

# SunTherm<sup>TM</sup>

HEATING PRODUCTS

## High Efficiency Series

HEU1/HEC1 Direct Expansion Cooling/Electric Heating  
HEU2/HEC2 Direct Expansion Cooling/Hot Water Heating  
HEU3/HEC3 Chilled Water Cooling/Electric Heating  
HEU4/HEC4 Chilled Water Cooling/Hot Water Heating

### Description:

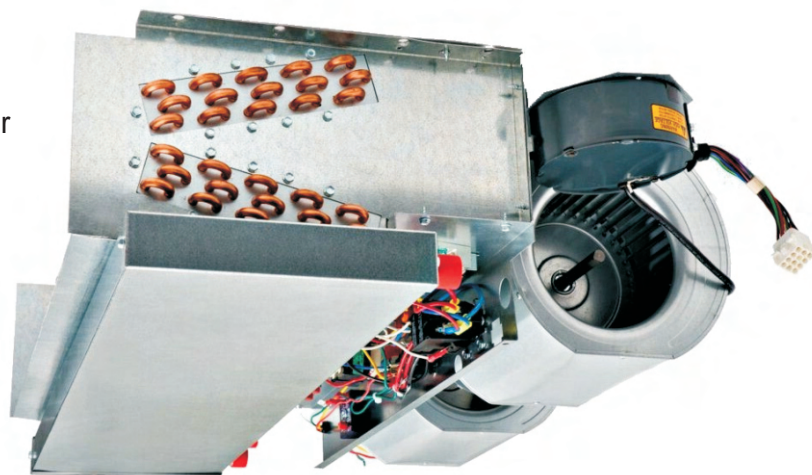
The High Efficiency Series air handlers are engineered to achieve or exceed today's demanding energy rating requirements. Specifically designed for horizontal mounting into a furred down ceiling. Advanced engineering allows these units to efficiently handle up to 1200 CFM and up to 3 tons of cooling with a DX cooling coil, heat pump coil or Chilled Water coil. These units are available with up to 10 KW of electric heat or up to 51,000 MBTUH of hot water heating capacity. For DX cooling requirements, these air handlers can be matched with most manufacturer's condensing units and heat pumps.

The "U" series air handlers are exposed blower type and the "C" series air handlers are equipped with an insulated cabinet over the top and sides. The bottom of the case is open to accommodate a solid or louvered filtered access panel.

The cased units have a knock-out for rear return air. Return air duct flanges and filter racks are field supplied.

### Standard Features:

- \* Advanced engineered High Efficiency "A" Coil Design
- \* ECM Brushless DC Motor
- \* High Performance Blower Housings
- \* Electric heat models are 208/230/1/60.
- \* Hot water heat models are 115/1/60.
- \* Water circulating pump is factory installed on hot water heat models.
- \* Space saving design.
- \* Galvanized steel blower wheels.
- \* Pre-wired for cooling and heating.
- \* Control transformer.
- \* Primary and secondary drain pans.
- \* Easy access for service and maintenance.
- \* High efficiency copper tubes aluminum fin coils.



### Field Installed Options:

- \* Louvered or non-louvered ceiling access panels.
- \* Time delay relay.

### Factory Installed Options:

- \* Thermostatic expansion valve. All expansion valves are suitable for heat pump applications.



