.7	16.4	7.1	29.3	
		16	23	25.4	19.1	6.8	32.0	24.4	18.6	7.2	31.3	23.6	18.2	7.6	30.8	22.9	17.9	8.0	30.4	22.2	17.6	8.3	30.1	
		18	25	27.5	19.2	6.9	34.2	26.4	18.7	7.4	33.4	25.5	18.3	7.8	32.9	24.7	17.9	8.2	32.5	24.0	17.6	8.5	32.0	
	88 -1.385-	20	27	29.2	19.0	7.1	36.0	28.1	18.5	7.5	35.3	27.1	18.1	8.0	34.7	26.3	17.8	8.3	34.2	25.5	17.5	8.7	33.7	
		22	30	30.6	19.8	7.2	37.5	29.5	19.4	7.6	36.8	28.5	19.0	8.0	36.1	27.6	18.7	8.4	35.6	26.8	18.4	8.7	35.1	
		16	23	26.4	20.4	6.8	33.0	25.3	19.9	7.3	32.3	24.5	19.5	7.7	31.8	23.7	19.2	8.0	31.4	23.1	18.9	8.3	31.0	
	98 -1.527-	18	25	28.5	20.4	7.0	35.3	27.4	20.0	7.4	34.5	26.5	19.6	7.9	34.0	25.7	19.2	8.2	33.5	24.9	18.9	8.6	33.0	
		20	27	30.3	20.3	7.1	37.2	29.2	19.8	7.6	36.4	28.2	19.4	8.0	35.8	27.3	19.1	8.4	35.2	26.5	18.8	8.7	34.7	
		22	30	31.8	21.2	7.2	38.7	30.6	20.8	7.7	37.9	29.6	20.4	8.1	37.3	28.7	20.1	8.5	36.7	27.9	19.8	8.8	36.2	
105 -1.625-	16	23	27.4	21.7	6.9	34.0	26.3	21.2	7.3	33.3	25.4	20.8	7.7	32.7	24.6	20.4	8.1	32.3	23.9	20.1	8.4	31.9		
	18	25	29.6	21.7	7.0	36.3	28.4	21.2	7.5	35.														

# SELECTION DATA

## Cooling Capacities (Continued)

- 60Hz -

Model	Evaporator Inlet Air			Condensing Temperature(°C)																				
	QA -CR-	WB (°C)	DB*	32				35				38				41				44				
				TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	
RP-P15W RP-P15WP	95 -1.574-	18	25	41.7	27.5	11.4	52.8	40.0	26.7	12.1	51.8	38.7	26.1	12.8	51.0	37.5	25.5	13.4	50.3	36.4	25.0	14.0	49.7	
		20	27	44.3	27.3	11.6	55.6	42.6	26.5	12.4	54.6	41.2	25.9	13.1	53.7	39.9	25.3	13.7	53.0	38.8	24.8	14.2	52.3	
		22	30	46.5	28.2	11.8	57.9	44.8	27.5	12.5	56.8	43.3	26.9	13.2	55.9	41.9	26.4	13.8	55.1	40.7	25.9	14.4	54.4	
	115 -1.885-	16	23	40.7	30.0	11.3	51.7	39.1	29.2	12.0	50.7	37.7	28.6	12.7	49.9	36.6	28.1	13.3	49.3	35.6	27.6	13.8	48.7	
		18	25	44.0	30.1	11.6	55.2	42.2	29.3	12.3	54.1	40.8	28.7	13.0	53.3	39.6	28.2	13.6	52.5	38.4	27.7	14.1	51.9	
		20	27	46.8	29.9	11.8	58.2	45.0	29.1	12.6	57.1	43.4	28.5	13.3	56.1	42.1	27.9	13.9	55.3	40.9	27.4	14.4	54.6	
	130 -2.115-	14	20	38.4	29.5	11.1	49.2	36.9	28.7	11.8	48.3	35.6	28.1	12.4	47.5	34.5	27.2	13.0	47.0	33.5	27.1	13.5	46.5	
		16	23	42.3	32.1	11.4	53.3	40.6	31.3	12.1	52.3	39.2	30.6	12.8	51.5	38.0	30.1	13.4	50.8	37.0	29.6	13.9	50.2	
		18	25	45.7	32.2	11.7	57.0	43.9	31.4	12.4	55.8	42.4	30.7	13.1	55.0	41.1	30.2	13.7	54.2	39.9	29.7	14.3	53.5	
		20	27	48.6	31.9	11.9	60.1	46.7	31.1	12.7	58.9	45.1	30.5	13.4	57.9	43.7	29.9	14.0	57.1	42.5	29.4	14.6	56.3	
	145 -2.341-	14	20	39.8	31.3	11.1	50.7	38.3	30.6	11.8	49.7	36.9	29.9	12.5	48.9	35.8	29.4	13.1	48.4	34.8	28.9	13.6	47.8	
		16	23	43.9	34.1	11.5	55.0	42.1	33.3	12.2	53.9	40.7	32.7	12.9	53.0	39.5	32.1	13.5	52.3	38.3	31.6	14.0	51.7	
		18	25	47.4	34.2	11.7	58.8	45.5	33.4	12.5	57.5	44.0	32.7	13.2	56.6	42.7	32.2	13.8	55.8	41.4	31.7	14.4	55.1	
	155 -2.490-	20	27	50.4	33.9	12.0	62.0	48.5	33.1	12.7	60.7	46.8	32.5	13.5	59.7	45.4	31.9	14.1	58.8	44.1	31.4	14.6	58.0	
		22	30	52.9	35.5	12.1	64.6	50.9	34.8	12.9	63.3	49.2	34.2	13.6	62.2	47.7	33.6	14.2	61.2	46.3	33.1	14.8	60.3	
		14	20	40.8	32.5	11.2	51.7	39.2	31.8	11.9	50.7	37.8	31.1	12.5	49.9	36.7	30.6	13.1	49.3	35.6	30.1	13.6	48.7	
	RP-P20W RP-P20WP	130 -2.146-	16	23	51.6	39.3	13.7	65.8	49.5	38.3	14.6	64.5	47.8	37.5	15.4	63.5	46.4	36.9	16.1	62.7	45.1	36.3	16.8	61.9
			18	25	55.7	39.4	14.1	70.2	53.5	38.4	15.0	68.8	51.7	37.6	15.8	67.7	50.1	37.0	16.5	66.8	48.7	36.4	17.2	65.9
20			27	59.2	39.1	14.4	74.0	57.0	38.1	15.3	72.5	55.0	37.4	16.1	71.3	53.3	36.7	16.9	70.3	51.8	36.1	17.6	69.3	
160 -2.611-		14	20	48.6	38.5	13.4	62.5	46.7	37.6	14.3	61.4	45.0	36.8	15.1	60.4	43.7	36.2	15.8	59.7	42.4	35.6	16.4	59.0	
		16	23	53.5	42.0	13.8	67.8	51.4	41.0	14.7	66.4	49.6	40.2	15.6	65.4	48.1	39.5	16.3	64.5	46.8	38.9	16.9	63.7	
		18	25	57.8	42.1	14.2	72.4	55.5	41.1	15.1	70.9	53.7	40.3	15.9	69.8	52.0	39.6	16.7	68.8	50.5	39.0	17.3	67.9	
		20	27	61.5	41.7	14.5	76.3	59.1	40.8	15.4	74.8	57.1	40.0	16.3	73.5	55.3	39.3	17.0	72.4	53.8	38.7	17.7	71.4	
180 -2.915-		14	20	48.6	38.5	13.4	62.5	46.7	37.6	14.3	61.4	45.0	36.8	15.1	60.4	43.7	36.2	15.8	59.7	42.4	35.6	16.4	59.0	
		16	23	53.5	42.0	13.8	67.8	51.4	41.0	14.7	66.4	49.6	40.2	15.6	65.4	48.1	39.5	16.3	64.5	46.8	38.9	16.9	63.7	
		18	25	57.8	42.1	14.2	72.4	55.5	41.1	15.1	70.9	53.7	40.3	15.9	69.8	52.0	39.6	16.7	68.8	50.5	39.0	17.3	67.9	
200 -3.214-		20	27	62.1	40.9	14.5	77.0	59.8	40.0	15.4	75.5	57.8	39.2	16.3	74.3	56.0	38.5	17.0	73.1	54.5	38.0	17.7	72.1	
		22	30	64.5	43.7	14.6	79.5	62.1	42.9	15.6	77.9	60.0	42.1	16.4	76.5	58.1	41.4	17.2	75.3	56.5	40.8	17.9	74.3	
		14	20	50.3	40.9	13.5	64.4	48.3	39.9	14.4	63.1	46.6	39.1	15.2	62.1	45.3	38.5	15.9	61.4	44.0	37.9	16.5	60.6	
215 -3.436-		16	23	55.4	44.6	13.9	69.8	53.2	43.7	14.8	68.4	51.4	42.8	15.7	67.3	49.9	42.2	16.4	66.4	48.5	41.6	17.0	65.5	
		18	25	59.9	44.7	14.3	74.6	57.5	43.7	15.2	73.0	55.6	42.9	16.0	71.8	53.9	42.2	16.8	70.7	52.4	41.6	17.5	69.8	
		20	27	63.7	44.4	14.6	78.6	61.3	43.4	15.5	77.0	59.2	42.6	16.4	75.7	57.3	41.9	17.1	74.5	55.7	41.3	17.8	73.4	
RP-P25W RP-P25WP		160 -2.603-	22	30	66.8	46.6	14.7	81.9	64.3	45.7	15.7	80.2	62.2	45.0	16.5	78.8	60.2	44.3	17.3	77.5	58.5	43.7	18.0	76.4
			14	20	51.6	42.7	13.6	65.7	49.6	41.7	14.4	64.4	47.9	40.9	15.3	63.4	46.5	40.3	16.0	62.6	45.1	39.7	16.6	61.8
	16		23	56.9	46.7	14.0	71.3	54.6	45.7	14.9	69.8	52.7	44.8	15.7	68.7	51.2	44.1	16.4	67.7	49.7	43.5	17.1	66.8	
	200 -3.209-	18	25	61.5	46.7	14.3	76.2	59.0	45.7	15.2	74.5	57.0	44.9	16.1	73.3	55.3	44.2	16.8	72.2	53.7	43.6	17.5	71.2	
		20	27	65.4	46.4	14.6	80.3	62.9	45.4	15.6	78.7	60.7	44.5	16.4	77.2	58.8	43.8	17.2	76.0	57.2	43.2	17.9	74.9	
		22	30	68.6	48.8	14.8	83.7	66.0	47.9	15.7	81.9	63.8	47.1	16.6	80.5	61.8	46.4	17.3	79.1	60.1	45.8	18.0	78.0	
220 -3.505-	18	25	66.6	44.3	17.4	85.0	63.9	43.1	18.5	83.4	61.8	42.1	19.5	82.1	59.9	41.2	20.4	81.0	58.2	40.5	21.2	80.0		
	20	27	70.8	44.0	17.7	89.6	68.1	42.8	18.9	87.8	65.8	41.8	19.9	86.4	63.7	40.9	20.8	85.2	61.9	40.1	21.7	84.1		
	22	30	74.3	45.6	17.9	93.2	71.5	44.5	19.1	91.4	69.1	43.5	20.1	89.9	67.0	42.7	21.1	88.6	65.1	41.9	21.9	87.4		
	16	23	65.6	49.3	17.2	83.9	63.0	48.1	18.3	82.3	60.8	47.1	19.4	81.0	59.0	46.3	20.3	80.0	57.4	45.5	21.1	79.0		
	18	25	70.9	49.5	17.7	89.6	68.1	48.2	18.8	87.8	65.8	47.2	19.9	86.4	63.8	46.4	20.8	85.2	62.0	45.6	21.6	84.1		
	20	27	75.4	49.1	18.0	94.4	72.5	47.9	19.2	92.5	70.0	46.9	20.3	91.0	67.9	46.0	21.2	89.6	65.9	45.2	22.0	88.4		
240 -3.797-	22	30	79.1	51.3	18.2	98.3	76.1	50.1	19.4	96.3	73.6	49.1	20.5	94.7	71.3	48.3	21.4	93.2	69.3	47.5	22.2	91.9		
	14	20	61.4	47.7	16.8	79.4	59.0	46.6	17.9	77.9	56.9	45.6	18.9	76.7	55.2	44.8	19.8	75.8	53.6	44.0	20.6	74.9		
	16	23	67.6	52.0	17.3	86.0	64.9	50.7	18.5	84.3	62.7	49.7	19.5	83.0	60.8	48.9	20.4	81.9	59.1	48.1	21.2	80.8		
	18	25	73.1	52.1	17.8	91.9	70.2	50.9	18.9	89.9	67.8	49.9	20.0	88.5	65.7	49.0	20.9	87.2	63.9	48.2	21.7	86.1		
	20	27	77.7	51.7	18.1	96.8	74.7	50.5	19.3	94.8	72.2	49.5	20.4	93.2	70.0	48.6	21.3	91.8	68.0	47.8	22.2	90.5		
	22	30	81.5	54.1	18.3	100.8	78.5	53.0	19.5	98.7	75.8	52.0	20.6	97.0	73.5	51.1	21.5	95.5	71.4	50.3	22.4	94.2		
260 -4.084-	14	20	63.2	50.1	16.9	81.3	60.7	48.9	18.0	79.7	58.6	47.9	19.0	78.4	56.9	47.1	19.9	77.5	55.2	46.3	20.7	76.5		
	16	23	69.6	54.6	17.4	88.1	66.8	53.4	18.6	86.3	64.6	52.3	19.6	84.9	62.6	51.5	20.5	8						

