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HITACHI
Air conditioning solutions

Specifications in this catalog are subject to change without prior notice to keep abreast with continuous product innovations for our customers' benefit.

RCUFL-1901

HITACHI



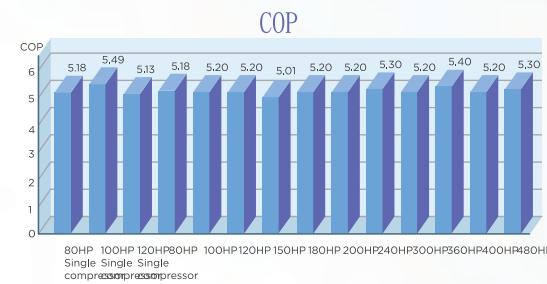
FLOODED WATER CHILLER



ENVIRONMENTALLY FRIENDLY REFRIGERANT SAVES ENERGY

Hitachi Flooded Water Chillers use environment friendly refrigerant R134a in place of traditional Chlorofluorocarbons (CFCs). R134a is a highly stable, low-toxicity, and non-flammable refrigerant without chlorine. In using it, we help preserve the environment.

ENERGY SAVING HIGH EFFICIENCY



The entire line of Hitachi Flooded Water Chillers all have COP values greater than 5. This allows the machine to operate for long periods while saving energy. Hitachi Flooded Water Chillers are the smart and economical choice.

EASY-TO-USE CONTROL & CONVENIENT TO MANAGE



- Touchscreen interface displays the operation status of the main machine (voltage, current, temperature, and pressure) in real time, providing flexibility and convenience of use.
- The RS485 communication interface can be used as a central control to facilitate central management.
- The Programmable Logical Controller (PLC) is used for precise logical control, maintaining a highly efficient, safe and stable operation of the main machine. The conditions of operation can be completely recorded, facilitating management by a system manager.
- Through a current measuring device, operation current can be restricted, which saves energy and improves safety.
- The machine can be set to turn on/off weekly, which further increases the efficiency of system management.

SELF-DIAGNOSE & INTELLIGENT OPERATION INSPECTION

- Equipped with voltage, current, temperature and pressure protective functions.
- Timely adjustment of operation conditions of the main machine, preventing failures.
- During failure, immediately display and record cause of failure to facilitate service and inspection.

HIGH PERFORMANCE SCREW COMPRESSOR

These advanced screw compressors, which are imported from Germany, are built to perform efficiently at high speed and use rotary motion for compression. Simple in structure yet exceptionally functional, they do not use unnecessary motions, hence they reduce noise and vibration.

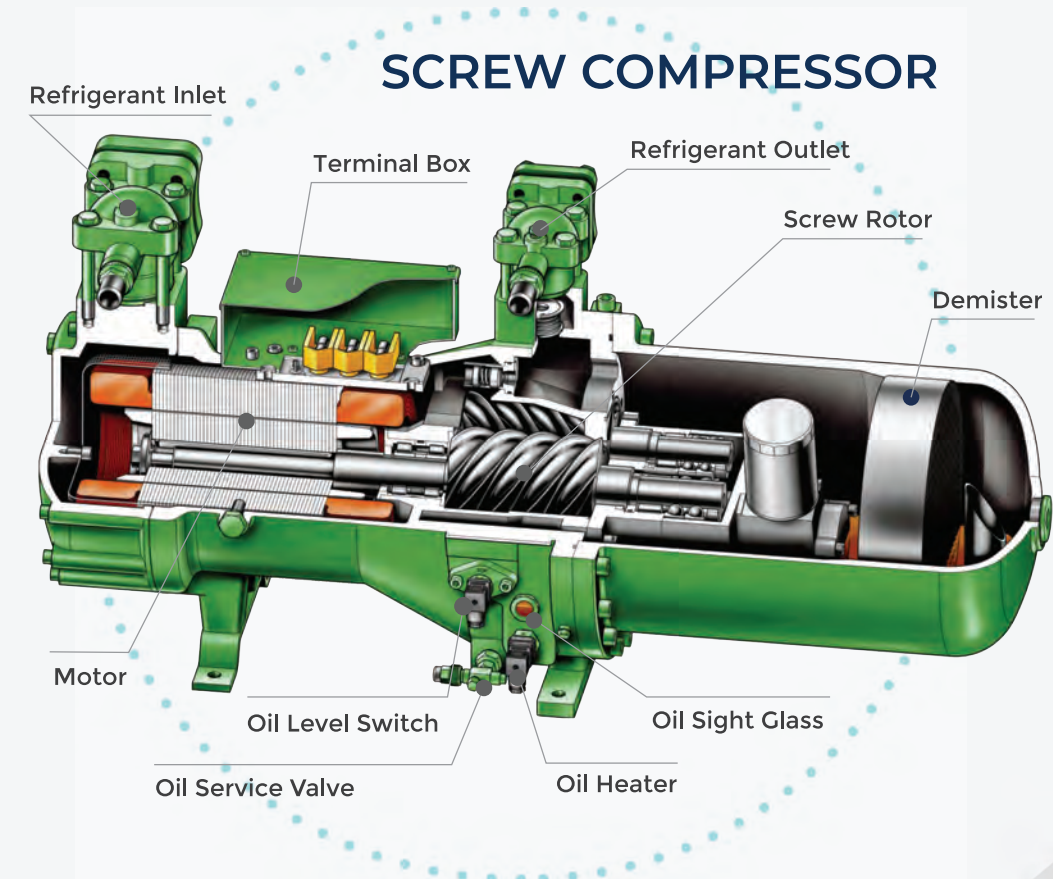
HIGH EFFICIENCY SHELL & TUBE TYPE

The sophisticated design of the shell and tube further increases the machine's efficiency.

