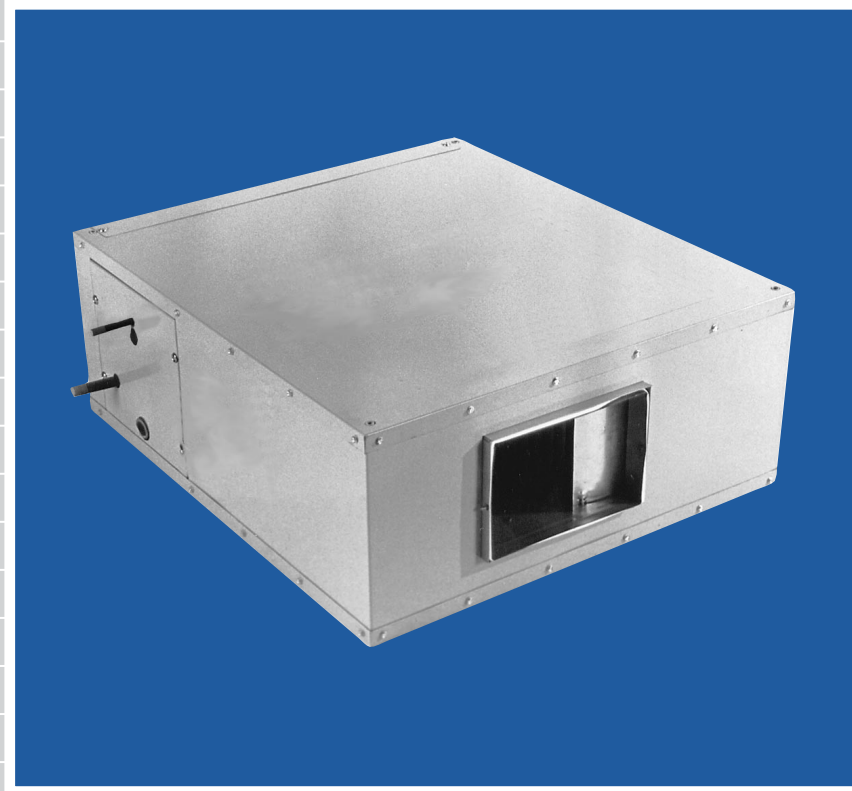


# Magic Aire®

## DHX SERIES



## HORIZONTAL DIRECT DRIVE DIRECT EXPANSION AIR UNITS

**OPTIONAL ACCESSORIES**  
Two Row Hot Water Coil

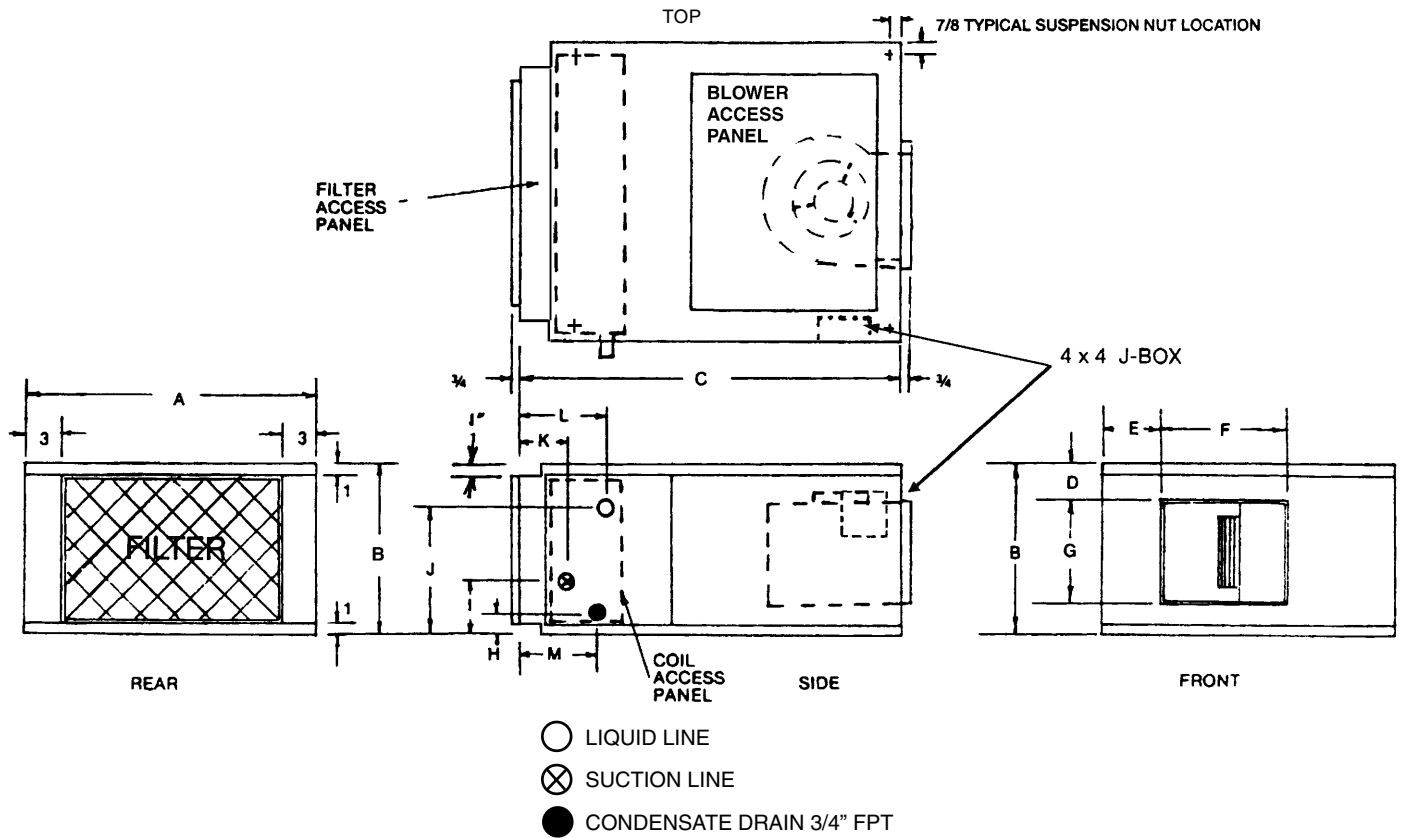


**MAGIC AIRE DHX SERIES FAN COILS ARE ETL  
LISTED IN ACCORDANCE WITH UL 1995  
AND ARE ASSEMBLED TO ORDER FOR COMPETITIVE DELIVERY.**

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

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

RIGHT HAND SHOWN



### DHX Series Unit Cabinet Dimensions

MODEL	UNIT			BLOWER OPENING INLET				STUBOUTS LOCATIONS					
	A	B	C	D	E	F	G	H	I	J	K	L	M
DHX-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
DHX-600	25	14.5	32.5	3	5	10.75	8.75	2.25	4.50	11.00	4.00	6.625	7.375
DHX-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
DHX-1000	38	14.5	34	3	10.25	11.75	8.75	1.875	4.50	10.50	4.00	6.875	7.375

### DHX 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
				115/1	208-230/1	277/1			Liquid	Suction	
									O.D. SWT	O.D. SWT	
DHX-400	1.50	4-3/8	1	1/10/1.2	0.8	0.9	9-4	11.75 X 24.375	3/8"	5/8"	102