**Cooling Capacities (Continued)**

- 60Hz -

Model	Evaporator Inlet Air			Condensing Temperature(°C)																			
	QA -CR-	WB (°C)	DB*	32				35				38				41				44			
				TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR	TC	SHC*	IPT	HPR
RP-P30WP	185 -3.057-	18	25	82.5	54.1	20.9	105.6	79.2	52.5	22.3	103.5	76.6	51.3	23.5	101.9	74.2	50.2	24.6	100.5	72.1	49.2	25.6	99.2
		20	27	87.7	53.7	21.4	111.2	84.4	52.2	22.7	109.0	81.5	50.9	24.0	107.2	79.0	49.8	25.1	105.7	76.7	48.8	26.1	104.3
		22	30	92.0	55.6	21.6	115.7	88.6	54.1	23.0	113.4	85.6	52.9	24.3	111.6	83.0	51.8	25.4	109.9	80.6	50.9	26.4	108.4
	230 -3.757-	16	23	81.1	59.8	20.8	104.0	77.8	58.2	22.1	101.9	75.2	57.0	23.3	100.4	73.0	55.9	24.4	99.0	70.9	55.0	25.4	97.8
		18	25	87.6	60.0	21.3	111.0	84.1	58.5	22.6	108.7	81.3	57.2	23.9	107.0	78.8	56.1	25.0	105.4	76.6	55.1	26.0	104.1
		20	27	93.2	59.5	21.7	116.9	89.6	58.0	23.1	114.6	86.6	56.8	24.4	112.6	83.9	55.7	25.5	110.9	81.5	54.7	26.5	109.4
	260 -4.215-	14	20	76.5	58.7	20.3	99.1	73.5	57.2	21.6	97.2	70.9	56.0	22.9	95.6	68.8	55.0	23.9	94.5	66.8	54.0	24.9	93.3
		16	23	84.2	63.9	20.9	107.3	80.9	62.3	22.3	105.1	78.1	61.0	23.5	103.5	75.8	60.0	24.6	102.1	73.6	59.0	25.6	100.7
		18	25	91.1	64.1	21.4	114.6	87.4	62.5	22.8	112.2	84.5	61.2	24.1	110.3	81.9	60.1	25.2	108.7	79.6	59.1	26.2	107.2
		20	27	96.8	63.6	21.9	120.7	93.1	62.0	23.3	118.2	89.9	60.7	24.6	116.2	87.2	59.6	25.7	114.4	84.7	58.6	26.8	112.8
		22	30	101.6	66.4	22.1	125.7	97.8	65.0	23.5	123.1	94.5	63.7	24.8	121.0	91.6	62.6	26.0	119.0	89.0	61.7	27.0	117.3
	290 -4.665-	14	20	79.4	62.4	20.5	102.0	76.2	60.9	21.8	100.0	73.6	59.6	23.0	98.4	71.4	58.6	24.1	97.2	69.3	57.6	25.0	95.9
		16	23	87.4	68.0	21.1	110.6	83.9	66.4	22.4	108.3	81.1	65.1	23.7	106.5	78.6	64.0	24.8	105.0	76.4	63.0	25.8	103.7
		18	25	94.5	68.2	21.6	118.1	90.7	66.5	23.0	115.6	87.7	65.2	24.3	113.6	85.0	64.1	25.4	111.9	82.6	63.1	26.4	110.4
		20	27	100.5	67.6	22.0	124.5	96.6	66.1	23.4	121.9	93.3	64.7	24.8	119.7	90.4	63.6	25.9	117.8	87.9	62.6	26.9	116.1
		22	30	105.4	70.8	22.2	129.6	101.4	69.4	23.7	126.9	98.1	68.1	25.0	124.6	95.0	67.0	26.2	122.6	92.3	66.0	27.2	120.8
	310 -4.961-	14	20	81.3	64.8	20.5	104.0	78.1	63.3	21.8	101.9	75.3	62.0	23.1	100.3	73.1	61.0	24.1	99.0	71.0	60.0	25.1	97.7
		16	23	89.5	70.7	21.1	112.8	85.9	69.1	22.5	110.4	83.0	67.8	23.8	108.5	80.5	66.7	24.8	107.0	78.3	65.7	25.8	105.6
		18	25	96.8	70.9	21.7	120.5	92.9	69.2	23.0	117.8	89.8	67.9	24.3	115.8	87.0	66.8	25.5	114.0	84.6	65.8	26.5	112.4
		20	27	102.9	70.3	22.1	127.0	99.0	68.7	23.5	124.3	95.6	67.4	24.8	122.0	92.6	66.2	26.0	120.1	90.0	65.2	27.0	118.3
22		30	107.9	73.8	22.3	132.2	103.9	72.3	23.7	129.4	100.4	71.0	25.1	127.1	97.3	69.9	26.2	125.0	94.6	68.9	27.3	123.1	
RP-P40WP	255 -4.214-	18	25	98.8	67.6	26.3	128.5	94.9	65.8	28.0	126.0	91.7	64.4	29.6	124.2	88.9	63.1	31.0	122.6	86.4	62.0	32.2	121.1
		20	27	105.1	67.0	26.9	135.2	101.1	65.3	28.6	132.7	97.6	63.9	30.2	130.6	94.6	62.6	31.6	128.8	91.9	61.5	32.9	127.2
		22	30	110.3	69.8	27.1	140.6	106.1	68.2	28.9	138.0	102.6	66.8	30.5	135.8	99.4	65.6	31.9	133.9	96.6	64.5	33.2	132.2
	325 -5.302-	16	23	97.9	76.6	26.2	127.4	93.9	74.8	27.8	124.9	90.7	73.3	29.4	123.1	88.0	72.1	30.8	121.5	85.5	71.0	32.0	120.1
		18	25	105.8	76.8	26.8	135.8	101.6	75.0	28.5	133.1	98.2	73.5	30.1	131.1	95.1	72.3	31.5	129.3	92.4	71.1	32.8	127.7
		20	27	112.5	76.1	27.3	143.0	108.2	74.4	29.1	140.2	104.5	72.9	30.7	137.9	101.3	71.7	32.2	135.9	98.4	70.5	33.4	134.1
		22	30	118.0	79.8	27.6	148.8	113.6	78.2	29.4	145.9	109.8	76.8	31.0	143.5	106.4	75.5	32.5	141.3	103.4	74.4	33.8	139.4
	360 -5.835-	14	20	91.7	74.4	25.6	120.8	88.1	72.7	27.2	118.6	85.0	71.2	28.7	116.8	82.5	70.1	30.1	115.4	80.2	69.0	31.3	114.1
		16	23	101.1	81.2	26.3	130.7	97.0	79.4	28.0	128.2	93.7	78.0	29.6	126.2	90.9	76.7	31.0	124.6	88.3	75.6	32.2	123.1
		18	25	109.2	81.4	27.0	139.5	104.9	79.6	28.7	136.6	101.4	78.1	30.3	134.5	98.3	76.8	31.7	132.6	95.5	75.7	33.0	130.9
		20	27	116.1	80.7	27.5	146.8	111.7	79.0	29.3	143.9	107.9	77.5	31.0	141.5	104.6	76.2	32.4	139.4	101.6	75.1	33.7	137.6
		22	30	121.8	84.9	27.8	152.8	117.3	83.2	29.6	149.8	113.4	81.8	31.3	147.3	109.8	80.5	32.7	145.0	106.7	79.4	34.0	143.0
	395 -6.361-	14	20	94.7	78.6	25.7	123.8	90.9	76.8	27.4	121.5	87.7	75.3	28.9	119.6	85.2	74.2	30.2	118.2	82.7	73.0	31.4	116.8
		16	23	104.2	85.9	26.5	134.0	100.1	84.1	28.2	131.4	96.7	82.6	29.8	129.3	93.8	81.3	31.1	127.6	91.1	80.2	32.4	126.0
		18	25	112.7	86.1	27.1	143.0	108.2	84.2	28.9	140.1	104.6	82.7	30.5	137.8	101.4	81.4	31.9	135.8	98.5	80.2	33.2	134.1
		20	27	119.8	85.3	27.7	150.7	115.2	83.6	29.5	147.6	111.3	82.1	31.1	145.1	107.9	80.8	32.6	142.9	104.8	79.6	33.9	140.9
		22	30	125.7	89.9	27.9	156.8	121.0	88.2	29.8	153.6	116.9	86.8	31.4	151.0	113.3	85.5	32.9	148.6	110.1	84.4	34.2	146.5
	430 -6.880-	14	20	97.6	82.7	25.8	126.8	93.7	80.9	27.5	124.4	90.4	79.4	29.0	122.4	87.8	78.2	30.4	120.9	85.2	77.1	31.6	119.4
		16	23	107.4	90.6	26.6	137.3	103.2	88.7	28.3	134.5	99.6	87.2	29.9	132.4	96.7	85.9	31.3	130.6	93.9	84.7	32.5	128.9
		18	25	116.1	90.7	27.2	146.6	111.5	88.8	29.0	143.5	107.8	87.3	30.6	141.2	104.5	86.0	32.0	139.1	101.5	84.8	33.3	137.2
20		27	123.5	89.9	27.8	154.4	118.8	88.1	29.6	151.2	114.7	86.6	31.2	148.6	111.2	85.3	32.7	146.3	108.0	84.1	34.0	144.3	
22		30	129.5	95.0	28.1	160.7	124.7	93.2	29.9	157.4	120.5	91.8	31.6	154.7	116.8	90.4	33.0	152.2	113.5	89.3	34.3	150.0	

**QA** : Evaporator Air Flow (m<sup>3</sup>/min)      **TC** : Total Cooling Capacity (x 1000kcal/h)  
**CR** : Sensible Heat Correction Factor      **SHC\*** : Sensible Heat Capacity (x 1000kcal/h) Given for Each WB and DB\*  
**WB** : Evaporator Air Inlet Wet Bulb (°C)      **IPT** : Compressor Input Power (kW)  
**DB\*** : Evaporator Air Inlet Dry Bulb (°C) Given for Each WB      **HPR** : Heat Pump Rate (x 1000kcal/h)

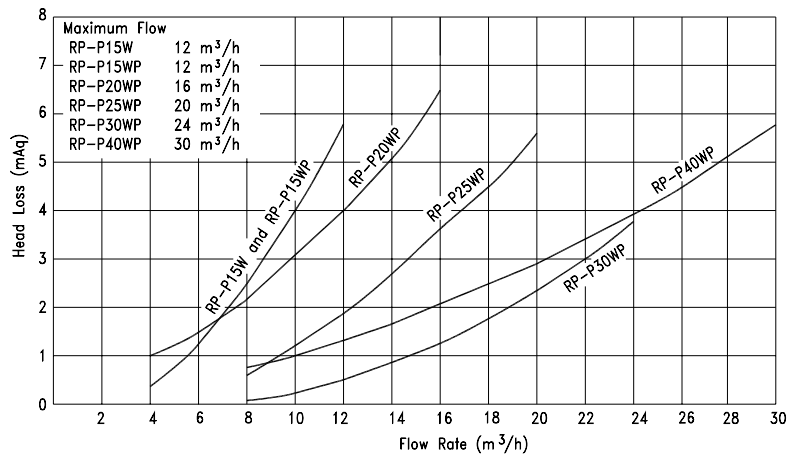
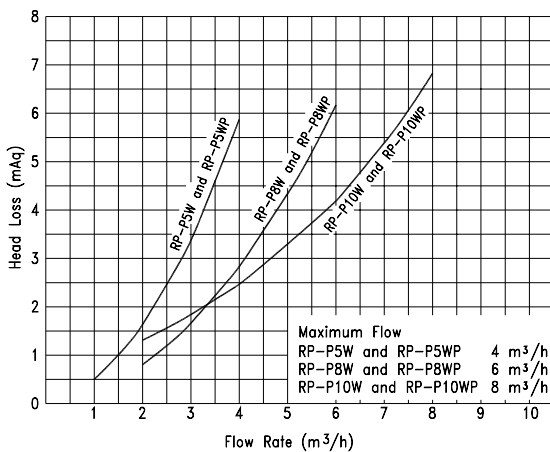
# SELECTION DATA

## Condenser Water Requirements

Model	HPR	WATER FLOW RATE (m <sup>3</sup> /h)										
		CONDENSING TEMP - INLET WATER TEMP (°C)										
		10	11	12	13	14	15	16	17	18	19	20
RP-P5W RP-P5WP	15	3.0	2.6	2.2	2.0	1.7	1.6	1.4	1.3	1.2	1.1	1.1
	16	3.4	2.9	2.5	2.2	1.9	1.7	1.6	1.4	1.3	1.2	1.1
	17	3.7	3.2	2.7	2.4	2.1	1.9	1.7	1.6	1.4	1.3	1.2
	18	—	3.5	3.0	2.6	2.3	2.1	1.9	1.7	1.6	1.5	1.4
	19	—	3.8	3.3	2.9	2.5	2.3	2.0	1.9	1.7	1.6	1.5
	20	—	—	3.6	3.1	2.8	2.5	2.2	2.0	1.8	1.7	1.6
RP-P8W RP-P8WP	21	—	—	3.9	3.4	3.0	2.7	2.4	2.2	2.0	1.8	1.7
	24	4.8	4.1	3.5	3.1	2.8	2.5	2.3	2.1	1.9	1.8	1.7
	26	5.5	4.6	4.0	3.5	3.1	2.8	2.5	2.3	2.1	2.0	1.8
	28	—	5.3	4.6	4.0	3.5	3.2	2.9	2.6	2.4	2.2	2.0
RP-P10W RP-P10WP	30	—	6.0	5.1	4.5	3.9	3.5	3.2	2.9	2.6	2.4	2.3
	32	—	—	5.7	5.0	4.4	3.9	3.5	3.2	2.9	2.7	2.5
	32	6.7	5.7	4.9	4.3	3.8	3.4	3.1	2.8	2.6	2.4	2.2
	34	7.4	6.3	5.4	4.7	4.2	3.8	3.4	3.1	2.8	2.6	2.4
RP-P15W RP-P15WP	36	—	6.9	6.0	5.2	4.6	4.1	3.7	3.4	3.1	2.9	2.7
	38	—	7.7	6.6	5.7	5.0	4.5	4.0	3.7	3.4	3.1	2.9
	40	—	—	7.2	6.2	5.5	4.9	4.4	4.0	3.6	3.4	3.1
	50	10.1	8.6	7.4	6.5	5.8	5.2	4.7	4.3	4.0	3.7	3.4
RP-P20W	55	12.0	10.1	8.7	7.6	6.8	6.0	5.5	5.0	4.6	4.2	3.9
	60	—	11.8	10.1	8.8	7.8	7.0	6.3	5.7	5.2	4.8	4.4
	65	—	—	11.7	10.1	8.9	7.9	7.1	6.5	5.9	5.4	5.0
	70	—	—	—	11.5	10.1	9.0	8.1	7.3	6.6	6.1	5.6
RP-P25W	60	11.7	9.9	8.6	7.6	6.7	6.1	5.5	5.0	4.6	4.3	4.0
	65	13.4	11.4	9.8	8.6	7.7	6.9	6.2	5.7	5.2	4.8	4.5
	70	15.3	12.9	11.1	9.7	8.6	7.7	7.0	6.3	5.8	5.4	5.0
	80	—	—	14.0	12.2	10.8	9.6	8.6	7.8	7.1	6.6	6.1
RP-P30W	90	—	—	—	15.0	13.2	11.7	10.5	9.5	8.6	7.9	7.3
	75	14.4	12.3	10.6	9.3	8.3	7.5	6.8	6.2	5.8	5.3	5.0
	80	16.1	13.7	11.8	10.4	9.2	8.3	7.5	6.9	6.3	5.8	5.4
	90	19.8	16.8	14.4	12.6	11.1	10.0	9.0	8.2	7.5	6.9	6.4
RP-P40W	100	—	—	17.3	15.1	13.3	11.8	10.6	9.7	8.8	8.1	7.5
	110	—	—	—	17.8	15.6	13.9	12.4	11.2	10.3	9.4	8.7
	90	16.7	14.2	12.4	10.9	9.7	8.8	8.0	7.3	6.7	6.3	5.8
	100	20.0	17.0	14.7	12.9	11.4	10.3	9.3	8.5	7.8	7.3	6.8
RP-P50W	110	23.7	20.0	17.2	15.0	13.3	11.9	10.8	9.8	9.0	8.3	7.7
	120	—	23.3	20.0	17.4	15.4	13.7	12.4	11.2	10.3	9.5	8.8
	140	—	—	—	22.8	20.0	17.7	15.9	14.4	13.1	12.0	11.1
	100	11.8	10.5	9.5	8.6	7.9	7.3	6.8	6.4	6.0	5.6	5.3
RP-P60W	120	14.8	13.1	11.8	10.7	9.8	9.0	8.4	7.8	7.3	6.9	6.5
	140	18.1	16.0	14.3	13.0	11.8	10.8	10.0	9.3	8.7	8.2	7.7
	160	21.7	19.1	17.0	15.3	13.9	12.8	11.8	11.0	10.2	9.6	9.0
	180	25.4	22.3	19.9	17.8	16.2	14.8	13.7	12.7	11.8	11.1	10.4

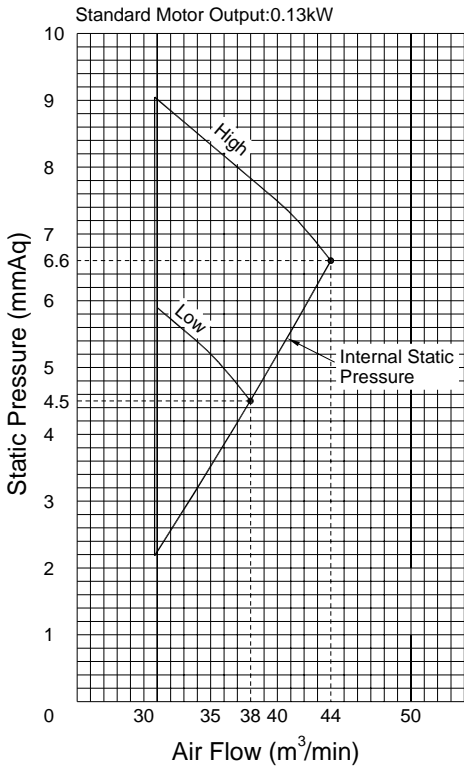
HPR : Heat Pump Rate (x1000kcal/h)