CONTINUOUS CAPACITY CONTROL

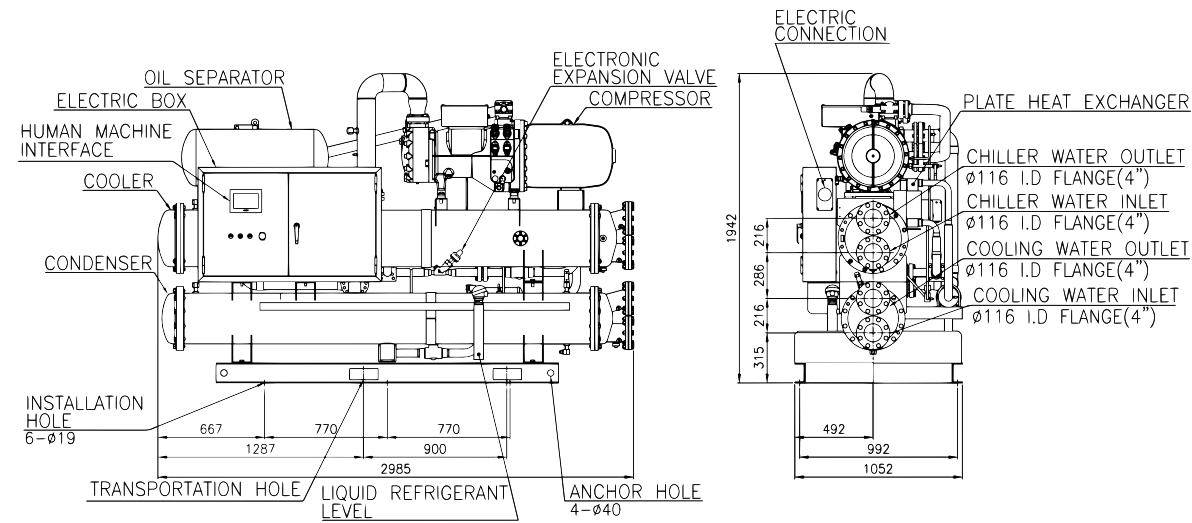
The Continuous Capacity Control function allows users to automatically adjust the operation (25-100%) according to load by precisely controlling the machine's water output temperature.