DHX-600	1.53	4-3/8	1.5	1/6/3.7	1.0	0.9	9-6	14 X 20.75	3/8"	5/8"	103
DHX-800	2.02	4-3/8	2	1/4/3.7	1.3	2.2	9-6	13.5 X 27	3/8"	5/8"	125
DHX-1000	2.52	4-3/8	2.5	1/3/4.9		2.4	10-6	13.75 X 33.75	3/8"	3/4"	140

Motors – PSC 115V-1-60 Speed Direct Drive; 3 Speed Wall Switch (opt.) 1075 RPM



## DHX Series AIR FLOW

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

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



# DHX Series

## DIRECT EXPANSION COOLING CAPACITIES

### DHX-400

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	9.32	300	17.9	10.6	52.3	52.3	14.8	9.6	50.5	50.3	12.0	8.5	48.8	48.5
		400	20.6	12.6	55.8	55.3	17.3	11.5	53.4	52.8	14.1	10.2	51.3	50.5
		500	22.8	14.4	58.4	57.4	19.2	13.1	55.7	54.6	15.8	11.8	53.2	52.0
45	6.56	300	15.4	9.6	55.4	55.3	12.4	8.5	53.8	53.5	9.5	7.3	52.4	51.9
		400	18.0	11.5	58.3	57.6	14.5	10.3	56.1	55.3	11.2	8.9	54.3	53.3
		500	20.0	13.2	60.5	59.3	16.2	11.9	58.0	56.7	12.6	10.4	55.8	54.4
50	4.15	300	12.7	8.5	58.7	58.4	9.6	7.3	57.3	56.8	6.9	6.2	55.9	55.2
		400	14.9	10.4	61.0	60.2	11.3	9.0	59.2	58.2	8.2	7.6	57.4	56.1
		500	16.6	12.0	62.8	61.5	12.7	10.5	60.6	59.2	9.3	8.8	58.6	56.8