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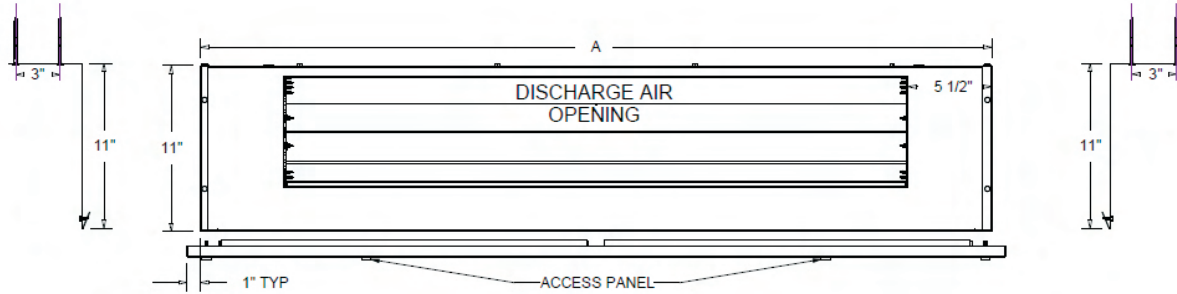
Mortex Products Inc.  
501 Terminal Road  
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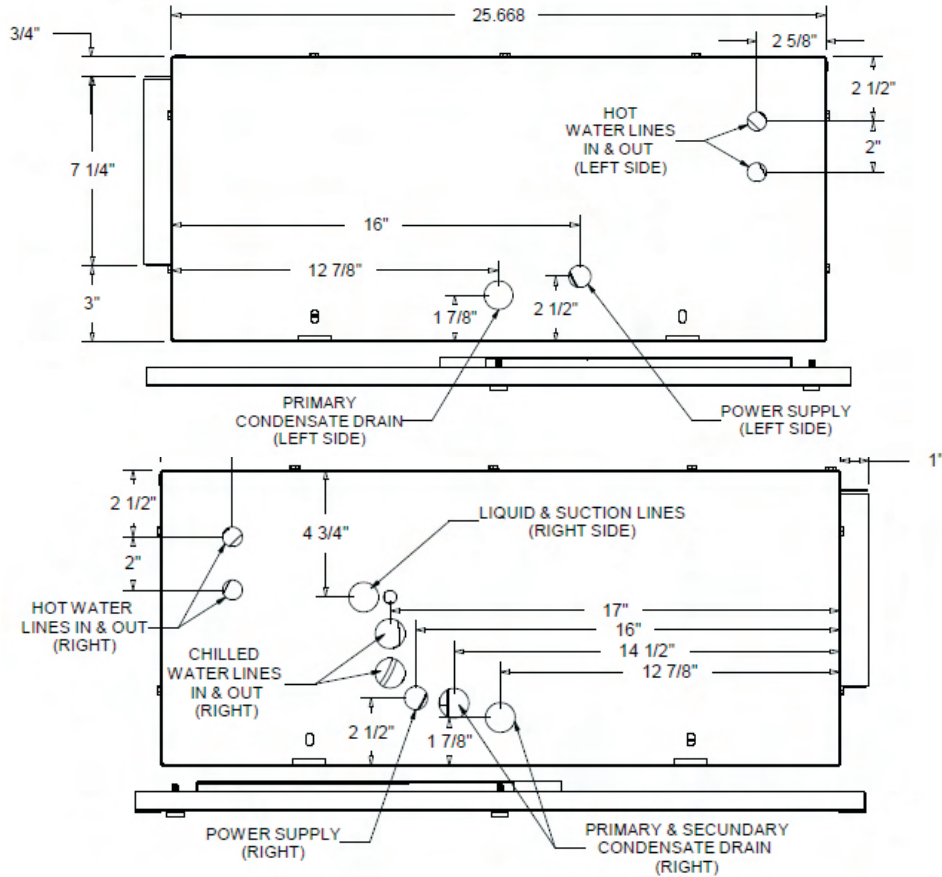
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### PHYSICAL DIMENSIONS

MODEL	A	B	C	D	E	F	G
HEUX-XX-X-A	41"	3 1/8"	7 5/8"	4"	3"	5 7/8"	3 3/16"
HEUX-XX-X-B	47"	2 1/8"	6"	3"	2"	4 3/4"	2 1/8"
HEUX-XX-X-C	53 1/2"	3 3/8"	8 1/2"	4 1/4"	3 1/4"	6"	3 1/2"
HEUX-XX-X-D	60 1/2"	3 1/2"	12"	4 1/4"	3 1/4"	6"	3 1/2"

