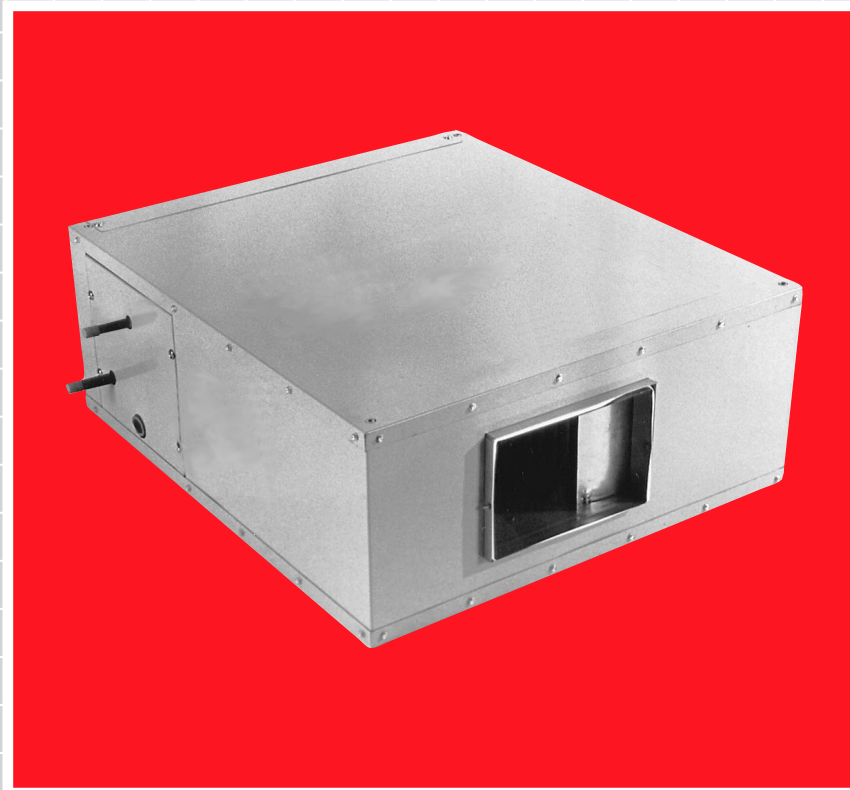


# Magic Aire®

## DHW SERIES



## HORIZONTAL DIRECT DRIVE CHILLED WATER AIR UNITS

**OPTIONAL ACCESSORIES**  
Two Row Hot Water Coil



**MAGIC AIRE DHW SERIES FAN COILS ARE ETL  
LISTED IN ACCORDANCE WITH UL 1995  
AND ARE ASSEMBLED TO ORDER FOR COMPETITIVE DELIVERY.**

**UNITED ELECTRIC COMPANY, L.P.**

501 Galveston St. • Wichita Falls, Texas 76301 • 940-397-2100 • Fax 940-397-2166

Contractor shall furnish and install high quality air handling units as indicated on plans. Sizes and capacities shall be shown in the Unit Schedule included on the drawings. All units shall be the products of *Magic Aire* with the ETL safety listing.

**Cabinets** shall be fabricated of LFQ (min) steel. External parts are to be made with polyurethane based powder coated A60 galvanealed, while internal parts are to be built from G90 galvanized steel. Units shall pass 500 hour salt spray test as described in ASTM B-117. Large access panels shall be provided to permit full access to internal components. The structural integrity of the cabinets shall remain unaffected by the removal of any or all access panels.

**Insulation** shall be 3/4" – 1.5 pound density providing effective acoustical and thermal control, fire safety, and resistance to air erosion. R value equal to 3.26.

**Coils** shall be of the staggered tube type constructed with seamless copper tubes and headers, and deep corrugated aluminum fins with straight edges. Manufacturer shall supply full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are to be mechanically ex-

panded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 500 PSI for operation at 400 PSI gauge. The coils provided shall be suitable for the application and comply with the required performance as described in the Unit Schedule.

**Drainpans** shall be galvanized steel 3/4" FPT connection.

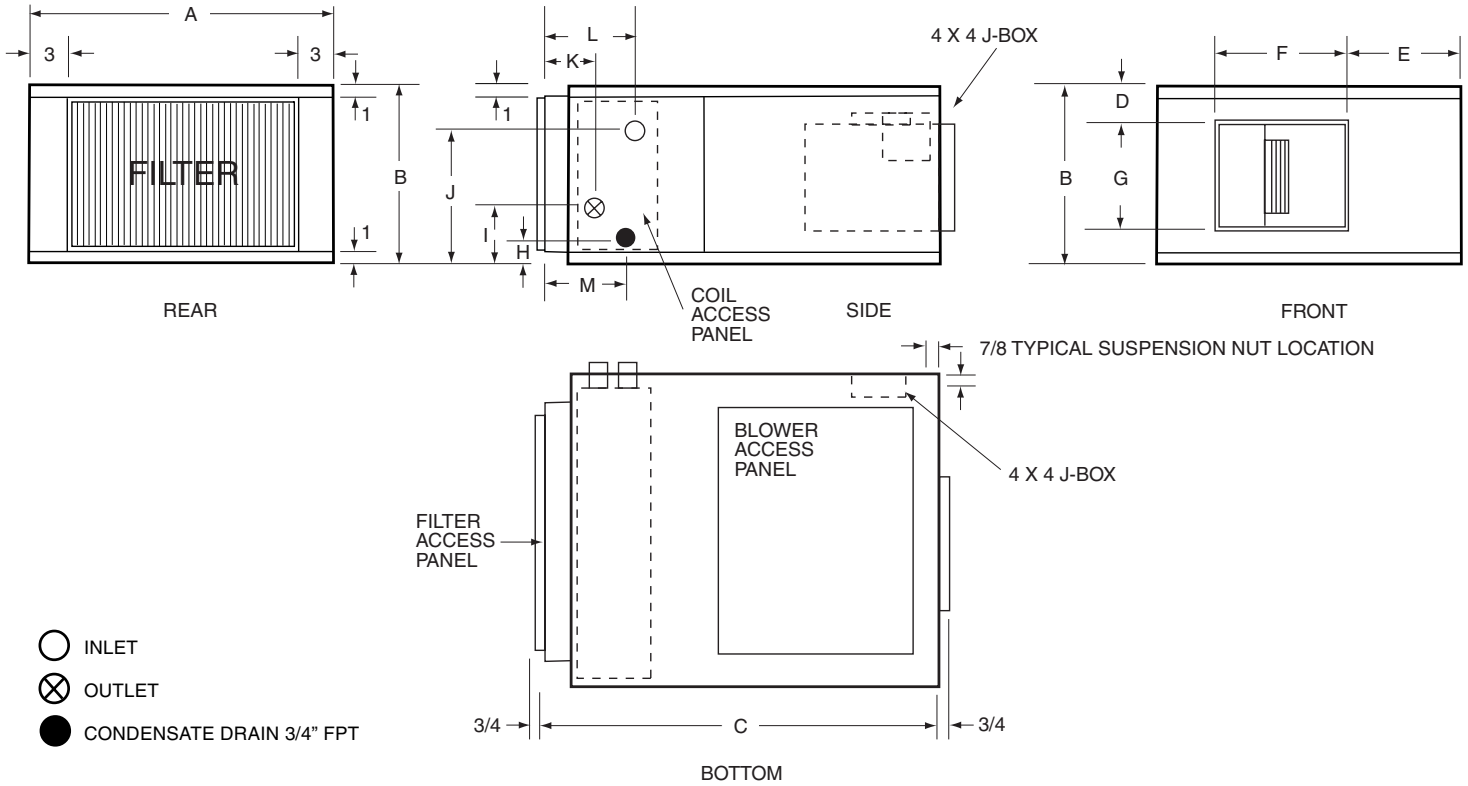
**Fan Wheels** shall be double width, double inlet, forward curved, centrifugal type. They shall be statically and dynamically balanced for smooth, quiet operation. The housing shall be constructed of heavy gauge steel with die-formed inlet cones.

