



## **36CWA2-00 Chilled Water Fan Coil With or Without Electric Heat**

*Rev. 1.3*

**2-Pipe Heat / Cool Fan Coil 36,000 BTUH**

# HVAC Guide Specifications

Chilled or Hot Water with Optional Electric Heat Multi-Position Fan Coil  
2-Pipe

Nominal Size:  
**36,000 BTUH**

MultiAqua Model Number:  
36CWA2-00

## **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 with electric heat 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 208/230-1-60 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 water coils containing 3/8" copper tubing mechanically bonded to aluminum fins.
  - 2. Coils shall be factory tested to 350 psig.
  - 3. 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.

*These specifications are subject to change without notice.  
Check [www.multiAqua.com](http://www.multiAqua.com) for the latest information.*

3. Unit shall come supplied with a 1” throwaway filter.
- H. Electric Heaters:
1. Unit shall be capable of incorporating an electric heat package.
  2. Electric heaters shall be of the open wire type.
  3. Electric heat packages shall contain non-fused breakers, sequencers and safeties.

**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.
- B. Electric heat package shall contain non-fusible breakers and high temperature limits.

**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.

## 36CWA2-00 Product Specifications

<b>Physical Data</b>									
Model Number	Height (in)	Length (in)	Depth (in)	Weight (lbs)	Cooling Rows FPI	Copper Diameter (in)	Water Inlet (in)	Water Outlet (in)	Drain (in)
36CWA2-00	39.75	17.50	21.00	145.00	4-14	3/8	3/4	3/4	3/4

<b>Electrical Data</b>						
Model Number	High Speed CFM	Volts/Phase/Hertz	Fan Motor HP	Fan Motor Full Load Ampacity	Fuse or HACR Circuit Breaker Per Circuit	
					MCA	MOP
36CWA2-00	1200	208/230-1-60	1/3	2.8	3.50	7

Model Number	Nominal CFM	KW Electric Heat		Minimum Ampacity		Maximum Breaker	
		240V	208V	240V	208V	240V	208V
36CWA2-XX	1200	0	0	3.5	3.4	15	15
		5	3.8	30	27	30	30
		8	6	46	40	50	40
		10	7.5	56	49	60	50

## 36CWA2-00 Chilled Water Performance Data

36CWA2-00 COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
1200	42	6.0	TC	38288
			SC	28884
			WPD	2.9
		7.0	TC	41276
			SC	30278
			WPD	3.8
		8.0	TC	43826
			SC	31392
			WPD	4.9
		9.0	TC	45922
			SC	32350
			WPD	6.1

**\*High Speed**

36CWA2-00 COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
1200	45	6.0	TC	34148
			SC	27432
			WPD	2.9
		7.0	TC	36720
			SC	28454
			WPD	3.8
		8.0	TC	38880
			SC	29360
			WPD	4.9
		9.0	TC	40906
			SC	30308
			WPD	6.1

**\*High Speed**

## 36CWA2-00 Hot Water Performance Data

### 36CWA2-00 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	1200	6.0	2.7	38864	48696	58604	68576	78600	88666	98766	108894	119042	129208
		7.0	3.6	40132	50282	60504	70784	81112	91480	101880	112306	122752	133214
		8.0	4.6	41108	51496	61954	72464	83022	93614	104238	114884	125550	136230
		9.0	5.7	41876	52452	63092	73782	84514	95280	106072	116888	127722	138570

### 36CWA2-00 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	1200	6.0	2.7	29338	39126	48994	58928	68918	78952	89024	99126	109252	119396
		7.0	3.6	30268	40376	50556	60800	71096	81434	91808	102208	112632	123074
		8.0	4.6	30984	41332	51750	62226	72752	83316	93914	104536	115182	125842
		9.0	5.7	31546	42084	52686	63342	74046	84784	95554	106348	117162	127990