### Head Loss through Condenser

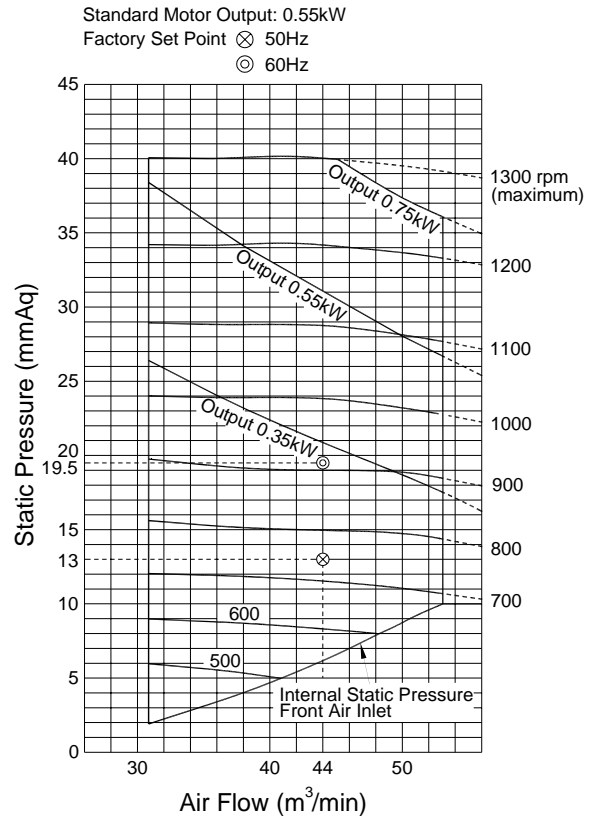


**Fan Performance Curves**

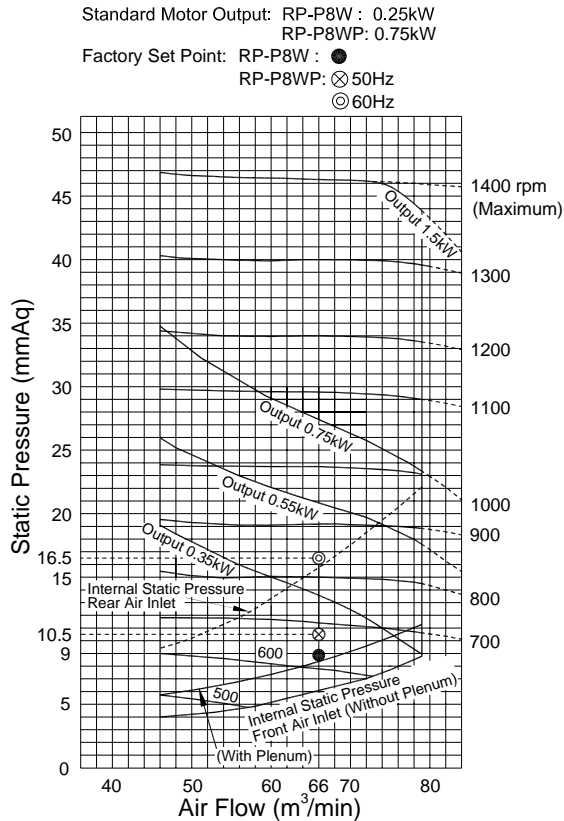
**RP-P5W**



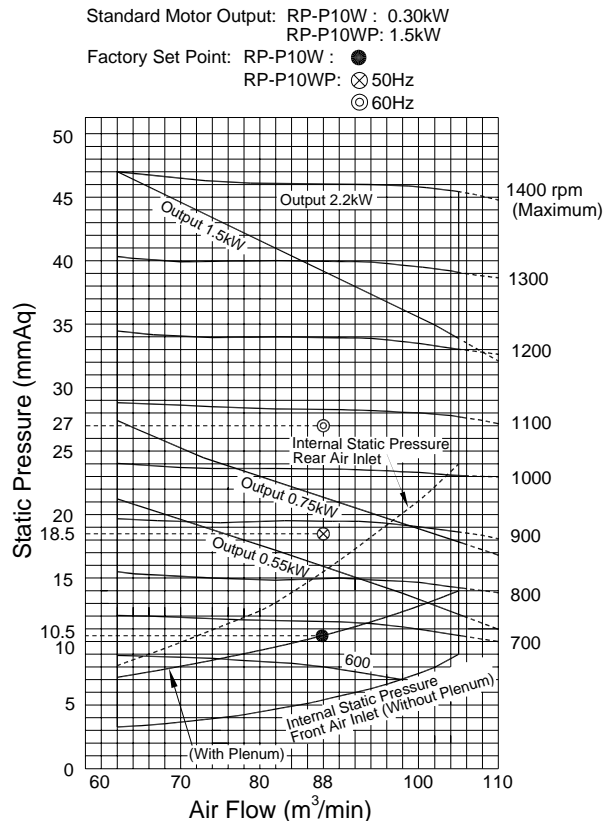
**RP-P5WP**



**RP-P8W and RP-P8WP**



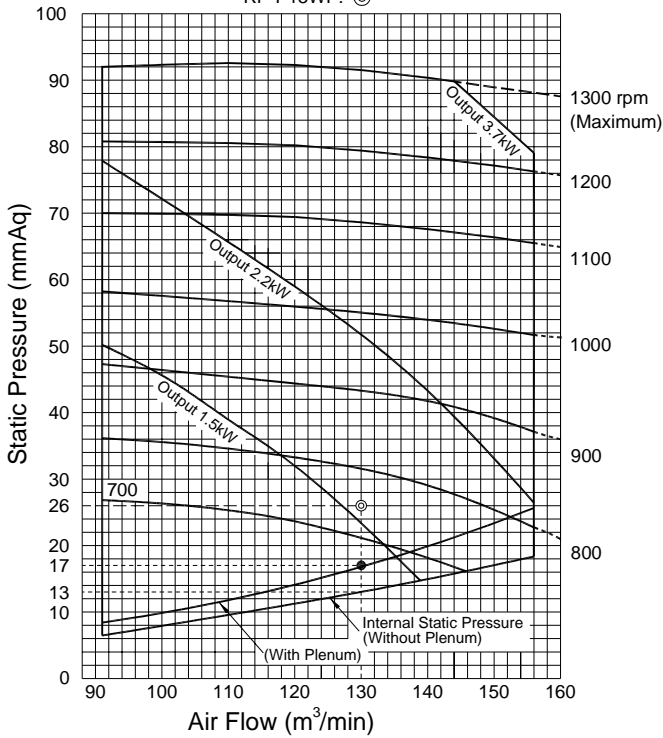
**RP-P10W and RP-P10WP**



**Fan Performance Curves (Continued)**

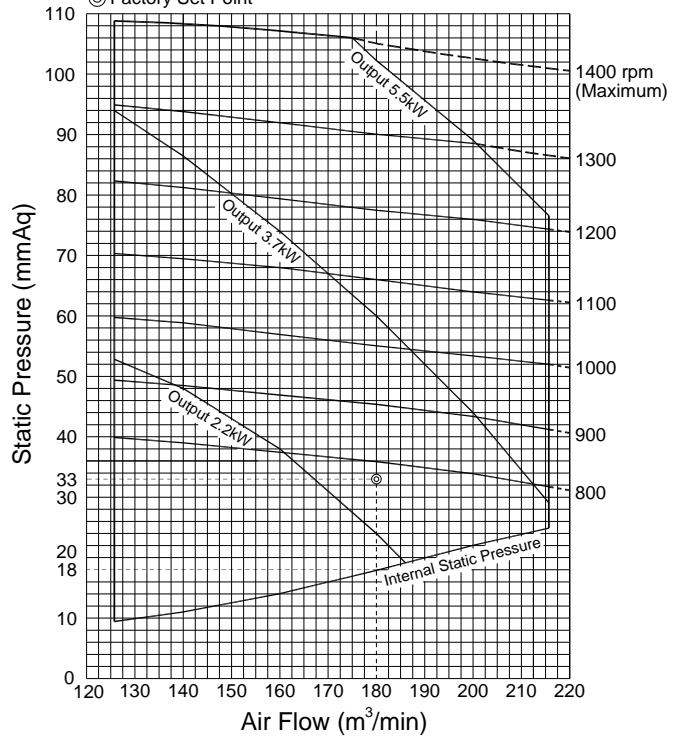
**RP-P15W and RP-P15WP**

Standard Motor Output: RP-P15W : 1.5kW  
 RP-P15WP: 2.2kW  
 Factory Set Point: RP-P15W : ●  
 RP-P15WP: ⊙



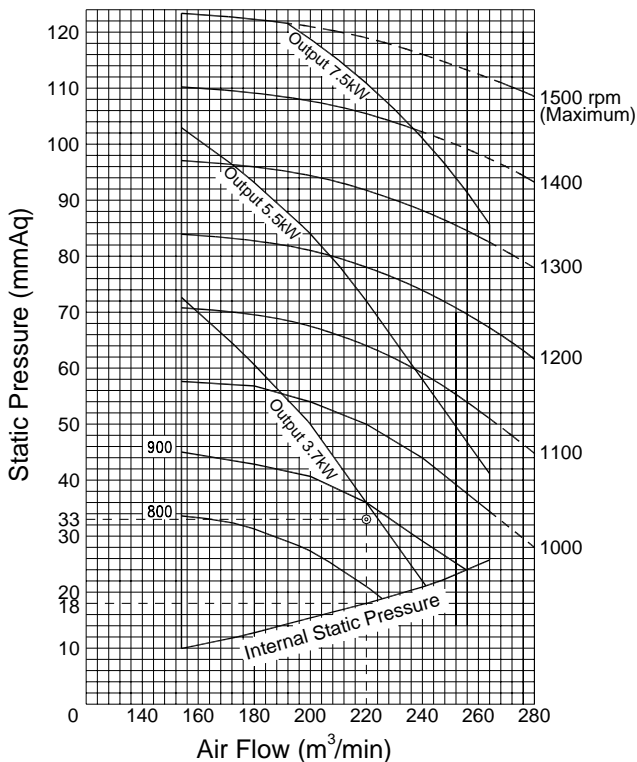
**RP-P20WP**

Standard Motor Output: 3.7kW  
 ⊙ Factory Set Point



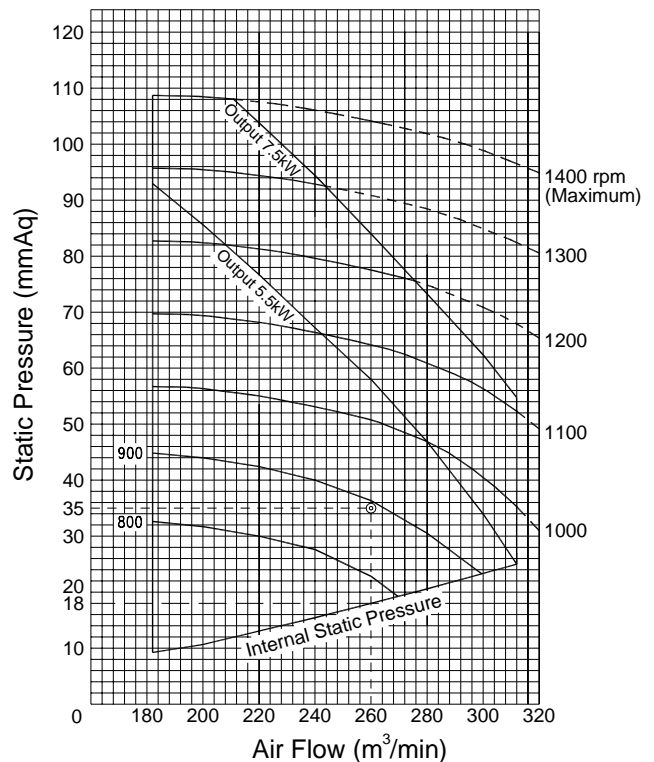
**RP-P25WP**

Standard Motor Output : 3.7kW  
 ⊙ Factory Set Point (890rpm)



**RP-P30WP**

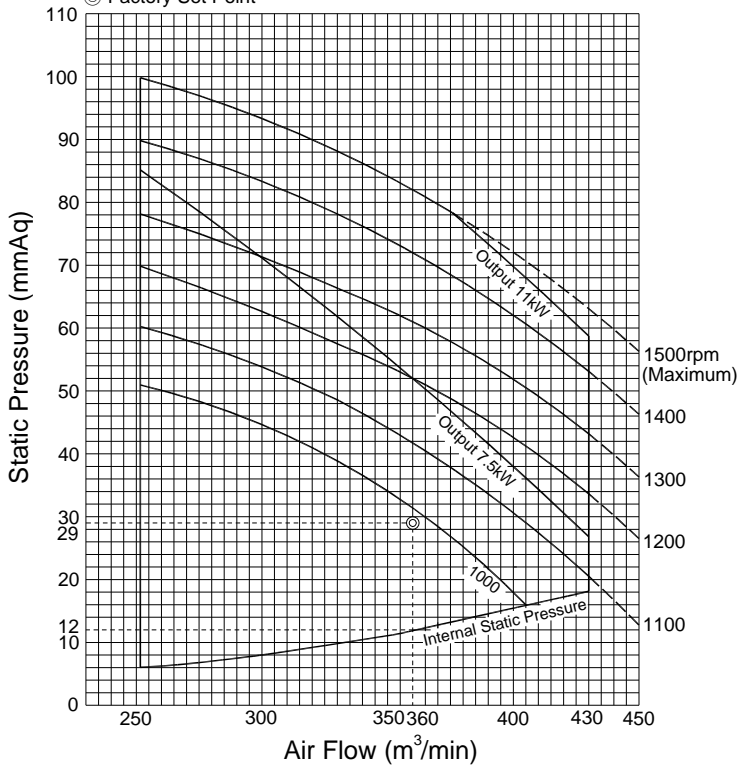
Standard Motor Output : 5.5kW  
 ⊙ Factory Set Point (890rpm)



## Fan Performance Curves (Continued)

### RP-P40WP

Standard Motor Output : 7.5kW  
 ◎ Factory Set Point



## Fan Speed Adjustment

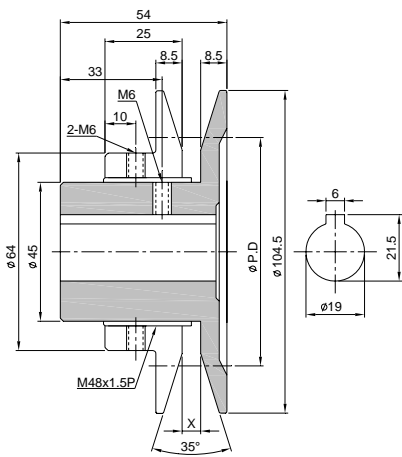
### Fan Speed Adjustment by Motor Pulley

Models		Hz	Regulation Space X of Motor Pulley (mm)										Factory Set			RPM/ Turn*
			0	1	2	3	4	5	6	6.4	7	8	X	RPM	PD	
RP-P5WP	RPM	50	940	908	877	846	814	783	752	-	-	-	6	752	76	47
		60	-	1,031	1,064	1,027	989	950	913	-	-	-		913		
	PD		95	91.8	88.6	85.5	82.3	79.1	76	-	-	-				
RP-P8WP	RPM	50	886	854	822	792	760	728	698	-	-	-	6	698	70.5	47
		60	-	1,031	993	956	917	879	842	-	-	-		842		
	PD		89.5	86.3	83.1	80	76.8	73.6	70.5	-	-	-				
RP-P10WP	RPM	50	1,104	1,074	1,042	1,012	980	950	918	897	-	-	6.4	897	91	47
		60	-	-	1,263	1,226	1,187	1,150	1,112	1,087	-	-		1,087		
	PD		112	108.9	105.7	102.6	99.4	96.3	93.1	91	-	-				
RP-P15WP	RPM	50	833	808	784	758	734	709	685	-	659	635	4	734	92.5	37
		60	-	-	-	920	890	861	831	-	800	770		8		
	PD		105	101.9	98.8	95.6	92.5	89.4	86.3	-	83.1	80				
RP-P20WP	RPM	50	866	845	822	802	780	760	738	-	-	-	5	760	115.7	44
		60	882	859	836	816	794	773	751	-	-	-		773		
	PD		132	128.7	125.2	122.2	118.9	115.7	112.4	-	-	-				
RP-P25WP	RPM	50	866	845	822	802	780	759	738	-	-	-	2	822	125.2	44
		60	882	859	836	816	794	773	751	-	-	-		836		
	PD		132	128.7	125.2	122.2	118.9	115.7	112.4	-	-	-				
RP-P30WP	RPM	50	1,038	1,016	993	973	950	929	907	-	885	863	7	885	132.1	44
		60	1,051	1,029	1,005	985	963	941	918	-	896	874		896		
	PD		155	151.7	148.2	145.2	141.9	138.7	135.4	-	132.1	128.8				
RP-P40WP	RPM	50	1,038	1,016	993	973	950	929	907	-	-	-	3	973	145.2	44
		60	1,051	1,029	1,005	985	963	941	918	-	-	-		985		
	PD		155	151.7	148.2	145.2	141.9	138.7	135.4	-	-	-				

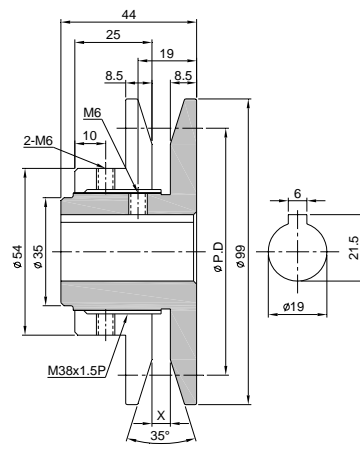
X : Regulation Space of Motor Pulley (mm)  
 RPM : Fan Speed (rpm) (50Hz/60Hz)  
 PD : Pitch Diameter (mm)  
 \* : Fan Speed Change Per One Turn of Movable Motor Pulley Flange (rpm/turn)

**Fan Speed Adjustment (Continued)**

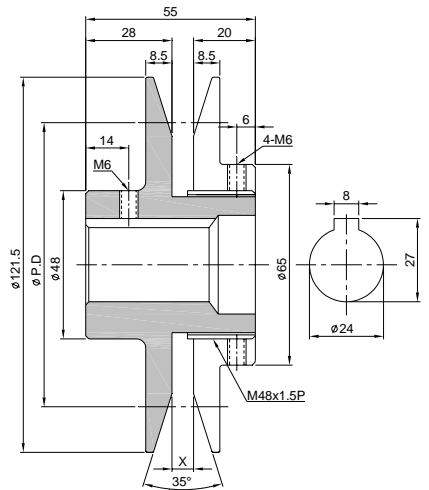
**Motor Pulley**



RP-P5WP

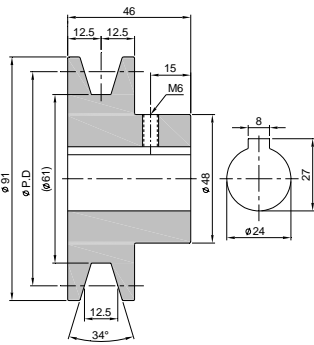


RP-P8WP

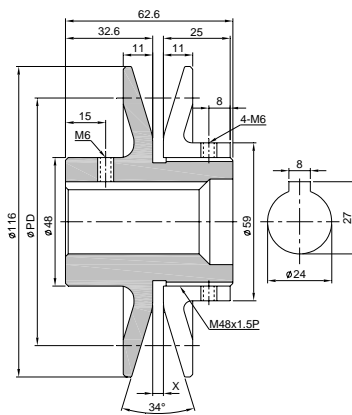


RP-P10WP

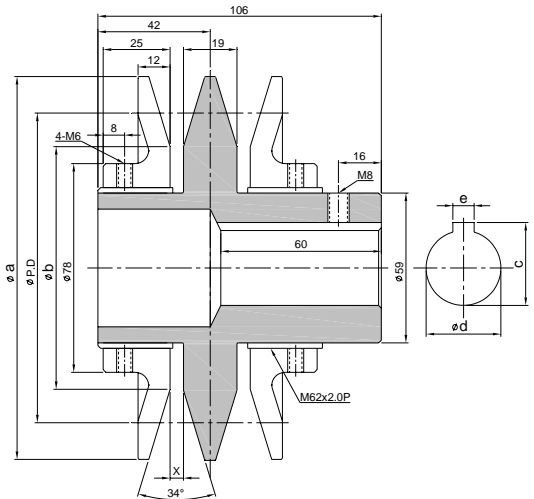
Models	a	b	c	d	e
RP-P20WP	143	91	31	28	8
RP-P25WP	143	91	31	28	8
RP-P30WP	166	114	41	38	10
RP-P40WP	166	114	41	38	10



