
Precision Air Conditioning

9 – 34RT (30-120kW)

Floor Mounted

Remote Air Cooled Compressorized with Auxiliary Chilled Water Coil

380 - 415Vac, 3pH, 50Hz

Next generation Precision Air Conditioning for Mission Critical Facilities Solution



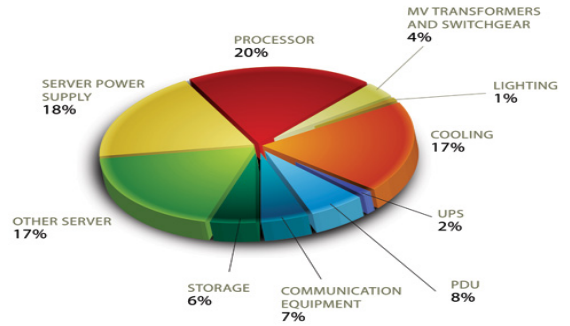
TYPICAL APPLICATIONS

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

Precision Air Conditioning

Remote Air Cooled With Auxiliary Chilled Water Coil

- The average Data center PUE is currently around 1.9 and, in an existing building, other means to reduce it must be found. And cooling would be one of the critical area to focus to improve the Data Center PUE.
- Where an existing chilled water loop is available, units can be fitted with an auxiliary chilled water coil. Units will operate using the chilled water for cooling. Upon a loss of water flow or an increase in room temperature the system will bring on compressor (DX) cooling.



MAIN FEATURES

CABINET & FRAME

- Anodized aluminium frame & **series 5000 aluminium panels** of epoxy coated black provide durable finish
- Complete front and side access by means of steel doors with heavy-duty hinges
- **25mm thick rubber insulation** for superior sound attenuation

COOLING COIL

- Computer selected coil design increase unit efficiency
- **Corrugated fins and staggered tube configuration**
- Air draw through the coil at low face velocity providing effective surface exposure with minimum turbulence.

FAN SECTION

- AMCA certified, double width double inlet (DWDI) forward curved centrifugal design for quiet operation
- **Pillow block bearing** provide longest part durability
- Class F fan motor is mounted on an adjustable slide base.

HEATER

- Corrosion resistance (**Aluminum**) type
- 3 stages were used to maintain the environment precisely.

COMPRESSOR

- Extremely quiet, energy efficient scroll compressor
- **Vibration isolator** installed at the discharge pipe line for increase piping reliability

2-WAY MODULATING VALVE

- 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

- 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

- Axial fans design in accordance to the needs of high airflow, low noise requirement.
- **Series 5000 aluminium panels** for corrossions proved

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.

OPTIONS & ACCESSORIES

- STEAM IMMERSED HUMIDIFIER
- HOT GAS REHEAT (DX SYSTEMS)
- 3-WAY MODULATING VALVE
- 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.

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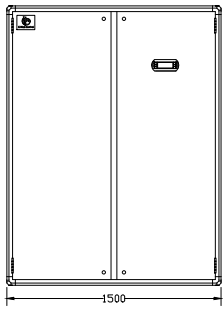
TECHNICAL SPECIFICATION

MODEL	CCDD/U	009	013	014	016	019	022	026	030	034
CAPACITY-DX										
Total Capacity	kW	31.4	42.3	50.5	60.6	69.1	81.3	91.1	101.4	117.6
Sensible Capacity	kW	29.4	39.9	47.5	57.1	65.1	75.3	84.8	93.1	109.4
CAPACITY-CHW										
Total Capacity	kW	31.6	41.5	50.2	60.4	75.3	85.6	100.3	109.8	121.3
Sensible Capacity	kW	30.1	39.5	47.7	57.4	71.5	81.3	95.2	104.1	112.8
Chilled water flow	L/s	1.5	1.98	2.4	2.88	3.6	4.08	4.79	5.24	5.8
Pressure drop	kPa	37	39	55	51	57	60	63	65	67
DIMENSIONS AND WEIGHT										
Enclosure	mm	A	A	A	B	B	B	B	C	C
Weight	kg	470	620	725	760	795	840	920	1040	1200
CENTRIFUGAL FANS										
Number of fans		1	1	2	2	2	2	2	3	3
Air flow	m ³ /h	8,500	11,050	15,200	17,000	18,800	18,800	22,100	25,500	28,900
External Static Pressure (esp)	Pa	125	125	125	125	125	125	125	125	125
Power (each)	kW	2.4	2.4	2.3	2.4	2.6	2.3	2.4	2.5	2.6
COMPRESSORS										
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number		1	1	2	2	2	2	2	2	2
Number of circuits		1	1	2	2	2	2	2	2	2
2-WAY MODULATING VALVE										
Valve size	in	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"
FILTERS-G4										
Number		4	4	4	8	8	8	8	10	10
Dimensions (each)	mm	610x610	610x610	610x610	610x610	610x610	610x610	610x610	610x610	610x610
Depth (each)	mm	100	100	100	100	100	100	100	100	100
ELECTRIC REHEAT										
Number of stages		3	3	3	3	3	3	3	3	3
Total power	kW	15	15	15	15	15	15	15	15	15
NOISE LEVEL										
Noise data	dB(A)	52.3	54.2	55.1	56.3	57.4	62.2	62.6	62.8	63
CONNECTIONS										
Connection-Discharge/Liquid pipe	mm	25/16	28/19	2×22/2×16	2×22/2×16	2×25/2×16	2×28/2×19	2×28/2×19	2×28/2×19	2×28/2×19
Chilled Water inlet/outlet	in	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"
Condensate drain	mm	21	21	21	21	21	21	21	21	21
CONDENSER										
Number	35°C	1	1	1	1	1	1	1	1	1
Model		CCRC10	CCRC17	CCRC17	CCRC20	CCRC20	CCRC26	CCRC30	CCRC34	CCRC40
Electrical Data										
RLA	Amp	40.3	45.3	55.6	68.7	73.8	80.6	101	118	125

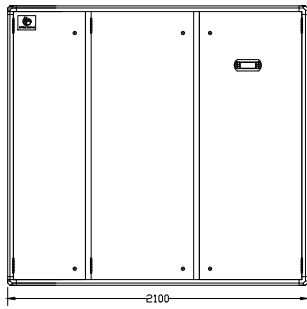
- The technical specification may change or upgrade without prior notice
- The capacity based on 24degC 50%RH on coil
- The capacity based on chilled water temperature in/out 7degC/12degC
- Sound pressure level at 3m in free field
- Capacity can be tested with additional cost in the factory test chamber

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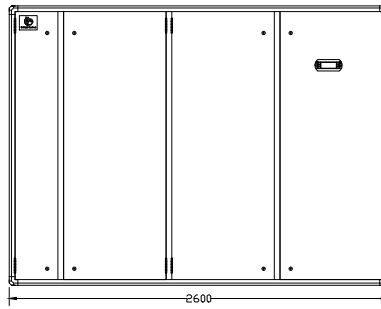
UNIT DIMENSION (mm)



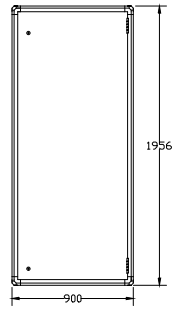
CCDD/U-09,13,14



CCDD/U-16,19,22,26



CCDD/U-30,34



Enclosure (LxWxH-mm) :

A	CCDD/U-09,13,14	1,500x900x1,956
B	CCDD/U-16,19,22,26	2,100x900x1,956
C	CCDD/U30,34	2,600x900x1956

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.



AUTHORIZED RESELLER :

CRITICAL M&E
ENGINEERING

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