



2, 3, 4, 5 Ton

Multi-Position Hydronic Air Handler

Product Specifications

Models

CXAHM2443A
CXAHM3643A
CXAHM4843A
CXAHM6043A

Product Overview

ACCESSORIES

Electric or Water
Heat Elements

INSTALLATION

Multi-Positional

MOTOR

Direct Drive Variable-Speed
ECM Blower 115/208/230V

WARRANTY

1 Year

Our 2–5 ton water-cooled air handlers feature a versatile cabinet design that streamlines installation and adapts to virtually any layout. The galvanized, leather-grain embossed finish delivers heavy-duty corrosion resistance for long-lasting, reliable performance — even in the toughest commercial environments. Every unit is custom-built in-house to your exact specifications, with precision-engineered water-cooled coils (and optional water-heated coils) designed and manufactured by our team. And, as always, your system is backed by our one-year limited warranty and industry-leading support.

Performance Features

- **Variable-speed, direct-drive motor** delivers precise airflow control for both heating and cooling applications
- **Custom-engineered Hydronic coils** optimize thermal performance and ensure a long service life
- **ASHRAE 193–tested cabinet tightness** : < 2.0 % leakage at 1.0 " WC; < 1.4 % at 0.5 " WC
- **Integrated transformer & blower time-delay** for smooth startups and extended component life
- **Adhesive-free insulation retention** secures liner without glue, eliminating potential failure points
- **ETL Listed Components** for verified safety and performance compliance
- **Heat & Mass Dehumidification** Delivers up to 135 pints/day per ton for ultimate humidity control.

Installation Features

- **Tool-free filter access** for fast, no-hassle maintenance
- **Standard-size filter compatibility** to keep replacement costs down
- **Multi-position installation** : supports horizontal, vertical, upflow, and downflow orientations
- **Built-in electrical knockouts** for flexible, simplified wiring
- **Quick-adjust coil-mounting track** lets you reposition heating and cooling coils in seconds
- **DecaBDE-free thermoplastic drain pan** with integrated secondary drain connection for reliable condensate management
- **Cabinet dimensions** with 21" depth, for most residential and commercial applications for easy install

Condensation Features

- **Advanced condensate management** system for reliable drainage and reduced moisture buildup
- **Tri-port condensate** pan design for faster, more efficient condensate removal
- **Foil-faced internal insulation** to virtually eliminate cabinet condensation
- **Screw-free side and rear** to minimize moisture traps in high-humidity installations

