



## **MCCX-16-C-1 Direct Expansion Ceiling Concealed**

**Direct Expansion Fan Coil 48,000 BTUH**

# HVAC Guide Specifications

Direct Expansion Fan Coil

Nominal Size:

**48,000 BTUH**

MultiAqua Model Number:

**MCCX-16-C-1**

## **Part 1-General**

### **1.01 System Description**

MultiAqua Direct Expansion Fan Coils are manufactured with heavy gauge galvanized steel to resist corrosion.

### **1.02 Quality Assurance**

- A. Certified in accordance with U.L. Standard 95, latest version (U.S.A.)
- B. Manufactured in a facility registered to ISO 9002, Manufacturing Quality Standard.
- C. Fully load tested at the factory.
- D. Damage resistant packaging.

### **1.03 Delivery, Storage and Handling**

- A. Packaged and readied for shipment from the factory.
- B. Controls shall be capable of withstanding 150°F storage temperatures in the control compartment.
- C. Stored and handled per manufacturer's recommendations.

## **Part 2-Product**

### **2.01 Equipment**

- A. General:
  - 1. Unit shall be a factory assembled and tested direct expansion fan coil.
  - 2. Shall be assembled with heavy gauge galvanized steel.
  - 3. Contained with the unit shall be all factory wiring, piping, associated controls and special accessories required prior to start up.
- B. Unit Cabinet:
  - 1. Composed of heavy gauge galvanized steel casing with a baked polyester powder.
  - 2. Shall be internally insulated to ensure quiet operation.
- C. Fan Motors:
  - 1. Shall be available in 208/230-1-50/60 vac.
  - 2. Fan motors shall be three speed, direct drive, and PSC type.
  - 3. Totally enclosed.
  - 4. Internal overload protected.
- D. Blower Wheels:
  - 1. Blower wheels are forward curved and dynamically balanced.
- E. DX Coil:
  - 1. Manufactured with 3/8" copper rifled tubing mechanically bonded to aluminum fins.
  - 2. Contains a thermal expansion valve.
  - 3. Coils shall be pressure tested to U.L. Standard 95
- F. Drain Pan:
  - 1. All drain pans shall be coated on both the interior and exterior with baked polyester powder to resist corrosion.
  - 2. The exterior of all drain pans shall be insulated with closed cell to prevent condensation.
  - 3. Pans shall contain a left and right hand primary sloped drain connection as well as a sloped right hand secondary drain connection.

**Part 3-Controls and Safeties****3.01 Controls**

- A. Fan coils shall be completely factory wired and tested.
- B. All components shall be wired to an internal terminal block to allow for a field installed thermostat and or fan speed control.
- C. Controls shall include the following components.
  - 1. 24vac transformer.
  - 2. Fan relays.
  - 3. Optional thermostats.

**3.02 Safeties**

- A. Fan coil shall contain a non reusable fuse on the secondary voltage side of the transformer.

**Part 4-Operating Characteristics****4.01 Electrical Requirements**

- A. Primary electrical power supply shall enter the unit at a single location.
- B. Electrical power supply shall be rated to withstand 120°F operating ambient temperatures.
- C. Control and high voltage points shall be accessed through terminal block.

**Part 5- Definitions:****5.01 Abbreviations**

- A. CFM = Cubic Feet per Minute
- B. DB = Dry Bulb Temperature
- C. EWT = Entering Water Temperature
- D. GPM = US Gallons Per Minute
- E. MBH = BTU X 1000
- F. SC = Sensible Cooling
- G. TC = Total Cooling = Sensible + Latent
- H. WB = Wet Bulb Temperature
- I. WPD = Water Pressure Drop in feet of head
- J. dB = Decibel Level
- K. m = Meter
- L. In = Inches
- M. FPI = Fins per Inch
- N. OD = Outside Diameter
- O. ID = Inside Diameter
- P. MCA = Minimum Circuit Amps
- Q. MOP = Maximum Over current Protection
- R. LBS = Pounds U.S.

**5.02 Measurements**

- A. All measurements with regard to length, width, and height shall be in inches.