SEMI-HERMETIC Screw Compressors Work Better

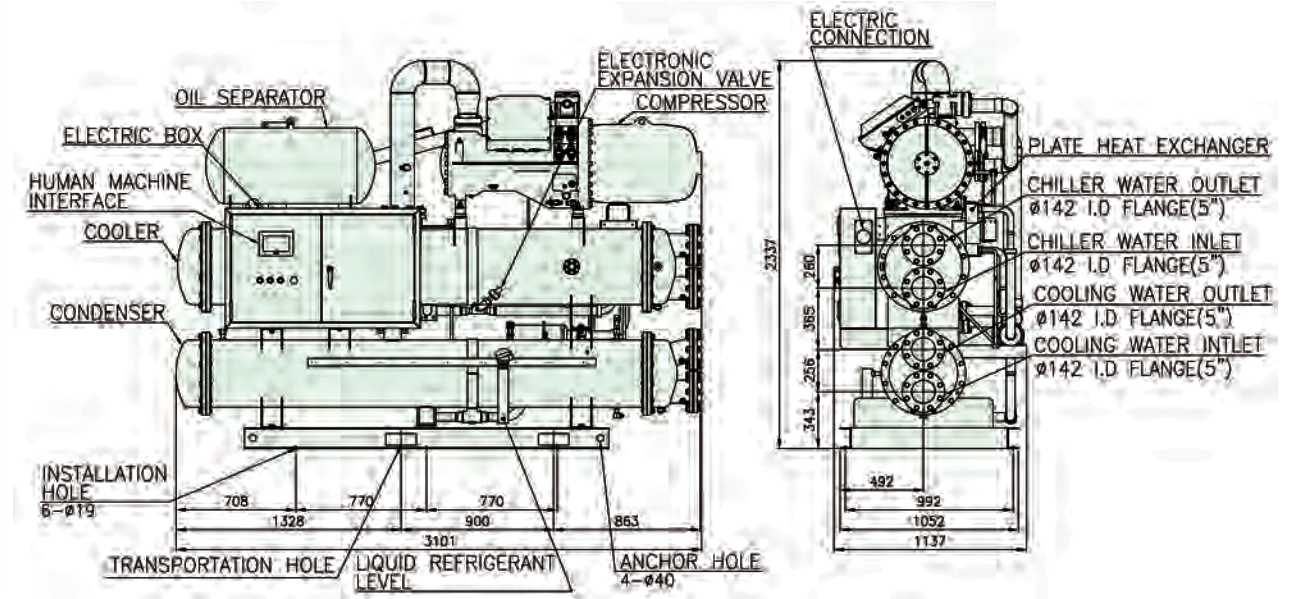


- Because the motor is encased in the compressor, the machine works quietly.
- It automatically cools the air it takes in, which further increases efficiency, so it does not require frequent maintenance service.
- No oil pumps needed. Lubricant oil is fed into the machine using the difference between the high and low pressure regions of the compressor.
- Reliable operation is guaranteed because the device uses state-of-the-art components such as pump and motors, couplers for transmission and oil-pressure regulating valves.
- It has a shaft seal device that prevents leakages.
- The high-efficiency filter in the compressor, which is less adhesive, effectively reduces oil loss while filtering it.
- It is built with an advanced PTC temperature protector that protects motor coil and discharge temperatures. Furthermore, this component comprehensively monitors phase failure and reverse.
- It has an opto-electronical oil level switch that regulates the amount of oil in the compressor to ensure its continuous function.

