



MH1WC4W-06-1-B Chilled/Hot Water 1-Way Cassette Fan Coil

4-Pipe Heat / Cool Fan Coil 18,000 BTUH

*These specifications are subject to change without notice.
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HVAC Guide Specifications

Chilled and Hot Water Cassette Fan Coil

4-Pipe

Nominal Size:

18,000 BTUH

Multi aqua Model Number:

MH1WC4W-06-1-B

Part 1 - General

1.01 System Description:

Multi aqua Chilled Water Fan Coils are manufactured with galvanized steel and high impact molded polymers.

1.02 Quality Assurance:

- A. ETL 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.

Part 2 - Product

2.01 Equipment:

- A. General:
 1. Unit shall be a factory assembled and tested water fan coil.
 2. Unit shall be assembled with high quality.
 3. Contained within the unit shall be all factory wiring, piping, and associated controls.
- B. Unit Cabinet and Cover:
 1. Cabinet is constructed of galvanized sheet metal.
 2. Cover composed of high impact polymers.
 3. Internally and externally insulated to ensure quiet operation.
- C. Fan Motor and Blower Wheel:
 1. Available in 208/230-1-50/60 VAC.
 2. Fan motor shall be three speed, direct drive, and PSC type.
 3. Fan motor shall be totally enclosed.
 4. Fan motor shall be internal overload protected.
 5. Radial blower wheel is dynamically balanced.
- D. Air Distribution:
 1. Unit contains one automatic discharge air louver.
- E. Water Coils:
 1. Manufactured with water coils containing copper tubing mechanically bonded to aluminum fins.
 2. Maximum design operating pressure shall not exceed 150 psig.
 3. Coils are designed to accept an entering water temperature not to exceed 160°F.
 4. Both coils are equipped with manual air bleed ports which drain into the units internal drain pan.
 5. Secondary coil is in the re-heat position.

- F. Drain Pan:
 - 1. Constructed of galvanized steel with baked on polyester powder coating and closed cell insulation.
 - 2. Unit contains internal lift pump and drain pan float switch designed for evacuating condensate to the fan coil unit drain port level only.
- G. Filters:
 - 1. Unit shall contain two woven panel washable filter.
- H. Fresh Air:
 - 1. Unit shall be able to receive up to 10% filtered fresh air.
 - 2. Fresh air introduced shall be externally fan forced and externally controlled.

Part 3 - Controls and Safeties

3.01 Controls:

- A. Fan coils are factory wired and tested.
- B. Fan coil includes a terminal block that is capable of incorporating a 24 VAC, field supplied thermostat.

3.02 Safeties:

- A. Fan coil contains a replaceable fuse on the low voltage side of the transformer.
- B. Coils shall be designed to accept an entering water temperature not to exceed 160°F

Part 4 - Operating Characteristics

4.01 Electrical Requirements

- A. Electrical line voltage connections shall be made at the factory supplied terminal block.
- B. Factory wiring shall be rated according to UL listing at the time of manufacturing.

4.02 Installation in high ambient/high humidity environments

- A. Cabinets are internally insulated from the factory. However, if these units are installed in high ambient/high humidity environments, additional field installed external cabinet insulation may be required.

Part 5- Definitions

5.01 Abbreviations:

- CFM = Cubic Feet per Minute
- DB = Dry Bulb Temperature
- EWT = Entering Water Temperature
- GPM = US Gallons Per Minute
- MBH = BTU X 1000
- SC = Sensible Cooling
- TC = Total Cooling = Sensible + Latent
- WB = Wet Bulb Temperature
- WPD = Water Pressure Drop in Feet of Head
- dB = Decibel Level
- m = Meter
- In = Inches
- FP I= Fins per Inch
- OD = Outside Diameter
- ID = Inside Diameter
- MCA = Minimum Circuit Amps
- MOP = Maximum Over current Protection
- lbs. = Pounds U.S.

5.02 Measurements

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

MH1WC4W-06-1-B Product Specifications

Physical Data							
Model Number	Weight (lbs.)	Cabinet Dimensions (in)	Cover Dimensions (in)	Cooling Rows FPI	Heating Rows FPI	Water Inlet/Outlet (in)	Drain (in)
MH1WC4W-06-1-B	88.18	33.75 x 19.50 x 10.50 *	41.50 x 22.83 x 1.00 *	3/14	1/14	3/4 FPT	¾ Hose Conn.