**Motors**, standard duty, PSC, 1075 RPM, open, drip-proof construction. Single phase motors shall be provided with resilient mount and automatic reset thermal protection.

**Filters** are to be 1" disposable type. They shall be center loading with an 85% arrestance efficiency. The filters shall be included in the units as an integral part of the cabinet with easy access provided by the manufacturer.

- Controls (i.e. contactor or transformer/fan relay) not included in standard product.
- Chilled water (optional hot water or steam) coil stubouts, electrical and drain connections are standard right hand looking at rear of unit. Optional left hand connections available (see price sheets for additional charge).
- Stock units are 115/60/1. See price sheets for optional voltages.
- DHW units have 3/8" NC thread inserts in each corner of top and bottom panel for easy suspension.
- Blower panel designed for top or bottom access. For top access, remove coil and drain pan assembly. Turn entire unit over so the access panels are on the top, then slide the coil assembly back into the unit.
- Coils circuited for counterflow circulation.
- Stocked Optional Accessories:
  - 2 Row Hot Water Heating Coil
  - 3 Speed Fan Control Wall Switch
- Non-Stock Options:
  - Special Insulation
  - Steam Coils (See Steam Brochure)
  - Electric Heat

### RIGHT HAND SHOWN



### DHW Series Unit Cabinet Dimensions

MODEL	UNIT			BLOWER OUTLET				STUBOUTS LOCATIONS					
	A	B	C	D	E	F	G	H	I	J	K	L	M
DHW-400	29	12.5	32.5	2.5	7	10.75	7.25	2.25	4.50	10.00	4.00	6.625	7.500
DHW-600	25	14.5	32.5	3	5	10.75	8.75	2.25	4.50	11.00	4.00	6.625	7.375
DHW-800	31.5	14.5	32.5	3	8.25	10.75	8.75	1.875	4.50	10.50	4.00	7.00	7.375
DHW-1000	38	14.5	34	3	10.25	11.75	8.75	1.875	4.50	10.50	4.00	6.875	7.375

### DHW Series Specifications

Model	Face Area Sq. Ft.	Rows Tube	Nominal Rating in Tons	DD Motor HP/AMP			Blower DD	Throwaway Filters 7/8" Thick (Actual Size)	Coil Connection	Unit Shipping Weight
				STD.	OPTIONAL					
				115/1	208-230/1	277/1				
DHW-400	1.50	4-3/8	1	1/10/1.2	0.8	0.9	9-4	11.75 X 24.375	5/8" O.D. SWT	102
DHW-600	1.53	4-3/8	1.5	1/6/3.7	1.0	0.9	9-6	14 X 20.75	5/8" O.D. SWT	103
DHW-800	2.02	4-3/8	2	1/4/3.7	1.3	2.2	9-6	13.5 X 27	5/8" O.D. SWT	125
DHW-1000	2.52	4-3/8	2.5	1/3/4.9	2.2	2.4	10-6	13.75 X 33.75	3/4" O.D. SWT	140



## DHW Series AIR FLOW

### DHW CFM vs. External Static for Standard Unit

MODEL	SPEED SETTINGS	.10 ESP CFM	.20 ESP CFM	.30 ESP CFM	.40 ESP CFM	.50 ESP CFM
DHW-400	HIGH	590	570	555	525	490
	MEDIUM	420	410	395	380	350
	LOW	315	300	280	255	225
DHW-600	HIGH	805	770	720	665	610
	MEDIUM	615	610	585	550	510
	LOW	520	515	500	485	455
DHW-800	HIGH	1040	1000	950	900	845
	MEDIUM	875	860	835	795	750
	LOW	670	665	660	655	635
DHW-1000	HIGH	1290	1245	1200	1155	1110
	MEDIUM	1105	1080	1060	1035	1000
	LOW	930	915	895	885	860