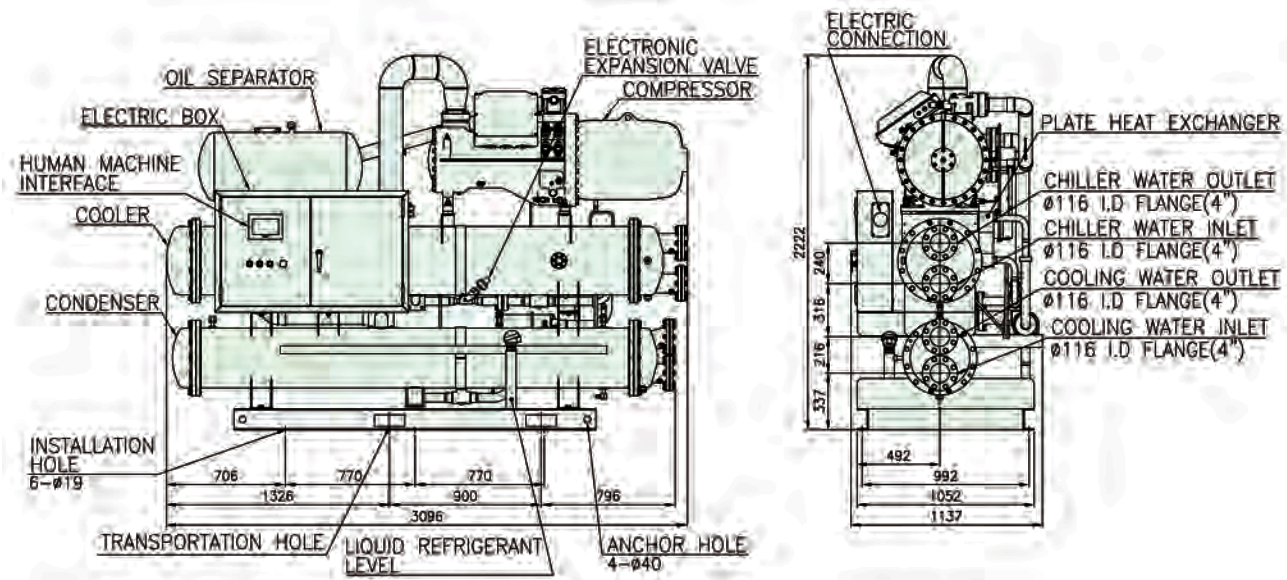
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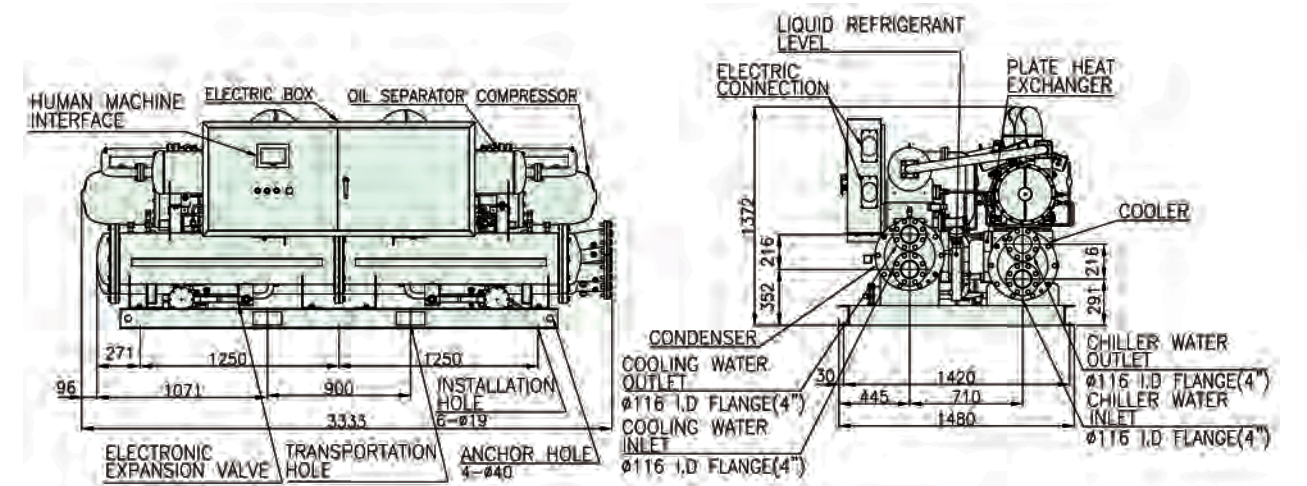
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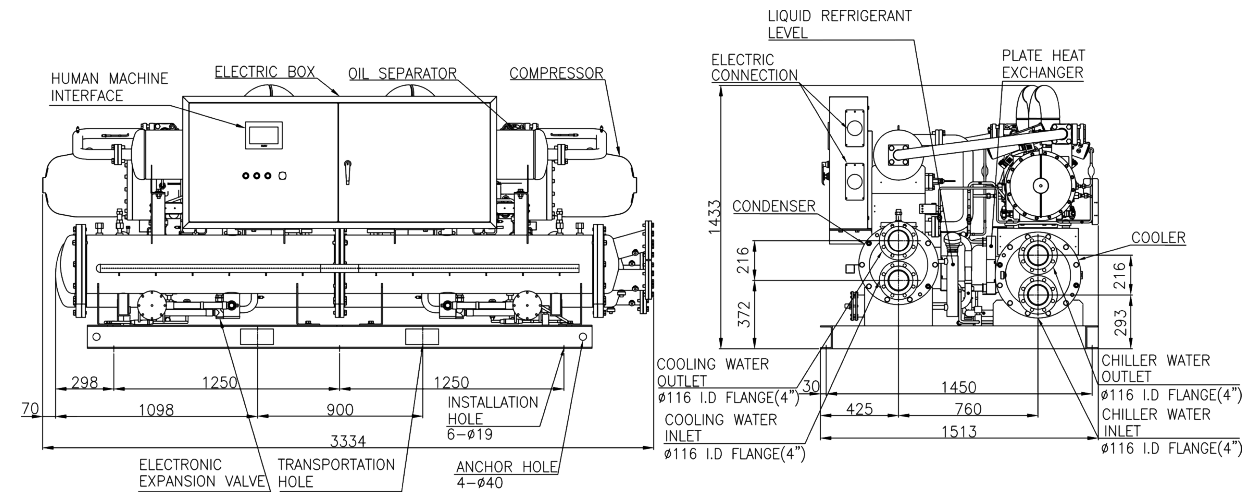