### 36CWA2-00 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	1200	6.0	2.7	19782	29528	39356	49254	59212	69216	79260	89338	99442	109566
		7.0	3.6	20378	30444	40586	50796	61060	71370	81716	92094	102496	112918
		8.0	4.6	20836	31144	41526	51970	62466	73002	83574	94176	104800	115442
		9.0	5.7	21198	31696	42264	52890	63562	74276	85022	95794	106588	117400

### 36CWA2-00 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	1200	6.0	2.7	10194	19900	29692	39558	49484	59460	69480	79534	89616	99722
		7.0	3.5	10462	20488	30596	40772	51006	61290	71612	81966	92348	102752
		8.0	4.5	10670	20940	31286	41698	52164	62676	73224	83804	94408	105034
		9.0	5.7	10832	21294	31828	42422	53068	63756	74480	85232	96008	106802

**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	6.0	69720
	7.0	71926
	8.0	73602
	9.0	74910

## 36CWA2-00 CFM Adjustments

Model Number	Motor Speed	CFM vs. External Static Pressure				
		0.1	0.2	0.3	0.4	0.5
36CWA-XX	High	1250	1200	1120	1060	1000
	Medium	1070	1020	970	920	860
	Low	900	870	840	790	720

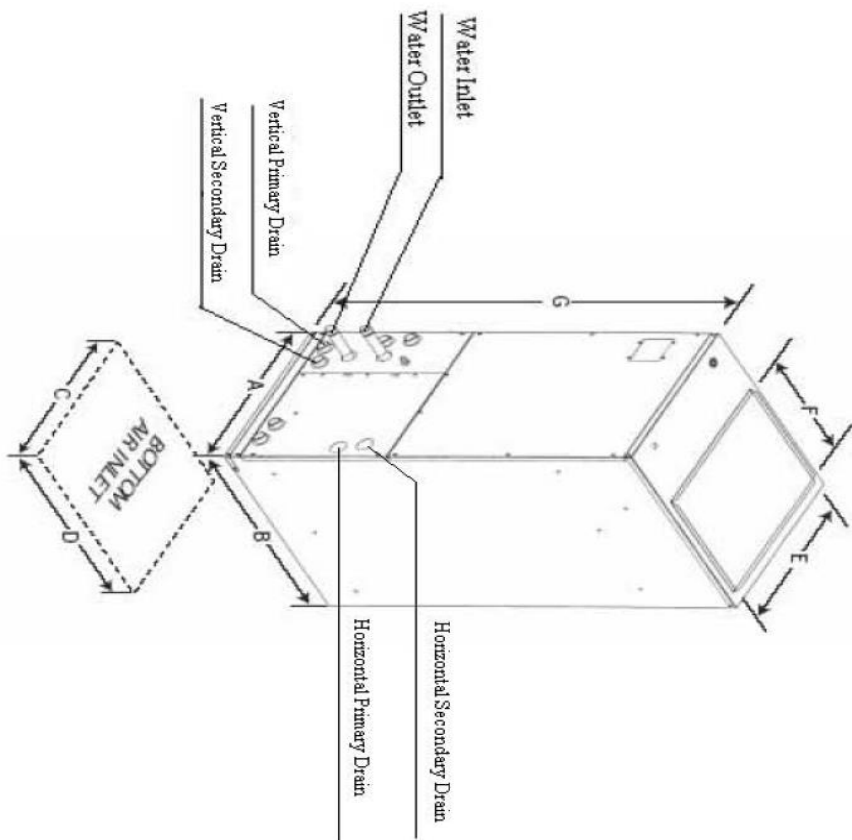
## 36CWA2-00 Sound Data

MODEL #	36CWA2-00
Fan Speed	dB @ 1 m
H	44



# 36CWA2-00 Dimensional Drawing

CWA2 Certified Drawing  
 Drawing # 0907400078



Model No.	A	B	C	D	E	F	G
18 & 24CWA2-XX	17½	21	15	17½	16	12¾	39¼
36CWA2-XX	17½	21	15	17½	16	12¾	39¼
48 & 60CWA2-XX	21½	25	19¼	22¼	19¾	17¼	49¼

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