



CDU Product Catalogue

Thermal Control Technology (Shenzhen) Co., Ltd.

► Introduction

The ECU / AECU / RCU / ARCU(AALC) cooling capacity distribution unit is a device mainly used to achieve physical isolation and heat exchange of primary and secondary cooling media. It integrates secondary side drive modules, stabilizing and replenishing liquid modules, degassing modules, filtering modules, and real-time monitoring functions for temperature, flow, and pressure. It has the features of high redundancy and reliability of key components, fast installation of interface support, and real-time intelligent control of key parameters, and is suitable for application scenarios in multi cabinet computer rooms.

► Features

1. High Reliability

- 1+1 redundant design for circulating pumps, frequency converters, and key instruments.
- The automatic fluid replenishment system can achieve automatic fluid replenishment and replacement.
- Equipped with liquid leakage alarm function.
- Design life of 10 years.
- Three levels of operating authority, automatic recording of operation traces, effectively preventing and locating misoperations.
- Dual power input, communication interface 1+1 redundant.
- Anti condensation function.
- High pressure resistance of stainless steel pipelines.

2. High-Performance

- Reserve signal interfaces based on possible application scenarios.
- Secondary side temperature control accuracy ± 1 °C.
- Dual power switch, touch screen does not power off, water pump and electric regulating valve status self maintains.
- It has the function of power-off restart and state self maintenance.

3. Convenient Deployment and Flexible Operation and Maintenance

- Centralized RCU, can be maintained on three sides, easy to maintain and install.
- Adapt to W1-W5 cooling system.
- Level 3 alarm mechanism to assist operation and maintenance personnel in quickly and accurately locating system abnormalities. 1+1 redundant design (RCU) for primary and secondary side filters, which can be maintained online.
- Cooperate with prefabricated cold sources to achieve rapid deployment.
- With historical alarm recording function and operating parameter time curve.

4. Green Energy-Saving

- Energy saving and consumption reduction, PUE<1.2
- Based on the load of the cabinet, precise control of RCU flow rate and temperature, high return water temperature, combined with secondary side ring network, can achieve heat recovery
- Low noise, <62dB (GB50174)

▶ Embedded Series

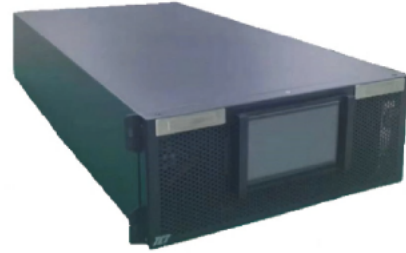
ECU Series

4U/6U Embedded CDU



AECU Series

Air-cooled Embedded CDU



▶ Row-Mount Series

RCU Series

Row-mount CDU



ARCU(AALC) Series

Air-cooled Row-mount CDU



▶ Technical Parameter

	ECU Series		AECU Series		RCU Series				ARCU(AALC) Series	
Series	EC40	EC50	AE25		RC50	RC80	RC100	RC125	AR40	AR50
Model	EC40-35	EC50-100	AE25-06	AE25-15	RC50-350	RC80-700	RC100-900	RC125-1800	AR40-85	AR50-120
Power Supply System	AC220V 50Hz/60Hz, Dual Power Supply				AC380V 50Hz/60Hz, Dual Power Supply					
Number of Power Supply	2	2	2	2	2	2	2	2	2	2
Cooling Capacity(kW)	35	100	6	15	350	700	900	1800	85	120
Rated Flow Rate(m3/h)	3	12	0.9	1.5	30	60	80	144	7.8	15.6
Heat Exchange Approaching Temp. Difference (°C)	3	3	15	15	3	3	3	4	15	15
2 nd Side Available Head (m)	12	12	10	10	25	25	25	25	25	25
Primary Side Lateral Pressure Loss (kPa)	60	60	/	/	60	80	80	100	/	/
Interface Size (mm)	1.25" Chuck	1.25" Chuck	3/4" Chuck	1.25" Chuck	2.5" Chuck	3.5" Chuck	4" Chuck	4.5" Chuck	1.25" Chuck	2" Chuck
2 nd Side Filtering Accuracy (µm)	100	100	100	100	100	100	100	100	100	100
Primary Side Filtering Accuracy (µm)	200	200	200	200	200	200	200	200	200	200
Redundancy Function	Redundancy of Circulating Pumps				Redundancy of Circulating Pump, Redundancy of 2 nd Supply and Return Liquid Temp. and Pressure					
Automatic Fluid Replenishment Function	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rated Power	440W	1.5kW	1.25W	4kW	6kW	13.6kW	16kW	32kW	5kW	15kW
Touch Screen	7"	7"	4.3"	4.3"	10"	10"	10"	10"	7"	7"
Communication Interface	2xRJ45, 2xUSB									
Communication Protocol	ModBus-TCP/IP, SNMP, Encryption Authorization									
Control Model	Remote & Local									
Operating Mode	Optional Constant Pressure Difference, Constant Flow Rate, and Energy-saving Modes									
Group Control Mode	No				N + X					
Test Pressure	6bar				12bar					
External dimensions (width * depth * height, mm)	448×850 ×177	536×1100 ×265	448×950 ×177	448×856 ×444	600×1200 ×2200	900×1400 ×2200	950×1500 ×2200	1200×2000 ×2000	600×1200 ×2450	600×1200 ×2450
Life Span	10 Years									

▶ Instructions

1. The operating environment temperature is between 5-35 °C, and the altitude is below 3000m.
2. The test cooling medium is pure water.
3. The standard ECU and AECU series products have a depth of frame size and do not include pipe joints.
4. Standard RCU and ARCU(AALC) series products have pipe joints downwards.
5. Due to product version upgrading , the content of this document may be updated periodically. This document is for purchase and use only and does not constitute any express or implied warranty.
6. If you have any questions or product requirements that differ from the above information, please contact Thermal Control Technology (Shenzhen) Co., Ltd.

▶ Application Environment

Item	Index
Operating Temperature	-5°C~45°C
Operating Humidity	5~95%
Altitude	Below 3000m
Storage Temperature	-40°C~55°C
Storage Humidity	5~95%

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