RP-P15W

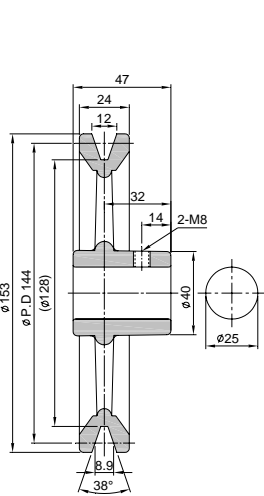


RP-P15WP

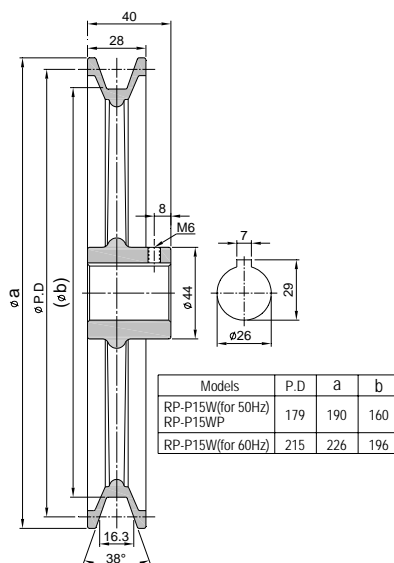


RP-P20WP through RP-P40WP

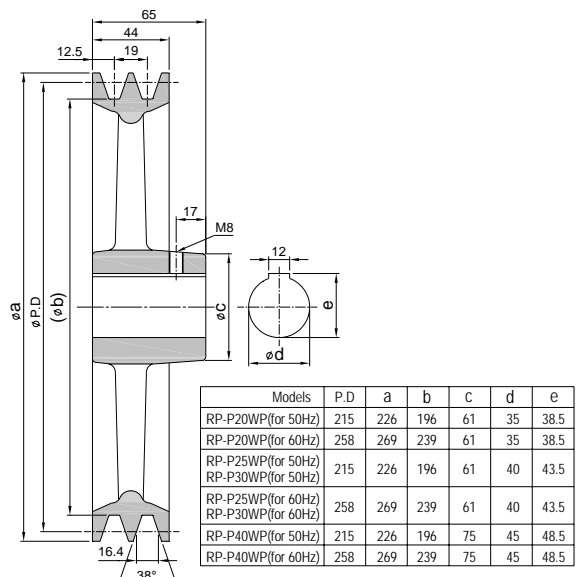
**Fan Pulley**



RP-P5WP, RP-P8WP  
and RP-P10WP



RP-P15W and RP-P15WP



RP-P20WP through RP-P40WP

Models	P.D	a	b
RP-P15W(for 50Hz)	179	190	160
RP-P15WP	179	190	160
RP-P15W(for 60Hz)	215	226	196

Models	P.D	a	b	c	d	e
RP-P20WP(for 50Hz)	215	226	196	61	35	38.5
RP-P20WP(for 60Hz)	258	269	239	61	35	38.5
RP-P25WP(for 50Hz)	215	226	196	61	40	43.5
RP-P30WP(for 50Hz)	215	226	196	61	40	43.5
RP-P25WP(for 60Hz)	258	269	239	61	40	43.5
RP-P30WP(for 60Hz)	258	269	239	61	40	43.5
RP-P40WP(for 50Hz)	215	226	196	75	45	48.5
RP-P40WP(for 60Hz)	258	269	239	75	45	48.5

**Electrical Data**

Quantity × Value

Model	Unit Main Power		Applicable Voltage		Compressor Motor (Three-Phase)			Evaporator Fan Motor		Maximum Current
	VOL	Hz	Maximum	Minimum	STC	RNC	IPT	RNC	IPT	RNC
RP-P5W	220	60	242	198	117	13.7	4.15	1.47	0.33	24
	220	50	242	198	117	12.1	3.62	1.33	0.29	21
	380/415	50	456	342	62.5	7.0/7.2	3.62	1.33/1.43	0.29/0.33	13
RP-P5WP	220	60	242	198	117	13.7	4.15	1.50	0.42	24
	220	50	242	198	117	12.1	3.62	1.45	0.36	22
	380/415	50	456	342	62.5	7.0/7.2	3.62	0.84/0.77	0.36	13
RP-P8W	220	60	242	198	242	19.9	6.65	1.61	0.46	34
	220	50	242	198	224	17.6	5.8	1.29	0.43	30
	380/415	50	456	342	80	10.2/10.5	5.8	0.80/0.70	0.40/0.44	18/18
RP-P8WP	220	60	242	198	242	19.9	6.65	1.58	0.47	34
	220	50	242	198	224	17.6	5.8	1.31	0.40	30
	380/415	50	456	342	80	10.2/10.5	5.8	0.76/0.77	0.40	18
RP-P10W	220	60	242	198	205	23.4	8.22	2.62	0.70	42
	220	50	242	198	224	20.7	7.0	2.23	0.65	37
	380/415	50	456	342	101/102	12.0/12.6	7.0	1.20/1.23	0.65	21/22
RP-P10WP	220	60	242	198	205	23.4	8.22	3.30	0.78	43
	220	50	242	198	224	20.7	7.0	2.80	0.70	38
	380/415	50	456	342	101/102	12.0/12.6	7.0	1.54/1.56	0.70	22/23
RP-P15W	220	60	242	198	205	24.3+14.5	8.9+5.0	4.76	1.43	70
	220	50	242	198	224	21.5+12.8	7.4+4.2	4.21	1.19	62
	380/415	50	456	342	101/102	12.4+7.4/12.9+8.2	7.4+4.2	2.43/2.67	1.19	36/38
RP-P15WP	220	60	242	198	205	24.3+14.5	8.9+5.0	4.99	1.50	70
	220	50	242	198	224	21.5+12.8	7.4+4.2	4.42	1.25	62
	380/415	50	456	342	101/102	12.4+7.4/12.9+8.2	7.4+4.2	2.55/2.80	1.25	36/38
RP-P20WP	220	60	242	198	205	24.7x2	8.5x2	8.87	2.61	93
	220	50	242	198	224	21.8x2	7.5x2	7.85	2.29	82
	380/415	50	456	342	101/102	12.6x2/13.0x2	7.5x2	4.53/4.64	2.29	48/49
RP-P25WP	220	60	242	198	240	31.5x2	10.6x2	11.20	3.80	119
	220	50	242	198	270	27.9x2	9.4x2	9.94	3.35	105
	380/415	50	456	342	122	16.1x2/17.1x2	9.4x2	5.74/5.69	3.35	61/64
RP-P30WP	220	60	242	198	205	24.7x3	8.5x3	16.70	5.50	145
	220	50	242	198	224	21.8x3	7.5x3	14.80	4.89	128
	380/415	50	456	342	101/102	12.6x3/13.1x3	7.5x3	8.55/8.38	4.89	74/76
RP-P40WP	220	60	242	198	240	29.0x3	10.1x3	22.7	8.12	175
	220	50	242	198	270	25.6x3	8.5x3	20.1	6.77	155
	380/415	50	456	342	122	14.8x3/16.2x3	8.5x3	11.6/11.4	6.77	90/96

**VOL** : Unit Power Supply Rated (Plated) Voltage (V)  
**RNC** : Running Current (A)

**Hz** : Frequency (Hz)  
**IPT** : Input (kW)

**STC** : Starting Current (A)

**NOTES :**

- These data are based on the same conditions as the nominal cooling capacity. Refer to the notes for the Unit General Data.
- The starting current is indicated for each compressor motor.
- Maximum Current: Total Running Current under the following conditions.
  - Supplied Voltage: 90% of Rated Voltage
  - Maximum Temperature and Maximum Air Flow with Working Range
- The compressor motor data for models RP-P15W and RP-P15WP are indicated as follows:  
**STC:** For No.1 Compressor (10HP)  
**RNC,IPT:** No.1 Compressor (10HP)+No.2 Compressor (6HP)

## Sound Data

Model	Unit Power (Hz)	Sound Level	Frequency Band (Hz)								Over-all
			45 ┆ 90	90 ┆ 180	180 ┆ 355	355 ┆ 710	710 ┆ 1400	1400 ┆ 2800	2800 ┆ 5600	5600 ┆ 11200	
RP-P5W RP-P5WP	50/60	SPL-A	34.4	40.1	43.8	45.5	48.2	45.4	40.3	36.2	53
		SPL-C	59.7	56.0	52.4	48.7	48.2	44.0	38.5	34.3	62
		PWL	67.7	64.0	60.4	56.7	56.2	52.0	46.5	42.3	70
RP-P8W RP-P8WP	50/60	SPL-A	32.3	39.5	44.8	48.0	49.8	46.8	40.2	39.8	54
		SPL-C	57.6	55.4	53.4	51.2	49.8	45.4	38.4	37.9	62
		PWL	65.6	63.4	61.4	59.2	57.8	53.4	46.4	45.9	70
RP-P10W RP-P10WP	50/60	SPL-A	34.0	43.7	46.6	49.5	50.0	48.5	43.7	42.4	56
		SPL-C	59.3	59.6	55.2	52.7	50.0	47.1	41.9	40.5	64
		PWL	67.3	67.6	63.2	60.7	58.0	55.1	49.9	48.5	72
RP-P15W RP-P15WP	50/60	SPL-A	47.8	50.8	52.1	58.0	58.9	54.7	49.9	43.4	63
		SPL-C	73.1	66.7	60.7	61.2	58.9	53.3	48.1	41.5	75
		PWL	81.1	74.7	68.7	69.2	66.9	61.3	56.1	49.5	83
RP-P20WP	50/60	SPL-A	46.0	51.7	53.5	58.8	58.0	56.2	53.9	45.8	64
		SPL-C	71.3	67.6	62.1	62.0	58.0	54.8	52.1	43.9	74
		PWL	79.3	75.6	70.1	70.0	66.0	62.8	60.1	51.9	82
RP-P25WP	50/60	SPL-A	44.0	49.2	50.2	55.0	56.3	54.5	52.1	42.2	62
		SPL-C	69.3	65.1	58.8	58.2	56.3	53.1	50.3	40.3	71
		PWL	77.3	73.1	66.8	66.2	64.3	61.1	58.3	48.3	79
RP-P30WP	50/60	SPL-A	43.8	52.3	53.7	56.4	60.3	58.5	56.3	47.5	65
		SPL-C	69.1	68.2	62.3	59.6	60.3	57.1	54.5	45.6	73
		PWL	77.1	76.2	70.3	67.6	68.3	65.1	62.5	53.6	81
RP-P40WP	50/60	SPL-A	50.1	58.6	60.0	62.7	66.6	64.8	62.6	53.8	71
		SPL-C	75.4	74.5	68.6	65.9	66.6	63.4	60.8	51.9	79
		PWL	83.4	82.5	76.6	73.9	74.6	71.4	68.8	59.9	87

SPL-A : A Scale Sound Pressure Level (dB)

SPL-C : C Scale Sound Pressure Level (dB)

PWL : Sound Power Level (dB)

**Notes :**

1. The measuring point is 1.0 meter from the center of the machine surface and 1.0 meter from the floor level.
2. The Unit are operating under the standard working conditions.
3. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration.

## Working Range

**Power Supply**

The applicable voltage range for each unit is given in the Electrical Data. The working voltage among the three phases must be balanced within a 3% deviation from each voltage at the compressor terminals. The starting voltage must be higher than 85% of the rated voltage.

**Condenser Water**

The maximum condenser water flow rate for each unit is given in the Condenser Water Requirements.

The maximum condenser water outlet temperature should be lower than 38°C, when scale deposit on the condenser tubes is considered.

**Note :**

The lowest condenser water outlet temperature should be higher than 21°C. When operating in the winter season, the water temperature control devices, such as the condenser water regulating valve or thermostatic bypass valve for the cooling tower, should be installed to maintain this lowest limit, if necessary.

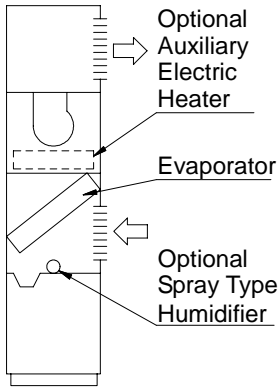
Maximum -Dry/Wet- (°C)	Minimum -Dry/Wet- (°C)
32 / 23	21 / 15

## Optional Accessory Availability

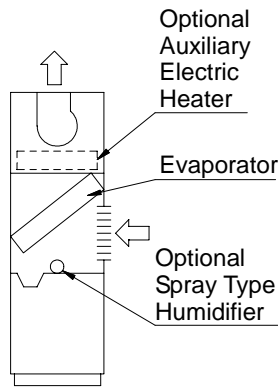
Model	Optional Accessories*					
	Electric** Heater	Hot Water Heater	Steam Heater	Humidifier	AUTO-SWEEP** Mechanism	Long Life Air-filter
RP-P5W	YES	YES	YES	YES	YES	YES
RP-P5WP	YES	YES	YES	YES	NO	YES
RP-P8W RP-P8WP	YES	YES	YES	YES	YES NO	YES
RP-P10W RP-P10WP	YES	YES	YES	YES	YES NO	YES
RP-P15W RP-P15WP	YES	YES	YES	YES	NO	YES
RP-P20WP	YES	YES	YES	YES	NO	YES
RP-P25WP	YES	YES	YES	YES	NO	YES
RP-P30WP	YES	YES	YES	YES	NO	YES
RP-P40WP	NO	YES	YES	YES	NO	YES

\* : Detailed information is available upon request with the Expanded Data

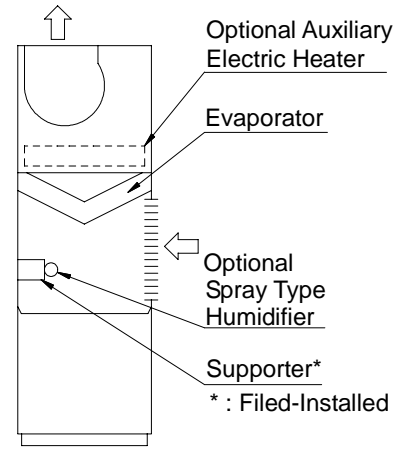
\*\* : Factory-Equipped Option



For models: RP-P5W,  
RP-P8W and  
RP-P10W



For models: RP-P5WP,  
RP-P8WP and  
RP-P10WP



For models: RP-P15W, RP-P15WP,  
RP-P20WP, RP-P25WP,  
RP-P30WP and RP-P40WP

\* : Filed-Installed

**Component Detailed Data**

**Compressor**

Compressor Model			G503DH	G603DH	G750EL	G1000EL	G1300EL
Compressor Type			Hermetic Scroll				
Revolution	50Hz	rpm	2,880	2,880	2,880	2,880	2,880
	60Hz	rpm	3,470	3,470	3,470	3,470	3,470
Piston Displacement	50Hz	m <sup>3</sup> /h	13.82	15.55	22.12	27.65	33.70
	60Hz	m <sup>3</sup> /h	16.66	18.74	26.54	33.18	40.44
Airtight Pressure	Discharge	kg/cm <sup>2</sup> G	33.6	33.6	33.6	33.6	33.6
		MPa	3.3	3.3	3.3	3.3	3.3
	Suction	kg/cm <sup>2</sup> G	16.3	16.3	16.3	16.3	16.3
		MPa	1.6	1.6	1.6	1.6	1.6
Motor Type			Special Squirrel-Cage Three-Phase Motor				
Starting Method			Direct-On-Line Starting				
Poles			2	2	2	2	2
Insulation Class			E	E	E	E	E
Oil Type			Equivalent Oil: FVC68D				
Charge		Liters	1.0	1.0	3.5	3.5	3.5

**Evaporator and Fan Section**

Model		RP-P5W	RP-P5WP	RP-P8W	RP-P8WP	RP-P10W	RP-P10WP	RP-P15W	RP-P15WP	RP-P20WP	RP-P25WP	RP-P30WP	RP-P40WP
Evaporator		Multi-Pass Cross-Finned Tube											
Tube Material		Copper Tube											
Outer Diameter	mm	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53
Rows		3	3	3	3	3	3	4	4	4	4	4	4
Number of Tubes/ Evaporator		72	72	72	72	72	72	120	120	120	144	144	192
Fin Material		Aluminum											
Pitch	mm	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Number of Evaporators/Unit		1	1	1	1	1	1	1	1	1	1	1	1
Total Face Area	m <sup>2</sup>	0.393	0.393	0.573	0.573	0.753	0.753	0.90	0.90	1.13	1.35	1.62	2.16
Maximum Applicable Pressure	kg/cm <sup>2</sup> G	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
	MPa	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Evaporator Fan		Multi-Blade Centrifugal Fan (Double Suction)											
Number/Unit		1	1	2	2	2	2	1	1	2	2	2	2
Outer Diameter	mm	264	264	264	264	264	264	385	385	385	385	385	385
Total Nominal Air Flow	m <sup>3</sup> /min	44/38*	44	66	66	88	88	130	130	180	220	260	360
	m <sup>3</sup> /s	0.73/0.63*	0.73	1.10	1.10	1.47	1.47	2.17	2.17	3.0	3.67	4.33	6.0
Evaporator Fan Motor		Drip-Proof Type Enclosure											
Starting Method		Direct-On-Line Starting											
Nominal Output	kW	0.13	0.55	0.25	0.75	0.30	1.5	1.5	2.2	3.7	3.7	5.5	7.5
Poles		6	4	6	4	6	4	4	4	4	4	4	4
Phases		1	3	3	3	3	3	3	3	3	3	3	3
Insulation Class		E	E	E	E	E	E	E	B	E	E	B	B
Number/Unit		1	1	1	1	1	1	1	1	1	1	1	1
Air Filter		Permanent Washable Polyvinyl Chloride											
Material													

\*: Hi/Lo

# CONTROL SYSTEM

## Condenser

Model		RP-P5W RP-P5WP	RP-P8W RP-P8WP	RP-P10W RP-P10WP	RP-P15W RP-P15WP	RP-P20WP	RP-P25WP	RP-P30WP	RP-P40WP
Condenser Type		Coiled Double Tube							Shell and Tube Type
Outer Tube		Steel							
Outer Diameter	mm	30	36	30	30	30	30	30	264
Length	mm	4,400	5,510	4,400	4,400+5,290	4,400	4,400	3,470	584
Quantity/Unit		2	2	4	4+2	4x2	5x2	5x3	75x3
Inner Type		Finned-Copper Tube							
Number of Tubes		1	1	1	1	1	1	1	1
Condenser									
Heat Transfer Area*	m <sup>2</sup>	1.56	2.41	3.12	5.0	6.24	7.8	9.23	15.3
Number of Water									
Passes/Condenser		1	1	1	2	2	2	3	3
Maximum Permissible Pressure									
Refrigerant Side	kg/cm <sup>2</sup> G	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	MPa	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Water Side	kg/cm <sup>2</sup> G	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	kPa	981	981	981	981	981	981	981	981

\*: Total Refrigerant Side

## Refrigerant Control

### Refrigeration Cycle

Each refrigeration cycle is equipped with a compressor, water-cooled condenser(s), a liquid line strainer, and the following control and auxiliary components :

**Flow Control Device** - Capillary tube(s) are equipped for all models for refrigerant control.

**Check Joint** - A check joint for high pressure and a check joint for low pressure are mounted for all models.

**Pressure Gauge** - A high pressure gauge and a low pressure gauge are mounted for each refrigeration cycle of models RP-P25WP, RP-P30WP and RP-P40WP.