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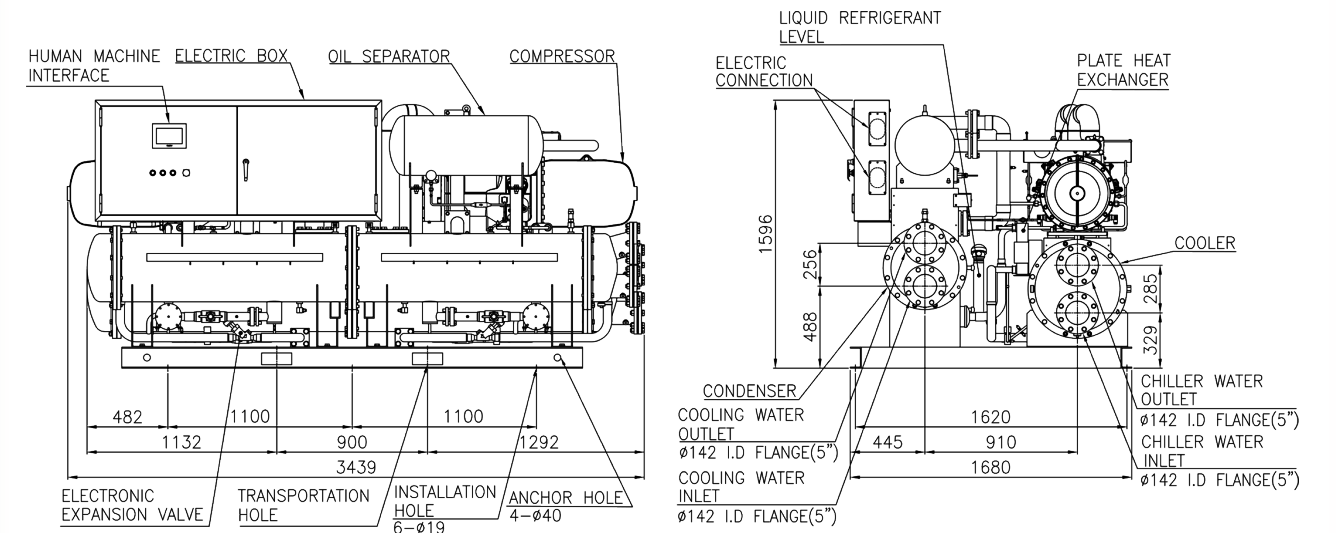
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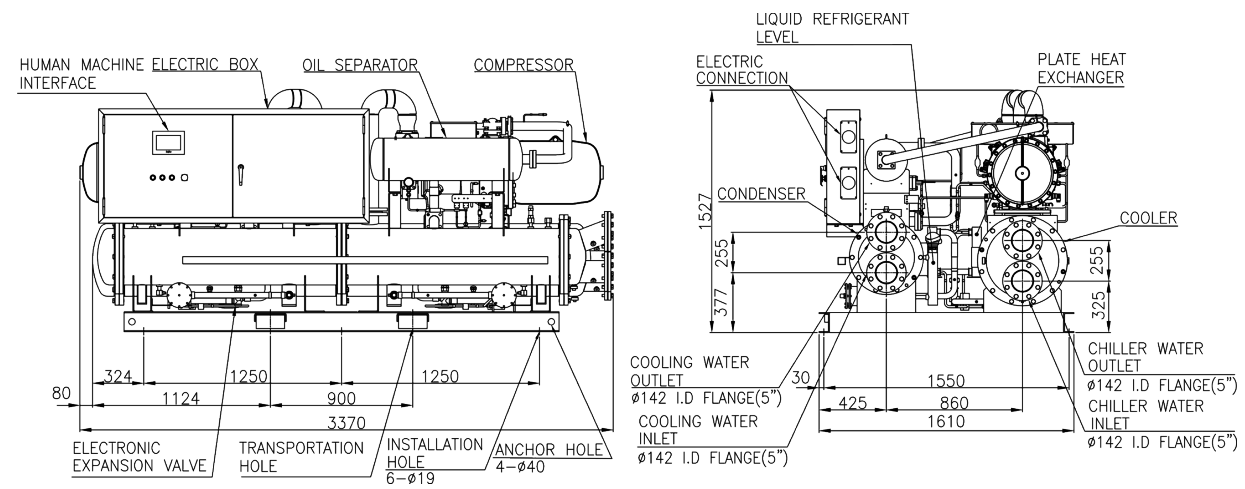
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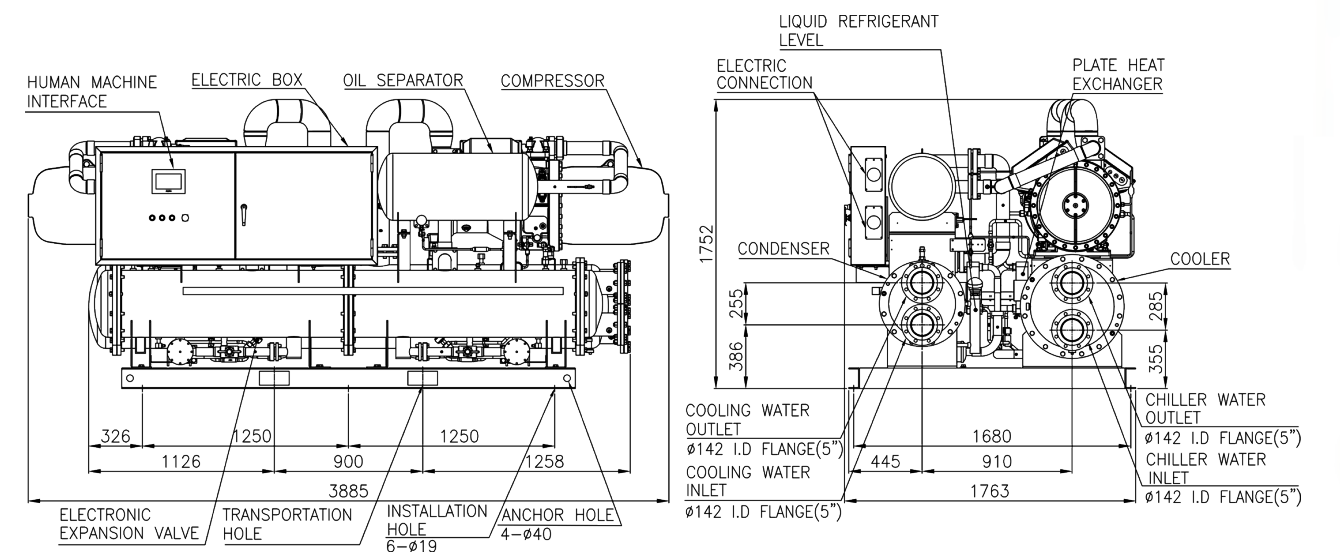