### DHW with HH-2 CFM vs. External Static for Standard Unit with Hot Water Coil

MODEL	SPEED SETTINGS	.10 ESP CFM	.20 ESP CFM	.30 ESP CFM	.40 ESP CFM	.50 ESP CFM
DHW-400 w/HH-400-2	HIGH	580	560	535	505	475
	MEDIUM	415	400	390	370	345
	LOW	310	295	275	250	220
DHW-600 w/HH-600-2	HIGH	755	715	670	615	555
	MEDIUM	605	590	560	520	480
	LOW	515	505	490	465	430
DHW-800 w/HH-800-2	HIGH	990	945	895	845	795
	MEDIUM	860	835	800	760	710
	LOW	670	665	660	645	610
DHW-1000 w/HH-1000-2	HIGH	1235	1195	1150	1110	1060
	MEDIUM	1090	1065	1040	1005	970
	LOW	920	910	890	870	840

# CHILLED WATER COOLING CAPACITIES

## DHW-400

ENT WTR	GPM	PD FT.	CFM	85 deg F DB / 71 deg F WB					80 deg F DB / 67 deg F WB					75 deg F DB / 63 deg F WB				
				TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F
						DB	WB				DB	WB				DB	WB	
42	1.2	1.20	300	11.5	7.9	60.6	59.8	61.3	9.7	7.2	57.7	56.7	58.2	8.0	6.6	54.7	53.8	55.5
			400	12.6	9.3	63.5	62.0	63.1	10.7	8.5	60.2	58.7	59.9	9.0	7.7	57.1	55.4	57.0
			500	13.4	10.5	65.5	63.5	64.4	11.5	9.7	62.1	60.0	61.2	9.6	8.7	58.9	56.5	58.2
	2.4	4.40	300	15.3	9.3	56.2	55.4	54.8	12.7	8.5	53.8	53.0	52.7	10.3	7.6	51.6	50.8	50.7
			400	17.2	11.0	59.5	58.2	56.4	14.4	10.1	56.7	55.5	54.0	11.7	9.0	54.1	52.8	51.8
			500	18.7	12.5	61.9	60.2	57.6	15.6	11.5	58.8	57.1	55.1	12.8	10.3	55.9	54.3	52.7
	3.6	9.50	300	17.0	10.0	54.1	53.4	51.4	14.1	9.0	52.1	51.3	49.8	11.4	8.0	50.2	49.4	48.3
			400	19.5	11.9	57.5	56.3	52.8	16.2	10.8	55.0	53.8	51.0	13.1	9.6	52.7	51.5	49.3
			500	21.4	13.5	60.0	58.3	53.9	17.9	12.3	57.2	55.6	51.9	14.5	11.0	54.6	53.0	50.1
45	1.2	1.20	300	10.5	7.5	61.8	60.9	62.6	8.8	6.9	58.8	57.8	59.7	7.2	6.1	56.0	54.8	57.1
			400	11.6	8.9	64.4	62.8	64.4	9.7	8.1	61.2	59.5	61.3	8.1	7.2	58.2	56.2	58.6
			500	12.3	10.1	66.3	64.1	65.7	10.5	9.2	63.0	60.6	62.6	8.3	8.2	59.8	57.5	58.9
	2.4	4.40	300	13.9	8.8	57.8	57.0	56.7	11.4	7.9	55.5	54.7	54.6	9.1	7.0	53.3	52.5	52.6
			400	15.7	10.5	60.8	59.5	58.1	12.9	9.5	58.1	56.8	55.8	10.2	8.4	55.6	54.2	53.6
			500	17.0	11.9	63.0	61.2	59.2	14.0	10.8	60.0	58.3	56.7	11.3	9.6	57.2	55.4	54.4
	3.6	9.50	300	15.5	9.4	56.0	55.2	53.6	12.6	8.4	54.0	53.2	52.0	10.0	7.4	52.1	51.3	50.6
			400	17.7	11.2	59.0	57.8	54.9	14.5	10.1	56.6	55.4	53.1	11.5	8.9	54.3	53.1	51.4
			500	19.5	12.8	61.3	59.6	55.9	16.0	11.6	58.6	56.9	53.9	12.7	10.3	56.0	54.3	52.1
48	1.2	1.20	300	9.6	7.1	62.9	61.9	64.0	7.9	6.5	59.9	58.8	61.3	6.4	5.7	57.3	55.8	58.8
			400	10.6	8.5	65.3	63.6	65.7	8.8	7.7	62.1	60.2	62.8	6.8	6.7	59.4	57.3	59.5
			500	11.4	9.7	67.1	64.7	67.0	9.6	8.6	64.0	61.2	64.0	7.5	7.4	61.3	58.0	60.6
	2.4	4.40	300	12.6	8.3	59.4	58.6	58.5	10.1	7.4	57.1	56.3	56.4	7.7	6.4	55.1	54.2	54.5
			400	14.1	9.9	62.1	60.8	59.8	11.3	8.8	59.5	58.2	57.5	8.9	7.8	57.0	55.4	55.5
			500	15.3	11.3	64.1	62.3	60.8	12.4	10.1	61.2	59.4	58.4	9.9	8.9	58.5	56.4	56.3
	3.6	9.40	300	13.9	8.8	57.8	57.0	55.8	11.1	7.8	55.9	55.1	54.2	8.5	6.8	54.0	53.2	52.7
			400	16.0	10.5	60.6	59.3	56.9	12.8	9.4	58.2	56.9	55.1	9.8	8.2	56.0	54.7	53.5
			500	17.5	12.0	62.7	60.9	57.8	14.1	10.8	60.0	58.2	55.8	10.9	9.4	57.5	55.7	54.1