### DHX-600

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	3.55	500	22.6	14.3	58.5	57.5	19.2	13.1	55.7	54.6	15.7	11.8	53.2	52.0
		600	24.4	15.9	60.5	59.1	20.6	14.6	57.5	56.0	17.1	13.2	54.7	53.2
		700	25.8	17.3	62.2	60.3	22.0	15.9	59.0	57.1	18.2	14.4	56.0	54.1
45	9.84	500	19.9	13.2	60.5	59.3	16.2	11.9	58.0	56.7	12.6	10.4	55.7	54.4
		600	21.4	14.8	62.2	60.7	17.6	13.3	59.5	57.8	13.7	11.7	56.9	55.3
		700	22.8	16.1	63.7	61.7	18.7	14.6	60.7	58.7	14.7	12.9	58.0	56.0
50	6.42	500	16.6	12.0	62.8	61.5	12.7	10.5	60.6	59.1	9.3	8.9	58.5	56.7
		600	18.0	13.4	64.3	62.5	13.8	11.8	61.8	59.9	10.4	10.0	59.5	57.2
		700	19.1	14.8	65.5	63.3	14.8	13.0	62.8	60.5	11.3	11.1	60.3	57.6

### DHX-800

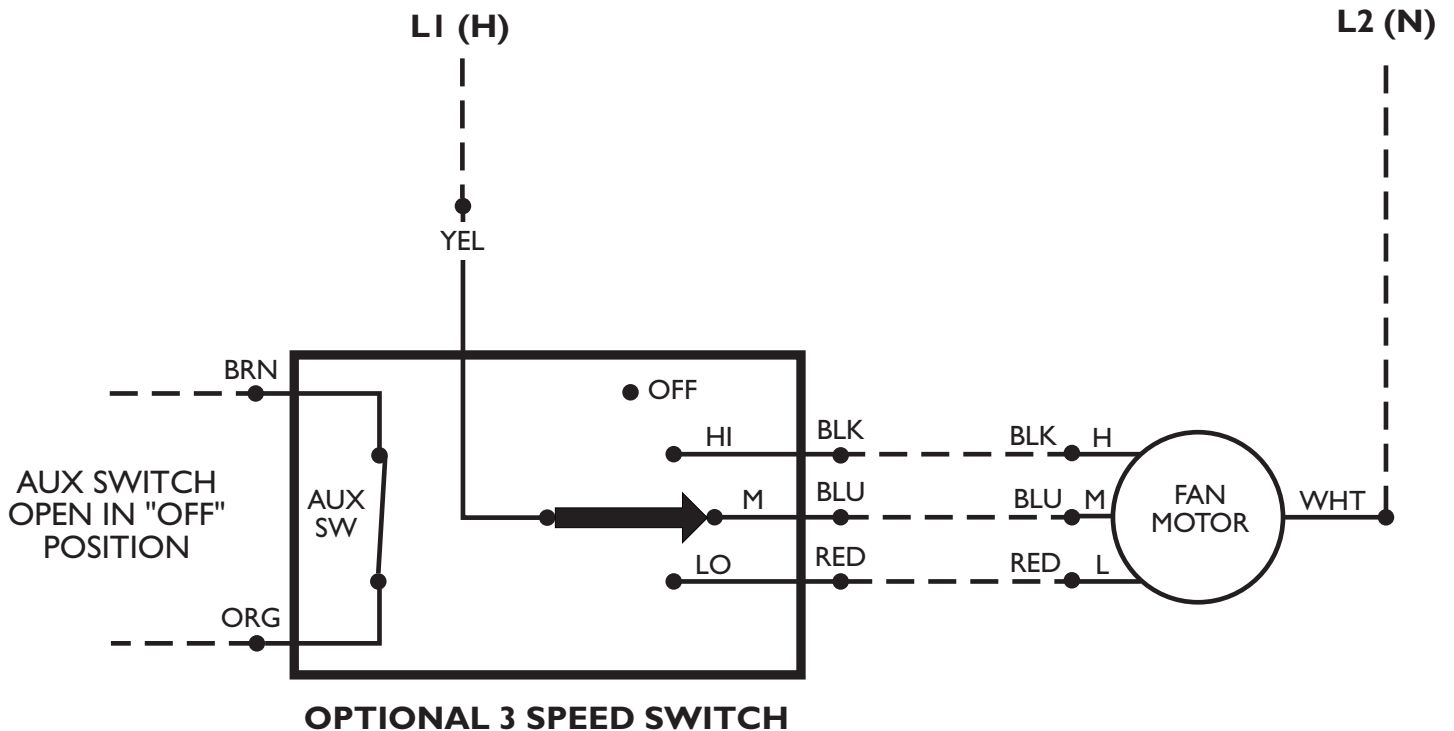
			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	19.72	700	27.0	18.2	61.0	59.7	23.2	16.8	57.8	56.5	19.5	15.4	54.7	53.4
		800	28.2	19.6	62.4	60.8	24.4	18.2	59.0	57.4	20.4	16.5	55.9	54.2
		900	29.2	20.6	63.7	61.7	25.2	19.4	60.1	58.3	21.2	17.7	56.8	55.0
45	15.20	700	24.2	17.1	62.4	61.0	20.2	15.6	59.4	58.0	16.2	13.9	56.6	55.2
		800	25.4	18.5	63.6	61.9	21.2	16.9	60.5	58.8	17.1	15.1	57.5	55.8
		900	26.4	19.8	64.7	62.7	22.0	18.1	61.4	59.4	17.8	16.3	58.3	56.4
50	10.61	700	20.8	15.8	64.1	62.5	16.5	14.2	61.3	59.8	12.5	12.2	58.9	57.0
		800	21.8	17.2	65.1	63.3	17.4	15.4	62.2	60.4	13.5	13.2	59.7	57.4
		900	22.8	18.5	66.0	63.9	22.8	18.5	66.0	63.9	22.8	18.5	66.0	63.9

