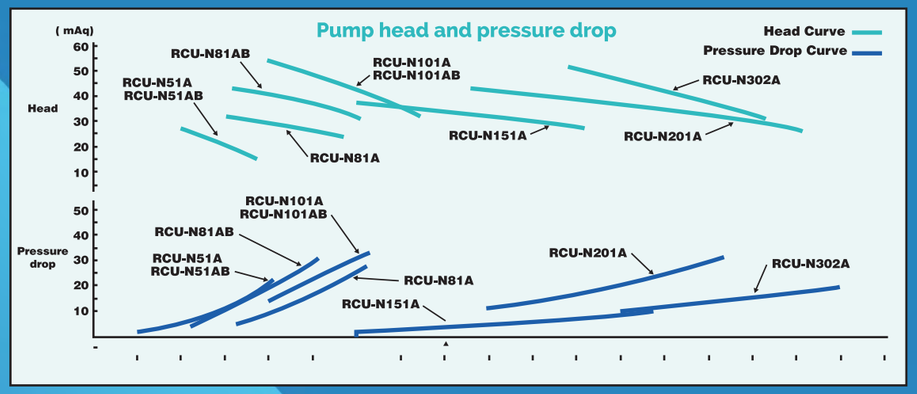
GENERAL UNIT DATA



SPECIFICATIONS:

Item \ Unit		Model	RCU-N51A	RCU-N81A	RCU-N101A	RCU-N151A	RCU-N201A	RCU-N302A	RCU-N51AB	RCU-N81AB	RCU-N101AB
Cooling capacity		kcal/h	14000	21000	28000	42000	60200	84000	14000	22790	28000
		kW	16.3	24.4	32.6	48.8	70	97.7	16.3	26.5	32.6
C O P		W/W	3.0					2.93	3.0	3.05	3.0
Dimension	Width	mm	900	1070		1797	2134	2134	900	1070	
	Depth	mm	455	585		685		870	455	585	
	Height	mm	1950			1982		1982	1950		
Compressor	Type	—	Hermetically sealed scroll								
	Quantity	—	1		2		4	4	1	2	
	Capacity control	%	100 / 0		100 / 50 / 0		100 / 75 / 50 / 25 / 0	100 / 75 / 50 / 25 / 0	100 / 0	100 / 50 / 0	
Condenser type		—	Aluminum fin tube								
Cooler type		—	Brazed plate heat exchanger								
Expansion device		—	Thermostatic expansion value								
Condenser fan motor	Type	—	Direct driven propeller fan								
	Quantity	PC	1			2			1		
Pump	Type	—	Horizontal multi-stage centrifugal type								
	Quantity	PC	1								
Cold water tube diameter		FPT	1 1/4"	1 1/2"		2"		2 1/2	1 1/4"	1 1/2"	
Standard flow rate		m³/h	2.8	4.2	5.6	8.3	11.9	16.7	2.8	4.5	5.6
Pump head		mAq	25	29.8	48.4	34	39.7	43	24.3	41	42.5
Pressure drop		mAq	8	10	27	4	19.5	16.4	8	24	27
Unit outside head		mAq	17	19.8	21.4	30	20.2	26.6	16.3	17	15.5
Refrigerant	Type	—	R410A								
	Seal-in quantity	kg	4.8	6.6	3.4 x 2	6.6 x 2	3.8 x 4	5.0 x 4	4.2	3.8 x 2	
Starting method		—	Direct-on-line starting								
Anti-vibration device		—	Compressor anti-vibration rubber pad / Pump anti-vibration rubber pad (Only for RCU-N51AB , N81AB , N101AB)								
Safety device		—	High pressure protection / Low-pressure protection / Discharge temperature protection / Phase reversal / failure protection (Only for three-phase models) / Over current protection/ Water-side anti-freeze switch / Refrigerant-side anti-freeze switch (except RCU-N302A) / Compressor protector (Only for RCU-N302A)								
Operation device	Operation switch	—	Switch and connection point for remote control								
	Temperature regulator	—	Thermostat								
	Indicator light	—	White - Power Green - Operation Red - Alarm								
Power source		—	AC 3Φ 60Hz 220V / 380V						AC 1Φ 60Hz 220V		
	Total power input	kW	6.23	9.2	13.1	18	25.7	37.2	6.23	10	13.1
Electrical data	Operating current 220V	A	19	27.4	40.4	55.6	78.5	113	28.9	49	61
	Operating current 380V	A	11	15.9	22.4	30.8	44	65.7	-		
	Starting current 220V	A	145	170	135	190	210	220	150	165	170
	Starting current 380V	A	70	80		95	96	150	-		
Net weight		kg	250	340	350	540	690	790	250	340	350

Note : 1. Cooling capacity and electrical specifications are in accordance with conditions of (CNS12575) water chilling packages using vapor compression cycle.
2. Usage scope: chilled water outlet temperature max 15°C and min 5°C; outdoor temperature max 43°C and min 10°C.