## DHW-600

ENT WTR	GPM	PD FT.	CFM	85 deg F DB / 71 deg F WB					80 deg F DB / 67 deg F WB					75 deg F DB / 63 deg F WB				
				TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F
						DB	WB				DB	WB				DB	WB	
42	2.4	2.30	500	17.8	12.2	62.5	60.7	56.8	14.9	11.2	59.3	57.6	54.5	12.2	10.0	56.4	54.7	52.2
			600	18.8	13.5	64.2	62.1	57.7	15.8	12.3	61.0	58.9	55.2	13.1	11.1	57.8	55.7	52.9
			700	19.6	14.6	65.7	63.1	58.4	16.6	13.4	62.3	59.7	55.9	13.8	12.1	59.0	56.4	53.6
	3.6	5.00	500	20.6	13.2	60.5	58.8	53.5	17.3	12.1	57.6	56.0	51.6	14.0	10.9	54.9	53.3	49.8
			600	22.0	14.7	62.4	60.3	54.3	18.5	13.4	59.3	57.3	52.3	15.1	12.1	56.4	54.4	50.4
			700	23.2	16.0	63.9	61.5	55.0	19.5	14.6	60.7	58.3	52.9	15.9	13.2	57.6	55.3	50.9
	4.8	8.70	500	22.4	13.9	59.2	57.6	51.4	18.7	12.7	56.5	54.9	49.8	15.2	11.3	54.0	52.5	48.3
			600	24.2	15.4	61.2	59.2	52.1	20.2	14.1	58.3	56.3	50.4	16.4	12.6	55.5	53.6	48.9
			700	25.6	16.8	62.8	60.4	52.7	21.4	15.4	59.7	57.4	51.0	17.5	13.8	56.7	54.5	49.3
45	2.4	2.30	500	16.2	11.6	63.5	61.7	58.5	13.4	10.5	60.5	58.7	56.2	10.9	9.4	57.5	55.6	54.1
			600	17.1	12.9	65.1	62.9	59.3	14.3	11.7	61.9	59.7	56.9	11.7	10.4	58.9	56.5	54.8
			700	17.9	14.0	66.5	63.8	60.0	15.0	12.8	63.1	60.5	57.6	12.4	11.3	60.0	57.1	55.4
	3.6	5.00	500	18.8	12.6	61.7	60.0	55.5	15.5	11.4	58.9	57.3	53.6	12.3	10.1	56.3	54.6	51.8
			600	20.2	13.9	63.5	61.4	56.2	16.6	12.6	60.5	58.4	54.2	13.2	11.3	57.6	55.5	52.4
			700	21.2	15.2	64.9	62.4	56.8	17.5	13.8	61.7	59.3	54.7	14.1	12.3	58.7	56.2	52.9
	4.8	8.70	500	20.4	13.2	60.6	58.9	53.6	16.8	11.9	58.0	56.4	52.0	13.3	10.5	55.5	53.9	50.5
			600	22.0	14.7	62.4	60.3	54.2	18.1	13.2	59.6	57.5	52.6	14.3	11.8	56.8	54.9	51.0
			700	23.4	16.0	63.9	61.4	54.8	19.2	14.5	60.9	58.5	53.0	15.2	12.9	58.0	55.7	51.4
48	2.4	2.30	500	14.6	11.0	64.6	62.7	60.2	11.9	9.9	61.6	59.7	58.0	9.6	8.7	58.8	56.6	56.0
			600	15.5	12.3	66.1	63.7	61.0	12.8	11.1	62.9	60.5	58.7	9.9	9.8	59.9	57.5	56.3
			700	16.3	13.4	67.3	64.5	61.6	13.5	12.0	64.1	61.1	59.3	10.6	10.5	61.1	58.0	56.9
	3.6	5.00	500	17.0	11.9	63.0	61.3	57.5	13.6	10.7	60.2	58.5	55.6	10.6	9.3	57.7	55.8	53.9
			600	18.1	13.2	64.6	62.4	58.1	14.6	11.9	61.7	59.5	56.1	11.6	10.4	58.9	56.5	54.5
			700	19.1	14.5	65.9	63.3	58.6	15.5	13.0	62.8	60.2	56.6	12.4	11.4	59.9	57.1	54.9
	4.8	8.60	500	18.4	12.4	62.0	60.3	55.7	14.7	11.1	59.4	57.8	54.2	11.3	9.7	57.1	55.3	52.7
			600	19.8	13.8	63.7	61.5	56.3	15.9	12.4	60.9	58.8	54.6	12.3	10.9	58.2	56.1	53.2
			700	21.0	15.1	65.0	62.5	56.8	16.9	13.6	62.0	59.6	55.1	13.2	12.0	59.2	56.7	53.5