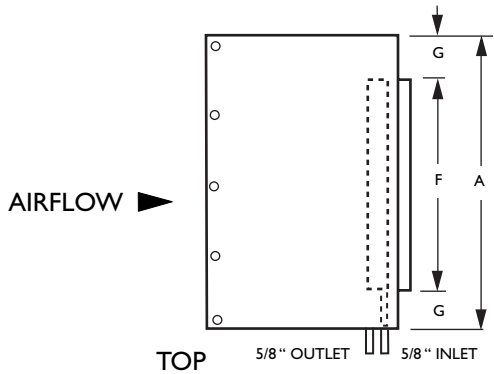
### DHX-1000

			85 degF DB/71 deg F WB				80 degF DB/67 deg F WB				75 degF DB/63 deg F WB			
Suct Temp	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	16.88	900	36.0	23.8	60.6	59.3	30.8	22.0	57.4	56.1	25.6	20.0	54.5	53.1
		1000	37.2	25.2	61.7	60.2	32.0	23.4	58.4	56.9	26.8	21.2	55.4	53.8
		1100	38.5	26.6	62.7	60.9	33.0	24.6	59.3	57.6	27.8	22.4	56.2	54.4
45	12.68	900	32.0	22.2	62.1	60.7	26.6	20.2	59.2	57.8	21.0	17.9	56.6	55.1
		1000	33.4	23.6	63.1	61.4	27.6	21.4	60.1	58.4	22.0	19.2	57.3	55.6
		1100	34.4	25.0	64.0	62.1	28.6	22.8	60.8	58.9	22.8	20.2	58.0	56.0
50	8.59	900	27.4	20.6	63.9	62.4	21.2	18.2	61.3	59.7	16.1	15.6	59.0	57.0
		1000	28.4	21.8	64.8	63.0	22.2	19.5	62.0	60.2	17.1	16.7	59.6	57.3
		1100	29.4	23.2	65.5	63.5	23.2	20.6	62.7	60.6	18.0	17.6	60.2	57.6

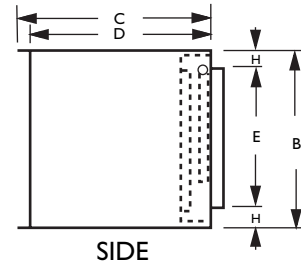
HOT WATER HEATING CORRECTION FACTORS									
Entering Air Temp (F)	Entering Water Temp (F)								
	100°	110°	120°	130°	140°	150°	160°	170°	180°
50°	.419	.500	.579	.665	.742	.838	.917	1.000	1.090
55°	.376	.460	.544	.629	.708	.791	.873	.963	1.048
60°	.335	.419	.500	.579	.665	.742	.838	.917	1.000
65°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



# Magic Aire®

## FEATURES

1. Aluminum fin-copper tube coils.
2. Direct drive blowers.
3. Forward curve blower wheels factory balanced.
4. Motors have overload protection.
5. Piston flow control for R-22 only.
6. Heat pump by-pass included.
7. Fully insulated with 3/4" fiberglass with an R value equal to 3.26.
8. 1" throwaway filters are standard on all units.
9. DHX units have 3/8" NC thread nuts spotwelded in each corner of top panel for easy suspension.
10. 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.
11. Header connections are stacked located on right hand side (when looking with airflow) and drain connections located on both sides.



**MAGIC AIRE DHX 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