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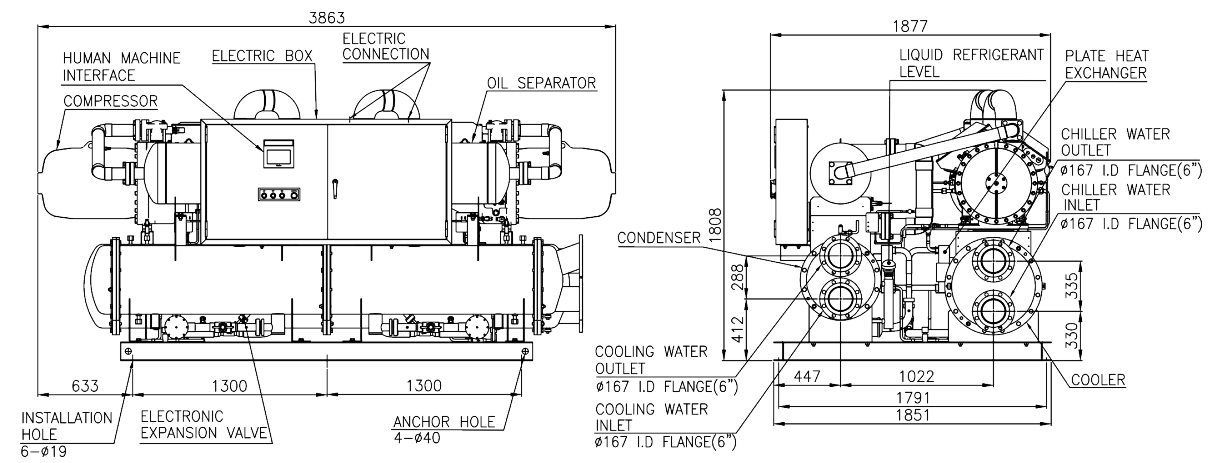
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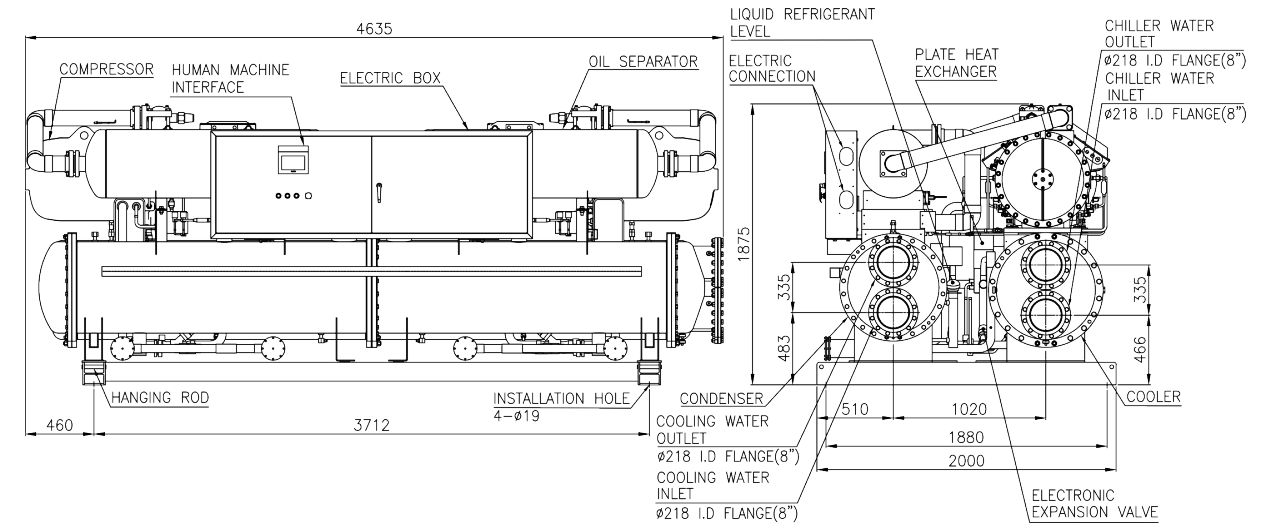
RCU-F1801WSD / RCU-F2001WSD