Available Upgrades

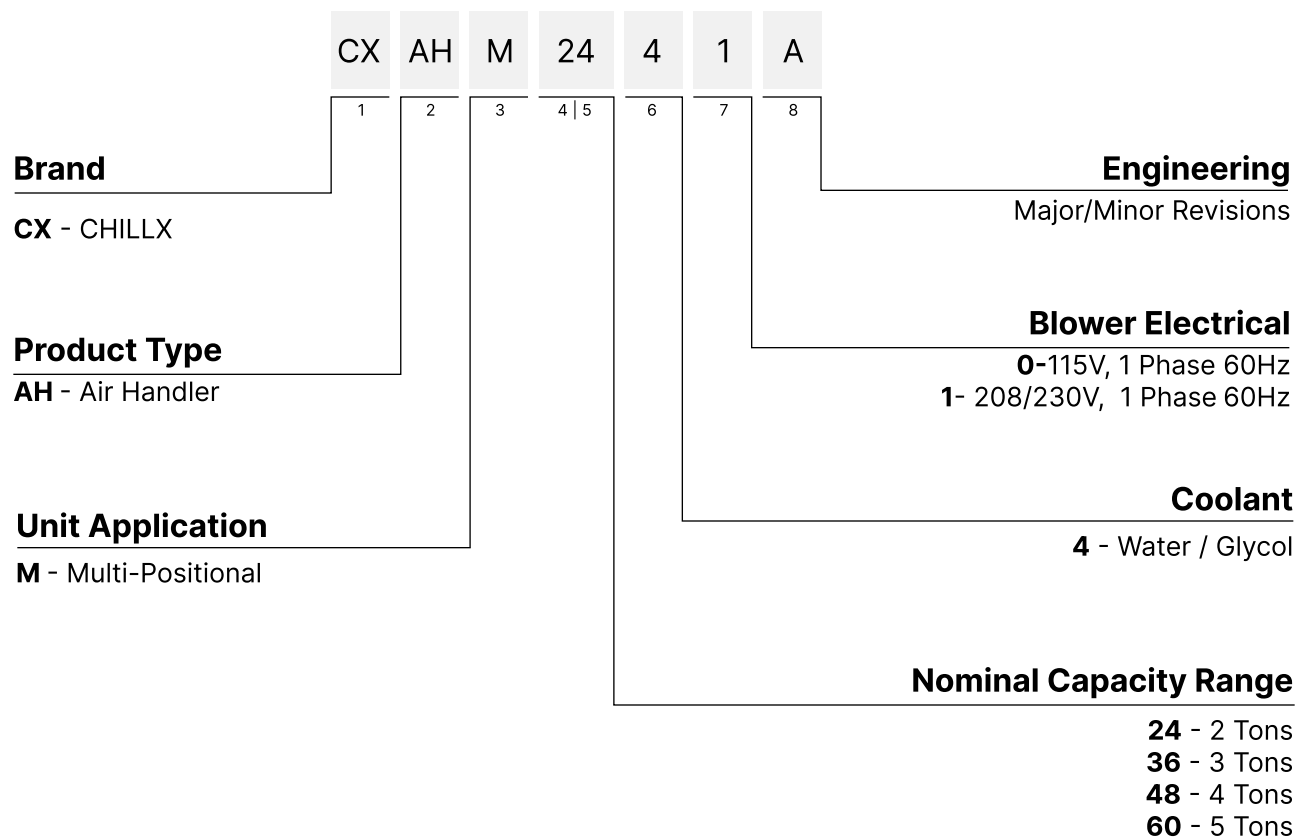
Hot-Water Heat Elements	Works with Hot Gas Recovery (HGR) or a separate boiler for low-cost heating & dehumidification.
Electric Heat Elements	• 3 – 25 kW modular elements • Default sizing: 2 ton = 8 kW / 3 ton = 10 kW / 4 ton = 15 kW / 5 ton = 20 kW • Custom sizing available at time of order.
Down-Flow Kits	Required for proper mounting in down-flow orientation.

Models

	Capacity	Electrical	Coolant
CXAHM2440A CXAHM2441A	2 Ton	115 - 60Hz - 1 Phase 208 / 230 60Hz - 1 Phase	Water / Glycol
CXAHM3640A CXAHM3641A	3 Ton	115 - 60Hz - 1 Phase 208 / 230 60Hz - 1 Phase	Water / Glycol
CXAHM4840A CXAHM4841A	4 Ton	115 - 60Hz - 1 Phase 208 / 230 60Hz - 1 Phase	Water / Glycol
CXAHM6040A CXAHM6041A	5 Ton	115 - 60Hz - 1 Phase 208 / 230 60Hz - 1 Phase	Water / Glycol