* See IOM for dimensional drawings.

Electrical Data*						
Model Number	CFM	Volts/Phase/Hertz	Motor Watts	Full Load Amps	Fuse or HACR Circuit Breaker or Glass Fuse Per Circuit	
					MCA	MOP
MH1WC4W-06-1-B	471	208/230-150/60	115	.50	.63	1

*All Electric Data Shown is at 60 Hz

MH1WC4W-06-1-B Chilled Water Performance Data (PRIMARY COIL COOLING)

MH1WC4W-06-1-B COOLING CAPACITIES (Primary Coil)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	42°	1.50	TC	12474
			SC	10272
			WPD	2.1
		2.50	TC	15962
			SC	11796
			WPD	5.7
		3.00	TC	17211
			SC	12317
			WPD	8.0
		4.00	TC	19066
			SC	13092
			WPD	13.7

***High Speed**

MH1WC4W-06-1-B COOLING CAPACITIES (Primary Coil)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	45°	1.50	TC	11287
			SC	9751
			WPD	2.1
		2.50	TC	14290
			SC	11121
			WPD	5.7
		3.00	TC	15401
			SC	11576
			WPD	8.0
		4.00	TC	17036
			SC	12253
			WPD	13.6

***High Speed**

MH1WC4W-06-1-B Hot Water Performance Data (PRIMARY COIL HEATING)

MH1WC4W-06-1-B HOT WATER CAPACITIES (Primary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
50°	*471	.75	.5	9205	11546	13916	16313	18732	21169	23623	26089
		1.00	1.0	10724	13472	16256	19072	21916	24735	27509	30284
		1.25	1.7	11865	14914	18004	21088	24136	27190	30248	33308
		1.50	2.3	12740	16018	19270	22519	25778	29043	32313	35585

MH1WC4W-06-1-B HOT WATER CAPACITIES (Primary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
60°	*471	.75	.5	6993	9323	11684	14071	16481	18910	21356	23815
		1.00	1.0	8123	10856	13626	16429	19260	22038	24809	27582
		1.25	1.7	8970	12002	15074	18123	21166	24215	27269	30325
		1.50	2.3	9619	12873	16103	19345	22597	25857	29122	32390

MH1WC4W-06-1-B HOT WATER CAPACITIES (Primary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
70°	*471	.75	.5	4756	7078	9430	11808	14210	16632	19070	21498
		1.00	1.0	5499	8219	10976	13766	16568	19333	22102	24872
		1.25	1.7	6055	9070	12122	15150	18188	21233	24283	27336
		1.50	2.3	6480	9704	12927	16163	19410	22664	25925	29190

MH1WC4W-06-1-B HOT WATER CAPACITIES (Primary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
80°	*471	.75	.5	2497	4811	7155	9525	11920	14334	16767	19159
		1.00	1.0	2854	5561	8306	11084	13856	16619	19386	22154
		1.25	1.7	3120	6119	9144	12168	15201	18242	21289	24340
		1.50	2.3	3322	6527	9743	12973	16215	19465	22721	25982

***High Speed**

MH1WC4W-06-1-B Chilled Water Performance Data (SECONDARY COIL COOLING)

MH1WC4W-06-1-B COOLING CAPACITIES (Secondary Coil)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	42°	1.00	TC	6015
			SC	5452
			WPD	6.5
		1.25	TC	6632
			SC	5791
			WPD	9.8
		1.50	TC	7162
			SC	6040
			WPD	13.8
		1.75	TC	7614
			SC	6230
			WPD	18.3

***High Speed**

MH1WC4W-06-1-B COOLING CAPACITIES (Secondary Coil)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	45°	1.00	TC	5445
			SC	5125
			WPD	6.5
		1.25	TC	5967
			SC	5462
			WPD	9.8
		1.50	TC	6380
			SC	5699
			WPD	13.7
		1.75	TC	6736
			SC	5870
			WPD	18.2

***High Speed**

MH1WC4W-06-1-B Hot Water Performance Data (SECONDARY COIL HEATING – Reheat Position)

MH1WC4W-06-1-B HOT WATER CAPACITIES (Secondary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
50°	*471	.75	3.6	6293	7842	9404	10977	12558	15180	16882	18587
		1.00	6.2	6883	8583	10296	12019	13751	16646	18514	20385
		1.25	9.3	7289	9091	10906	12731	14565	17638	19616	21596
		1.50	12.5	7589	9466	11355	13253	15160	18360	20417	22476