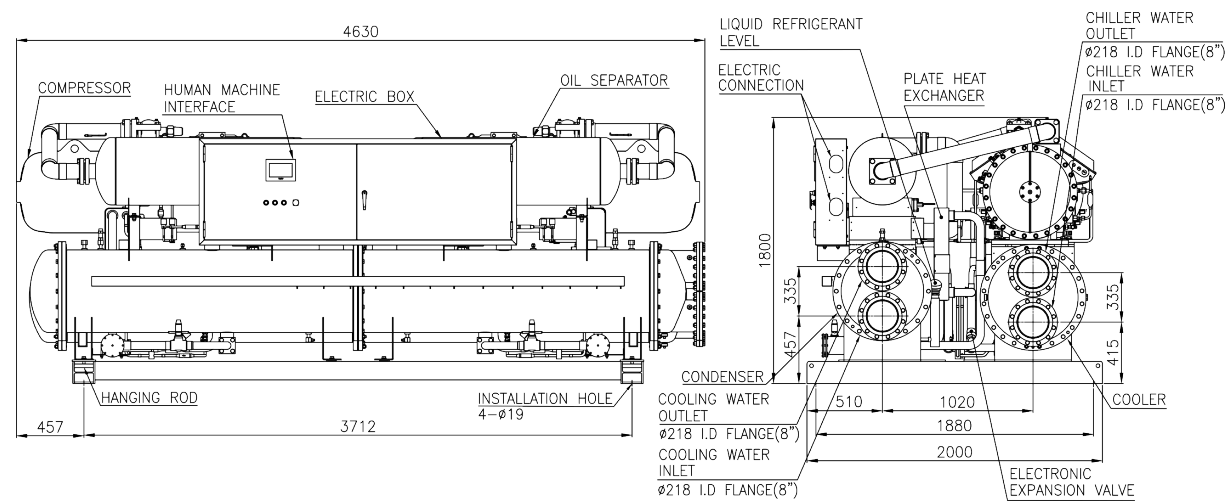
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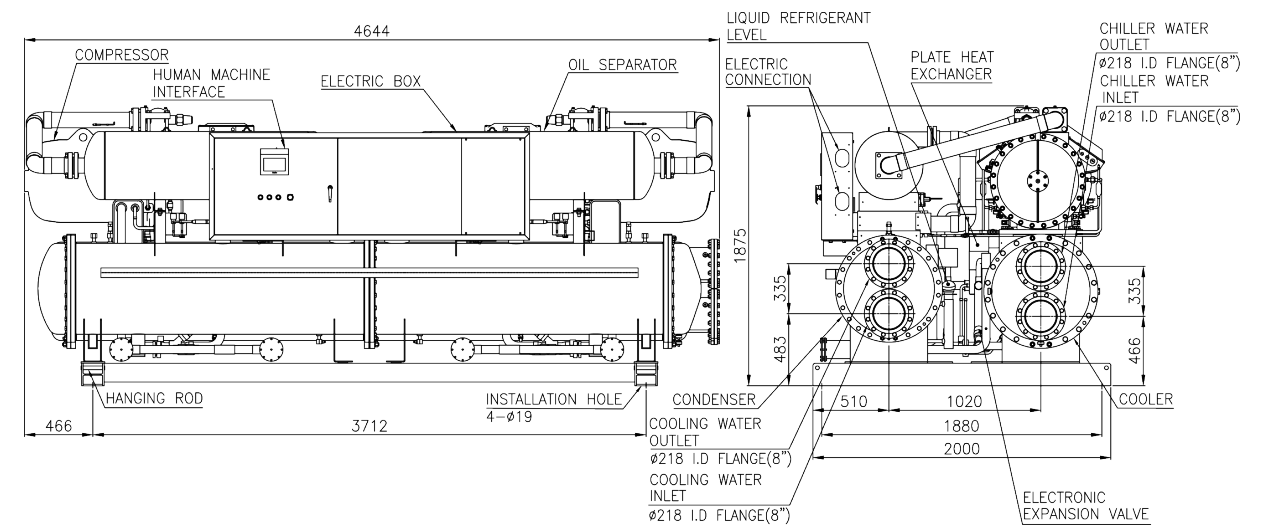
RCU-F3601WSD