Optional heat and dehumidization elements

Nomenclature



Specifications

	2 Ton		3 Ton		4 Ton		5 Ton	
	CXAHM244**		CXAHM364**		CXAHM484**		CXAHM604**	
TOTAL CAPACITIES								
Nominal Cooling (Tons)	2		3		4		5	
Nominal Cooling (Btu/h)	24,000		36,000		48,000		60,000	
Heating (kW) <i>*Optional</i>	8		10		15		20	
Electric Heating (Btu/h) <i>*Optional</i>	17,000		27,000		34,000		36,000	
Water Heating (Btu/h) <i>*Optional</i>	24,000		36,000		48,000		60,000	
ELECTRICAL DATA								
Voltage	115	208/230	115	208/230	115	208/230	115	208/230
Hz - Phase	60 / 1	60 / 1	60 / 1	60 / 1	60 / 1	60 / 1	60 / 1	60 / 1
Minimum Circuit Ampacity	7.1	5.8	10.4	7.1	10.4	7.1	13.4	8.6
Max Overcurrent Device (Amps)	15	15	15	15	15	15	20	15
Min VAC	103	197	103	103	103	197	103	197
Max VAC	126	253	126	126	126	253	126	253
DIRECT DRIVE BLOWER MOTOR								
Voltage	115	208/230	115	208/230	115	208/230	115	208/230
Hz-Phase	60-1	60-1	60-1	60-1	60-1	60-1	60-1	60-1
Horse Power	1/2	3/4	3/4	3/4	3/4	3/4	1	1
FLA	5.7	4.6	8.3	5.7	8.3	5.7	10.7	6.9
BLOWER DIMENSIONS								
Wheel Dia. & Width (Qty.)	10" x 6" (1)		10" x 8" (1)		10" x 10" (1)		11 x 10 (1)	
FILTERS								
Filter Size / Qty	16" x 20" x 1" (1)		19.5" x 20" x 1" (1)		23" x 20" x 1" (1)		23" x 20" x 1" (1)	
COILS & COOLANT								
Coil Area (sq. ft.)	9		9		9		9	
FPI - Rows	12-3		12-3		12-3		12-3	
Coolant	Water/Glycol		Water/Glycol		Water/Glycol		Water/Glycol	
In / Out Connection	1" FNPT (2)		1" FNPT (2)		1" FNPT (2)		1" FNPT (2)	
Condensate Drain	3/4 FPT		3/4 FPT		3/4 FPT		3/4 FPT	
Cooling Ports (Female-NPT)	1"		1"		1"		1"	
Heating Ports (Female-NPT)	1"		1"		1"		1"	
SHIP WEIGHT (LBS)	110		140		145		165	

Airflow Data

CAPACITY / MODEL	TAP SPEED	STATIC PRESSURE (IN W.C)						
		0.1	0.2	0.3	0.4	0.5	0.6	0.7
2 Ton CXAHM2443A	1	720	690	625	605	525	505	385
	2	850	825	770	750	675	665	590
	3	900	875	830	815	750	740	670
	4	1,030	1,005	960	950	900	890	825
	5	825	800	745	730	660	645	560
	6	935	910	865	850	790	780	715
	7	1,100	1,080	1,035	1,020	970	960	902
	8	1,045	1,025	985	970	920	910	820
	9	1,215	1,195	1,155	1,145	1,105	1,1095	1,045
3 Ton CXAHM3643A	1	1,120	1,085	1,020	1,000	910	890	770
	2	1,120	1,255	1,190	1,170	1,100	1,085	990
	3	1,285	1,400	1,345	1,330	1,260	1,250	1,175
	4	1,430	1,410	1,660	1,645	1,580	1,570	1,510
	5	1,735	1,805	1,755	1,740	1,685	1,675	1,605
	6	1,830	1,130	1,055	1,035	960	940	825
	7	1,165	1,425	1,370	1,355	1,285	1,275	1,200
	8	1,450	1,035	960	935	830	810	700
	9	1,070	1,410	1,660	1,645	1,580	1,570	1,510
4 Ton CXAHM4843A	1	1,635	1,610	1,560	1,545	1,480	1,470	1,400
	2	1,580	1,550	1,490	1,470	1,400	1,390	1,315
	3	1,635	1,610	1,560	1,545	1,480	1,470	1,400
	4	1,851	1,810	1,768	1,733	1,704	1,662	1,613
	5	1,820	1,795	1,750	1,735	1,680	1,670	1,605
	6	1,465	1,435	1,375	1,355	1,280	1,265	1,165
	7	1,725	1,700	1,650	1,635	1,570	1,560	1,495
	8	1,755	1,730	1,680	1,665	1,595	1,585	1,515
	9	1,325	1,295	1,230	1,210	1,130	1,115	1,025
5 Ton CXAHM6043A	1	1,215	1,175	1,095	1,070	975	950	790
	6	1,815	1,785	1,725	1,710	1,650	1,640	1,570
	7	1,360	1,325	1,250	1,230	1,145	1,125	1,010
	8	2,070	2,045	1,995	1,980	1,930	1,920	1,855
	9	1,970	1,945	1,895	1,880	1,815	1,805	1,730