## Electrical Operation Control

### Standard Electrical Control Sequence

An operation switch manually selects ventilating and cooling operation. When the operation switch is set at "FAN" and all electrical protective devices are satisfied, the red pilot lamp is activated, and the built-in thermostat controls the compressor operation. The heating operation can be selected by the "HEAT"

operation switch, when an electric heater is provided in the field. The control circuit is wired for the manual reset system: when one of the protective devices is tripped, resetting of the operation switch is required.

### Operational Sequence Chart for Models RP-P5W through RP-P10WP

○:ON    ⊗:OFF

Operational Equipment	Main Power Switch	⊗	○			
	Pilot Lamp (Green)					
	CONTROL Switch	⊗	⊗	FAN	COOL*	
	THERMOSTAT	○	○	○	○	⊗
Electrical Component	Pilot Lamp (Red)	⊗	⊗	○	○	○
	Fan Motor	⊗	⊗	○	○	○
	Compressor	⊗	⊗	⊗	○	⊗
	Crankcase heater	⊗	○	○	⊗	○

\* SELECTION Switch: COOL

**Electrical Operation Control (Continued)**

**Operational Sequence Chart for Models RP-P15W through RP-P25WP**

○:ON    ⊗:OFF

Operational Equipment	Main Power Switch Pilot Lamp (Green)		⊗	○						
	CONTROL Switch		⊗		FAN	COOL*				
	THERMOSTAT	1st Stage (Higher)	—	—	○	○	○	○	○	⊗
2nd Stage (Lower)		—	—	○	○	○	⊗	⊗	⊗	
Electrical Component	Fan Motor		⊗	⊗	○	○	○	○	○	
	Compressor 1		⊗	⊗	⊗	○	○	○	⊗	
	Compressor 2		⊗	⊗	⊗	⊗	○	⊗	⊗	
	Pilot Lamp (Red)		⊗	⊗	○	○	○	○	○	
	Crankcase heater1		⊗	○	○	⊗	⊗	⊗	○	
	Crankcase heater2		⊗	○	○	○	⊗	○	○	

\* SELECTION Switch: COOL

**Operational Sequence Chart for Model RP-P30WP and RP-P40WP**

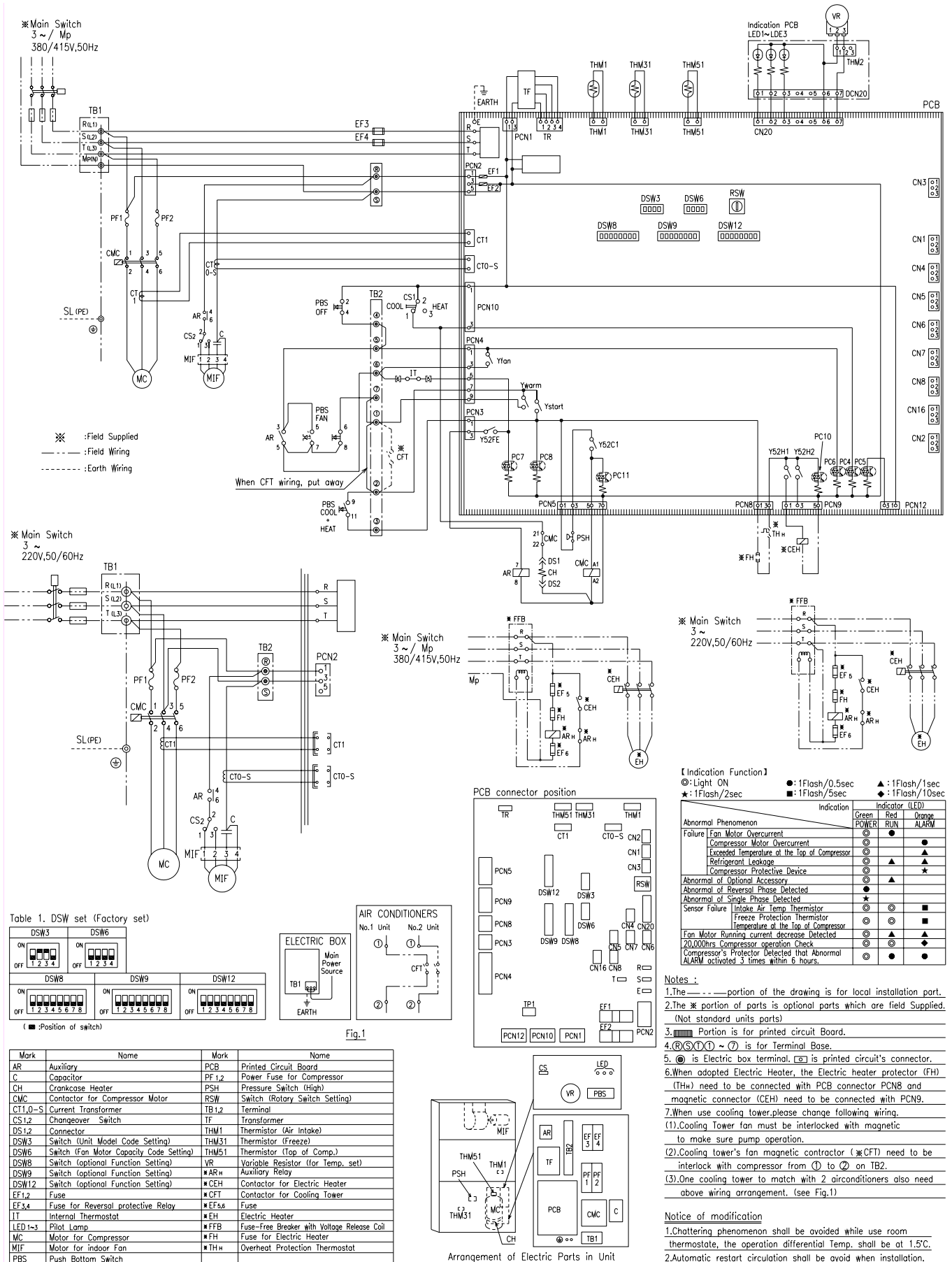
○:ON    ⊗:OFF

Operational Equipment	Main Power Switch Pilot Lamp (Green)		⊗	○							
	CONTROL Switch		⊗		FAN	COOL*					
	THERMOSTAT	1st Stage (Higher)	—	—	○	○	○	○	○	○	⊗
		2nd Stage (Medium)	—	—	○	○	○	○	○	⊗	⊗
3rd Stage (Lower)		—	—	○	○	○	○	⊗	⊗	⊗	
Electrical Component	Pilot Lamp (Red)		⊗	⊗	○	○	○	○	○	○	
	Fan Motor		⊗	⊗	○	○	○	○	○	○	
	Compressor 1		⊗	⊗	⊗	○	○	○	○	⊗	
	Compressor 2		⊗	⊗	⊗	⊗	○	○	○	⊗	
	Compressor 3		⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	
	Crankcase heater 1		⊗	○	○	⊗	⊗	⊗	⊗	○	
	Crankcase heater 2		⊗	○	○	○	⊗	⊗	⊗	○	
	Crankcase heater 3		⊗	○	○	○	○	⊗	○	○	

\* SELECTION Switch: COOL

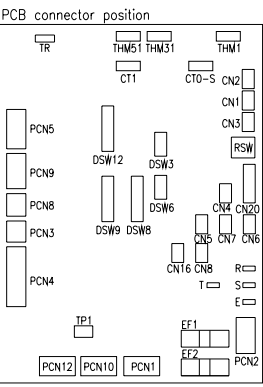
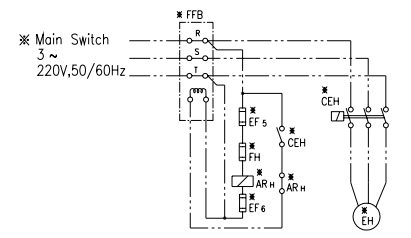
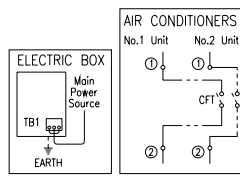
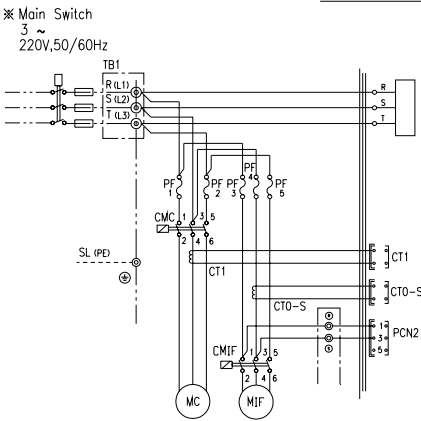
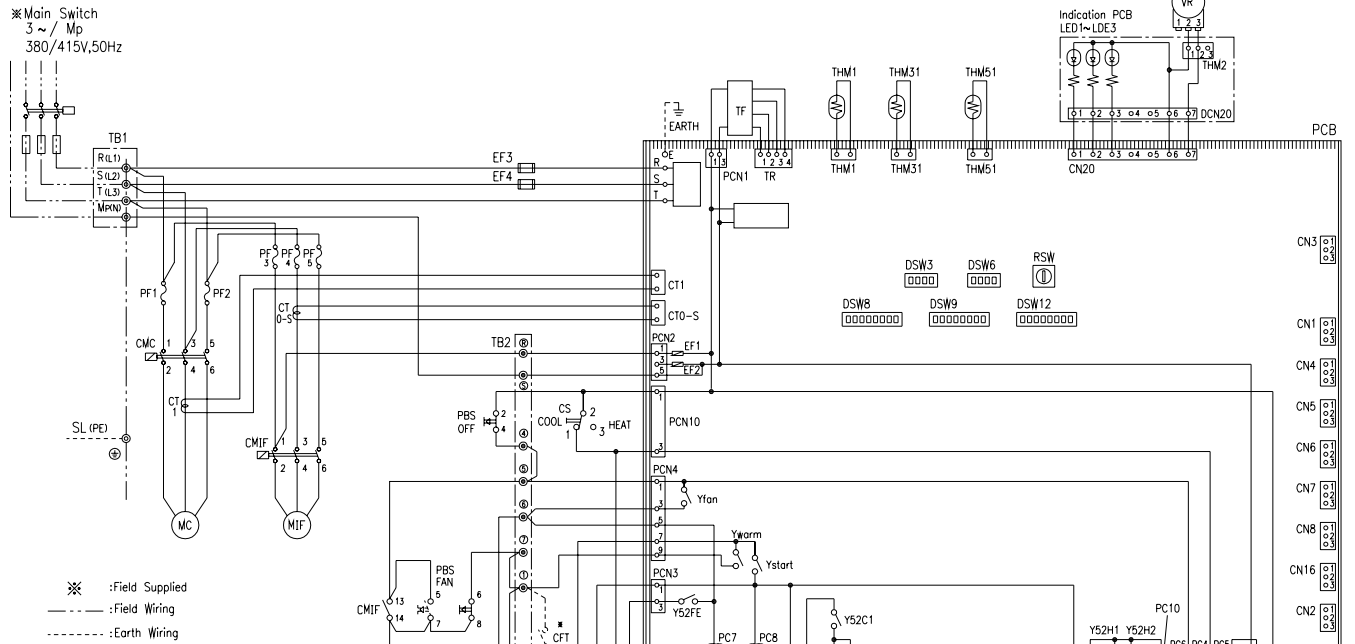
## Typical Wiring

For Model : RP-P5W



**Typical Wiring (Continued)**

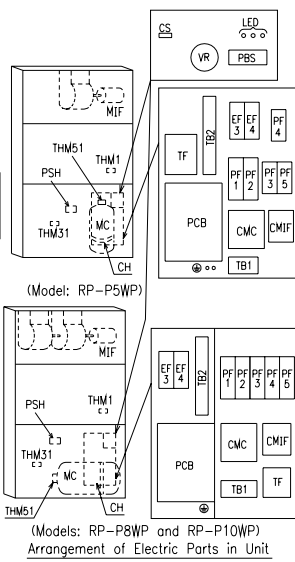
**For Models : RP-P5WP, RP-P8WP and RP-P10WP**



**Table 1. DSW set (Factory set)**

Model	DSW3	DSW6	DSW8	DSW9	DSW12
RP-P5WP	ON	ON	ON	ON	ON
RP-P8WP	OFF	ON	ON	ON	ON
RP-P10WP	OFF	ON	ON	ON	ON

Mark	Name	Mark	Name
CMC	Contact for Compressor Motor	PF 1,2	Power Fuse for Compressor
CH	Crankcase Heater	PF 3-5	Power Fuse for indoor Fan Motor
CMIF	Contact for indoor Fan Motor	PSH	Pressure Switch (High)
CT 1.0-S	Current Transformer	RSW	Switch (Rotary Switch Setting)
CS	Changeover Switch	TB1,2	Terminal
DS12	Connector	TF	Transformer
DSW3	Switch (Unit Model Code Setting)	THM1	Thermistor (Air Intake)
DSW6	Switch (Fan Motor Capacity Code Setting)	THM31	Thermistor (Freeze)
DSW8	Switch (Optional Function Setting)	THM51	Thermistor (Top of Comp.)
DSW9	Switch (Optional Function Setting)	VR	Variable Resistor (for Temp. set)
DSW12	Switch (Optional Function Setting)	*ARH	Auxiliary Relay
EF 1,2	Fuse	*CEH	Contact for Electric Heater
EF 3,4	Fuse for Reversal protective Relay	*CFT	Contact for Cooling Tower
LED 1-3	Pilot Lamp	*EF5,6	Fuse
MC	Motor for Compressor	*EH	Electric Heater
MIF	Motor for indoor Fan	*FFB	Fuse-Free Breaker with Voltage Release Coil
PBS	Push Bottom Switch	*FH	Fuse for Electric Heater
PCB	Printed Circuit Board	*THH	Overheat Protection Thermostat



**[Indication Function]**

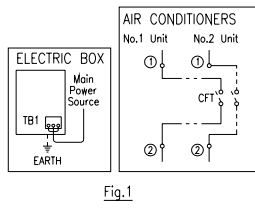
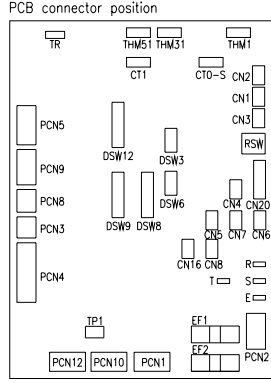
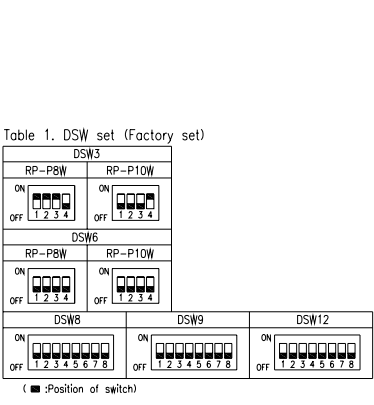
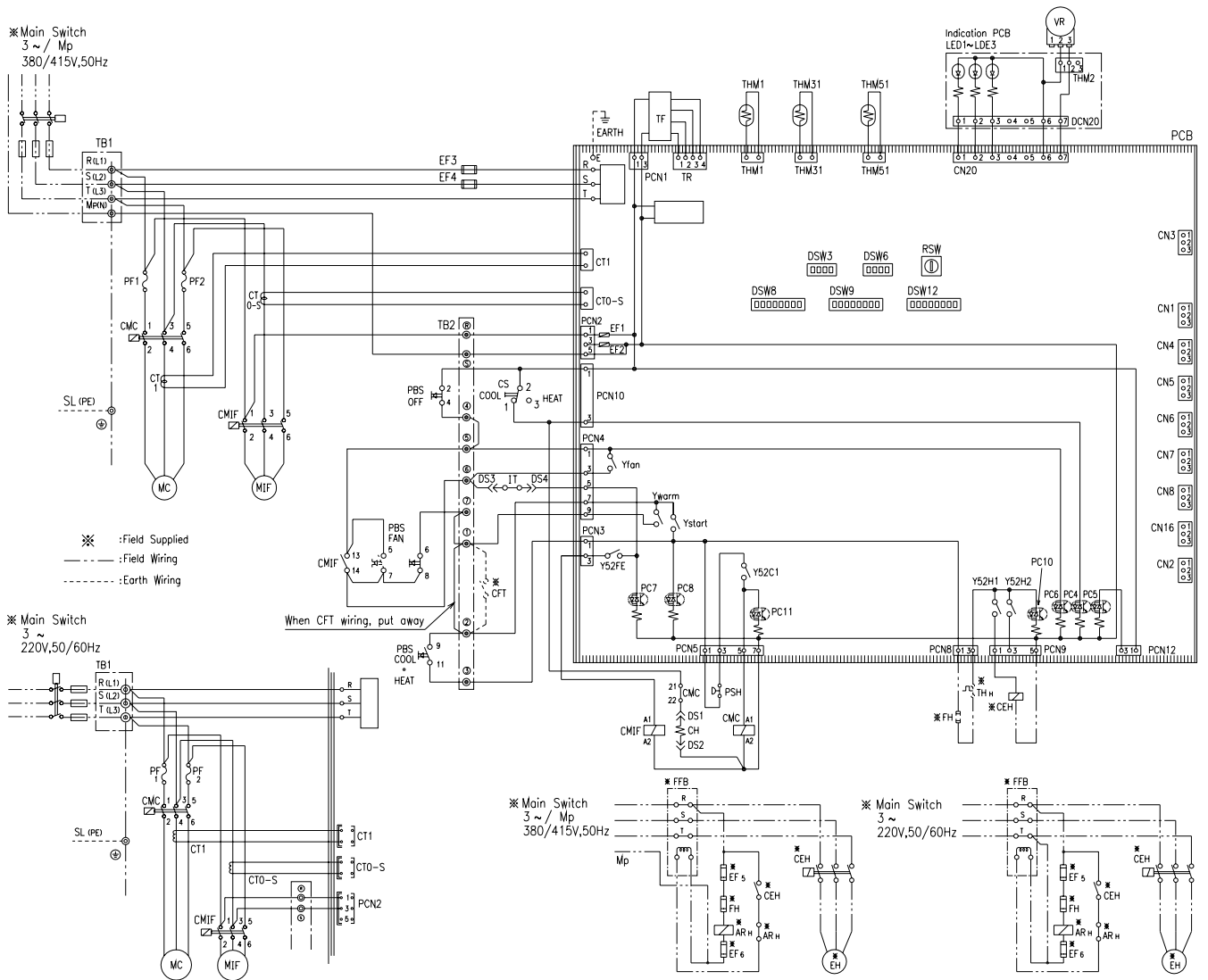
●: Light ON      ●: 1Flash/0.5sec      ▲: 1Flash/1sec  
 ◎: 1Flash/2sec      ■: 1Flash/5sec      ◆: 1Flash/10sec