MODEL	DISCHARGE AIR
HEUX-XX-X-A	30 1/4" X 7 1/2"
HEUX-XX-X-B	38 1/4" X 7 1/2"
HEUX-XX-X-C	42 1/4" X 7 1/2"
HEUX-XX-X-D	49 1/4" X 7 1/2"



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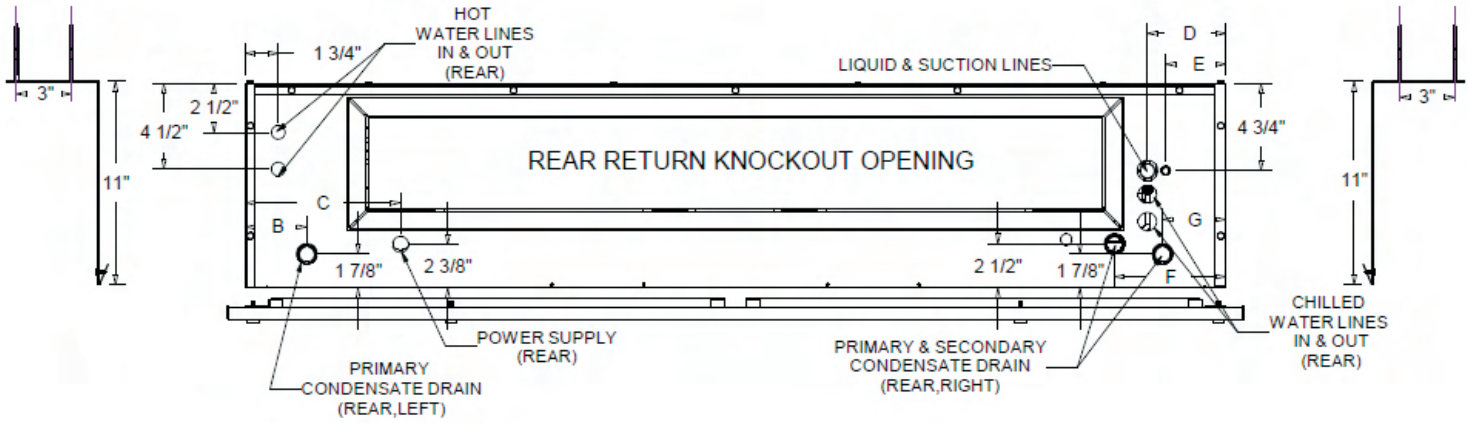
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### REAR RETURN

MODEL	KNOCKOUT OPENING
HEUX-XX-X-A	30 3/8" X 7 1/4"
HEUX-XX-X-B	38 3/8" X 7 1/4"
HEUX-XX-X-C	42 3/8" X 7 1/4"
HEUX-XX-X-D	49 3/8" X 7 1/4"



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### BLOWER PERFORMANCE "CONSTANT TORQUE" MOTOR AIR FLOW

Model Number	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Code	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
HE*1-**-*-AC Electric	1.5 - 2.0	0.33	240	*J	(2) 7 X 8	1	541	482	416	357	315
						2	646	598	541	482	438
						3	735	694	659	597	549
						4	840	804	770	735	672
						5	888	851	819	785	739
HE*1-**-*-BC Electric	1.5 - 2.5	0.33	240	*K	(2) 7 X 9	1					
						2					
						3					
						4					
						5					
HE*1-**-*-BC Electric	1.5 - 2.5	0.50	240	*M	(2) 7 X 9	1	906	837	762	701	627
						2	1019	955	887	822	768
						3	1101	1043	987	922	846
						4	1202	1151	1098	1041	981
						5	1312	1258	1209	1151	1105
HE*1-**-*-CC Electric	1.5 - 3.0	0.50	240	*M	(2) 7 X 9	1	928	836	750	689	617
						2	1024	948	866	798	739
						3	1131	1062	989	917	846
						4	1225	1160	1091	1026	957
						5	1327	1267	1211	1138	1075
HE*1-**-*-DC Electric	1.5 - 3.0	0.50	240	*M	(2) 7 X 9	1	987	922	849	769	696
						2	1073	1008	945	880	817
						3	1191	1127	1071	1006	949
						4	1285	1241	1186	1127	1047
						5	1400	1332	1290	1246	1191