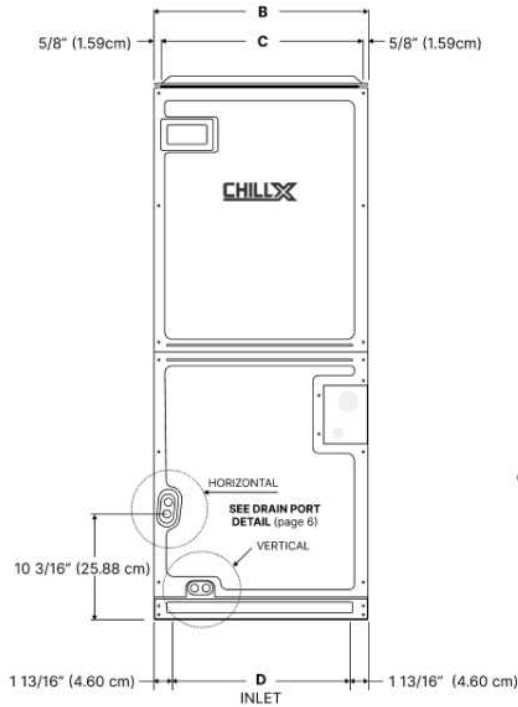
* Airflow data indicated is at 230V without air filter in place

Recommended Coolant Flow Rates

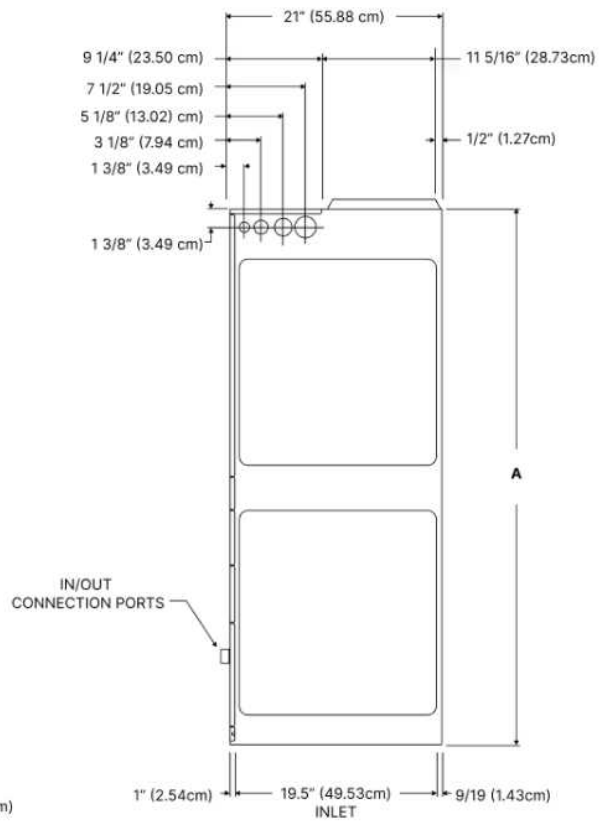
		Nominal Capacity			
		2	3	4	5
Flow Rate (GPM)	Min	8	10	12	15
	Max	13	15	18	20