Abnormal Phenomenon	Indication	Indicator (LED)
		Green    Red    Orange
Failure Fan Motor Overcurrent	●	POWER
Compressor Motor Overcurrent	●	RUN
Exceeded temperature at the Top of Compressor	◎	ALARM
Refrigerant Leakage	◎	ALARM
Compressor Protective Device	◎	ALARM
Abnormal of Optional Accessory	◎	ALARM
Abnormal of Reversal Phase Detected	◎	ALARM
Abnormal of Single Phase Detected	◎	ALARM
Sensor Failure Intake Air Temp. Thermistor	◎	ALARM
Freeze Protection Thermistor	◎	ALARM
Temperature at the Top of Compressor	◎	ALARM
Fan Motor Running current decrease Detected	◎	ALARM
20,000hrs Compressor operation Check	◎	ALARM
Compressor's Protector Detected that Abnormal ALARM activated 3 times within 6 hours.	◎	ALARM

- Notes :**
- The --- portion of the drawing is for local installation part.
  - The \* portion of parts is optional parts which are field Supplied. (Not standard units parts)
  - Portion is for printed circuit Board.
  - (R)(S)(T) ~ (7) is for Terminal Base.
  - ◎ is Electric box terminal. ◎ is printed circuit's connector.
  - When adopted Electric Heater, the Electric heater protector (FH) (THH) need to be connected with PCB connector PCN8 and magnetic connector (CEH) need to be connected with PCN9.
  - When use cooling tower, please change following wiring.
    - Cooling Tower fan must be interlocked with magnetic to make sure pump operation.
    - Cooling tower's fan magnetic contactor (\*CFT) need to be interlock with compressor from ① to ② on TB2.
    - One cooling tower to match with 2 airconditioners also need above wiring arrangement. (see Fig.1)
- Notice of modification**
- Chattering phenomenon shall be avoided while use room thermostat, the operation differential Temp. shall be at 1.5°C.
  - Automatic restart circulation shall be avoid when installation.

**Typical Wiring (Continued)**

For Models : RP-P8W and RP-P10W



【Indication Function】

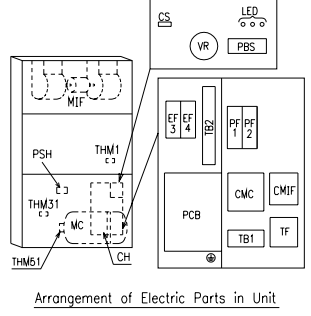
Abnormal Phenomenon	Indication	Indicator (LED)		
		Green POWER	Red RUN	Orange ALARM
Failure				
Failure Fan Motor Overcurrent	●	●	●	●
Compressor Motor Overcurrent	●	●	●	●
Exceeded Temperature at the Top of Compressor	●	●	●	●
Refrigerant Leakage	●	●	●	●
Compressor Protective Device	●	●	●	●
Abnormal of Optional Accessory	●	●	●	●
Abnormal of Reversal Phase Detected	●	●	●	●
Abnormal of Single Phase Detected	●	●	●	●
Sensor Failure	●	●	●	●
Inlet Air Temp Thermistor	●	●	●	●
Freeze Protection Thermistor	●	●	●	●
Temperature at the Top of Compressor	●	●	●	●
Fan Motor Running current decrease Detected	●	●	●	●
20,000hrs Compressor operation Check	●	●	●	●
Compressor's Protector Detected that Abnormal ALARM activated 3 times within 6 hours.	●	●	●	●

- Notes :
- The --- portion of the drawing is for local installation part.
  - The \* portion of parts is optional parts which are field supplied. (Not standard units parts)
  - Portion is for printed circuit Board.
  - (R)(S)(T)(1) ~ (7) is for Terminal Base.
  - ⊙ is Electric box terminal, ⊚ is printed circuit's connector.
  - When adopted Electric Heater, the Electric heater protector (FH) (THw) need to be connected with PCB connector PCN8 and magnetic connector (CEH) need to be connected with PCN9.
  - When use cooling tower, please change following wiring.
    - Cooling tower fan must be interlocked with magnetic to make sure pump operation.
    - Cooling tower's fan magnetic contractor (※CFT) need to be interlock with compressor from ① to ② on TB2.
    - One cooling tower to match with 2 airconditioners also need above wiring arrangement. (see Fig.1)

Notice of modification

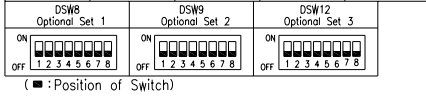
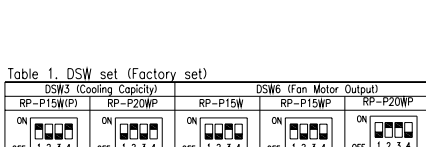
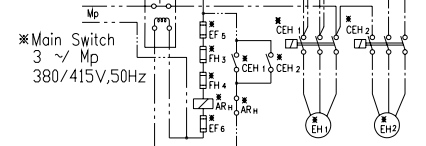
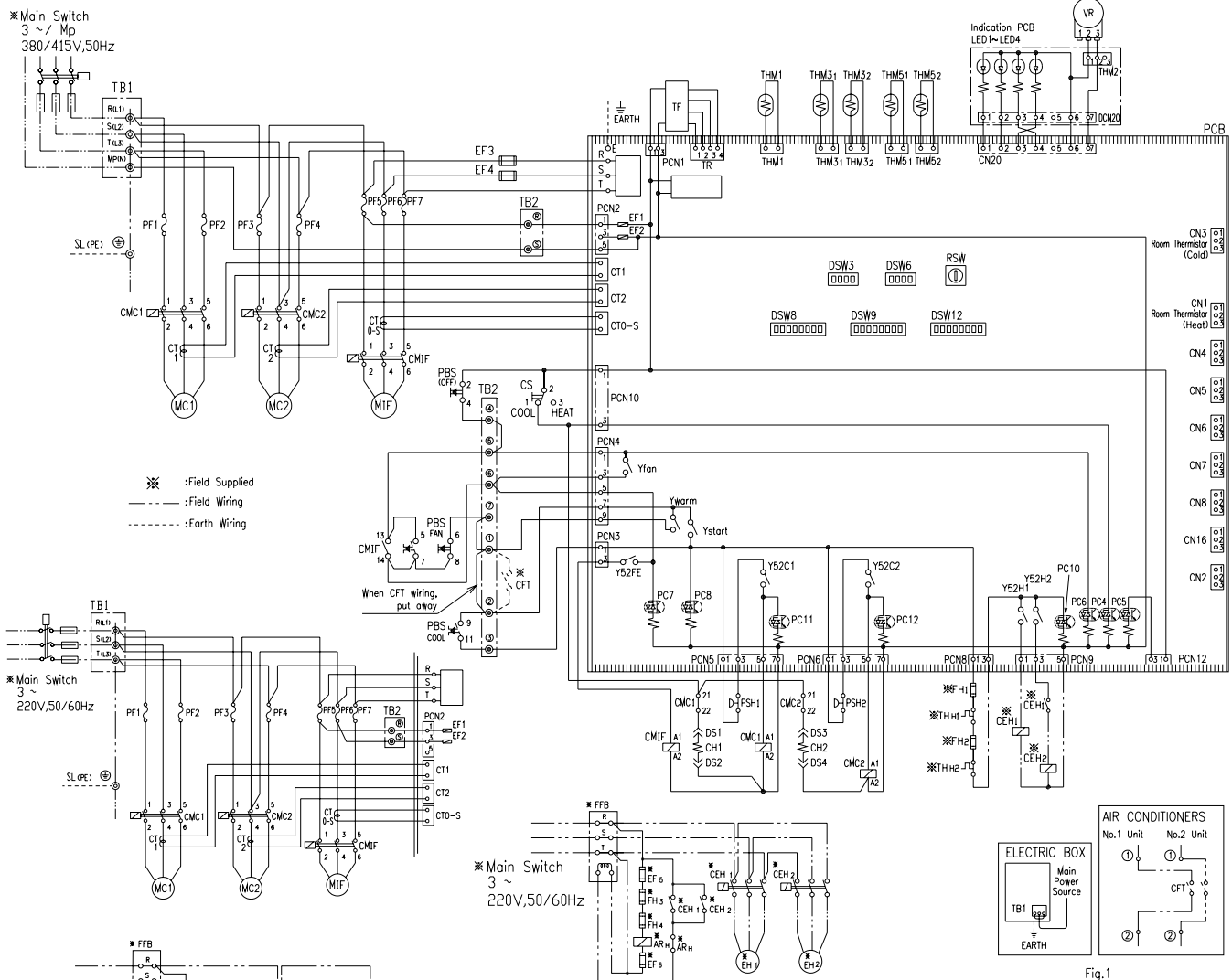
- Chattering phenomenon shall be avoided while use room thermostat, the operation differential Temp. shall be at 1.5°C.
- Automatic restart circulation shall be avoid when installation.

Mark	Name	Mark	Name
CMC	Contactor for Compressor Motor	PCB	Printed Circuit Board
CH	Crankcase Heater	PF 1,2	Power Fuse for Compressor
CMIF	Contactor for indoor Fan Motor	PSH	Pressure Switch (High)
CT1,0-S	Current Transformer	RSW	Switch (Rotary Switch Setting)
CS	Changeover Switch	TB1,2	Terminal
DS1~4	Connector	TF	Transformer
DSW3	Switch (Unit Model Code Setting)	THM1	Thermistor (Air intake)
DSW6	Switch (Fan Motor Capacity Code Setting)	THM31	Thermistor (Top of Comp.)
DSW8	Switch (optional Function Setting)	THM51	Thermistor (Top of Temp.)
DSW9	Switch (optional Function Setting)	VR	Variable Resistor (for Temp. set)
DSW12	Switch (optional Function Setting)	ARw	Auxiliary Relay
EF1,2	Fuse	CEH	Contactor for Electric Heater
EF3,4	Fuse for Reversal protective Relay	CFT	Contactor for Cooling Tower
IT	Internal Thermostat	EF5,6	Fuse
LED1~3	Pilot Lamp	EH	Electric Heater
M	Motor for Compressor	FFB	Fuse-Free Breaker with Voltage Release Coil
MIF	Motor for indoor Fan	FH	Fuse for Electric Heater
PBS	Push Bottom Switch	THw	Overheat Protection Thermostat



**Typical Wiring (Continued)**

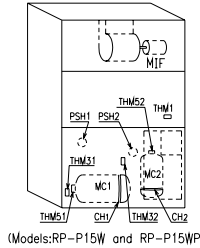
**For Models : RP-P15W, RP-P15WP and RP-P20WP**



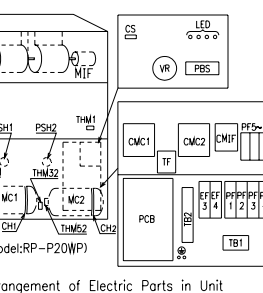
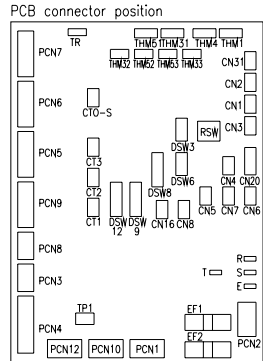
**Table 1. DSW set (Factory set)**

DSW3 (Cooling Capacity)		DSW6 (Fan Motor Output)	
RP-P15W(P)	RP-P20WP	RP-P15W	RP-P20WP
ON: 1 2 3 4	ON: 1 2 3 4	ON: 1 2 3 4	ON: 1 2 3 4
OFF: 1 2 3 4	OFF: 1 2 3 4	OFF: 1 2 3 4	OFF: 1 2 3 4
DSW8 Optional Set 1		DSW9 Optional Set 2	
ON: 1 2 3 4 5 6 7 8	ON: 1 2 3 4 5 6 7 8	DSW12 Optional Set 3	
OFF: 1 2 3 4 5 6 7 8	OFF: 1 2 3 4 5 6 7 8	ON: 1 2 3 4 5 6 7 8	OFF: 1 2 3 4 5 6 7 8

(■: Position of Switch)



(Models:RP-P15W and RP-P15WP)



(Model:RP-P20WP)

**[Indication Function]**

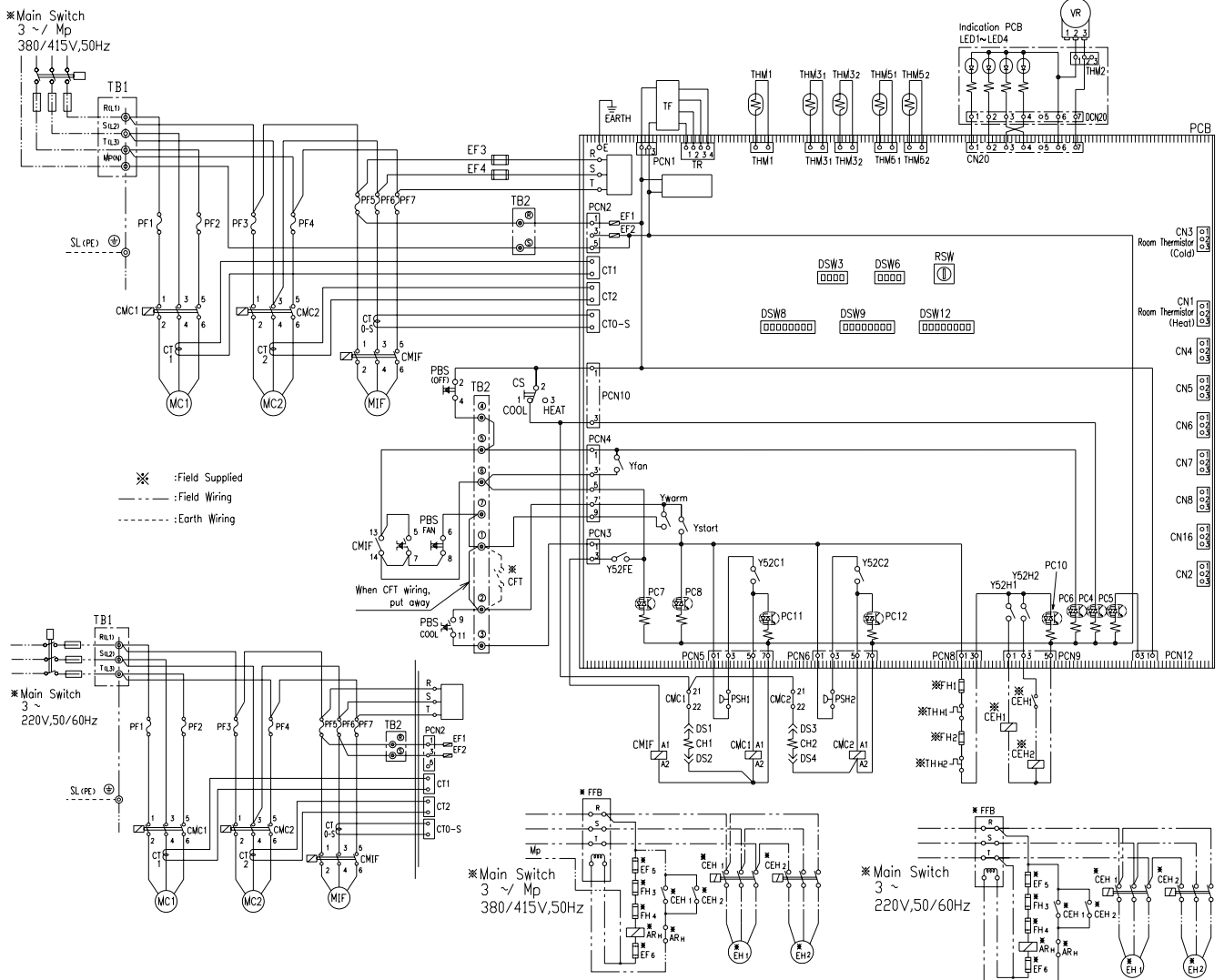
- ⊙: Light ON
- : 1Flash/0.5sec
- ▲: 1Flash/1sec
- \*: 1Flash/2sec
- : 1Flash/5sec
- ! : It is light OFF when all alarm is light ON.