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Johnson Controls

HITACHI
Air conditioning solutions

RCUAW -1901

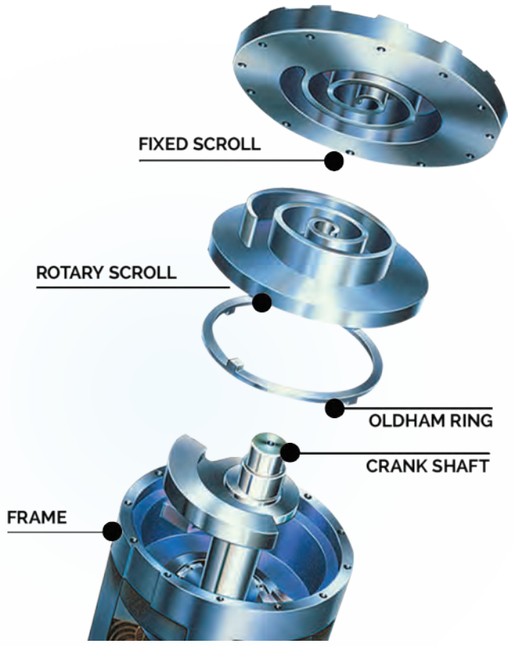
HITACHI

AIR-COOLED WATER CHILLER

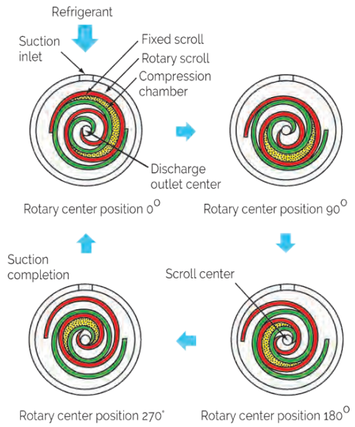
Hermetic Sealed Scroll Compressors Work Better

The Hermetic Sealed Scrolls of Hitachi Air-Cooled Water Chillers simultaneously control refrigerant intake, compression, and discharge. This allows the device to operate more quietly and efficiently with reduced vibration. So you can enjoy the cooling advantages of using a high-quality aircon that is not only power-saving, but also less prone to failures.

Working Principle of the Scroll Compressor



COMPRESSION PRINCIPLE OF SCROLL COMPRESSOR



OPTIMAL PERFORMANCE, POWER-SAVING

Because the suction inlet and discharge outlet are not adjacent to each other, there are no compressed refrigerant leakages. Also, gas leakage between the high-pressure and low-pressure sides is reduced.

LOW VIBRATION, LOW NOISE

The scroll compressor suction, compression and discharge operate simultaneously in one, smooth cycle. Hence, it allows minimal torque variations while minimizing noise and vibration.

TOP QUALITY, LOW FAILURE RATE

No need to install suction and discharge valves. Aside from having a smooth-flowing refrigerant, the device stands out because it will never malfunction due to damaged valves.

ADVANCED, PATENTED CONVECTIVE HEAT DISSIPATION SYSTEM

Combining the efficiency of convective fins and inner-grooved tube allows the heat dissipation system to perform 48% better than conventional heat exchangers.

40% SMALLER, 5% LIGHTER

The absence of valves, silencer and pulsation make the compressors more compact and lighter.

LOW NOISE BLOWER SYSTEM

The entire range uses the state-of-the-art helical fan and forward-tilting air outlet to produce high air volume with low noise.

RUST-PROOF PLATE COOLER

The plate cooler is equipped with rust-proof, stainless steel parts (RCU-N301A uses shell-and-tube heat exchanger) that allow the device to perform at high-heat exchange efficiency.

SPACE-SAVING, SLIM DESIGN

Installing the unit is a breeze. Thanks to its ultra-slim design, users can install it easily in the balcony to facilitate hot-air ventilation.

