

WALL-MOUNT AIR HANDLER 1½ TO 3 TONS



R32

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Product Features

- AWST Models: Equipped with a fully adjustable TXV
- Direct-drive, multi-speed motors allows air volume variation for heating/cooling
- Sequence-controlled, rust-resistant nickel chromium heating elements of 3, 5, 8, and 10 kW
- Aluminum tubing coils on all models
- Cabinet air leakage less than 2.0% at 1.0 inch H₂O when tested in accordance with ASHRAE standard 193
- UL 60335 2-40 Compliant
- Factory installed R-32 sensor designed for the lifespan of the coil.
- Cabinet air leakage less than 1.4% at 0.5 inch H₂O when tested in accordance with ASHRAE standard 193
- Factory-installed pull-type disconnect
- Thermoplastic drain pan with bottom primary and secondary drain connections
- Built-in filter rack (filter included)
- Large chassis (2½- and 3-ton units) – front return only
- Small chassis (1½- and 2-ton units) – front or bottom return
- Wall-hanging bracket provided
- AHRI Certified; ETL Listed

10 PARTS LIMITED YEAR WARRANTY*



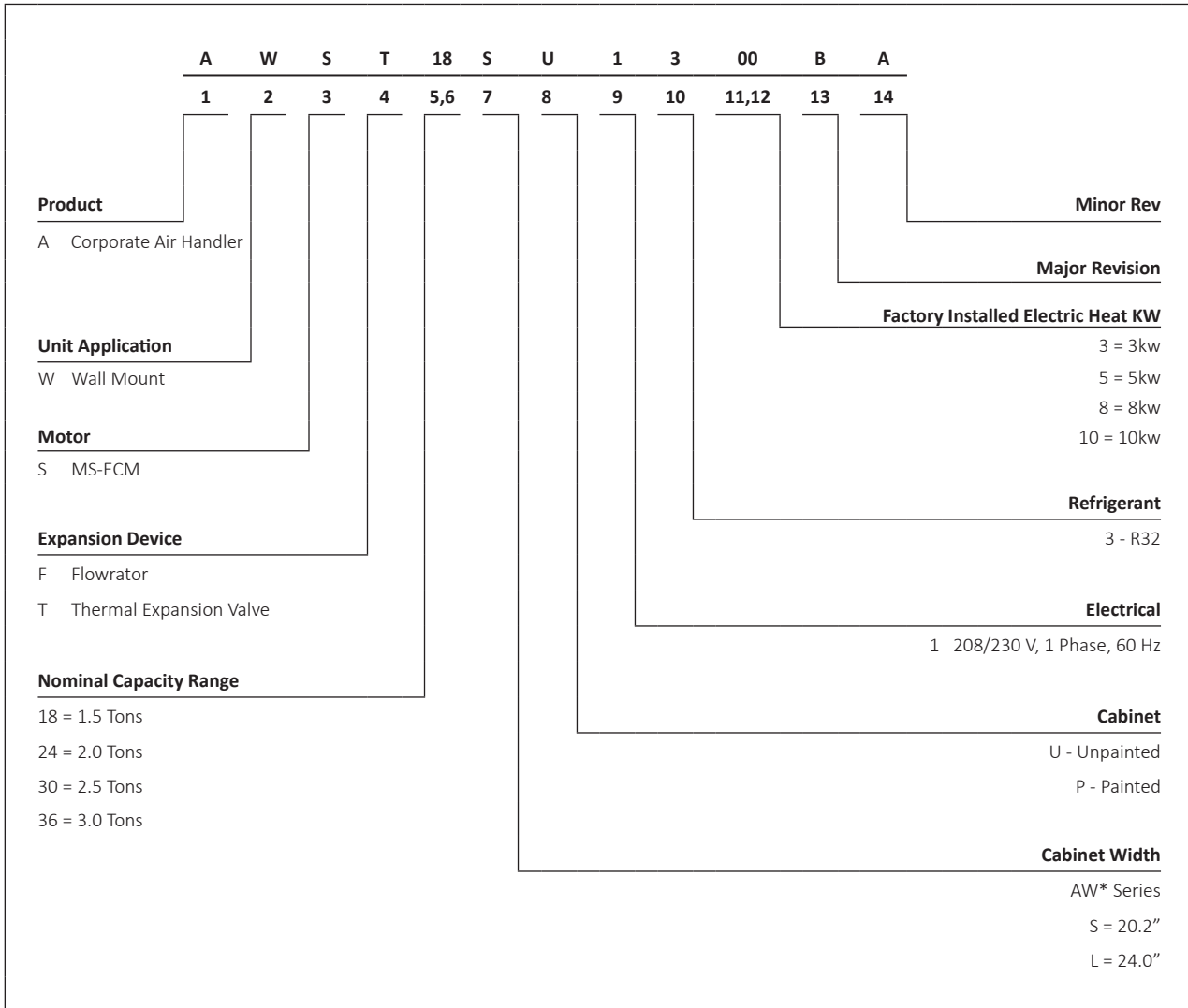
COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL
= ISO 9001 =

COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL
= ISO 14001 =



* Complete warranty details available from your local dealer or at www.goodmanmfg.com. To receive the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec. The duration of warranty coverage in Texas and Florida differs in some cases.

NOMENCLATURE



ACCESSORIES

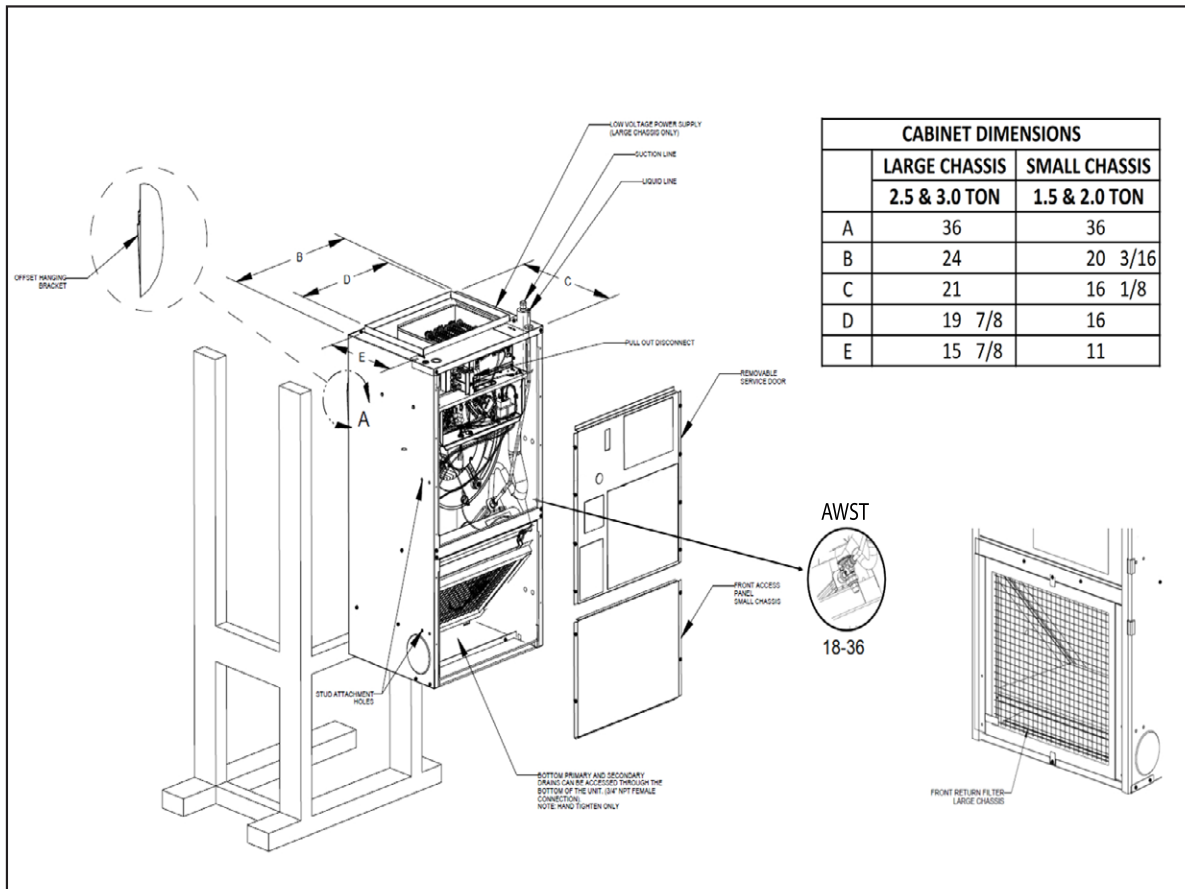
MODEL	ITEM #	DESCRIPTION
AWST 18-24	Wad-1	Wall access door
AWST 30-36	Wad-2	Wall access door

