

Precision Air Conditioning

2 – 56RT (7 – 200kW)
Floor Mounted
Chilled Water Cooled
415Vac, 3PH, 50Hz

Next generation Precision Air Conditioning for Mission Critical Facilities Solution



TYPICAL APPLICATIONS

- Data Centers, Server Rooms and Computer Rooms
- Telecommunications and Switch Rooms
- Clean Rooms
- Laboratories
- Utility Rooms
- Military

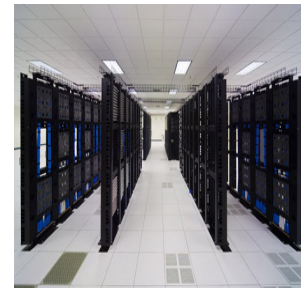
Precision Air Conditioning

GENERAL

Cooling of your critical environment is now even more reliable and efficient, with the improved design of CRITICAL CONTROL precision air conditioning.

CRITICAL CONTROL precision air conditioning consistently deliver equipment matched cooling, relative humidity control, air flow and filtration for customer business critical environment.

By taking the advantages of the existing building chillers, the CRITICAL CONTROL precision air conditioning provides cost advantage, energy efficient solution to customer load.



MAIN FEATURES

CABINET & FRAME

Anodized aluminium frame and removable steel sheet panels of epoxy powder coated black provide a durable finish. All panels shall be 25mm (1") thick single skinned and lined with 2"2lbs density thermal and acoustical fibreglass insulation with fire resistance of Class O.

COOLING COIL

Computer selected coil design increase unit efficiency. Air is draw through the coil at low face velocity providing effective surface exposure with minimum turbulence.

FAN SECTION

The fan is AMCA certified, and double width, double inlet (DWDI) forward curved centrifugal design for quite operation. Fan shall be maintenance free throughout its operating life. The class F fan motor is mounted on an adjustable slide base.

HEATER

The heaters are corrosion resistance (**Aluminum**) type and 3 stages were used to maintain the environment precisely.

2-WAY MODULATING VALVE

The valve provide regulation according to customer load requirement.

ELECTRICAL & CONTROL PANEL

Cable segregation and each component are protected by individual MCB. Compartment contains the contactor, miniature circuit breaker, transformer and terminal isolator.

FILTER

A surface pleated disposable type filter rated for MERV8 efficiency to ASHRAE52.2 standard (EU4) are in place to provide clean air / minimum dust environment.

REMOTE MONITORING & CONTROL SYSTEM

Variety of solutions, such as MODBUS RS485, LONWORKS FTT10, BACNET GATEWAY, TREND, WEBGATE, SNMP, DLL, SMS, Direct Modem, is available to meet client needs.

With the system, user can be notified if there is any alarm occurred from the system. Trending of data ,such as temperature and RH can be logged by the system for analysis.

MICROPROCESSOR CONTROLLER

CRITICAL CONTROL precision air conditioning is equipped with an on board controller which has been specially designed to manage the performance of the units in the mission critical environment. The intelligent controller keeps control of the fundamental functions of the air conditioning: cooling, heating, de-humidification, humidification, etc.

DISPLAY TERMINAL

The LCD display terminal will perform high quality screen and advanced functions for a superior appearance. The display terminal not only monitors temperature, humidity, but also provides components run time, alarm history, and automatics self test upon start up.

TEMPERATURE/RELATIVE HUMIDITY SENSOR

These are installed in combination with the controllers that feature the serial connection.



OPTIONS & ACCESSORIES

- STEAM IMMERSER HUMIDIFIER
- VARIABLE SPEED DRIVE (VSD)
- ELECTRONICALLY COMMUTATED (EC) FAN
- F8 AIR FILTER
- DOUBLE SKINNED & PU INSULATION
- FLOOR WATER DETECTION
- SUPPLY AIR PLENUM BOX
- COLOUR TOUCH SCREEN DISPLAY
- ADJUSTABLE FLOOR STAND
- EFF1 BLOWER FAN MOTOR

ENGINEERING-TO-SUIT (CUSTOMIZATION)

Experienced application specialists and engineers are just a phone call away and because we are strictly a precision air conditioning company, we know how quickly and precisely walk you through any questions you might have.

