HITACHI

Water-cooled Screw Chiller

K-WZPY SERIES

R513A
REFRIGERANT

Cooling & Heating



Bosch Home Comfort Group is a trademark Licensee of Hitachi, Ltd.

www.hitachiaircon.com

Address: 3F, Catholic & Ethnic Newspaper Building,
370 Cach Mang Thang 8 Street, Nhieu Loc Ward,
Ho Chi Minh City, Vietnam.

Email: VN-Sales@bosch-hcgroup.com

The specifications of this catalog may change without prior notice to allow Hitachi Cooling & Heating
to incorporate the latest innovations for its customers. The information contained in this catalog is merely informative.
Hitachi Cooling & Heating declines any responsibility in the broadest sense, for damage,
direct or indirect, arising from the use and / or interpretation of the recommendations in this catalog.

Find the products Hitachi Cooling & Heating
with the best service and conditions at your Hitachi Distributor.

OVERVIEW

OPTIMIZE YOUR SOLUTION WITH HITACHI WATER COOLED CHILLER

Incorporating proprietary cutting edge technology, Hitachi's Water Cooled Chiller combines high efficiency performance and stable operation.
New model chiller lineup adopt G-type semi-hermetic twin-screw compressor.

In addition to low noise,low vibration, high efficiency and high performance, the new models come with a user-friendly touch panel type liquid crystal screen display that allows you to check operation status at a glance and has a full range of control functions.
As the perfect answer to user needs, Hitachi's chillers are designed to cover a broad range of applications from air conditioning of buildings to cooling of factories.



MAIN FEATURES

- Use R513A refrigerant with 0 ODP, low GWP and no flammability.
- High efficiency shell-and-tube flooded evaporator
- User-friendly touch LCD Panel

Nominal capacity range:
189~1815kW
53~516RT

Air Conditioning at Office Buildings



Process Cooling at Factory



BETTER PERFORMANCE AND ENERGY SAVING

Hitachi's new water-cooled chiller(WZPY Series) adopts more efficient semi-hermetic twin-screw compressor and better shell-and tube flooded evaporator brings you significant energy saving experience under stable and durable operation.

G TYPE SEMI HERMETIC TWIN-SCREW COMPRESOR

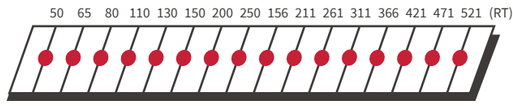
Since 1972 when we started manufacturing them, we have delivered more than 200,000 Hitachi twin-screw compressors to countries around the world where they continue to meet essential air conditioning needs.



WIDE LINE-UP

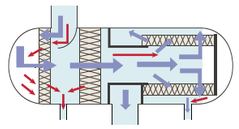
To meet the need of air conditioning systems for large facilities and the demand for higher capacity industrial cooling systems.

RCUK***WZPY



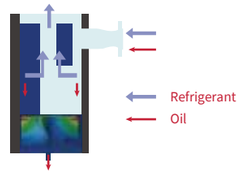
OIL SEPARATOR

Old Model



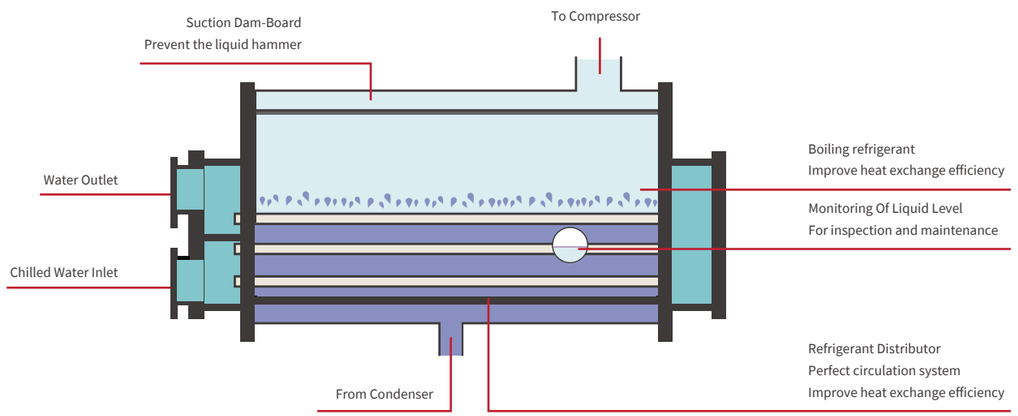
Filter Oil Separator
High Pressure Drop,
More Energy Consumption

New Model



Cyclone Oil Separator
Low Pressure Drop,
Less Energy Consumption

HIGH EFFICIENCY FLOODED TYPE EVAPORATOR



INTELLIGENT CONTROL

CLEAR USER-FRIENDLY LCD TOUCH CONSOLE

The display makes it easy to view the current operating status and simplify the setting procedure.
Various parameters can be confirmed at a glance.
Regardless of operating status,the console allows you to set a variety of operation modes.
A warning log function makes it possible to recall the latest 10 recent warning events.
The user interface is provided in both English and Chinese.