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### BLOWER PERFORMANCE "CONSTANT TORQUE" MOTOR AIR FLOW

Model Number	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Code	Blower Wheel	Motor Tap	AMPS @ 0.10"	AMPS @ 0.20"	AMPS @ 0.30"	AMPS @ 0.40"	AMPS @ 0.50"
HE*1-**-*-AC Electric	1.5 - 2.0	0.33	240	*J	(2) 7 X 8	1	0.28	0.30	0.33	0.36	0.38
						2	0.36	0.39	0.43	0.45	0.48
						3	0.47	0.50	0.53	0.56	0.59
						4	0.62	0.64	0.67	0.70	0.74
						5	0.69	0.72	0.75	0.78	0.81
HE*1-**-*-BC Electric	1.5 - 2.5	0.33	240	*K	(2) 7 X 9	1					
						2					
						3					
						4					
						5					
HE*1-**-*-BC Electric	1.5 - 2.5	0.50	240	*M	(2) 7 X 9	1	0.61	0.65	0.66	0.68	0.71
						2	0.74	0.78	0.81	0.83	0.86
						3	0.87	0.92	0.95	0.97	0.99
						4	1.08	1.11	1.13	1.16	1.2
						5	1.33	1.36	1.41	1.43	1.46
HE*1-**-*-CC Electric	1.5 - 3.0	0.50	240	*M	(2) 7 X 9	1	0.51	0.54	0.57	0.61	0.64
						2	0.62	0.66	0.70	0.72	0.76
						3	0.75	0.78	0.82	0.85	0.88
						4	0.88	0.92	0.96	0.98	1.04
						5	1.08	1.12	1.13	1.16	1.21
HE*1-**-*-DC Electric	1.5 - 3.0	0.50	240	*M	(2) 7 X 9	1	0.75	0.78	0.81	0.85	0.88
						2	0.90	0.94	0.95	1.00	1.03
						3	1.10	1.13	1.16	1.16	1.20
						4	1.35	1.38	1.42	1.46	1.50
						5	1.66	1.70	1.73	1.77	1.80



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**ELECTRICAL DATA - ELECTRIC HEAT**

