



## 60CWA4-HW 4-Pipe Chilled & Hot Water Fan Coil (120V)

4-Pipe Heat & Cool Fan Coil 60,000 BTUH

# HVAC Guide Specifications

Chilled & Hot Water Multi-Position Fan Coil  
4-Pipe

Nominal Size:  
**60,000 BTUH**

Multiaqua Model Number:  
60CWA4-HW

## **Part 1-General**

### **1.01 System Description**

Multiaqua Chilled Water 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 multi-position chilled & hot water fan coil.
  2. Shall be assembled with high quality.
  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 baked polyester powder.
  2. Shall be internally insulated to ensure quiet operation.
  3. Cabinet shall be capable of being installed in a vertical or horizontal position.
- C. Fan Motors:
  1. Shall be available in 120-1-60 VAC.
  2. Fan motors shall be three speed, direct drive, and PSC type.
  3. Internal overload protected.
- D. Blower Wheels:
  1. Blower wheels are forward curved and dynamically balanced.
- E. Water Coil:
  1. Manufactured with a chilled water coil containing 3/8" copper tubing mechanically bonded to aluminum fins.
  2. Manufactured with a hot water coil containing 3/8" copper tubing mechanically bonded to aluminum fins.
  3. Coils shall be factory tested to 350 psig.
  4. Maximum coil inlet water temperature is 180F.
  5. Coil shall contain manual air bleed port.
- F. Drain Pan:
  1. Drain pan shall be molded with high impact polymers.
  2. Pan shall contain a primary and secondary drain connection.
  3. Pan shall be capable of draining in the vertical and horizontal positions without changing the pan configuration.
- G. Filters:
  1. Unit shall contain a filter door for easy access to the filter.
  2. A filter track shall be provided.

3. Unit shall come supplied with a 1” throwaway filter.
- H. Hot Water Pump
1. Unit shall contain an internal hot water circulating pump.

### **Part 3-Controls and Safeties**

#### **3.01 Controls**

- A. Fan coils shall be completely factory wired and tested.
- B. Unit shall include a terminal block that is capable of incorporating a 24 vac thermostat.

#### **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. Electrical shall include a terminal block.
- B. Electrical power supply shall be rated to withstand 120°F operating ambient temperatures.

### **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.

## 60CWA4-HW Product Specifications

### Physical Data

Model Number	Height (in)	Length (in)	Depth (in)	Weight (lbs.)	Cooling Rows FPI	Heating Rows FPI	Copper Diameter (in)	Chilled Water Inlet (in)	Chilled Water Outlet (in)	Hot Water Inlet (in)	Hot Water Outlet (in)	Drain (in)
60CWA4-HW	49.75	21.5	25	199	4-14	3-12	3/8	3/4	3/4	1/2	1/2	3/4

### Electrical Data

Model Number	Nominal CFM	Volts/Phase/Hertz	Fan Motor HP	Fan Motor Full Load Ampacity	Pump Motor HP	Hot Water Pump Full Load Ampacity	Fuse or HACR Circuit Breaker Per Circuit	
							MCA	MOP
60CWA4-HW	1872	120-1-60	3/4	8.9	1/25	0.75	12	20

## 60CWA4-HW Chilled Water Performance Data

60CWA4-HW COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
1872	42	4.75	TC	43522
			SC	36856
			WPD	1.5
		5.75	TC	48650
			SC	39262
			WPD	2.4
		6.75	TC	53468
			SC	41366
			WPD	3.4
		7.75	TC	57782
			SC	43254
			WPD	4.3

**\*High Speed**

60CWA4-HW COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
1872	45	4.75	TC	39762
			SC	35412
			WPD	1.5
		5.75	TC	44030
			SC	37472
			WPD	2.4
		6.75	TC	47990
			SC	39320
			WPD	3.4
		7.75	TC	51612
			SC	40814
			WPD	4.3

**\*High Speed**

Recommended minimum flow rate for this unit at  $\geq 2$  fps is 2.75 gpm

Recommended maximum flow rate for this unit at  $\leq 6$  fps is 7.75 gpm

## 60CWA4-HW Hot Water Performance Data

### 60CWA4-HW HOT WATER CAPACITIES

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)									
				90°	100°	110°	120°	130°	140°	150°	160°	170°	180°
50	1872	4	7.8	45240	55884	66612	77408	88261	99157	110088	121044	132017	142999
		5	11.8	48713	60332	72039	83817	95655	107539	119461	131410	143378	155359
		6	16.6	51312	63651	76080	88582	101144	113753	126401	139077	151775	164486
		7	22.1	53313	66201	79178	92226	105334	118488	131681	144902	158144	171402