Abnormal Phenomenon	Indication		Indicator (LED)	
	Green POWER	Red RUN	Orange(No.1) ALARM	Orange(No.2) ALARM
Failure Fan Motor Overcurrent	⊙	●	●	●
Compressor Motor Overcurrent	⊙	●	●	●
Exceeded Temperature at the Top of Compressor	⊙	▲	▲	▲
Refrigerant Leakage	⊙	▲	▲	▲
Compressor Protective Device	⊙	▲	▲	▲
Abnormal of Optional Accessory	⊙	▲	▲	▲
Abnormal of Reversal Phase Detected	⊙	▲	▲	▲
Abnormal of Single Phase Detected	⊙	▲	▲	▲
Sensor Failure Intake Air Temp Thermistor	⊙	●	■	■
Freeze Protection Thermistor	⊙	●	■	■
Temperature at the Top of Compressor	⊙	▲	▲	▲
Fan Motor Running current decrease Detected	⊙	▲	▲	▲
20,000hrs Compressor operation Check	⊙	●	●	●
Compressor's Protector Detected that Abnormal ALARM activated 3 times within 6 hours.	⊙	●	●	●

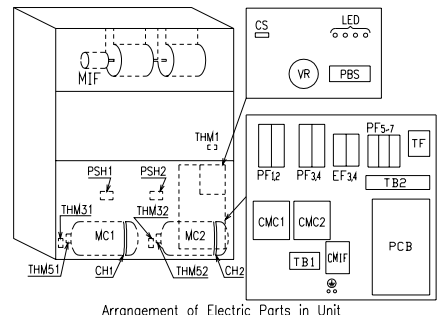
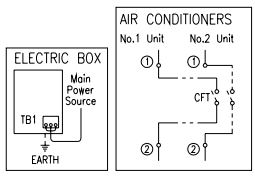
- Notes:**
- The portion of the drawing is for local installation part.
  - The portion of parts is optional parts which are field Supplied. (Not standard units parts)
  - Portion is for printed Circuit Board.
  - ⊙, ⊙, ⊙, ⊙ is for Terminal Base.
  - ⊙ is Electric box terminal. ⊙ is printed circuit's connector.
  - When adopted Electric Heater, the Electric heater protector (FH1,2) (TH1,2) need to be connected with PCB connector PCN8 and magnetic connector (CEH1,2) need to be connected with PCN9.
  - When use cooling tower, please change following wiring.
    - Cooling Tower fan must be interlocked with magnetic to make sure pump operation.
    - Cooling tower's fan magnetic contractor (※CFT) need to be interlock with compressor from ① to ② on TB2.
    - One cooling tower to match with two air conditioners also need above wiring arrangement. (see Fig.1)
- Notice of modification:**
- Chattering phenomenon shall be avoided while use room thermostat, the operation differential Temp. shall be at 1.5°C.
  - Automatic restart circulation shall be avoid when installation.

## Typical Wiring (Continued)

For Model : RP-P25WP



※ :Field Supplied  
 - - - :Field Wiring  
 - - - :Earth Wiring



**[Indication Function]**

● : Light ON  
 ★ : 1Flash/2sec  
 ▲ : 1Flash/10sec  
 ◆ : 1Flash/10sec

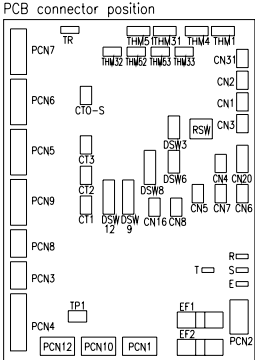
Abnormal Phenomenon	Indication	Indicator (LED)			
		Green POWER	Red RUN	Orange(No.1) ALARM	Orange(No.2) ALARM
Failure Fan Motor Overcurrent	●				
Compressor Motor Overcurrent	●			● Only This One	● Only This One
Exceeded Temperature of the Top of Compressor	●			▲ Only This One	▲ Only This One
Refrigerant Leakage	●			▲ Only This One	▲ Only This One
Compressor Protective Device	●			★ Only This One	★ Only This One
Abnormal of Optional Accessory	●			▲	
Abnormal of Reversal Phase Detected	●				
Abnormal of Single Phase Detected	●				
Sensor Failure Intake Air Temp. Thermistor	●			■ Only This One	■ Only This One
Freeze Protection Thermistor	●				
Temperature of the Top of Compressor	●			■ Only This One	■ Only This One
Fan Motor Running current decrease Detected	●			▲ Only This One	▲ Only This One
20,000hrs. Compressor operation Check	●			◆ Only This One	◆ Only This One
Compressor's Protector Detected that Abnormal ALARM activated 3 times within 6 hours.	●			● Only This One	● Only This One

**Table 1. DSW set (Factory set)**

DSW3 (Cooling Capacity)	DSW6 (Fan Motor Output)	
ON: [ ][ ][ ][ ] OFF: 1 2 3 4	ON: [ ][ ][ ][ ] OFF: 1 2 3 4	
DSW8 (Optional Set 1)	DSW9 (Optional Set 2)	DSW12 (Optional Set 3)
ON: [ ][ ][ ][ ][ ][ ][ ][ ] OFF: 1 2 3 4 5 6 7 8	ON: [ ][ ][ ][ ][ ][ ][ ][ ] OFF: 1 2 3 4 5 6 7 8	ON: [ ][ ][ ][ ][ ][ ][ ][ ] OFF: 1 2 3 4 5 6 7 8

(■ : Position of Switch)

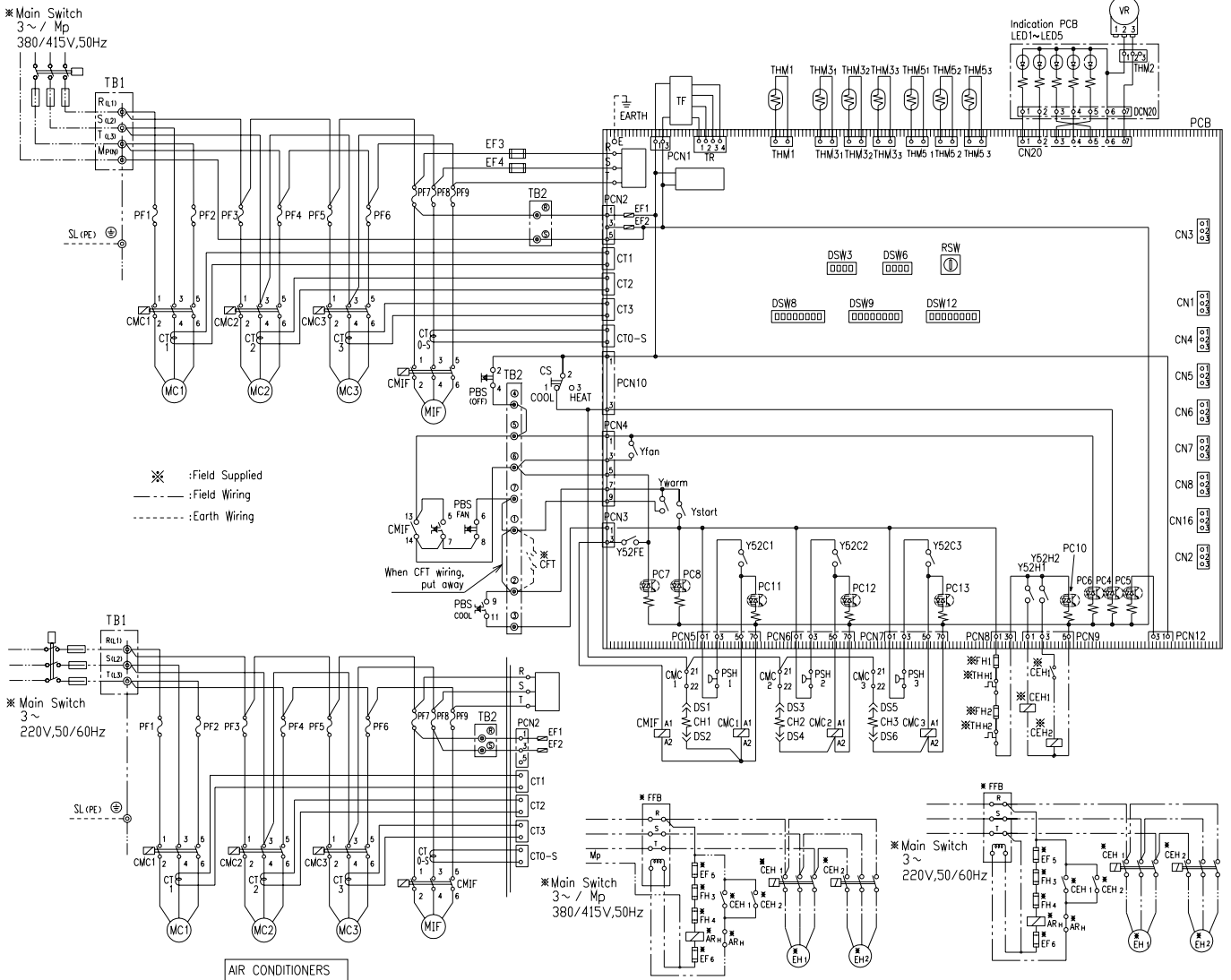
Mark	Name	Mark	Name
CMC1,2	Contactor for Compressor Motor	PF1-4	Power Fuse for Compressor
CH1,2	Crankcase Heater	PF6-7	Power Fuse for Fan Motor
CMIF	Contactor for indoor Fan Motor	PSH1,2	Pressure Switch (High)
CT1,2,0-S	Current Transformer	RSW	Switch (Rolary Switch Setting)
CS	Changeover Switch	TB1,2	Terminal
DS1-4	Connector	TF	Transformer
DSW3	Switch (Unit Model Code Setting)	THM1	Thermistor (Air Intake)
DSW6	Switch (Fan Motor Capacity Code Setting)	THM31,2	Thermistor (Freeze)
DSW8	Switch (optional Function Setting)	THM51,2	Thermistor (Top of Comp.)
DSW9	Switch (optional Function Setting)	VR	Variable Resistor (for Temp. set)
DSW12	Switch (optional Function Setting)	AR	Auxiliary Relay
EF1,2	Fuse for PCB	CEH1,2	Contactor for Electric Heater
EF3,4	Fuse for Reversal Protective Relay	CF	Contactor for Cooling Tower
LED1,4	Pilot Lamp	FFB	Fuse
MC1,2	Motor for Compressor	EH1,2	Electric Heater
MIF	Motor for indoor Fan	FFB	Fuse-Free Breaker with Voltage Release Coil
PBS	Push Bottom Switch	FF1,4	Fuse for Electric Heater
PCB	Printed Circuit Board	TH1,2	Overheat Protection Thermostat



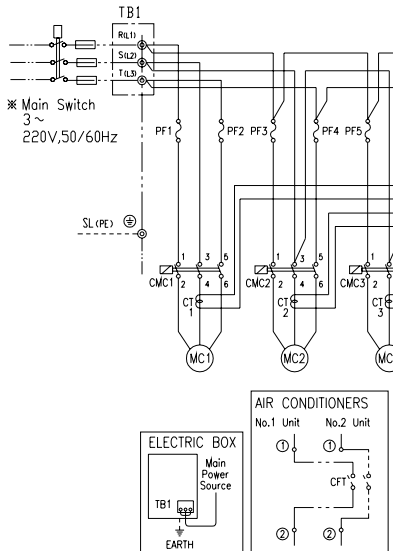
- Notes:**
- The --- portion of the drawing is for local installation part.
  - The ※ portion of parts is optional parts which are field Supplied. (Not standard units parts)
  - [ ] Portion is for printed circuit Board.
  - ( ) ( ) ( ) ( ) is for Terminal Base.
  - is Electric box terminal, [ ] is printed circuit's connector.
  - When adopted Electric Heater, the Electric heater protector (FFH-4) (TH1,2) need to be connected with PCB connector PCN8 and magnetic connector (CEH1,2) need to be connected with PCN9.
  - When use cooling tower, please change following wiring.
    - Cooling Tower fan must be interlocked with magnetic to make sure pump operation.
    - Cooling tower's fan magnetic contractor (※CF) need to be interlock with compressor from (1) to (2) on TB2.
    - One cooling tower to match with two air-conditioners also need above wiring arrangement. (see Fig.1)
- Notice of modification:**
- Chattering phenomenon shall be avoided while use room thermostat, the operation differential Temp. shall be at 1.5°C.
  - Automatic restart circulation shall be avoid when installation.

**Typical Wiring (Continued)**

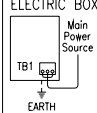
**For Models : RP-P30WP and RP-P40WP**



※ :Field Supplied  
 --- :Field Wiring  
 - - - :Earth Wiring

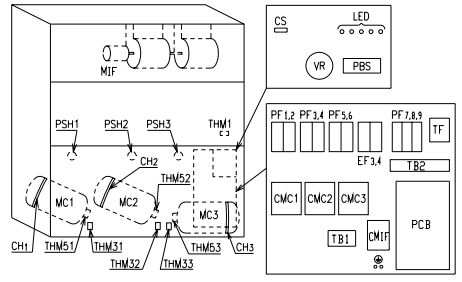


**AIR CONDITIONERS**  
 No.1 Unit No.2 Unit



**Table 1. DSW set (Factory set)**

DSW3 (Cooling Capacity)		DSW6 (Fan Motor Output)	
RP-P30WP	RP-P40WP	RP-P30WP	RP-P40WP
ON	ON	ON	ON
OFF	OFF	OFF	OFF
DSW8 (Optional Set 1)	DSW9 (Optional Set 2)	DSW12 (Optional Set 3)	
ON	ON	ON	
OFF	OFF	OFF	



**Arrangement of Electric Parts in Unit**

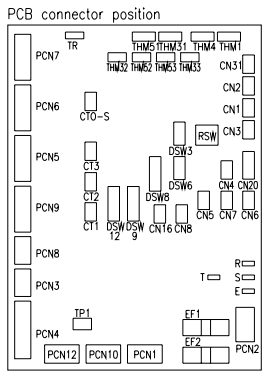
**[Indication Function]**

● : Light ON  
 ○ : 1Flash/2sec  
 ▲ : 1Flash/10sec  
 ◆ : 1Flash/10sec  
 \* : It is light OFF when all alarm is light ON.

Abnormal Phenomenon	Indication	Indicator (LED)		
		Green (POWER)	Red (ALARM)	Orange (No.1) / Orange (No.2) / ALARM
Failure Fan Motor Overcurrent	●	○	○	○
Compressor Motor Overcurrent	●	○	○	○
Exceeded Temperature at the Top of Compressor	●	○	○	○
Refrigerant Leakage	●	○	○	○
Compressor Protective Device	●	○	○	○
Abnormal of Optional Accessory	●	○	○	○
Abnormal of Reversal Phase Detected	●	○	○	○
Abnormal of Single Phase Detected	●	○	○	○
Sensor Failure Indicate Air Temp. Thermistor	●	○	○	○
Freeze Protection Thermistor	●	○	○	○
Temperature at the Top of Compressor	●	○	○	○
Fan Motor Running current decrease Detected	●	○	○	○
20,000hrs Compressor operation Check	●	○	○	○
Compressor's Protector Detected that Abnormal ALARM activated 3 times within 6 hours.	●	○	○	○

(■ : Position of Switch)

Mark	Name	Mark	Name
CMC1,2,3	Contactor for Compressor Motor	PF1~6	Power Fuse for Compressor
CH1,2,3	Crankcase Heater	PF7,8,9	Power Fuse for Fan Motor
CMIF	Contactor for indoor Fan Motor	PSH1,2,3	Pressure Switch (High)
CT1,2,3,0-S	Current Transformer	RSW	Switch (Rotary Switch Setting)
CS	Changeover Switch	TB1,2	Terminal
DS1~6	Switch	TF	Transformer
DSW3	Switch (Unit Model Code Setting)	THM1	Thermistor (Air Intake)
DSW6	Switch (Fan Motor Capacity Code Setting)	THM3,1,2,3	Thermistor (Freeze)
DSW8	Switch (optional Function Setting)	THM5,1,2,3	Thermistor (Top of Comp.)
DSW9	Switch (optional Function Setting)	VR	Variable Resistor (for Temp. set)
DSW12	Switch (optional Function Setting)	※AR#	Auxiliary Relay
EF1,2	Fuse for PCB	※CEH1,2	Contactor for Electric Heater
EF3,4	Fuse for Reversal Protective Relay	※CFT	Contactor for Cooling Tower
LED1~5	Pilot Lamp	※EF6,6	Fuse
MC1,2,3	Motor for Compressor	※EH1,2	Electric Heater
MIF	Motor for indoor Fan	※FFB	Fuse-Free Breaker with Voltage Release Coil
PBS	Push Bottom Switch	※FH1~4	Fuse for Electric Heater
PCB	Printed Circuit Board	※TH1,2	Overheat Protection Thermostat



- Notes:**
- The --- portion of the drawing is for local installation part.
  - The ※ portion of parts is optional parts which are field Supplied. (Not standard units parts)
  - Portion is for printed circuit Board.
  - ④, ⑤, ⑥, ⑦ is for Terminal Base.
  - ⑧, ⑨ is Electric box terminal. ⑩ is printed circuit's connector.
  - When adopted Electric Heater, the Electric heater protector (FH1~4) (TH1,2) need to be connected with PCB connector PCN8 and magnetic connector (CEH1,2) need to be connected with PCN9.
  - When use cooling tower, please check following wiring.
    - Cooling Tower fan must be interlocked with magnetic to make sure pump operation.
    - Cooling tower's fan magnetic contactor (※CFT) need to be interlock with compressor from ① to ② on TB2.
    - One cooling tower to match with two air conditioners also need above wiring arrangement. (see Fig.1)
  - Notice of modification:**
    - Chattering phenomenon shall be avoided while use room thermostat, the operation differential Temp. shall be at 1.5°C.
    - Automatic restart circulation shall be avoid when installation.

**Protection and Safety Control**

**Compressor Protection**

The compressor is protected by the following devices and the combinations of the devices :

**High Pressure Switch** - Leading the pressure from the compressor discharge line, this switch cuts out the operation of each compressor when the discharge pressure exceeds the high side setting.

**Dual Overcurrent Devices** – One-phase current transformer and two-phase fuses equipped in the magnetic switch box, these devices quickly cuts out the operation of each compressor when the current exceeds the setting.

**Discharge Gas Thermostat** - This thermostat cuts out the operation of the compressor when the discharge gas temperature exceeds the setting value.

**Freeze Protection Thermostat** - The thermostat cuts out the operation of the compressor when the suction surface temperature of the compressor decreases the setting temperature.

**Other Protection**

**Dual Overcurrent Devices for fan Motor** (for models RP-P5WP, RP-P8WP, RP-P10WP through RP-P40WP) – One-phase current transformer and three-phase fuses equipped in the magnetic switch box, these devices quickly cuts out the operation of unit when the current exceeds the setting.