	AWST18 SU1303 AA	AWST18 SU1305 AA	AWST18 SU1308 AA	AWST24 SU1305 AA	AWST24 SU1308 AA	AWST24 SU1310 AA
NOMINAL RATINGS						
Cooling (BTU/h)	18000	18000	18000	24000	24000	24000
Electric Heat (kW)	3	5	8	5	8	10
BLOWER						
Diameter	10	10	10	10	10	10
Width	6	6	6	6	6	6
COIL CONNECTIONS						
Liquid	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Coil Drain Connection (FPT)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ELECTRICAL DATA						
Voltage	208/230	208/230	208/230	208/230	208/230	208/230
Minimum Circuit Ampacity	16.8/18.9	24.9/28.3	36.2/41.3	24.9/28.3	36.2/41.3	46.6/53.3
Max. Overcurrent Device (Amps)	20/20	25/30	40/45	25/30	40/45	50/60
Minimum VAC	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253
BLOWER MOTOR						
Full Load Amps (FLA)	2.6	2.6	2.6	2.6	2.6	2.6
Horsepower (HP)	1/3	1/3	1/3	1/3	1/3	1/3
SHIP WEIGHT (LBS)	84	84	84	84	84	84

PRODUCT SPECIFICATIONS (CONTD.)

	AWST30 LU1305 AA	AWST30 LU1308 AA	AWST30 LU1310 AA	AWST36 LU1305 AA	AWST36 LU1308 AA	AWST36 LU1310 AA
NOMINAL RATINGS						
Cooling (BTU/h)	30000	30000	30000	36000	36000	36000
Electric Heat (kW)	5	8	10	5	8	10
BLOWER						
Diameter	10	10	10	10	10	10
Width	8	8	8	8	8	8
COIL CONNECTIONS						
Liquid	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Coil Drain Connection (FPT)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ELECTRICAL DATA						
Voltage	208/230	208/230	208/230	208/230	208/230	208/230
Minimum Circuit Ampacity	26.4/29.8	37.7/42.8	48.1/54.8	26.4/29.8	37.7/42.8	48.1/54.8
Max. Overcurrent Device (Amps)	30/30	40/45	50/60	30/30	40/45	50/60
Minimum VAC	197	197	197	197	197	197
Maximum VAC	253	253	253	253	253	253
BLOWER MOTOR						
Full Load Amps (FLA)	3.8	3.8	3.8	3.8	3.8	3.8
Horsepower (HP)	1/2	1/2	1/2	1/2	1/2	1/2
SHIP WEIGHT (LBS)	109	109	109	109	109	109