Detailed Dimensions

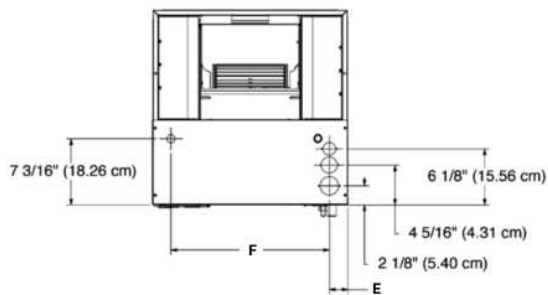
Front



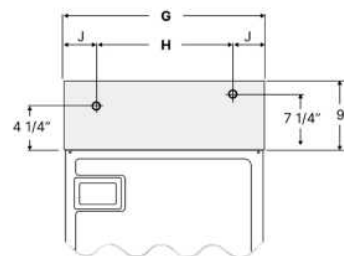
Right Side



Top



Water Heat Element

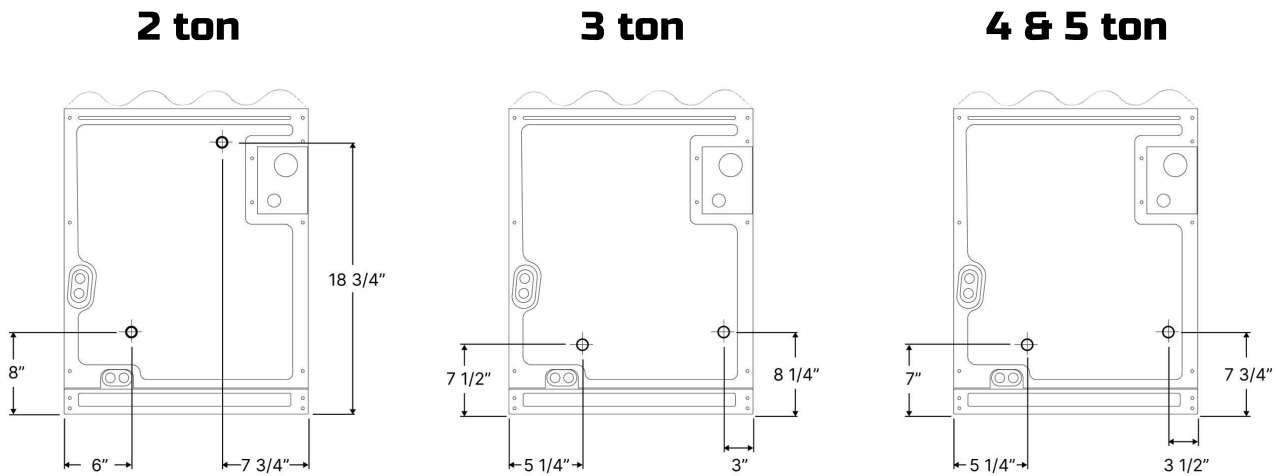


MODEL / CAPACITY	A"	B"	C"	D"	E"	F"	G"	H"	J"
2 Ton	45	17 1/2	16 5/16	12 1/2	2	13 5/8	17 1/2	11 1/2	3 1/16
3 Ton	49	21 1/8	19 7/16	16 1/16	2	17 1/8	21 1/8	11 1/2	4 5/8
4 Ton	53 7/16	24 5/8	19 7/16	16 10/16	2	17 1/8	24 5/8	11 1/2	6 5/8
5 Ton	58	24 5/8	24 5/8	17 11/16	2	20 5/8	24 5/8	11 1/2	6 5/8