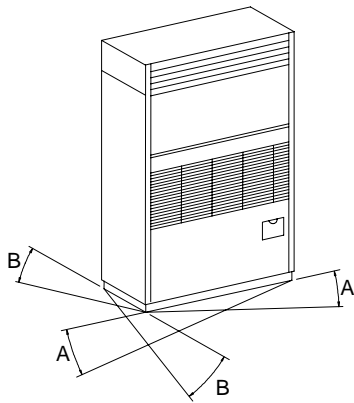
**Internal Thermostat for fan Motor** (for models RP-P5W, RP-P8W and RP-P10W) – Embedded in the fan motor winding, this thermostat cuts out the operation of unit when the fan motor is excessively heated.

**Manual Resetting System** - Compressor cycling operation due to automatic resetting of the protective device is protected by the manual resetting system; when one of the protection device is tripped, the printed circuit board in a holding circuit is de-energized, and requires re-manipulation of the operation switch.

Model			RP-P5W	RP-P5WP	RP-P8W	RP-P8WP	RP-P10W	RP-P10WP	RP-P15W	RP-P15WP	RP-P20WP	RP-P25WP	RP-P30WP	RP-P40WP
For Compressor														
Pressure Switch			Automatic Reset, Non-Adjustable (One Switch for Each Compressor)											
High	Cut-out	kg/cm <sup>2</sup> G	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
		MPa	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
	Cut-in	kg/cm <sup>2</sup> G	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
		MPa	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86
Overcurrent			Current Transformer (One Phase for Each Compressor)											
220V	60Hz	A	33.6	33.6	43.1	43.1	54.6	54.6	54.6+39.9	54.6+39.9	54.6x2	63.0x2	54.6x3	63.0x3
		A	33.6	33.6	43.1	43.1	54.6	54.6	54.6+39.9	54.6+39.9	54.6x2	63.0x2	54.6x3	63.0x3
	380/415V	50Hz	A	16.8	16.8	21.6	21.6	27.3	27.3	27.3+20.0	27.3+20.0	27.3x2	31.5x2	27.3x3
Fuse Capacity			Two Fuse for Each Compressor											
220V	60Hz	A	30	30	50	50	60	60	60+40	60+40	60x2	60x2	60x3	60x3
		A	30	30	50	50	60	60	60+40	60+40	60x2	60x2	60x3	60x3
	380/415V	50Hz	A	20	20	30	30	30	30	30+20	30+20	30x2	30x2	30x3
Discharge Gas Thermistor			Automatic Reset, Non-Adjustable (One Thermistor for Each Compressor)											
	Cut-out	°C	127	127	127	127	127	127	127	127	127	127	127	127
Freeze Protection Thermistor			Automatic Reset, Non-Adjustable											
	Cut-out	°C	0	0	0	0	0	0	0	0	0	0	0	0
For Evaporator Fan Motor														
Overcurrent			Current Transformer (One Phase for Each Fan Motor)											
220V	60Hz	A	—	3.4	—	4.6	—	7.4	7.4	10.8	18.0	18.0	27.6	34.8
		A	—	3.4	—	4.6	—	7.4	7.4	10.8	18.0	18.0	27.6	34.8
	380/415V	50Hz	A	—	1.7	—	2.3	—	3.7	3.7	5.4	9.0	9.0	13.8
Fan Motor Internal Thermostat			Automatic Reset, Non-Adjustable (One Thermostat for Fan Motor)											
	Cut-out	°C	130	—	130	—	130	—	—	—	—	—	—	—
	Cut-in	°C	100	—	100	—	100	—	—	—	—	—	—	—
Fuse Capacity			Three Fuse for Fan Motor											
220V	60Hz	A	—	10	—	10	—	20	20	30	30	30	40	40
		A	—	10	—	10	—	20	20	30	30	30	40	40
	380/415V	50Hz	A	—	5	—	5	—	10	10	10	20	20	30
For Control Circuit			One Fuse for Each Unit (380V/415V, 50Hz)											
Fuse Capacity			Two Fuses for Each Unit (220V, 50Hz/60Hz)											
		A	5	5	5	5	5	5	5	5	5	5	5	5
Operation Control														
Built-In Thermostat			°C											
		°C	15~30	15~30	15~30	15~30	15~30	15~30	15~30	15~30	15~30	15~30	15~30	15~30
	Adjustable Range Stages		1	1	1	1	1	1	1	2	2	2	2	3

**Foundation Provisions**

**Maximum Foundation Gradient**



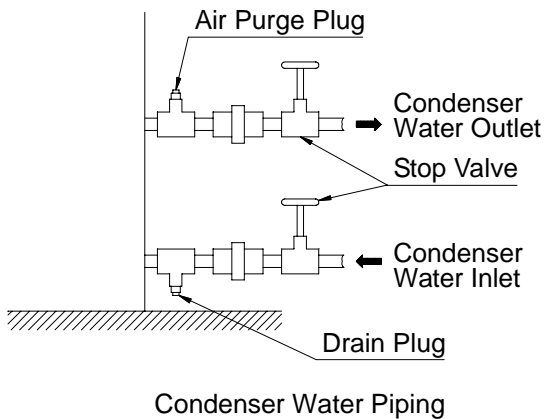
Model	Dimensions			
	A		B	
	degree	mm	degree	mm
RP-P5W	0.7	10	0.5	4
RP-P5WP	0.7	10	0.5	4
RP-P8W	0.7	13	0.5	4
RP-P8WP	0.7	13	0.5	4
RP-P10W	0.7	17	0.5	5
RP-P10WP	0.7	17	0.5	5
RP-P15W	0.7	17	0.4	5
RP-P15WP	0.7	17	0.4	5
RP-P20WP	0.7	21	0.4	5
RP-P25WP	0.7	21	0.4	6
RP-P30WP	0.7	24	0.4	6
RP-P40WP	0.4	15	0.3	7

**Field Piping Provisions**

**Condenser Water Piping**

**Air Purge and Water Drainage** - The air purge plug and water drain plug should be provided near the unit, in order to facilitate maintenance work.

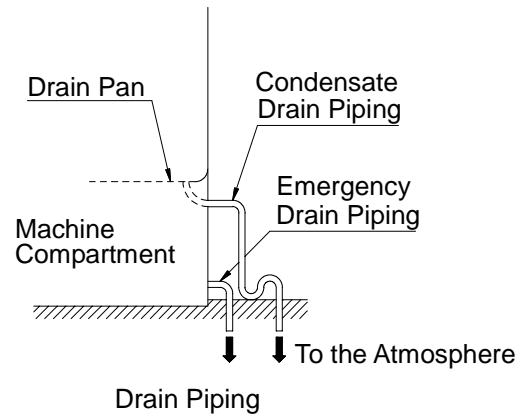
**Water Flow Regulating Valve** - When tap water is applied or the unit is operated in winter, the water flow regulating valve activated by the discharge pressure should be installed, to keep the condenser water outlet water temperature higher than 21°C.



**Drain Piping**

**Condensate Drain Piping** - A female piping thread screw connection is provided at both sides of the unit. When air intake ducts are installed, a trap deeper than half of the duct pressure drop in the water gauge should be provided at a lower level than the drain pan.

**Emergency Drain** - An emergency drain from the machine compartment can be disposed of from the emergency drain connection provided at both the bottom sides of the unit.



**Wiring Provisions**

**Field Wiring**

These units are internally wired at the factory; required field wiring and components are as follows:

**Required Field Wiring** - Main Power Wiring to the Units, Earth Wiring, Pump Interlocking Wiring When Cooling Tower is Applied.

**Required Components** - Main Power Switch, Main Power Fuses, Conduit Coupling, if Required.

**Wire and Fuse Size Selection** - Wire and fuse sizes should be selected in accordance with national and local codes, taking the designed maximum condensing temperature and ambient temperature into account. The maximum instantaneous current will be the total of the fan motor current and the compressor starting current (and the running current of the other compressor for dual-circuited units).

## Ducting Provisions

### For Models RP-P5W, RP-P8W, RP-P10W and RP-P15W

**Auxiliary Duct** - For partial air discharge by duct, an auxiliary duct can be connected on top of the plenum chamber.

**Rear Side Air Intake** - Rear side air intake by duct is applicable by shutting the front air intake grilles. (Models RP-P5W, RP-P8W and RP-P10W are Factory-Equipped Option.)

**Fresh Air Intake** - A fresh air intake opening is provided at both sides of the unit for short ducting.

### For Models RP-P5WP, RP-P8WP, RP-P10WP, RP-P15WP and RP-P20WP

**Rear Side Air Intake** - Rear side air intake by duct is applicable by shutting the front air intake grilles. (Models RP-P5WP, RP-P8WP, RP-P10WP are Factory-Equipped Option.)

**Fresh Air Intake** - A fresh air intake opening is provided at both sides of the unit for short ducting.

### For Models RP-P25WP and RP-P30WP

#### Field Optional Ducting Arrangement -

The factory-standard rear side air intake can be altered to the front side.

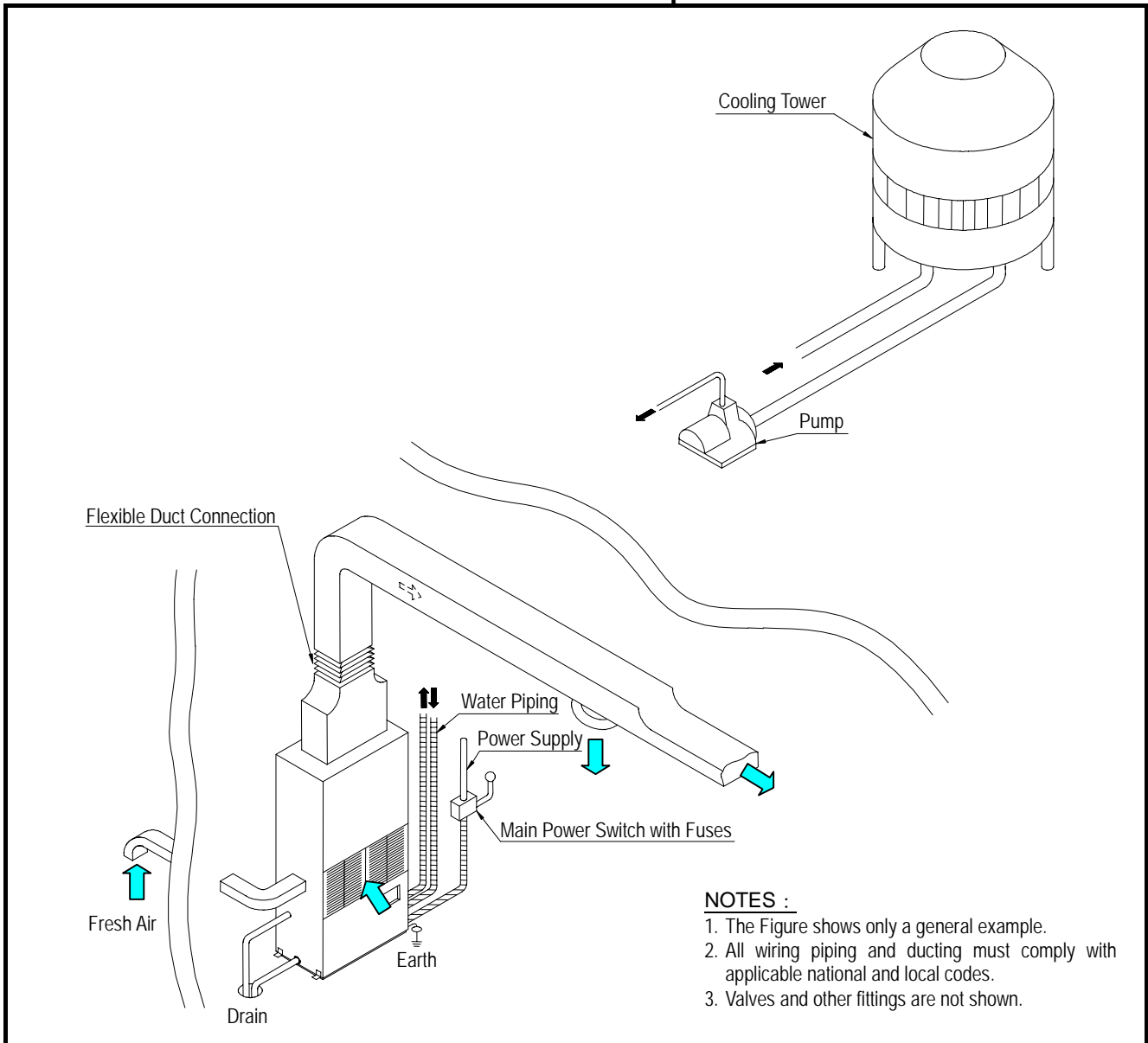
### For Model RP-P40WP

**Rear Side Air Intake** - The factory-standard rear side air intake.

#### NOTES :

1. Flexible duct connections are recommended.
2. All units are equipped with air filter(s) at the air intake side.
3. See "Features" and "Unit Dimension" for details.

## Installation Example



#### NOTES :

1. The Figure shows only a general example.
2. All wiring piping and ducting must comply with applicable national and local codes.
3. Valves and other fittings are not shown.

## Standard Specifications

**UNIT** - The unit shall be a water-cooled packaged air conditioner for application with R407C refrigerant and shall be composed of \_\_\_\_\_ refrigeration cycle(s), evaporator fan(s) and electrical components enclosed in a cabinet for indoor installation.

Optional accessories shall also be provided upon customer request. The unit shall be properly assembled, internally piped and wired, thoroughly tested and operating charged with refrigerant at the factory.

**CAPACITY** - The total cooling capacity of the unit shall be \_\_\_\_\_kcal/h (\_\_\_\_\_kW) or greater, and the sensible heat capacity shall be \_\_\_\_\_kcal/h or greater with \_\_\_\_\_°C evaporator air inlet dry bulb, \_\_\_\_\_°C evaporator air inlet wet bulb, \_\_\_\_\_°C condensing temperature and \_\_\_\_\_m<sup>3</sup>/min evaporator air flow. The unit with two independent refrigeration cycles shall be equipped with a capacity control of \_\_\_\_\_% partial load. The total compressor power input shall not exceed \_\_\_\_\_kW.

**CABINET** - The cabinet shall be constructed of finished steel, baked with synthetic resin paint for front and side panels. The cabinet inside shall be insulated by incombustible and self-extinguishable adiabatic material. The service panels shall be easily removable for service access to the unit components.

**REFRIGERATION CYCLE** - Each refrigeration cycle shall be equipped with a compressor, a water-cooled condenser, a liquid line strainer, a capillary tubes and an evaporator coil, A check joint for high pressure and a check joint for low pressure shall be provided for each refrigeration cycle of all models. A high pressure gauge and a low pressure gauge shall be provided for each refrigeration cycle of models RP-P25WP through RP-P40WP.

**COMPRESSOR** - The compressor shall be a hermetic scroll compressor and the starting method shall be the direct-on-line type. The hermetic compressor shall be the welded shell type and it shall be mounted on vibration-proof rubber.

**EVAPORATOR FAN AND MOTOR** - The evaporator fan(s) shall be the forward-curved, multi-blade centrifugal type, statically and dynamically balanced, and belt driven by a \_\_\_\_\_kW motor. The fan motor shall be permanently lubricated. The fan(s) shall deliver \_\_\_\_\_m<sup>3</sup>/min with \_\_\_\_\_mmAq external static pressure at \_\_\_\_\_rpm.

**EVAPORATOR** - The evaporator shall be the multi-pass cross-finned tube type, equipped with highly-efficient aluminum fins, mechanically bonded to

oxygen-free seamless copper tubes. The fins shall be spaced at more than 12 fins per 25.4 mm. The face area shall not be less than \_\_\_\_\_m<sup>2</sup>. The coil shall be cleaned, dehydrated and tested for leakage at the factory.

**CONDENSER** - The water-cooled condenser shall be the coiled double tube type for models RP-P5W through RP-P30WP, and shall be the shell-and-tube type for model RP-P40WP. The tube(s) shall be seamless copper tube(s) with integral fins. The refrigerant side of the condenser shall be cleaned, dehydrated and tested for leakage at the factory. The water side of the condenser shall be tested for leakage at the factory. The heat rejection capacity of the condenser(s) shall be capable of maintaining a condensing temperature of \_\_\_\_\_°C, with \_\_\_\_\_°C condenser water inlet temperature and \_\_\_\_\_m<sup>3</sup>/h condenser water flow. The water head loss through the condenser shall not exceed \_\_\_\_\_mAq under this condition.

**PROTECTION DEVICE** - Each compressor shall be protected against breakdown by a two-phase fuses and one-phase current transformer, a high pressure switch, a discharge gas thermistor and a freeze protection thermostat. The evaporator fan motor shall be protected from overloaded operation with a internal thermostat (for models RP-P5W, RP-P8W and RP-P10W), or a two-phase fuses and one-phase current transformer (for models RP-P5WP, RP-P8WP, RP-P10WP, RP-P15W through RP-P40WP).

**CONTROL** - The unit shall be equipped with operation switch(es), pilot lamp(s) and a thermostat mounted on the unit control panel. The operation switch(es) shall set ventilating, cooling and heating operations. The operation control shall conform to manual starting, automatic continuous operation whenever the thermostat requires and the protection devices allow. A manual resetting system shall be provided, in order to protect against compressor cycling operation due to automatic resetting of the protection devices. The two or three compressors of the multi-circuited units shall be started sequentially, and shall provide capacity control with a three-stage thermostat at the most which ON/OFF one of the compressors according to cooling load by the PCB expansion function of the control system.

**OPTIONAL ACCESSORIES** - Optional accessories shall include hot water heaters, steam heaters and humidifiers for all models, and shall include electric heaters for models RP-P5W through RP-P40WP.



Specifications in this catalog are subject to change without notice, in order that HITACHI may bring the latest innovations to our customers

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