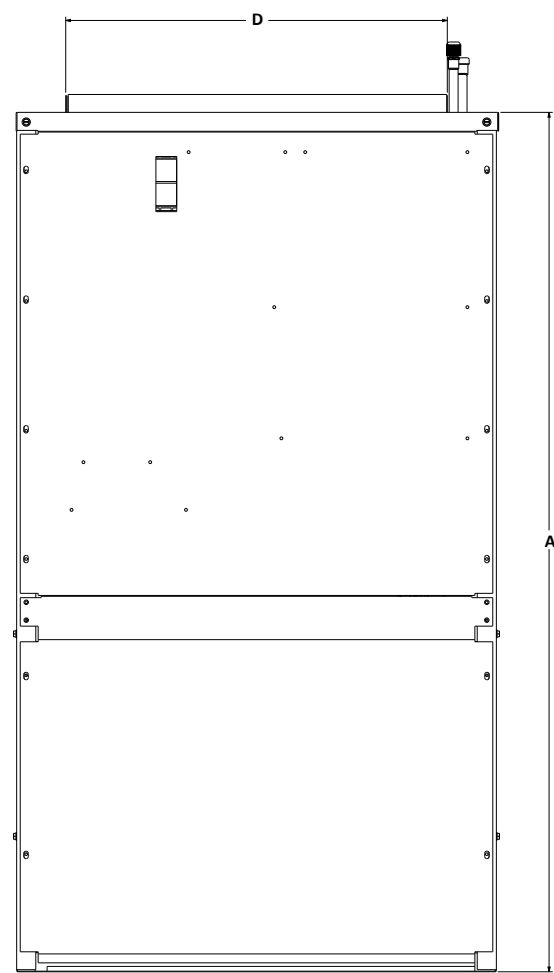
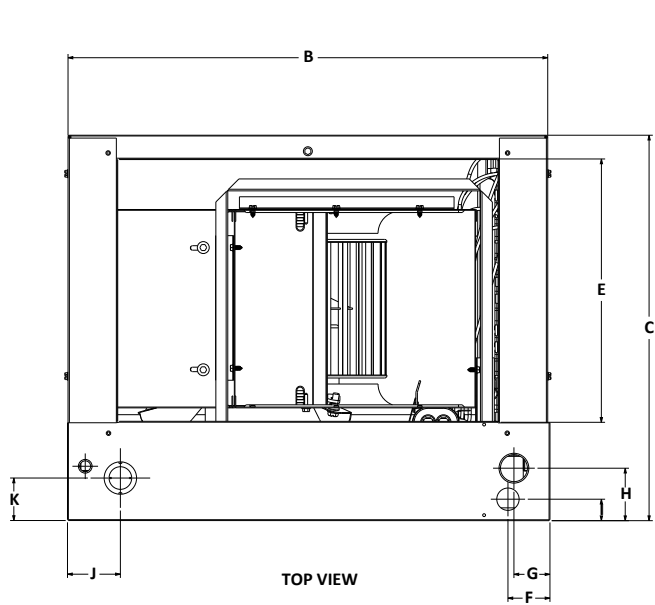
Note - Once installed, top of unit must be level or slightly tilted back to ensure proper condensate drainage.



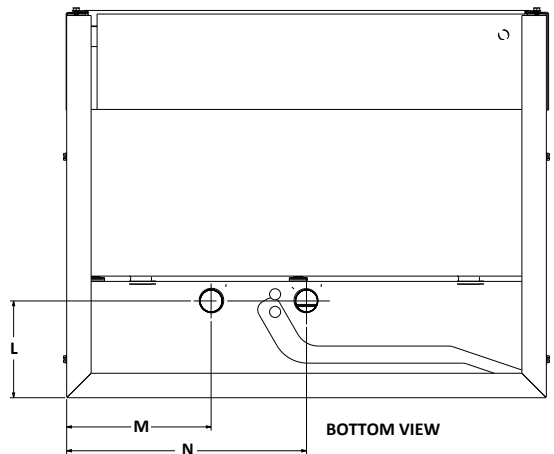
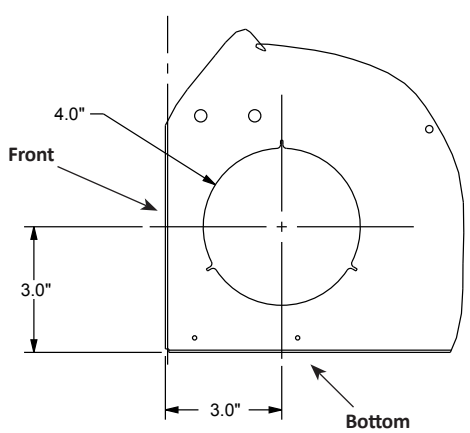
SMALL CHASSIS (AWST 18-24)	
A	36"
B	20 ³ / ₁₆ "
C	16 ¹ / ₈ "
D	16"
E	11"
Filter	14" x 18" x 1"