## MCCX-16-C-1 Product Specifications & Capacity

Physical Data									
Model Number	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Coil Rows FPI	Copper Diameter (in)	Liquid Line (in)	Suction Line (in)	Drain (in)
MCCX-16-C-1	13.78	48.50	20.00	68.34	3-14	3/8	3/8	3/4	1/2

Electrical Data						
Model Number	Nominal CFM	Volts/ Phase/ Hertz	Motor HP	Full Load Ampacity	Fuse or HACR Circuit Breaker Per Circuit	
					MCA	MOP
MCCX-16-C-1	1600	208/230-1-50/60	1/2	2.72	3.40	7

Performance Data		
Model Number	Nominal CFM	Cooling Capacity
MCCX-16-C-1	1600	48,000

## MCCX-16-C-1 CFM Adjustments

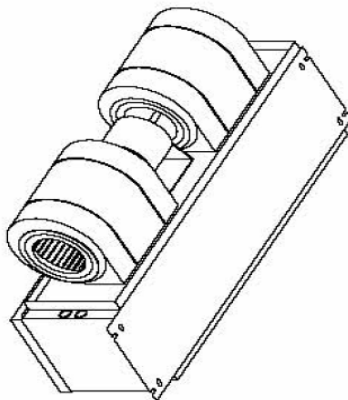
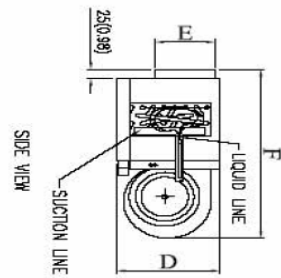
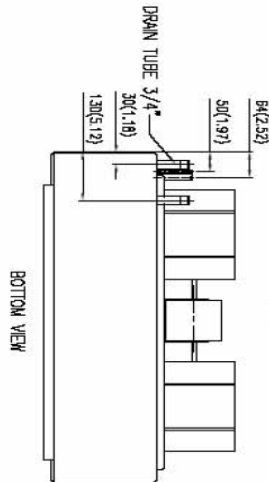
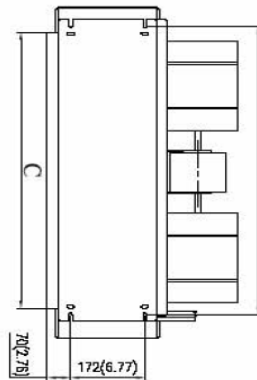
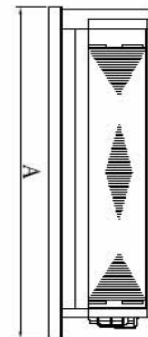
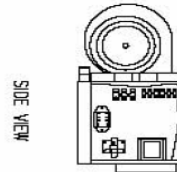
<b>Nominal CFM vs. External Static Pressure Table</b>						
Model Number	Hi Speed					
	0.05	0.10	0.15	0.20	0.25	0.30
MCCX-16-C-1	1435	1420	1390	1355	1316	1281

## MCCX-16-C-1 Sound Data

MODEL #	MCCX-16-C-1
Fan Speed	dB @ 1 m
H	46

# MCCX-16-C-1 Dimensional Drawing

MCCX Certified Drawing  
 Drawing # 0907400075



Model MCCX						
MODEL	A	B	C	D	E	F
04	958(37.72)	843(33.19)	801(31.54)	247(9.72)	139(5.47)	455(17.91)
06	958(37.72)	843(33.19)	801(31.54)	247(9.72)	139(5.47)	455(17.91)
08	958(37.72)	843(33.19)	801(31.54)	247(9.72)	139(5.47)	455(17.91)
10	1238(48.74)	1123(44.21)	1081(42.56)	298(11.73)	189(7.44)	455(17.91)
12	1238(48.74)	1123(44.21)	1081(42.56)	298(11.73)	189(7.44)	503(19.80)
16	1229(48.39)	1114(43.86)	1072(42.20)	349(13.74)	241(9.49)	503(19.80)
20	1432(56.38)	1317(51.85)	1275(50.20)	349(13.74)	241(9.49)	503(19.80)