Precision Air Conditioning

TECHNICAL SPECIFICATION

MODEL	CCCD/U	003	004	005	007	009	013	015	018
Cooling Capacity									
Total Capacity	kW	10.6	14.9	17.5	31.6	41.5	50.2	60.4	75.3
Sensible Capacity	kW	9.5	13.1	15.8	30.1	39.5	47.7	57.4	71.5
Chilled water flow	L/s	0.50	0.60	0.80	1.50	1.98	2.40	2.88	3.60
Pressure drop	kPa	18.6	8.3	11	37	39	55	51	57
Physical									
Enclosure	mm	A	A	A	B	B	B	C	C
Weight	kg	250	270	280	420	445	570	605	735
Fan									
Number of fans	qty	1	1	1	1	1	1	2	2
Air flow	m ³ /h	2,550	3,400	4,250	9,000	10,200	10,200	16,150	17,000
Max. static head pressure	Pa	300	300	300	300	300	300	300	300
2-way modulating Valve									
Valve size	in	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"
Filter									
Number	qty	1	1	1	4	4	4	6	6
Dimensions (each)	mm	610x610	610x610	610x610	610x610	610x610	610x610	610x610	610x610
Depth (each)	mm	50	50	50	100	100	100	100	100
Reheat									
Number of stages	qty	3	3	3	3	3	3	3	3
Total power	kW	6	6	6	9	9	9	15	15
Noise Level									
Noise data	dB(A)	59	59	64	53.5	54.1	55.4	56.7	58.1
Connection									
Chilled water:inlet/outlet	in	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"
Condensate drain	mm	21	21	21	21	21	21	21	21
Electrical Data									
RLA (amp)	A	16.60	18.40	21.00	29.70	29.90	33.60	44.20	44.50

- The technical specification may change or upgrade without prior notice
- The capacity based on 24degC 50%RH on coil
- The capacity based on chilled water temperature in/out 7degC/12degC
- Sound pressure level at 3m in free field
- Capacity can be tested with additional cost in the factory test chamber

Enclosure (LxWxH-mm) :

A	610x850x1,956	B	1,100x850x1,956
C	2,100x850x1956	D	2,600x850x1956

Precision Air Conditioning

TECHNICAL SPECIFICATION

MODEL	CCCD/U	020	022	026	030	040	045	050	056
Cooling Capacity									
Total Capacity	kW	85.6	100.3	109.8	121.3	145.5	160.1	180	200
Sensible Capacity	kW	81.3	95.2	104.1	112.8	135.3	147.3	164.7	180.0
Chilled water flow	L/s	4.08	4.79	5.24	5.80	6.95	7.64	8.60	9.56
Pressure drop	kPa	60	63	65	67	69	71	76	78
Physical									
Enclosure	mm	C	C	C	D	D	D	D	D
Weight	kg	770	820	945	1,000	1,120	1,200	1,350	1,450
Fan									
Number of fans	qty	2	2	3	3	3	3	3	3
Air flow	m ³ /h	18,700	18,700	21,080	23,800	36,000	36,000	40,000	40,000
Max. static head pressure	Pa	300	300	300	300	300	300	300	300
2-way modulating Valve									
Valve size	in	2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
Filter									
Number	qty	6	6	6	8	8	8	8	8
Dimensions (each)	mm	610x610	610x610	610x610	610x610	610x610	610x610	610x610	610x610
Depth (each)	mm	100	100	100	100	100	100	100	100
Reheat									
Number of stages	qty	3	3	3	3	3	3	3	3
Total power	kW	15	15	18	18	24	24	24	24
Noise Level									
Noise data	dB(A)	59.1	60.5	61.7	62.4	64.5	64.5	65.0	65.0
Connection									
Chilled water:inlet/outlet	in	2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
Condensate drain	mm	21	21	21	21	21	21	21	21
Electrical Data									
RLA (amp)	A	44.80	45.00	63.00	64.00	74.00	75.00	75.00	76.00

AUTHORIZED DISTRIBUTOR :

CRITICAL M&E ENGINEERING

Critical M&E Engineering Sdn Bhd

303-4-13 (4th Floor), Kristal Point, Jalan Sultan Azlan Shah, 11900 Bayan Lepas, Penang

Tel : +604 646 4133
 Fax : +604 644 4133
 Email : info@critical-eng.com
 Web : www.critical-eng.com

CRITICAL CONTROL SDN BHD

Kulim, Kedah, Malaysia

Lot 1466, Kawasan Perindustrian Sungai Karangan
 Mukim Pekan Sungai Karangan
 Daerah Kulim, Kedah Darul Aman

Lunas, Kedah, Malaysia

571 & 572, Jalan Lobak 13
 Taman Lobak
 09600 Lunas, Kedah Darul Aman