LARGE CHASSIS (AWST 30-36)	
A	36"
B	24"
C	21"
D	19 ⁷ / ₈ "
E	15 ⁷ / ₈ "
Filter (30, 36, 31, 32, 37)	18" x 20" x 1"

DIMENSIONS (CONTD.)



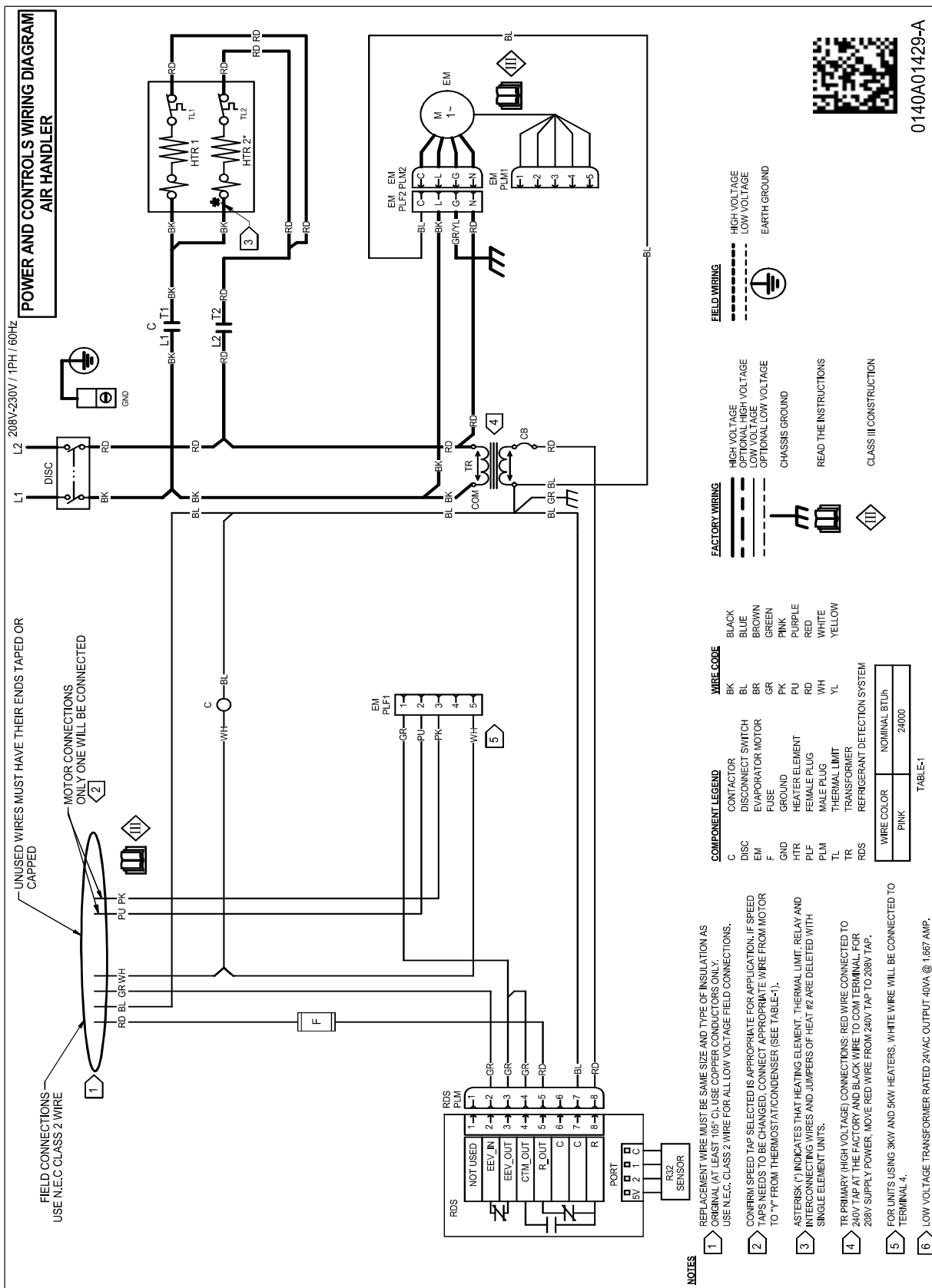
FRESH AIR OPENINGS



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
AWST 18-24	36"	20 $\frac{1}{4}$ "	16 $\frac{1}{2}$ "	16"	11"	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{4}$ "	$\frac{7}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	4"	6"	10"
AWST 30-36	36"	24"	21"	19 $\frac{1}{2}$ "	16"	4 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "	2"	1 $\frac{1}{8}$ "	2 $\frac{3}{8}$ "	4"	8"	12"

MODEL	SPEED TAP	CFM DELIVERED AGAINST EXTERNAL STATIC PRESSURE				
		0.1"	0.2"	0.3"	0.4"	0.5"
AWST18SU13** AA	T1	630	602	576	550	521
	T2	630	602	576	550	521
	T3	637	609	586	557	531
	T4	630	602	576	550	521
	T5	846	824	800	777	756
AWST24SU13** AA	T1	630	602	576	550	521
	T2	630	602	576	550	521
	T3	784	763	742	728	705
	T4	630	602	576	550	521
	T5	846	823	800	777	756
AWST30LU13** AA	T1	711	660	575	529	438
	T2	934	890	850	803	725
	T3	1094	1047	1012	977	941
	T4	973	928	890	851	777
	T5	1180	1139	1102	1069	1036
AWST36LU13** AA	T1	1114	1072	1031	982	924
	T2	1114	1072	1031	982	924
	T3	1225	1191	1152	1112	1071
		1287	1255	1219	1183	1146
	T5	1360	1329	1299	1264	1230