# CHILLED WATER COOLING CAPACITIES

## DHW-800

ENT WTR	GPM	PD FT.	CFM	85 deg F DB / 71 deg F WB					80 deg F DB / 67 deg F WB					75 deg F DB / 63 deg F WB				
				TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F
						DB	WB				DB	WB				DB	WB	
42	3.6	3.50	700	25.2	17.1	62.4	60.5	56.1	21.2	15.7	59.3	57.5	53.8	17.3	14.1	56.4	54.6	51.7
			800	26.4	18.4	63.8	61.6	56.7	22.2	16.9	60.5	58.4	54.3	18.2	15.2	57.4	55.3	52.1
			900	27.4	19.6	64.9	62.4	57.2	23.0	18.0	61.5	59.1	54.8	19.0	16.3	58.3	55.9	52.6
	4.8	6.10	700	28.0	18.1	61.1	59.2	53.7	23.4	16.6	58.1	56.4	51.8	19.1	14.9	55.3	53.6	50.0
			800	29.4	19.6	62.4	60.3	54.3	24.6	17.8	59.4	57.3	52.3	20.0	16.1	56.4	54.4	50.4
			900	30.6	20.8	63.6	61.2	54.8	25.6	19.1	60.4	58.1	52.7	21.0	17.2	57.3	55.1	50.8
6.0	9.40	700	30.0	18.9	60.1	58.3	52.0	25.0	17.2	57.3	55.6	50.4	20.2	15.4	54.7	53.0	48.8	
		800	31.6	20.2	61.5	59.4	52.6	26.4	18.5	58.6	56.5	50.8	21.4	16.7	55.7	53.8	49.2	
		900	33.0	21.6	62.7	60.3	53.1	27.6	19.9	59.6	57.3	51.2	22.4	17.8	56.7	54.5	49.5	
45	3.6	3.50	700	23.0	16.3	63.5	61.6	57.9	19.0	14.8	60.4	58.5	55.6	15.4	13.2	57.5	55.6	53.6
			800	24.0	17.6	64.7	62.5	58.4	19.9	15.9	61.6	59.3	56.1	16.2	14.3	58.5	56.2	54.1
			900	25.0	18.8	65.7	63.2	58.9	20.8	17.0	62.5	59.9	56.6	17.0	15.2	59.4	56.7	54.5
	4.8	6.10	700	25.6	17.2	62.3	60.4	55.7	21.0	15.6	59.4	57.6	53.8	16.7	13.8	56.7	54.9	52.0
			800	26.8	18.5	63.6	61.4	56.2	22.0	16.9	60.5	58.4	54.2	17.7	15.0	57.7	55.5	52.4
			900	28.0	19.9	64.6	62.2	56.7	23.0	18.0	61.5	59.1	54.6	18.5	16.1	58.5	56.1	52.7
6.0	9.30	700	27.4	17.9	61.4	59.6	54.1	22.4	16.1	58.7	56.9	52.5	17.8	14.3	56.1	54.3	50.9	
		800	28.8	19.3	62.7	60.6	54.6	23.6	17.5	59.8	57.7	52.9	18.7	15.5	57.1	55.1	51.3	
		900	30.2	20.6	63.9	61.4	55.1	24.8	18.7	60.8	58.4	53.3	19.7	16.6	58.0	55.6	51.6	
48	3.6	3.50	700	20.8	15.5	64.5	62.6	59.6	16.9	13.9	61.6	59.6	57.4	13.5	12.3	58.8	56.5	55.6
			800	21.6	16.7	65.7	63.4	60.1	17.8	15.1	62.5	60.2	57.9	14.4	13.2	59.7	57.0	56.0
			900	22.6	17.8	66.7	64.0	60.6	18.6	16.2	63.4	60.7	58.4	14.4	14.2	60.4	57.7	56.0
	4.8	6.10	700	23.0	16.3	63.5	61.6	57.6	18.5	14.7	60.6	58.8	55.7	14.5	12.9	58.0	56.0	54.1
			800	24.2	17.6	64.7	62.4	58.1	19.5	15.8	61.7	59.5	56.1	15.5	13.9	58.9	56.5	54.5
			900	25.2	18.9	65.6	63.1	58.5	20.4	16.9	62.6	60.1	56.5	16.3	14.9	59.7	57.0	54.8
6.0	9.30	700	24.6	16.8	62.8	60.9	56.2	19.7	15.1	60.1	58.2	54.6	15.2	13.2	57.5	55.7	53.1	
		800	26.0	18.3	63.9	61.7	56.7	20.8	16.4	61.1	58.9	55.0	16.2	14.4	58.4	56.2	53.4	
		900	27.0	19.5	65.0	62.5	57.1	21.8	17.5	62.0	59.5	55.3	17.1	15.4	59.2	56.6	53.7	

## DHW-1000

ENT WTR	GPM	PD FT.	CFM	85 deg F DB / 71 deg F WB					80 deg F DB / 67 deg F WB					75 deg F DB / 63 deg F WB				
				TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F	TTL MBH	SENS MBH	LVG AIR		DEG F
						DB	WB				DB	WB				DB	WB	
42	4.8	4.80	900	33.2	22.2	62.2	60.3	55.9	27.8	20.4	59.1	57.3	53.6	22.6	18.3	56.2	54.4	51.5
			1000	34.4	23.6	63.2	61.1	56.4	28.8	21.6	60.0	58.0	54.1	23.6	19.5	57.0	55.0	51.9
			1100	35.4	24.8	64.2	61.8	56.8	29.8	22.6	60.9	58.6	54.4	24.4	20.4	57.8	55.5	52.2
	6.0	7.40	900	36.0	23.2	61.1	59.3	54.0	30.0	21.2	58.2	56.4	52.1	24.4	19.1	55.4	53.6	50.2
			1000	37.4	24.6	62.2	60.1	54.5	31.2	22.4	59.2	57.1	52.5	25.6	20.2	56.2	54.3	50.5
			1100	38.5	26.0	63.2	60.9	54.9	32.4	23.8	60.0	57.8	52.8	26.4	21.4	57.0	54.8	50.8
7.2	10.50	900	38.0	24.0	60.3	58.5	52.6	31.8	21.8	57.5	55.7	50.8	25.8	19.7	54.8	53.1	49.2	
		1000	39.5	25.6	61.4	59.4	53.1	33.2	23.2	58.5	56.5	51.2	27.0	20.8	55.7	53.7	49.5	
		1100	41.0	26.8	62.4	60.1	53.5	34.4	24.4	59.4	57.2	51.6	28.0	22.0	56.4	54.3	49.8	
45	4.8	4.80	900	30.4	21.0	63.3	61.3	57.7	25.0	19.3	60.2	58.3	55.4	20.0	17.1	57.4	55.4	53.4
			1000	31.4	22.4	64.2	62.0	58.1	25.8	20.4	61.1	59.0	55.8	21.0	18.3	58.1	55.9	53.8
			1100	32.4	23.6	65.1	62.7	58.5	26.8	21.6	61.9	59.5	56.2	21.8	19.3	58.8	56.3	54.1
	6.0	7.40	900	32.8	22.0	62.3	60.4	56.0	27.0	20.0	59.4	57.6	54.0	21.4	17.7	56.8	54.9	52.2
			1000	34.2	23.4	63.3	61.2	56.4	28.0	21.2	60.3	58.2	54.4	22.4	18.9	57.5	55.4	52.5
			1100	35.2	24.8	64.2	61.8	56.8	29.0	22.4	61.1	58.8	54.7	23.2	20.0	58.2	55.9	52.8
7.2	10.40	900	34.6	22.8	61.6	59.8	54.7	28.4	20.6	58.9	57.0	52.9	22.6	18.3	56.2	54.4	51.3	
		1000	36.2	24.0	62.7	60.5	55.1	29.6	21.8	59.8	57.7	53.3	23.4	19.5	57.0	55.0	51.6	
		1100	37.4	25.4	63.6	61.2	55.4	30.8	23.0	60.6	58.3	53.6	24.4	20.6	57.7	55.5	51.8	
48	4.8	4.80	900	27.4	20.2	64.3	62.4	59.4	22.2	18.1	61.4	59.4	57.3	17.7	16.0	58.6	56.4	55.4
			1000	28.4	21.4	65.2	63.0	59.8	23.0	19.3	62.2	59.9	57.6	18.6	17.0	59.3	56.8	55.8
			1100	29.2	22.4	66.1	63.6	60.2	24.0	20.4	62.9	60.4	58.0	19.4	17.9	60.0	57.1	56.1
	6.0	7.30	900	29.6	20.8	63.5	61.6	57.9	23.8	18.8	60.7	58.8	56.0	18.7	16.5	58.1	56.0	54.2
			1000	30.8	22.2	64.5	62.3	58.3	24.8	19.9	61.6	59.4	56.3	19.6	17.5	58.8	56.4	54.6
			1100	31.8	23.4	65.3	62.8	58.6	25.6	21.0	62.3	59.8	56.6	20.4	18.6	59.4	56.8	54.8
7.2	10.40	900	31.2	21.4	62.9	61.0	56.7	25.0	19.3	60.2	58.3	55.0	19.4	16.8	57.7	55.7	53.4	
		1000	32.6	22.8	63.9	61.7	57.1	26.2	20.6	61.0	58.9	55.3	20.4	18.1	58.3	56.1	53.7	
		1100	33.6	24.2	64.7	62.3	57.4	27.0	21.8	61.7	59.4	55.6	21.2	19.0	59.0	56.5	53.9	