Furnace Model	Electric Heater Data						Total Load					Minimum Circuit Ampacity					Maximum Overcurrent Protection					Short-Circuit Current Rating						
	Motor Code	Motor HP	Volts 1 Ph	Motor Type	Motor Amps 240V	Motor Amps 208V	No Circuits	KW 240V	KW 208V	KW Amps 240V	KW Amps 208V	Amps 115V	Amps 208V	Amps 208V	Amps 240V	Amps 240V	MCA 115V	MCA 208V	MCA 208V	MCA 240V	MCA 240V	MOCP 115V	MOCP 208V	MOCP 208V	MOCP 240V	MOCP 240V	"SCCR"	
												Cr 1	Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 1	Cr 2	Cr 1	Cr 2	Cr 1	Cr 1	Cr 2	Cr 1	Cr 2	kA	V
												rms symmetrical	maximum															
HE*1-**-*-AC	*J	1/3	208/240	Constant Torque	0.75	0.64	1	0.0	0.0	0.0	0.0	-	0.64	-	0.75	-	-	0.80	-	0.94	-	-	15	-	15	-	n/a	n/a
								3.0	2.3	12.5	10.9	-	11.5	-	13.3	-	-	14.4	-	16.6	-	-	15	-	20	-	n/a	n/a
								5.0	3.8	20.8	18.2	-	18.8	-	21.6	-	-	23.6	-	26.9	-	-	25	-	30	-	n/a	n/a
								6.0	4.5	25.0	21.9	-	22.5	-	25.8	-	-	28.2	-	32.2	-	-	30	-	35	-	n/a	n/a
								8.0	6.0	33.3	29.2	-	29.8	-	34.1	-	-	37.3	-	42.6	-	-	40	-	45	-	n/a	n/a
HE*1-**-*-BC	*K	1/3	208/240	Constant Torque	0.68	0.58	1	0.0	0.0	0.0	0.0	-	0.58	-	0.68	-	-	1.50	-	1.75	-	-	15	-	15	-	n/a	n/a
								3.0	2.3	12.5	10.9	-	11.5	-	13.2	-	-	14.4	-	16.5	-	-	20	-	20	-	n/a	n/a
								5.0	3.8	20.8	18.2	-	18.8	-	21.5	-	-	23.5	-	26.9	-	-	25	-	30	-	n/a	n/a
								6.0	4.5	25.0	21.9	-	22.5	-	25.7	-	-	28.1	-	32.1	-	-	30	-	35	-	n/a	n/a
								8.0	6.0	33.3	29.2	-	29.8	-	34.0	-	-	37.2	-	42.5	-	-	40	-	45	-	n/a	n/a
HE*1-**-*-BC	*M	1/2	208/240	Constant Torque	1.41	1.20	1	0.0	0.0	0.0	0.0	-	1.20	-	1.41	-	-	1.50	-	1.76	-	-	15	-	15	-	n/a	n/a
								3.0	2.3	12.5	10.9	-	12.1	-	13.9	-	-	15.1	-	17.4	-	-	20	-	20	-	n/a	n/a
								5.0	3.8	20.8	18.2	-	19.4	-	22.2	-	-	24.3	-	27.8	-	-	25	-	30	-	n/a	n/a
								6.0	4.5	25.0	21.9	-	23.1	-	26.4	-	-	28.9	-	33.0	-	-	30	-	35	-	n/a	n/a
								8.0	6.0	33.3	29.2	-	30.4	-	34.7	-	-	38.0	-	43.4	-	-	40	-	45	-	n/a	n/a
								10.0	7.5	41.6	36.5	-	37.7	-	43.0	-	-	47.1	-	53.8	-	-	50	-	60	-	n/a	n/a
HE*1-**-*-CC	*M	1/2	208/240	Constant Torque	1.13	0.96	1	0.0	0.0	0.0	0.0	-	0.96	-	1.13	-	-	1.20	-	1.41	-	-	15	-	15	-	n/a	n/a
								3.0	2.3	12.5	10.9	-	11.9	-	13.6	-	-	14.8	-	17.0	-	-	20	-	20	-	n/a	n/a
								5.0	3.8	20.8	18.2	-	19.2	-	21.9	-	-	24.0	-	27.4	-	-	25	-	30	-	n/a	n/a
								6.0	4.5	25.0	21.9	-	22.9	-	26.1	-	-	28.6	-	32.7	-	-	30	-	35	-	n/a	n/a
								8.0	6.0	33.3	29.2	-	30.2	-	34.4	-	-	37.7	-	43.0	-	-	40	-	45	-	n/a	n/a
								10.0	7.5	41.6	36.5	-	37.5	-	42.7	-	-	46.8	-	53.4	-	-	50	-	60	-	n/a	n/a
HE*1-**-*-DC	*M	1/2	208/240	Constant Torque	1.73	1.47	1	0.0	0.0	0.0	0.0	-	1.47	-	1.73	-	-	1.84	-	2.16	-	-	15	-	15	-	n/a	n/a
								3.0	2.3	12.5	10.9	-	12.4	-	14.2	-	-	15.5	-	17.8	-	-	20	-	20	-	n/a	n/a
								5.0	3.8	20.8	18.2	-	19.7	-	22.5	-	-	24.6	-	28.2	-	-	25	-	30	-	n/a	n/a
								6.0	4.5	25.0	21.9	-	23.4	-	26.7	-	-	29.2	-	33.4	-	-	30	-	35	-	n/a	n/a
								8.0	6.0	33.3	29.2	-	30.7	-	35.0	-	-	38.3	-	43.8	-	-	40	-	45	-	n/a	n/a
								10.0	7.5	41.6	36.5	-	38.0	-	43.3	-	-	47.5	-	54.2	-	-	50	-	60	-	n/a	n/a