WEATHER-PROOF EXTERIOR

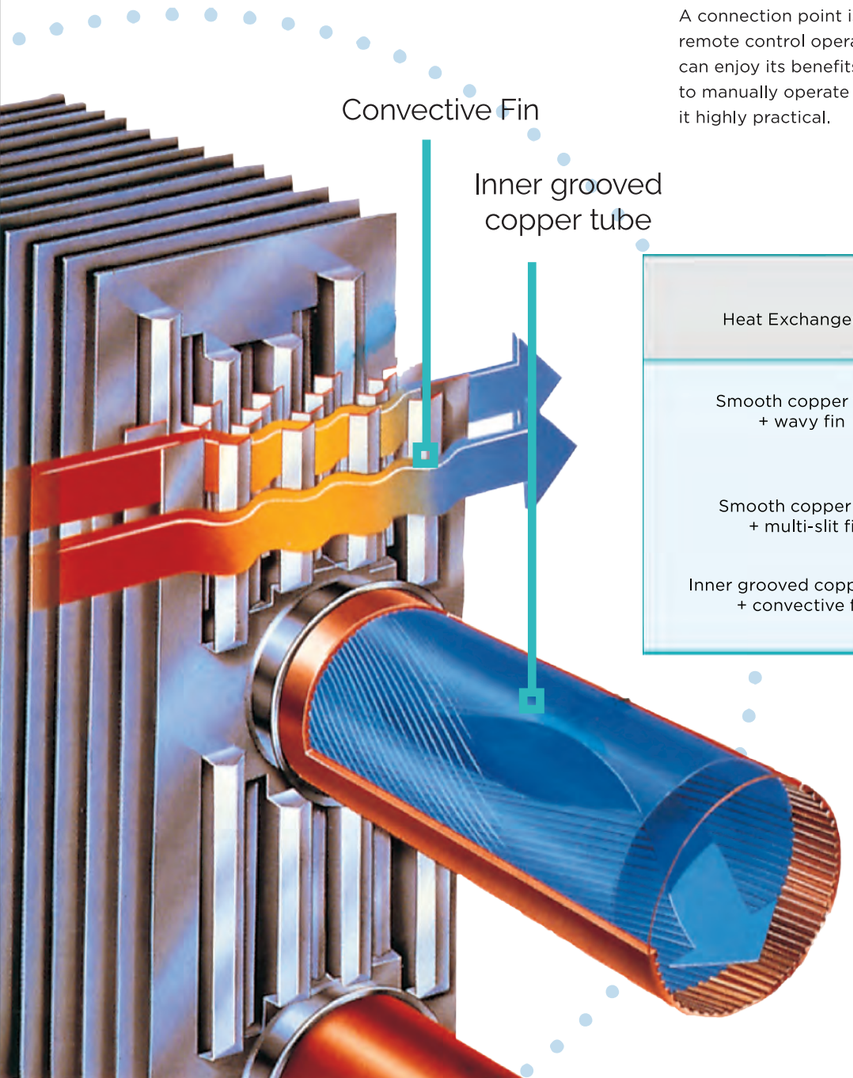
The fully galvanized mounting bracket and outer casing make the unit resistant to external damage caused by harsh weather conditions.

STAINLESS STEEL WATER PUMP

The stainless steel water pump in every unit reduces the overall cost and the amount of space required for piping and installation.

WIRED REMOTE CONTROL OPERATION

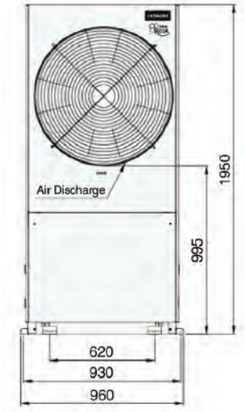
A connection point is reserved for wired remote control operation. With this, users can enjoy its benefits without going outdoors to manually operate the unit, which makes it highly practical.

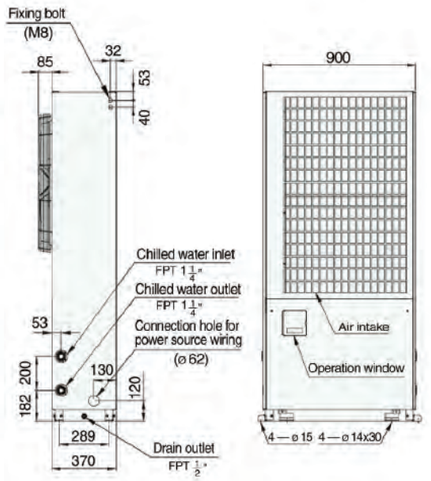


Heat Exchanger	Overall Heat Transfer
Smooth copper tube + wavy fin	100%
Smooth copper tube + multi-slit fin	118%
Inner grooved copper tube + convective fin	148%