# DHW Series

## HEATING CAPACITIES FOR STANDARD DHW-4 COIL

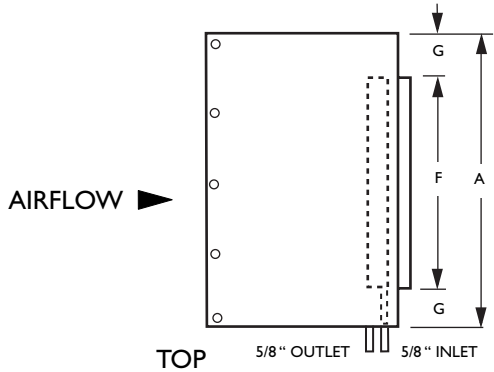
120°F ENTERING WATER TEMPERATURE									150°F ENTERING WATER TEMPERATURE									180°F ENTERING WATER TEMPERATURE										
GPM	FD FT.	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F			
<b>DHW-400</b>																												
300 CFM			400 CFM			500 CFM			300 CFM			400 CFM			500 CFM			300 CFM			400 CFM			500 CFM				
1.2	0.96	14	101.9	97.2	16	96.7	93.3	18	92.8	90.2	21	123.0	115.7	24	115.3	109.8	27	109.4	105.2	28	144.1	134.2	32	133.6	126.5	36	125.9	120.2
2.4	3.83	15	105.9	107.5	18	101.5	104.9	21	98.5	102.5	23	129.4	131.1	27	122.6	127.2	32	118.0	123.7	30	152.0	154.9	36	143.5	149.7	42	137.2	144.9
3.6	8.63	16	107.7	111.3	19	103.3	109.5	22	100.4	107.8	23	131.6	137.0	28	125.4	134.2	33	120.9	131.6	31	156.0	162.6	38	147.2	158.9	44	140.9	155.5
<b>DHW-600</b>																												
500 CFM			600 CFM			700 CFM			500 CFM			600 CFM			700 CFM			500 CFM			600 CFM			700 CFM				
2.4	1.76	21	98.0	102.7	23	95.2	100.8	25	92.8	99.2	31	116.9	124.2	35	112.9	121.2	37	109.1	118.7	41	136.1	145.4	46	130.5	141.6	50	125.5	138.3
3.6	3.95	22	100.0	107.9	25	97.6	106.3	27	95.4	105.0	33	120.4	131.7	37	116.6	129.4	40	113.1	127.5	44	140.4	155.7	49	135.4	152.6	54	131.0	149.9
4.8	7.02	27	101.5	110.6	25	99.0	109.4	28	96.4	108.4	34	122.0	135.9	38	118.4	134.1	42	115.0	132.5	45	142.9	161.2	51	138.1	158.7	56	133.1	156.7
<b>DHW-800</b>																												
700 CFM			800 CFM			900 CFM			700 CFM			800 CFM			900 CFM			700 CFM			800 CFM			900 CFM				
3.6	2.64	29	97.9	103.9	31	96.0	102.6	33	94.0	101.4	43	116.9	125.9	47	114.0	123.8	50	111.3	122.1	58	136.0	147.8	63	131.8	145.2	67	128.3	142.8
4.8	4.69	30	99.6	107.4	33	97.6	106.3	35	96.0	105.3	45	119.4	131.1	49	116.5	129.5	53	114.0	127.9	60	139.2	154.8	66	135.3	152.6	71	132.0	150.6
6.0	6.76	31	100.4	109.7	34	98.5	108.8	36	96.8	108.0	46	120.8	134.5	51	118.0	133.1	54	115.6	131.8	62	141.0	159.4	67	137.4	157.5	72	133.8	155.9
<b>DHW-1000</b>																												
900 CFM			1000 CFM			1100 CFM			900 CFM			1000 CFM			1100 CFM			900 CFM			1000 CFM			1100 CFM				
4.8	2.85	37	98.0	104.5	40	96.6	103.4	42	95.1	102.5	56	117.2	126.6	60	114.9	125.1	63	112.9	123.6	75	136.4	148.8	80	133.0	146.8	84	130.3	144.9
6.0	4.46	38	99.0	107.2	41	97.6	106.3	43	96.2	105.5	58	118.8	130.8	61	116.4	129.5	65	114.5	128.2	77	138.5	154.3	82	135.2	152.7	87	132.6	151.0
7.2	6.42	39	100.0	109.1	42	98.3	108.4	44	97.0	107.7	59	120.0	133.6	63	117.9	132.5	67	115.6	131.5	78	139.9	158.2	84	137.0	156.7	89	134.0	155.4

Capacities calculated and based on entering air temperatures of 60 degrees.  
Units not recommended for heating applications when leaving air exceeds 140 degrees.