Main Page



Compressor Page



Status Page



Parameter Setting Page



Setting Page



BUILDING MANAGEMENT SYSTEM (BMS)

A BMS-connecting interface can be supplied



Through H-LINK transmission, at most of 8 chillers of the same model can be connected to cascade a maximum volume of 4240RT.

SPECIFICATIONS

Model			RCUK150WZPY	RCUK200WZPY	RCUK250WZPY	RCUK148WZPY	RCUK198WZPY	RCUK198WZPY
Power Source			Main (AC3φ) 380,415V/50Hz, Control (AC1φ) 220,240V/50Hz					
Nominal Cooling Capacity		kW	522	695	869	522	695	869
		RT	148	198	247	148	198	247
Input Power		kW	87.3	116.4	145.5	93.1	124.7	155.6
COP（GB）			5.97	5.97	5.97	5.60	5.58	5.59
IPLV（GB）			6.80	6.80	6.80	6.25	6.25	6.25
Compressor Quantity			1	1	1	1	1	1
Number of Circuit			1	1	1	1	1	1
Chilled Water	Water flow	m3/h	89.7	119.6	149.5	89.7	119.6	149.5
	Pressure drop	kPa	42.7	42.9	42.5	45.3	45.3	45.3
Cooling Water	Water flow	m3/h	112.1	149.5	186.9	112.1	149.5	186.9
	Pressure drop	kPa	52.8	52.8	52.8	76.4	78.3	80.5
Continuous Capacity Control		%	0,25~100	0,25~100	0,25~100	0,25~100	0,25~100	0,25~100
Refrigerant	Type	—	R513A					
Evaporator	Type		Full Liquid					
	Number Of Pass		2					
	Adapter Tube		DN150					
Condenser	Type		Shell-and-Tube Flooded Type					
	Number Of Pass		2					
	Adapter Tube		DN150					
Safety devices			Three-Phase Over current Relay, High-Pressure Switch, High and Low-Pressure Control, Oil Heater, Internal Thermostat for Compressor Motor, Freeze Protection Control, Reverse Phase Protection Control, Discharge Gas Overheat Protection, Compressor frequent ON/OFF control, Pressure Relief Valve,Overcurrent Relay and Water Pressure Difference Switch, Photoelectric oil level switch.					
Dimension	Length	mm	3373	3373	3373	3320	3320	3320
	Width	mm	1715	1715	1715	1700	1700	1700
	Height	mm	2311	2311	2311	2258	2258	2258
Net Weight		kg	3917	4386	4613	3734	4140	4300

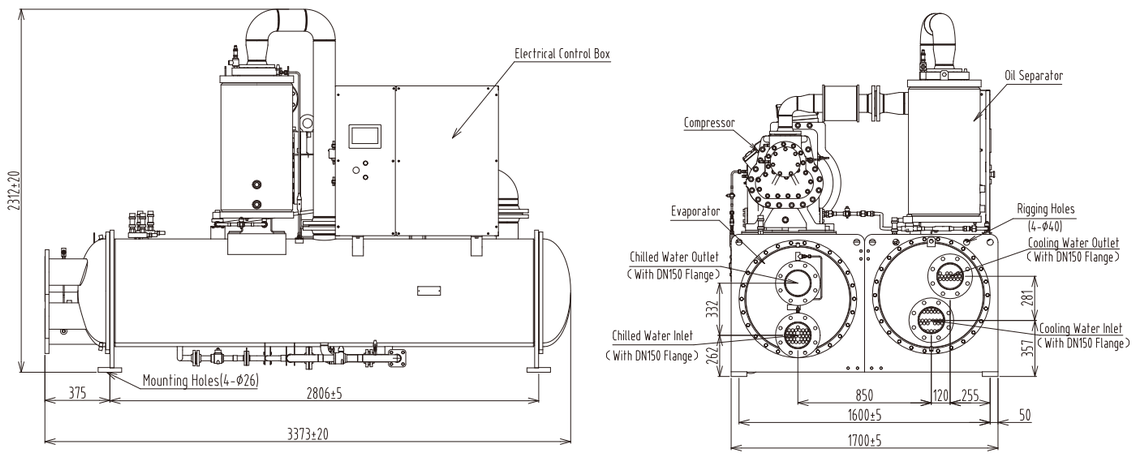
Notes:
1. The above parameters are based on: outlet temperature of chilled water: 7 ℃;
   Chilled water flow rate: 0.172 m²/(h.kW); Cooling water inlet temperature: 30 ℃,
   cooling water flow rate: 0.215m²/(h.kW)
   The fouling factor of evaporator is 0.018m²·℃/kW, the fouling factor of condenser is 0.044m²·℃/kW.
2. Working Range:
   Condenser Water outlet temperature : 22℃～40℃
   Evaporator Water outlet temperature : 5℃～20℃(RCUF50~130WZPY) 4℃～15℃(RCUF150~521WZPY)
3. Power Source:
   Main Power Source (3φ) Control Power Supplies (1φ)
   380V 50Hz 220V 50Hz
   415V 50Hz 240V 50Hz