RCU-N51A/N51AB

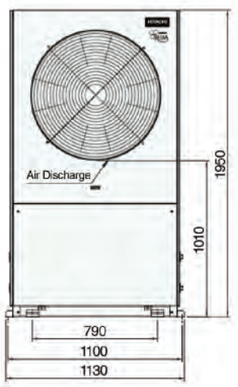
Cooling Capacity:14000 kcal/h

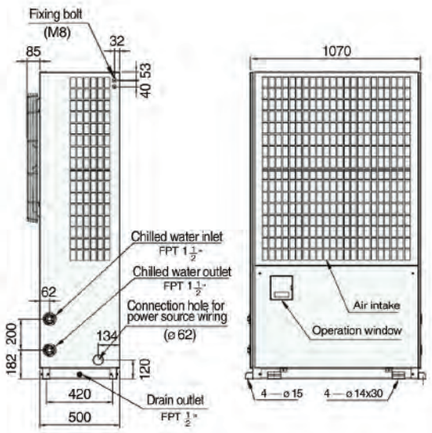




RCU-N81A/N81AB

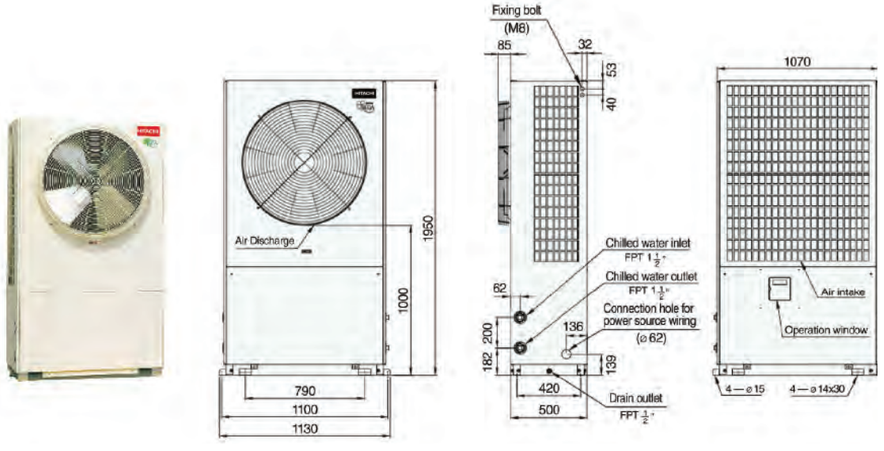
Cooling Capacity:21000kcal/h / 22790kcal/h





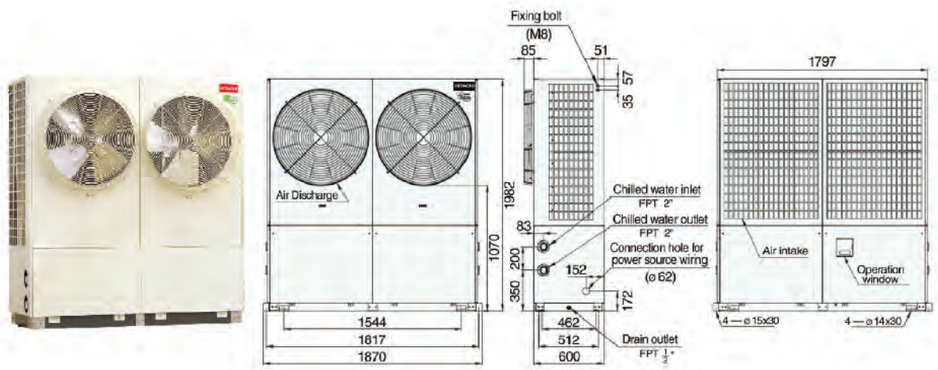
RCU-N101A/N101AB

Cooling Capacity:28000 kcal/h



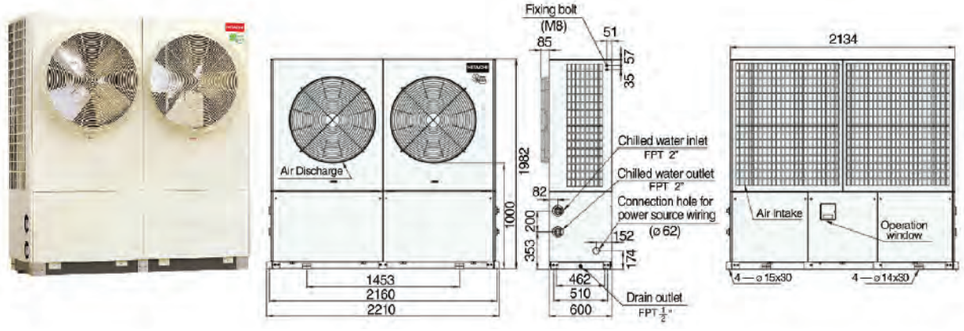
RCU-N151A

Cooling Capacity:42000 kcal/h



RCU-N201A

Cooling Capacity: 60200 kcal/h



RCU-N302A

Cooling Capacity: 84000 kcal/h