MH1WC4W-06-1-B HOT WATER CAPACITIES (Secondary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
60°	*471	.75	3.6	4799	6342	7897	9464	11040	13541	15239	16941
		1.00	6.2	5236	6929	8635	10352	12079	14839	16702	18569
		1.25	9.3	5538	7333	9140	10959	12787	15716	17690	19667
		1.50	12.5	5760	7629	9511	11404	13305	16355	18408	20464

MH1WC4W-06-1-B HOT WATER CAPACITIES (Secondary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
70°	*471	.75	3.6	3927	4834	6384	7946	9517	11897	13592	15290
		1.00	6.2	4312	5270	6970	8681	10402	13027	14887	16751
		1.25	9.3	4356	5569	7371	9183	11006	13792	15761	17735
		1.50	12.5	4457	5790	7665	9551	11447	14348	16397	18450

MH1WC4W-06-1-B HOT WATER CAPACITIES (Secondary Coil)

ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
80°	*471	.75	3.6	2091	3320	4865	6421	7988	10247	11939	13635
		1.00	6.2	2275	3606	5300	7006	8721	11212	13068	14929
		1.25	9.3	2296	3802	5597	7404	9221	11864	13830	15800
		1.50	12.5	2344	3946	5815	7696	9586	12339	14384	16433

*High Speed3320

MH1WC4W-06-1-B Chilled Water Performance Data (BOTH COILS COOLING)

MH1WC4W-06-1-B COOLING CAPACITIES (Both Coils)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	42°	1.50	TC	13098
			SC	10793
			WPD	1.1
		2.50	TC	16925
			SC	12475
			WPD	3.5
		3.00	TC	18306
			SC	13058
			WPD	4.8
		4.00	TC	20397
			SC	13944
			WPD	8.2

***High Speed**

MH1WC4W-06-1-B COOLING CAPACITIES (Both Coils)				
CFM	EWT (°F)	GPM	ENTERING AIR TEMPERATURE (F)	
				80° D.B. / 67° W.B.
*471	45°	1.50	TC	11891
			SC	10244
			WPD	1.1
		2.50	TC	15207
			SC	11762
			WPD	3.4
		3.00	TC	16413
			SC	12272
			WPD	4.8
		4.00	TC	18256
			SC	13041
			WPD	8.1

***High Speed**

MH1WC4W-06-1-B Hot Water Performance Data (BOTH COILS HEATING)