Model			RCUK297WZPY	RCUK346WZPY	RCUK396WZPY	RCUK445WZPY	RCUK494WZPY
Power Source			Main (AC3φ) 380,415V/50Hz, Control (AC1φ) 220,240V/50Hz				
Nominal Cooling Capacity		kW	1043	1217	1391	1565	1739
		RT	297	346	396	445	494
Input Power		kW	183.3	211.4	240.8	271.3	300.5
COP（GB）			5.69	5.76	5.78	5.77	5.79
IPLV（GB）			6.45	6.56	6.56	6.56	6.56
Compressor Quantity			2	2	2	2	2
Number of Circuit			1	1	1	1	1
Chilled Water	Water flow	m3/h	179.4	209.3	239.2	269.1	299.0
	Pressure drop	kPa	60.7	62.6	64.4	66.2	68.0
Cooling Water	Water flow	m3/h	224.3	261.6	299.0	336.4	373.8
	Pressure drop	kPa	73.6	76.0	78.1	80.2	82.3
Continuous Capacity Control		%	0,(12.5),25~100	0,(12.5),25~100	0,(12.5),25~100	0,(12.5),25~100	0,(12.5),25~100
Refrigerant	Type	—	R513A				
Evaporator	Type		Full Liquid				
	Number Of Pass		2				
	Adapter Tube		DN200				
Condenser	Type		Shell-and-Tube Flooded Type				
	Number Of Pass		2				
	Adapter Tube		DN200				
Safety devices			Three-Phase Over current Relay, High-Pressure Switch, High and Low-Pressure Control, Oil Heater, Internal Thermostat for Compressor Motor, Freeze Protection Control, Reverse Phase Protection Control, Discharge Gas Overheat Protection, Compressor frequent ON/OFF control, Pressure Relief Valve,Overcurrent Relay and Water Pressure Difference Switch, Photoelectric oil level switch				
Dimension	Length	mm	4691	4691	4691	4691	4691
	Width	mm	1766	1766	1766	1766	1766
	Height	mm	2318	2318	2318	2318	2318
Net Weight		kg	6482	6797	7112	7377	7642

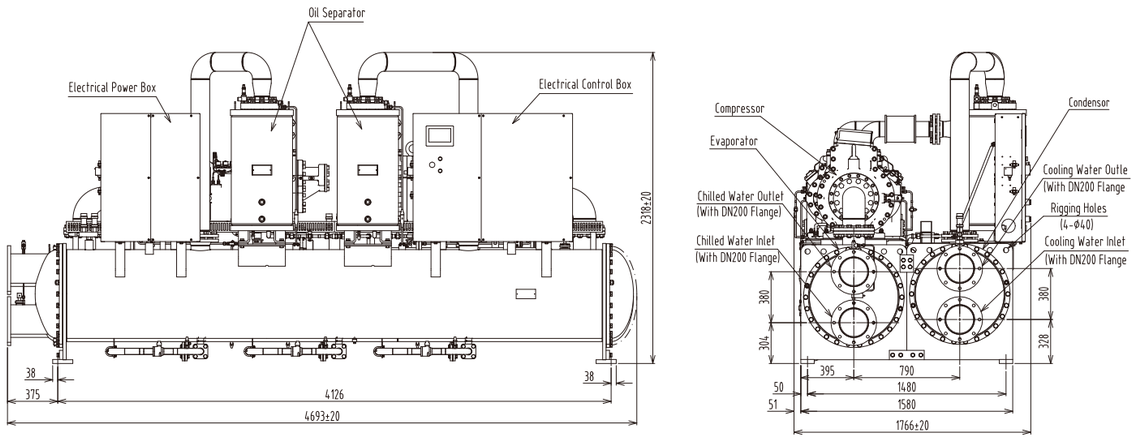
Notes:
1. The above parameters are based on: outlet temperature of chilled water: 7 ℃;
   Chilled water flow rate: 0.172 m²/(h.kW); Cooling water inlet temperature: 30 ℃,
   cooling water flow rate: 0.215m²/(h.kW)
   The fouling factor of evaporator is 0.018m²·℃/kW, the fouling factor of condenser is 0.044m²·℃/kW.
2. Working Range:
   Condenser Water outlet temperature : 22℃～40℃
   Evaporator Water outlet temperature : 5℃～20℃(RCUF50~130WZPY)
   4℃～15℃(RCUF150~521WZPY)
3. Power Source:
   Main Power Source (3φ) Control Power Supplies (1φ)
   380V 50Hz 220V 50Hz
   415V 50Hz 240V 50Hz

DIMENSIONS

RCUK150/200/250WZPY



RCUK297/346/396/445/494WZPY



RCUK148/198/247WZPY