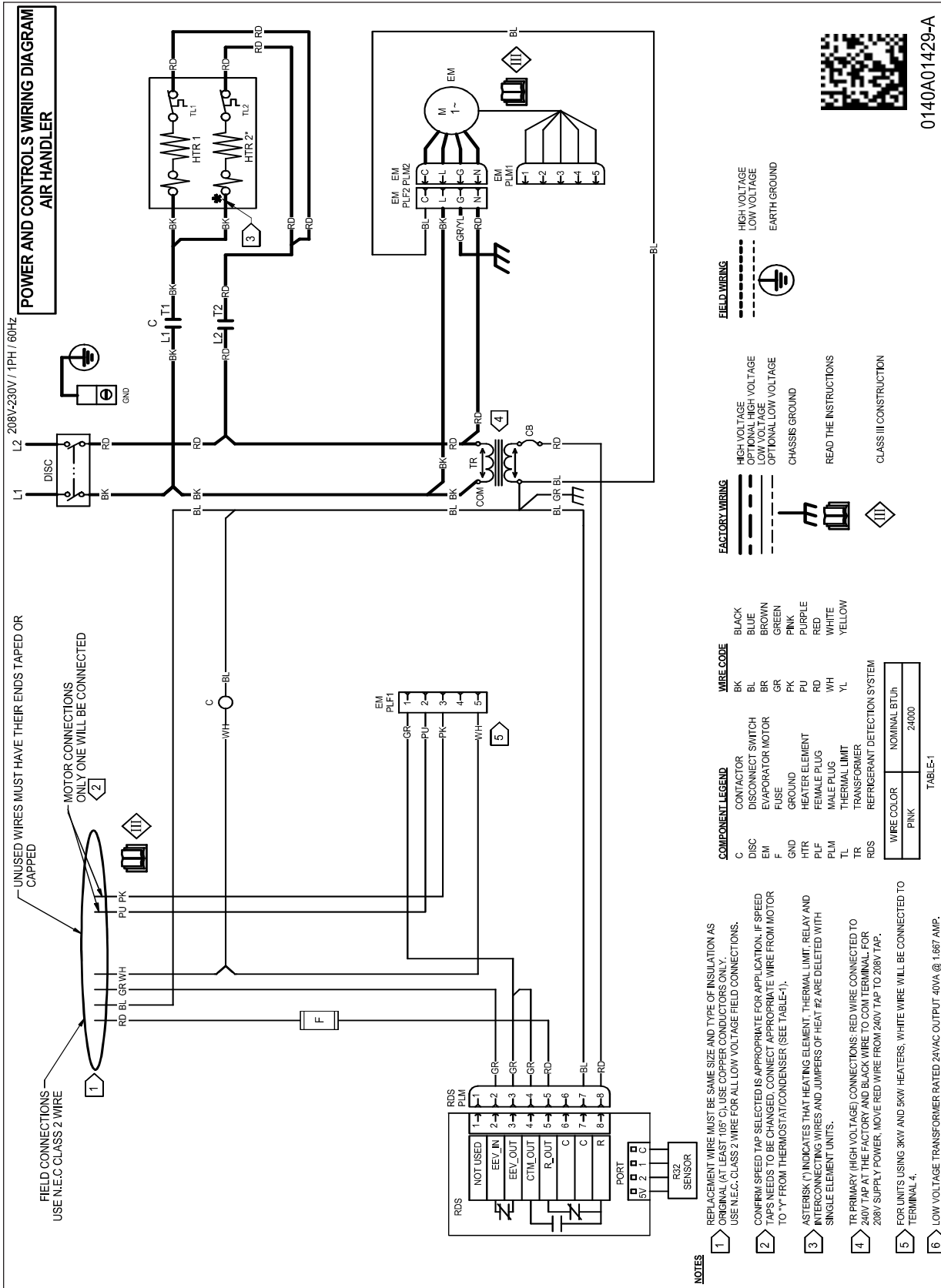
Note: Airflow data indicated is at 230 V with no filter in place.



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WARNING High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

