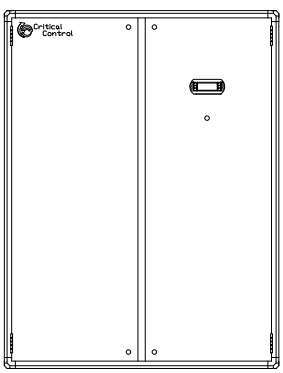
Precision Air Conditioning

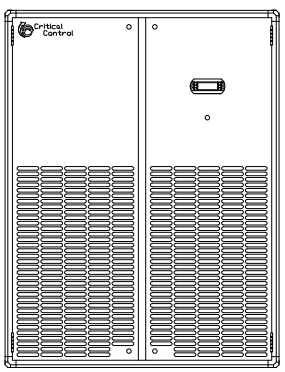
2 – 34RT (7 -120kW)
Floor Mounted
Remote Air Cooled Compressorized – R407c
415Vac, 3pH, 50Hz

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

WHY PRECISION AIR CONDITIONING ?

- **Year Round Operation**
- **Sensible Heat Load**
- **Temperature Control**
- **Humidity Control**
- **Air Volume**
- **Air Filtration**

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.

COMPRESSOR

Extremely quiet, energy efficient scroll compressor have been installed in the units, offering a significant energy consumption reduction, allow a very limited impact on the environment.

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

Critical equipment is usually very sensitive to dusty environment and will sometimes run abnormally. As such, 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.

CONDENSER

The condensers are manufactured with the axial fans design in accordance to the needs of high airflow, low noise requirement. An optional fan speed control system can be in place for extreme weather condition, as a result of good energy saving effect.

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.

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 IMMERSED HUMIDIFIER**
- **HOT GAS REHEAT (DX SYSTEMS)**
- **INVERTER COMPRESSOR**
- **ELECTRONIC EXPANSION VALVE (EEV)**
- **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**
- **HOT GAS BYPASS**
- **EFF1 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.

TECHNICAL SPECIFICATION

MODEL	CCAD/U	002	003	004	005	007	009	011
Cooling Capacity								
Total Capacity	kW	10.2	11.4	14.6	17.1	25	34.3	39.2
Sensible Capacity	kW	9	10.3	13.1	15.8	23.4	31.8	36.5
Physical								
Enclosure	mm	A	A	A	A	B	B	B
Weight	kg	250	260	260	270	445	480	620
Fan								
Number of fans	qty	1	1	1	1	1	1	1
Air flow	m^3/h	2,550	2,550	3,400	4,250	6,800	8,500	10,200
Max. static head pressure	Pa	300	300	300	300	300	300	300
Compressor								
Type		scroll	Scroll	scroll	Scroll	scroll	Scroll	scroll
Quantity	qty	1	1	1	1	1	1	1
Number of circuits	qty	1	1	1	1	1	1	1
Filter								
Number	qty	1	1	1	1	4	4	4
Dimensions(each)	mm	610x610	610x610	610x610	610x610	610x610	610x610	610x610
Depth(each)	mm	50	50	50	50	100	100	100
Reheat								
Number of stages	qty	3	3	3	3	3	3	3
Total power	kW	6	6	6	6	9	9	15
Noise Level								
Noise data	dB(A)	56	56	57	57	51.4	53.1	54.8
Connection								
Connection-Discharge/Liquid pipe	mm	22/16	22/16	22/16	22/16	22/16	28/19	28/19
Condensate drain	mm	21	21	21	21	21	21	21
Condenser								
Quantity	35degC	1	1	1	1	1	1	1
Model		CCRC04	CCRC04	CCRC06	CCRC06	CCRC08	CCRC10	CCRC13
Electrical Data								
RLA (amp)		16.4	16.4	18.4	21	34.5	40.3	45.3

- The technical specification may change or upgrade without prior notice
- The capacity based on 24degC 50%RH on coil
- Sound pressure level at 5m in free field, upflow ducted / down flow raised floor
- Capacity can be tested with additional cost in the factory test chamber

Enclosure (LxWxH-mm) :

A	610x850x1,956	B	1,500x850x1,956
C	2,100x850x1956	D	2,600x850x1956

TECHNICAL SPECIFICATION

MODEL	CCAD/U	013	016	019	022	026	030	034
Cooling Capacity								
Total Capacity	kW	45.6	60	70	77.6	95.3	107.8	117.6
Sensible Capacity	kW	43.1	55.5	65.1	72.2	86.8	100.3	109.4
Physical								
Enclosure	mm	B	C	C	C	C	D	D
Weight	kg	700	760	805	855	965	1050	1140
Fan								
Number of fans	qty	1	2	2	2	2	3	3
Air flow	m^3/h	11,050	17,000	18,800	18,800	22,100	25,500	28,900
Max. static head pressure	Pa	300	300	300	300	300	300	300
Compressor								
Type		Scroll	scroll	scroll	scroll	Scroll	Scroll	Scroll
Quantity	qty	1	2	2	2	2	2	2
Number of circuits	qty	1	2	2	2	2	2	2
Filter								
Number	qty	4	6	6	6	6	8	8
Dimensions (each)	mm	610x610	610x610	610x610	610x610	610x610	610x610	610x610
Depth (each)	mm	100	100	100	100	100	100	100
Reheat								
Number of stages	qty	3	3	3	3	3	3	3
Total power	kW	15	15	15	15	15	15	15
Noise Level								
Noise data	dB(A)	55.5	56.4	57.3	58.4	61.6	62.2	63.0
Connection								
Connection-Discharge/Liquid pipe	mm	2×22/2×16	2×25/2×16	2×28/2×19	2×28/2×19	2×28/2×19	2×28/2×19	2×28/2×19
Condensate drain	mm	21	21	21	21	21	21	21
Condenser								
Quantity	35degC	1	1	1	1	1	1	1
Model		CCRC17	CCRC20	CCRC20	CCRC26	CCRC30	CCRC34	CCRC40
Electrical Data								
RLA (amp)		55.6	68.7	73.8	80.6	101	118	125

AUTHORIZED DISTRIBUTOR :

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