Detailed Dimensions

In/Out Connection Locations

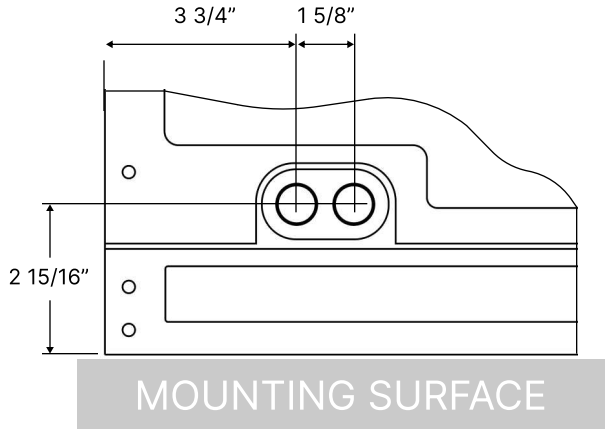
Front View



Condensate Drain Port Detail

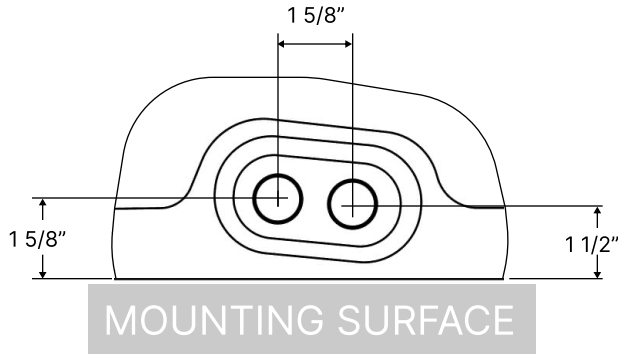
Vertical Orientation

Vertical Air Flow

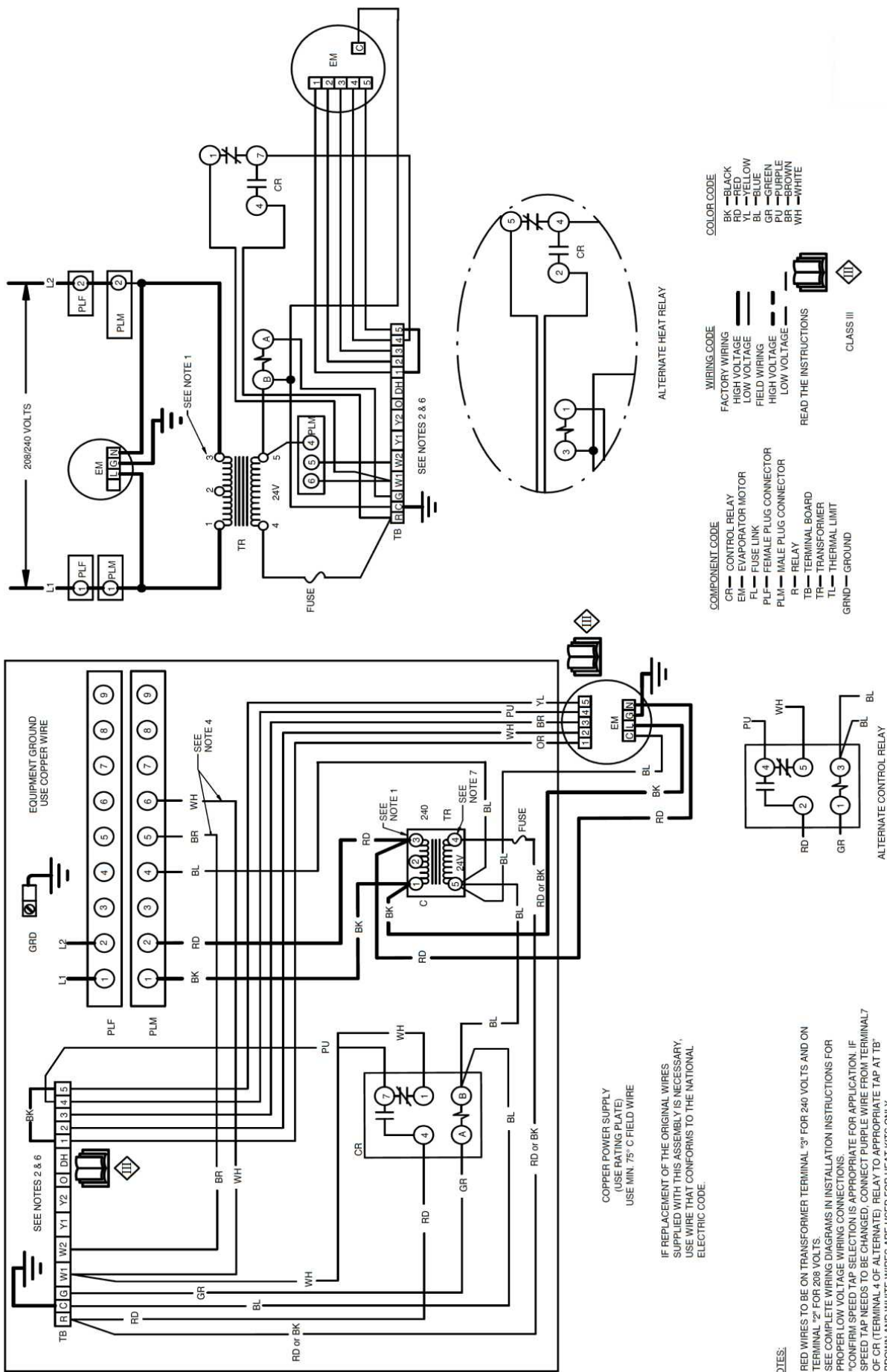


Horizontal Orientation

Left Air Flow



Wiring Diagram 5 Ton



NOTES:

- RED WIRES TO BE ON TRANSFORMER TERMINAL "3" FOR 240 VOLTS AND ON TERMINAL "2" FOR 208 VOLTS.
- SEE COMPLETE WIRING DIAGRAMS IN INSTALLATION INSTRUCTIONS FOR PROPER LOW VOLTAGE WIRING CONNECTIONS.
- CONFIRM SPEED TAP SELECTION IS APPROPRIATE FOR APPLICATION. IF SPEED TAP NEED TO BE CHANGED, CONNECT PURPLE WIRE FROM "TERMINAL 1" ON CH "1" TO WIRING TERMINAL RELAY TO APPROPRIATE TAP AT "1".
- USE 3/16" (1.9 CM) DIAMETER 304 STAINLESS STEEL WIRE FOR ALL WIRING.
- FUSE 3/4", 250V, 3AG 200A STYLE FUSE. OPTIONAL FUSE 3 AMP CARTRIDGE FUSE.
- LOW VOLTAGE FIELD WIRING TO BE IN C CLASS 2 WIRES.
- LOW VOLTAGE FIELD WIRING TO BE RATED 24VAC OUTPUT 40V@1.667 AMP

Accessories