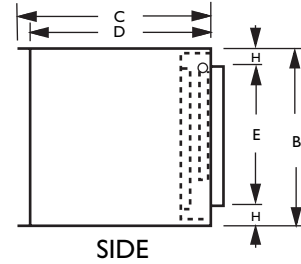
HOT WATER HEATING CORRECTION FACTORS									
Entering Air Temp (F)	Entering Water Temp (F)								
	100°	110°	120°	130°	140°	150°	160°	170°	180°
50°	.419	.500	.579	.665	.742	.838	.917	1.000	1.090
55°	.376	.460	.544	.629	.708	.791	.873	.963	1.048
60°	.335	.419	.500	.579	.665	.742	.838	.917	1.000
65°	.290	.376	.460	.544	.629	.708	.791	.873	.963
70°	.251	.335	.419	.500	.579	.665	.742	.838	.917
75°	.205	.290	.376	.460	.544	.629	.708	.791	.873
80°	.167	.251	.335	.419	.500	.579	.665	.742	.838

When correction factors are used for various entering water temperatures, multiply the correction factor times the 180° E.W.T. capacity. The correction factors may be used with all Magic Aire published 180° E.W.T. heating capacities.





**HH-400, 600, 800  
and 1000-2 Series  
for DHW Models**



The Hot Water Coils are to be field installed on the discharge side of the unit. When the hot water coils section is placed on the discharge end of the DHW or DHX unit, a flange will extend over the unit on the top and bottom. Screws should be installed in these flanges to secure the hot water coil to the unit.

### Hot Water Section Cabinet Dimensions

MODEL	A	B	C	D	E	F	G	H	SHIPPING WEIGHTS
HH-400-2	29.00	12.75	16	15	9	22.00	3.5	1.75	35
HH-600-2	25.00	14.75	16	15	11	18.00	3.5	1.75	32
HH-800-2	31.50	14.75	16	15	11	24.50	3.5	1.75	37
HH-1000-2	38.00	14.75	16	15	11	31.00	3.5	1.75	42


### Two Row Hot Water Heating Capacities (Not Suitable for Steam)

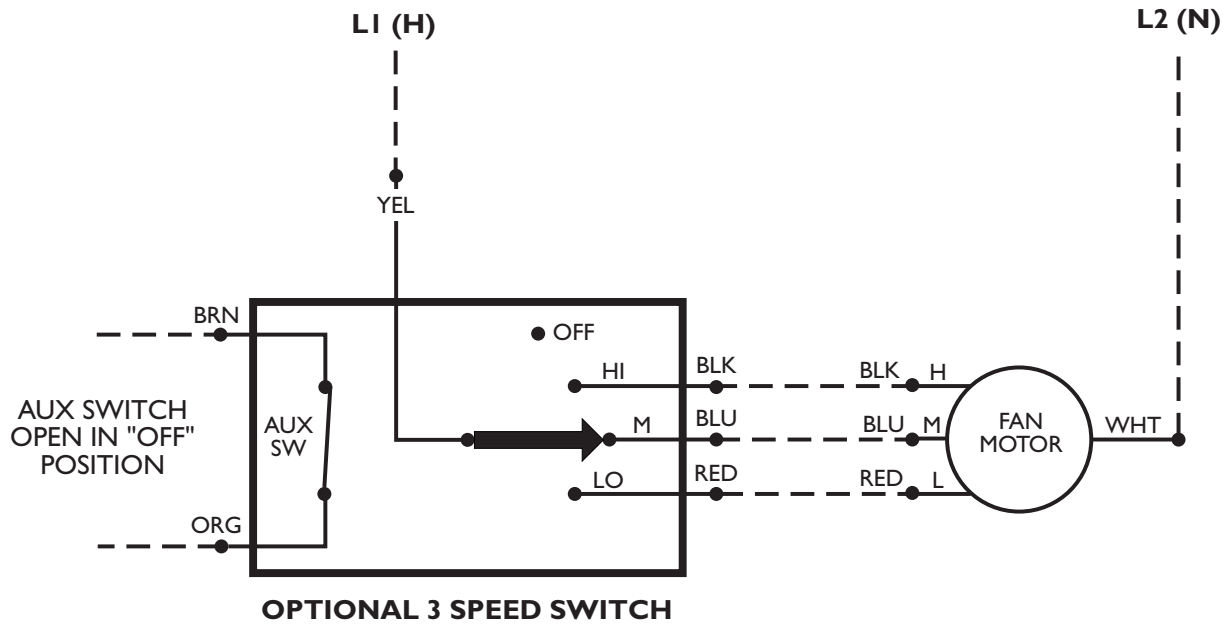
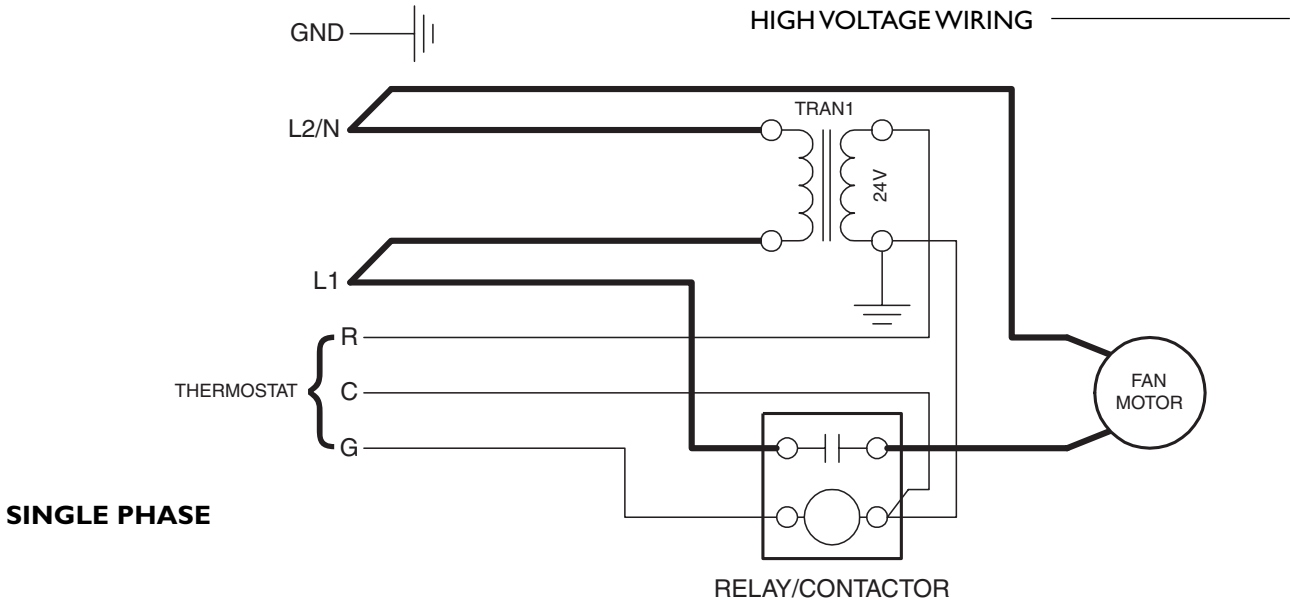
120°F ENTERING WATER TEMPERATURE										150°F ENTERING WATER TEMPERATURE										180°F ENTERING WATER TEMPERATURE									
GPM	PD FT.	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	TOT MEH	LVG AIR °F	LVG WTR °F	
HH-400-2																													
300 CFM										400 CFM										500 CFM									
1.0	0.37	9	87.5	102.0	11	84.1	99.0	12	81.1	97.0	14	101.3	123.0	16	96.2	118.4	17	91.7	115.4	18	115.0	144.0	21	108.4	137.8	23	102.2	134.0	
2.0	1.48	10	90.9	109.9	12	87.5	108.0	14	84.8	106.5	15	106.2	134.9	18	101.5	131.9	20	97.1	129.8	20	121.8	159.8	24	115.3	155.9	27	109.4	153.1	
3.0	3.03	11	92.1	113.0	13	89.1	111.5	14	86.1	110.5	16	108.3	139.4	19	103.8	137.3	21	99.3	135.7	21	123.9	166.1	26	119.5	163.0	28	112.1	161.1	
HH-600-2																													
500 CFM										600 CFM										700 CFM									
2.0	.60	13	84.0	106.9	14	81.7	105.8	15	79.9	104.8	20	95.8	130.5	21	92.6	128.7	23	90.0	127.1	26	107.9	153.9	29	103.6	151.5	30	99.4	149.9	
3.0	1.36	14	85.9	110.6	16	83.7	109.7	17	81.9	108.9	21	98.7	135.9	23	95.5	134.5	25	92.8	133.3	28	111.6	161.3	31	107.6	159.3	33	103.8	157.7	
4.0	2.41	14	86.4	112.8	16	84.5	112.0	17	82.5	111.4	22	99.8	139.1	24	96.7	138.0	26	93.8	137.1	29	112.7	165.7	32	108.9	164.0	34	105.1	162.8	
HH-800-2																													
700 CFM										800 CFM										900 CFM									
3.0	1.67	19	84.8	107.4	20	83.2	106.5	22	81.9	105.7	28	97.1	131.1	30	94.9	129.7	32	92.8	128.5	38	109.3	154.9	41	106.4	153.0	43	103.8	151.3	
4.0	2.96	20	85.6	110.2	21	84.1	109.5	22	82.7	108.8	29	98.4	135.3	31	96.0	134.3	33	94.0	133.3	39	111.1	160.5	42	108.2	159.0	45	105.5	157.7	
5.0	4.63	20	86.3	112.0	22	84.8	111.4	23	83.3	110.8	30	99.4	138.0	32	97.0	137.1	34	95.0	136.3	40	112.0	164.1	43	109.4	162.8	46	106.7	161.7	
HH-1000-2																													
900 CFM										1000 CFM										1100 CFM									
4.0	1.12	24	84.3	108.1	25	83.1	107.4	26	82.0	106.8	36	96.4	132.1	38	94.6	131.1	40	92.9	130.2	48	108.5	156.2	50	106.1	154.8	53	103.9	153.7	
5.0	1.65	25	85.0	110.2	26	83.9	109.6	27	82.8	109.1	37	97.4	135.3	39	95.6	134.5	41	94.0	133.7	49	109.8	160.4	52	107.6	159.2	55	105.5	158.2	
6.0	2.28	25	85.6	111.6	27	84.5	111.1	28	83.4	110.7	38	98.3	137.5	40	96.8	136.6	42	94.9	136.0	50	110.7	163.4	53	108.9	162.2	56	106.5	161.4	