### 60CWA4-HW HOT WATER CAPACITIES

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)									
				90°	100°	110°	120°	130°	140°	150°	160°	170°	180°
60	1872	4	7.8	34945	45553	56146	67011	77834	88704	99610	110544	121497	132463
		5	11.8	37451	49027	60693	72435	84239	96093	107987	119911	131857	143816
		6	16.5	39324	51617	64002	76464	88990	101566	114184	126833	139506	152196
		7	22.0	40765	53605	66537	79545	92615	105735	118897	132090	145308	158544

### 60CWA4-HW HOT WATER CAPACITIES

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)									
				90°	100°	110°	120°	130°	140°	150°	160°	170°	180°
70	1872	4	7.7	24587	35162	45825	56561	67358	78204	89088	100003	110938	121888
		5	11.7	26134	37670	49300	61008	72780	84606	96474	108375	120300	132243
		6	16.5	27288	39538	51883	64308	76799	89345	101934	114558	127209	139878
		7	22.0	28176	40917	53860	66829	79864	92953	106086	119253	132447	145662

### 60CWA4-HW HOT WATER CAPACITIES

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)									
				90°	100°	110°	120°	130°	140°	150°	160°	170°	180°
80	1872	4	7.7	14171	24717	35352	46062	56835	67660	78525	89422	100342	111279
		5	11.7	14765	26265	37861	49538	61282	73082	84926	96805	108712	120638
		6	16.4	15208	27417	39724	52115	64575	77092	89655	102255	114885	127536
		7	21.9	15548	28300	41150	54083	67085	80144	93249	106392	119564	132759

**Heating at ANSI/AHRI 440 with addendum 1, 6.3.2 Table 1 as follows:**

ENTERING AIR TEMPERATURE	GPM	ENTERING WATER TEMPERATURE 140F
70F DB / 60F WB	4	78496
	5	84957
	6	89759
	7	93420

## 60CWA4-HW CFM Adjustments

Model Number	Motor Speed	CFM vs. ESP				
		0.1	0.2	0.3	0.4	0.5
60CWA4-HW	High	1872	1824	1771	1699	1651
	Medium	1747	1680	1555	1411	1382
	Low	1680	1574	1334	1219	NA

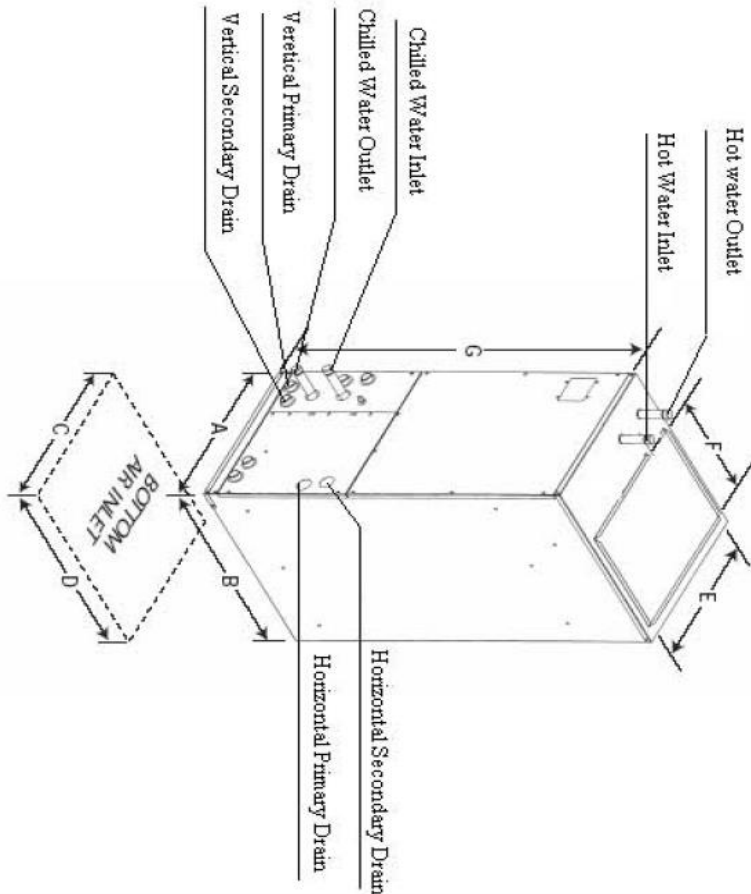
## 60CWA4-HW Sound Data

MODEL #	60CWA4-HW
Fan Speed	dB @ 1 m
H	46



# 60CWA4-HW Dimensional Drawing

CWA4 Certified Drawing  
 Drawing # 0907400079



Model No.	A	B	C	D	E	F	G
24CWA4-XX	17 1/2	21	15	17 1/2	16	12 3/8	39 1/4
36CWA4-XX 48CWA4-XX 60CWA4-XX	21 1/2	25	19 1/4	22 1/4	19 5/8	17 1/4	49 1/4

Note: "-XX" indicates electric heat (KW) size.