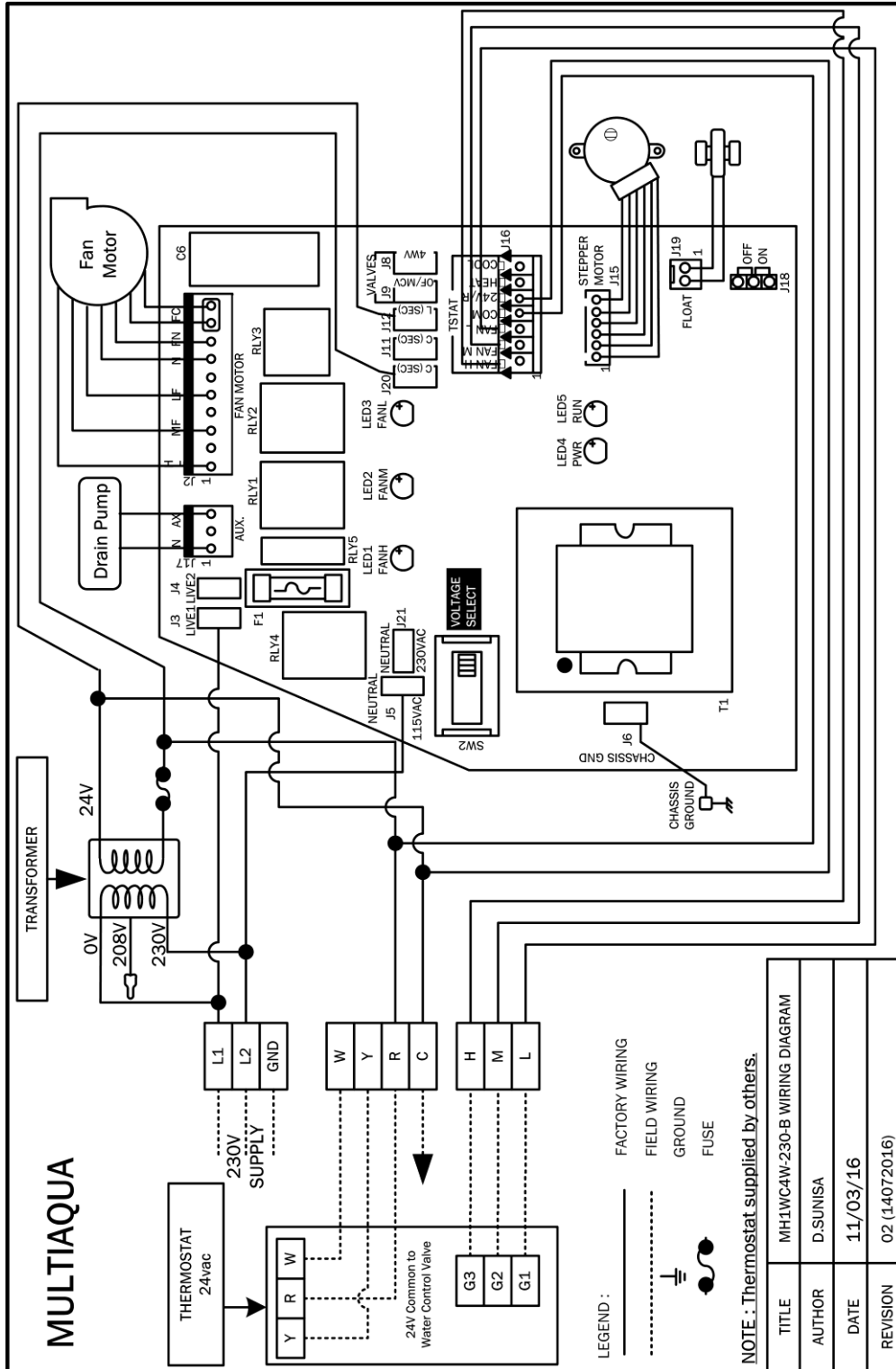
MH1WC4W-06-1-B HOT WATER CAPACITIES (Both Coils)											
ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
50°	*471	.75	.4	9392	11741	14215	16658	19122	21603	24099	26607
		1.00	.6	11063	13897	16767	19669	22597	25549	28520	31502
		1.25	1.0	12329	15500	18711	21958	25235	28510	31713	34917
		1.50	1.4	13313	16742	20213	23719	27167	30607	34051	37498
MH1WC4W-06-1-B HOT WATER CAPACITIES (Both Coils)											
ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
60°	*471	.75	.4	7123	9471	11935	14369	16824	19298	21787	24288
		1.00	.6	8378	11199	14055	16944	19860	22801	25761	28707
		1.25	1.0	9320	12473	15667	18898	22160	25390	28589	31790
		1.50	1.4	10049	13458	16910	20386	23814	27249	30688	34131
MH1WC4W-06-1-B HOT WATER CAPACITIES (Both Coils)											
ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
70°	*471	.75	.4	4837	7230	9631	12058	14506	16973	19455	21951
		1.00	.6	5669	8477	11321	14198	17103	20033	22983	25886
		1.25	1.0	6287	9424	12602	15818	19064	22262	25458	28656
		1.50	1.4	6765	10155	13589	17031	20453	23883	27319	30758
MH1WC4W-06-1-B HOT WATER CAPACITIES (Both Coils)											
ENTERING AIR (°F)	NOMINAL CFM	GPM	WPD	ENTERING WATER TEMPERATURE (°F)							
				90°	100°	110°	120°	130°	140°	150°	160°
80°	*471	.75	.4	2534	4911	7306	9726	12167	14628	17105	19595
		1.00	.6	2936	5731	8565	11431	14326	17246	20177	23056
		1.25	1.0	3232	6353	9517	12719	15936	19125	22318	25514
		1.50	1.4	3460	6832	10250	13666	17084	20510	23941	27377

***High Speed**

MH1WC4W-06-1-B CFM Data

MODEL #	MH1WC4W-06-1-B
Fan Speed	CFM
L	370
M	425
H	471
Wattage @ High Speed	115

MH1WC4W-06-1-B Wiring Diagram



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Check www.multiaqua.com for latest published information.

See Installation and Operation Manual
for Dimensional Drawings



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