



60CWA2-00 Chilled Water Fan Coil With or Without Electric Heat

2-Pipe Heat / Cool Fan Coil 60,000 BTUH

HVAC Guide Specifications

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

Nominal Size:

60,000 BTUH

MultiAqua Model Number:

60CWA2-00

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.
 - 3. Unit shall come supplied with a 1" throwaway filter.

*These specifications are subject to change without notice.
Check www.multiaqua.com for the latest information.*

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.

60CWA2-00 Product Specifications

Physical Data									
Model Number	Height (in)	Length (in)	Depth (in)	Weight (lbs)	Cooling Rows FPI	Copper Diameter (in)	Water Inlet (in)	Water Outlet (in)	Drain (in)
60CWA2-00	49.75	21.50	25.00	180.00	4-14	3/8	3/4	3/4	3/4

Electrical Data						
Model Number	Nominal CFM	Volts/Phase/Hertz	Motor HP	Full Load Ampacity	Fuse or HACR Circuit Breaker Per Circuit	
					MCA	MOP
60CWA2-00	2073	208/230-1-60	3/4	4.8	6.00	11

Model Number	Nominal CFM	KW Electric Heat		Minimum Ampacity		Maximum Breaker	
		240V	208V	240V	208V	240V	208V
60CWA2-XX	2073	0	0	6	5.9	15	15
		5	3.8	32	29	35	30
		8	6	48	42	50	45
		10	7.5	59	52	60	60
		15	11.3	53/32	46/29	60/35	50/30
		20	15	59/53	52/46	60/60	60/50

60CWA2-00 Chilled Water Performance Data

60CWA2-00 COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
2073	42	8.75	TC	66510
			SC	49782
			WPD	5.3
		9.75	TC	70190
			SC	51532
			WPD	6.5
		10.8	TC	73726
			SC	53156
			WPD	7.8
		11.8	TC	76878
			SC	54528
			WPD	9.3

***High Speed**

60CWA2-00 COOLING CAPACITIES				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
2073	45	8.75	TC	59378
			SC	47172
			WPD	5.3
		9.75	TC	62602
			SC	48480
			WPD	6.5
		10.8	TC	65444
			SC	49810
			WPD	7.8
		11.8	TC	68190
			SC	50932
			WPD	9.2

***High Speed**



60CWA2-00 Hot Water Performance Data

60CWA2-00 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	2073	8.75	5.0	67094	83976	100960	118030	135166	152358	169592	186860	204150	221456
		9.75	6.1	68784	86098	103512	121006	138568	156182	173836	191524	209236	226964
		10.8	7.3	70180	87846	105610	123450	141356	159312	177308	195336	213388	231454
		11.8	8.6	71348	89308	107360	125486	143676	161912	180190	198496	216826	235170

60CWA2-00 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	2073	8.75	5.0	50642	67466	84398	101418	118510	135660	152858	170092	187352	204634
		9.75	6.1	51884	69140	86498	103944	121462	139036	156654	174310	191992	209694
		10.8	7.3	52908	70518	88228	106020	123882	141798	159760	177756	195778	213820
		11.8	8.6	53766	71668	89668	107750	125896	144094	162336	180612	198914	217234

60CWA2-00 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	2073	8.75	5.0	34140	50910	67790	84764	101814	118926	136090	153292	170526	187782
		9.75	6.1	34938	52138	69448	86848	104322	121858	139442	157066	174722	192398
		10.8	7.3	35598	53152	70810	88558	106378	124258	142184	160150	178144	196162
		11.8	8.6	36148	53996	71948	89982	108088	126250	144460	162704	180980	199276

60CWA2-00 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	2073	8.75	4.9	17590	34308	51142	68072	85084	102160	119292	136466	153674	170906
		9.75	6.0	17952	35100	52360	69718	87152	104652	122204	139800	157428	175082
		10.8	7.2	18248	35750	53362	71068	88848	106692	124586	142524	160492	178486
		11.8	8.5	18498	36294	54198	72192	90258	108386	126562	144780	163030	181304

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	8.5	119764
	9.5	122764
	10.5	125222
	11.5	127268

60CWA2-00 CFM Adjustments

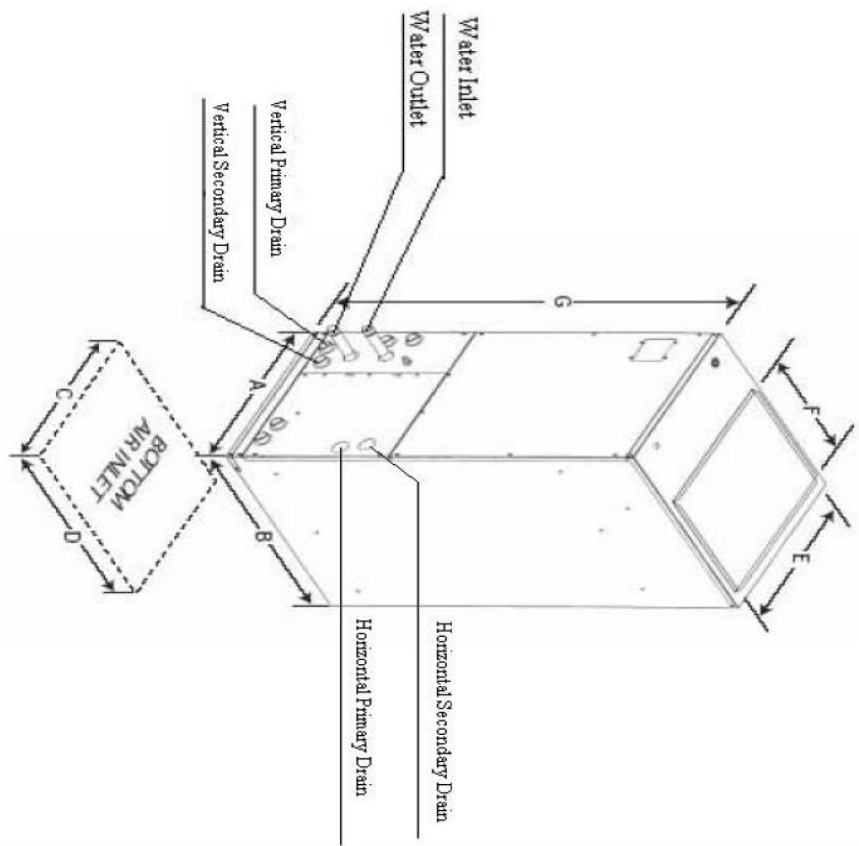
Model Number	Motor Speed	CFM vs. External Static Pressure				
		0.1	0.2	0.3	0.4	0.5
60CWA-XX	High	2160	2100	2000	1940	1880
	Medium	2110	1980	1810	1750	1650
	Low	2000	1860	1670	1340	1200

60CWA2-00 Sound Data

MODEL #	60CWA2-00
Fan Speed	dB @ 1 m
H	48

60CWA2-00 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.