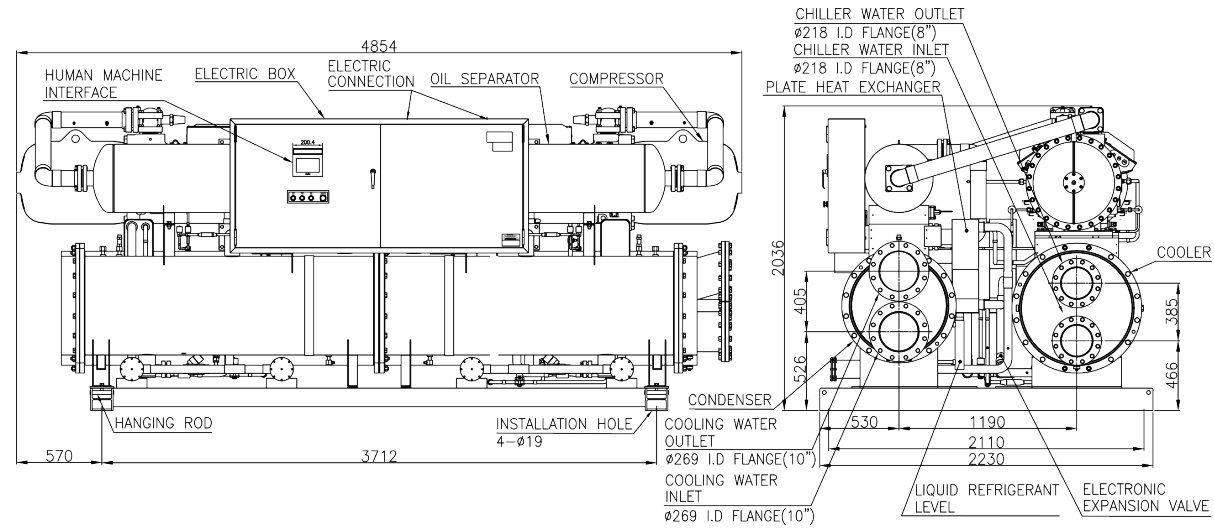
RCU-F3001WSD



RCU-F4001WSD



RCU-F4801WSD



GENERAL UNIT DATA

Item	Model	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-	RCU-		
		F801WSS	F1001WSS	F1201WSS	F801WSD	F1001WSD	F1201WSD	F1501WSD	F1801WSD	F2001WSD	F2402WSD	F3001WSD	F3601WSD	F4001WSD	F4801WSD	
Cooling Capacity	kcal/h	241,920	302,400	362,880	253,700	302,400	362,880	468,720	571,900	618,340	779,160	907,200	1,088,640	1,209,600	1,451,520	
	kW	281.3	351.6	422.0	295.0	351.6	422.0	545.0	665.0	719.0	906.0	1,054.8	1,265.8	1,406.4	1,687.8	
COP	W/W	5.18	5.49	5.13	5.18	5.20	5.20	5.01	5.20	5.20	5.30	5.20	5.40	5.20	5.30	
Dimension	Width	mm	2,985	3,098	3,101	3,333	3,334	3,370	3,439	3,885	3,885	3,863	4,630	4,635	4,644	4,854
	Depth	mm	1,052	1,137	1,137	1,480	1,513	1,610	1,680	1,763	1,763	1,877	2,000	2,000	2,000	2,230
	Height	mm	1,942	2,222	2,337	1,372	1,433	1,527	1,596	1,752	1,752	1,808	1,800	1,875	1,875	2,036
Compressor	Type	Semi-hermetic Screw														
	Quantity	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Crankcase Heater	W	200	300	300	200 x 2	200 x 2	200 x 2	200 x 2	300 x 2	300 x 2	300 x 2	300 x 2	300 x 2	300 x 2	300 x 2	
Condenser Type	Shell and Tube															
Chiller Type	Shell and Tube (Flooded)															
Expansion Valve Control	Electronic Expansion Valve															
Refrigerant	Type	R134a														
	Quantity	kg	70	90	120	40 x 2	40 x 2	54 x 2	80 x 2	81 x 2	81 x 2	112 x 2	145 x 2	200 x 2	190 x 2	240 x 2
Oil	Type	BSE17OL														
	Quantity	ℓ	15	22	19	10 x 2	10 x 2	15 x 2	15 x 2	22 x 2	22 x 2	19 x 2	30 x 2	30 x 2	30 x 2	35 x 2
Starting Method	Part Winding											Y-△				
Absorber	Vibration Damper for Compressor															
Protection Device	High Pressure Switch/Low Pressure Switch/Reverse Phase Protection Relay/Anti-Freeze Switch/Overload Protect/Discharge Temperature Protector/Fuses for Control Circuit/Relief Valve/Oil Level Protection															
Operation Device	Monitoring Devices	Human Machine Interface/Programmable Logic Controller(PLC)														
	Monitoring items	Voltage/Current/Temperature/Pressure/Expansion Valve Position/Liquid Refrigerant Level/Current Limit Setting/Setting Running Day/Inspection and Replacement Interval Reminder														
	Pilot Lamp	Green—Normal / Red—Abnormal / White—Power Supply														
	Capacity Control	%	0, 25-100					0, 12.5-100								
Chiller	Connections	I.D.φ116mm(4") (With Flange)		I.D.φ142mm(5") (With Flange)	I.D.φ116mm(4") (With Flange)		I.D.φ142mm(5") (With Flange)			I.D.φ167mm(6") (With Flange)	I.D.φ218mm(8") (With Flange)			I.D.φ269mm(10") (With Flange)		
	Standard Flow	m ³ /h	48	60	72	50.3	60	72	93	113.5	122.6	154.6	180	216	240	288
	Pressure Drop	mAq	5.7	5.3	4.4	6.8	4.5	3.8	5.8	6.6	7.4	6.6	9.6	7.7	9.5	6.9
Condenser	Connections	I.D.φ116mm(4") (With Flange)		I.D.φ142mm(5") (With Flange)	I.D.φ116mm(4") (With Flange)		I.D.φ116mm(4") (With Flange)			I.D.φ167mm(6") (With Flange)	I.D.φ218mm(8") (With Flange)			I.D.φ269mm(10") (With Flange)		
	Standard Flow	m ³ /h	60.0	75.0	90.0	62.9	75.0	90.0	116.3	141.9	153.4	193.3	225.0	270.0	300.0	360.0
	Pressure Drop	mAq	4.8	5.1	4.0	4.4	4.8	4.8	5.1	6.0	6.4	7.1	7.2	7.1	7.8	7.3
Power Supply		AC, 3φ, 60Hz, 220V / 380V			AC, 3φ, 60Hz, 380V			AC, 3φ, 60Hz, 220V / 380V			AC, 3φ, 60Hz, 380V					
Electrical Data	Power Input	kW	54.3	64	82.2	56.9	67.6	81	108.7	127.9	138.3	170.9	202.8	235	270.5	318.5
	Running Current	220V	158	187	—	170	211	245	335	381	412	—	—	—	—	—
		380V	92	108	142	105	122	142	185	221	239	316	354	400	472	563
	Starting Current	220V	732	885	—	600	625	750	1025	1110	1170	—	—	—	—	—
380V		513	534	742	410	455	470	644	730	740	910	1,040	1,100	1,210	1,380	
Net Weight	kg	1,850	2,470	2,730	2,250	2,410	3,030	3,660	4,210	4,300	4,440	7,180	8,060	8,120	8,890	
Gross Weight	kg	1,960	2,610	2,890	2,360	2,570	3,220	3,870	4,420	4,500	4,670	7,850	8,900	8,960	9,720	

- Note:**
- Cooling capacities and electrical properties are based on CNS12575 (water chilling packages using the vapor compression cycle).
 - Fouling factor : 0.000044m²/W · °C
 - Operating range : Chiller Water Outlet Maximum 15°C / Minimum 5°C ; Cooling Water Outlet >21°C · Inlet <38°C
 - The values of chiller and condenser pipe diameter in parentheses are imperial units.
 - Specifications in this data are subject to change without prior notice, in order that HITACHI may bring the latest innovations to our customers.