Capacities calculated and based on entering air temperatures of 60 degrees.  
Units not recommended for heating applications when leaving air exceeds 140 degrees.

Wiring, transformer, fan relay and terminal strips field provided.  
**Transformer Primary must match Supply Voltage.**

REFER TO NAMEPLATE FOR PROPER VOLTAGE

LOW VOLTAGE WIRING   
 HIGH VOLTAGE WIRING 





# Magic Aire®

## ENGINEERING SPECIFICATIONS

United Electric Company designs and builds its *Magic Aire* products to comply and perform to the following standards:

<b>AIR FLOW</b>	General	AMCA 210 ASHRAE 51
<b>COIL CAPACITY</b>	Hydronic Direct Expansion	ARI 410 ARI 210
<b>IN DUCT SOUND RATINGS</b>	Air Moving Equipment	ASHRAE 68 AMCA 330
<b>SAFETY AGENCY LISTINGS</b>	Coils UL Report # Equipment  ETL Report #	UL 207 SA 3438 CAN/CSA C22.2 #236 ANSI/UL-1995 491893
<b>MATERIAL SPECIFICATIONS</b>	Sheet Metal  Copper Tubing  Aluminum	ASTM A525 ASTM A527 ASTM B68 ASTM B75 ASTM B88 ASTM B251 ASTM B209
<b>MAJOR COMPONENTS</b>	Motors  Wire Electrical Filters  Fiberglass  Paint	UL/CSA NEMA UL/CSA UL/CSA UL ASHRAE 52 UL 181 UL 723 (25/50) ASTM E-84 ASTM B117



**MAGIC AIRE DHW SERIES FAN COILS ARE ETL  
LISTED IN ACCORDANCE WITH UL 1995  
AND ARE ASSEMBLED TO ORDER FOR COMPETITIVE DELIVERY.**

## UNITED ELECTRIC COMPANY, L.P.

501 Galveston St. • Wichita Falls, Texas 76301 • 940-397-2100 • Fax 940-397-2166