Downflow Elements

DFKE-02	DFKE-03
AMST24BU1400**	AMST48CU1400**
AMST30BU1400**	AMST48DU1400**
AMST36BU1400**	AMST60DU1400**
AMST36CU1400**	
AMST42CU1400**	

High Humidity Elements

HHK0004	HHK0005	HHK0006	HHK0007
AMST24BU1400**	AMST36CU1400**	AMST48DU1400**	AMST60DU1400**
AMST30BU1400**	AMST42CU1400**		
AMST36BU1400**	AMST42CU1400**		

Condensate Management Elements

CMK0018	CMK0019	CMK0020
AMST24BU1400**	AMST30BU1400**	AMST48CU1400**
AMST36CU1400**	AMST36BU1400**	AMST48DU1400**
	AMST42CU1400**	AMST60DU1400**

Filters

Chassis	Part #	SIZE
B	ALFH16201E	16.0" x 20.0"
C	ALFH1912201E	19.5" x 20.0"
D	ALFH20231E	23.0" x 20.0"

Single Point Wiring Elements (SPW-01)

HEAT ELEMENT MODEL	SPWK-B	SPWK-C	SPWK-D
HKTSD15XA	AMST24BU1400** AMST30BU1400** AMST36BU1400**	AMST36CU1400** AMST42CU1400** AMST48CU1400**	AMST48DU1400** AMST60DU1400**
HKTSD15XB			
HKTSD19CA			
HKTSD19CB			
HKTSD20DA			AMST48DU1400** AMST60DU1400**
HKTSD20DB			
HKTSD25DA			High
HKTSD25DB			

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