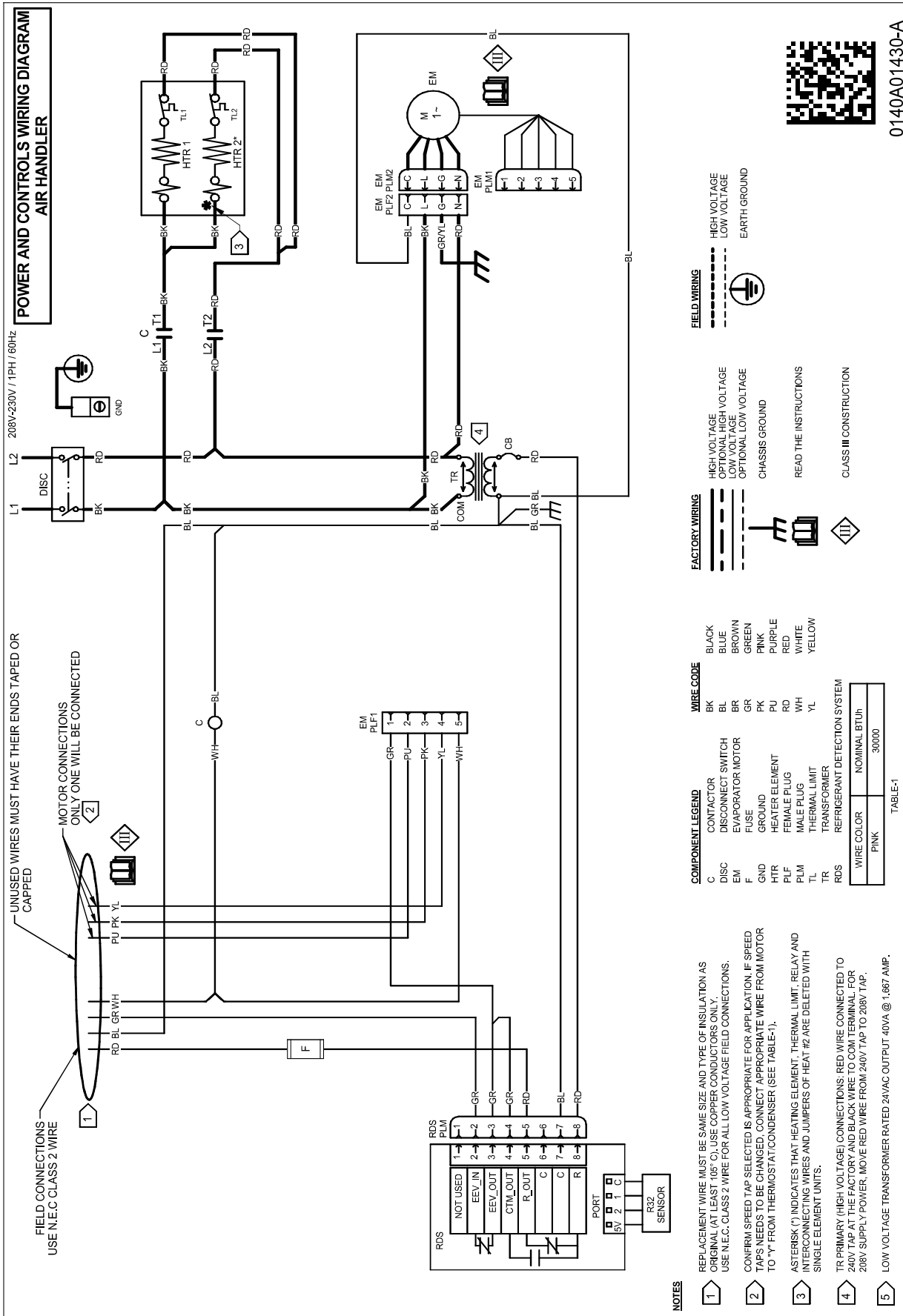


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WIRE CODE

BLACK	BK
BLUE	BL
BROWN	BR
GREEN	GR
PINK	PK
PURPLE	PU
RED	RD
WHITE	WH
YELLOW	YL

COMPONENT LEGEND

- C CONTACTOR
- DISC DISCONNECT SWITCH
- EM EVAPORATOR MOTOR
- F FUSE
- GND GROUND
- HTR HEATER ELEMENT
- PLF FEMALE PLUG
- PLM MALE PLUG
- TL THERMAL LIMIT
- TR TRANSFORMER
- RDS REFRIGERANT DETECTION SYSTEM

WIRE COLOR	NOMINAL BTUH
PINK	30000

TABLE-1

FACTORY WIRING

- Solid line: HIGH VOLTAGE
- Dashed line: OPTIONAL HIGH VOLTAGE
- Dotted line: OPTIONAL LOW VOLTAGE
- Circle with ground symbol: CHASSIS GROUND

FIELD WIRING

- Line with hook: HIGH VOLTAGE
- Line with hook and ground symbol: LOW VOLTAGE
- Line with hook and ground symbol: EARTH GROUND

READ THE INSTRUCTIONS

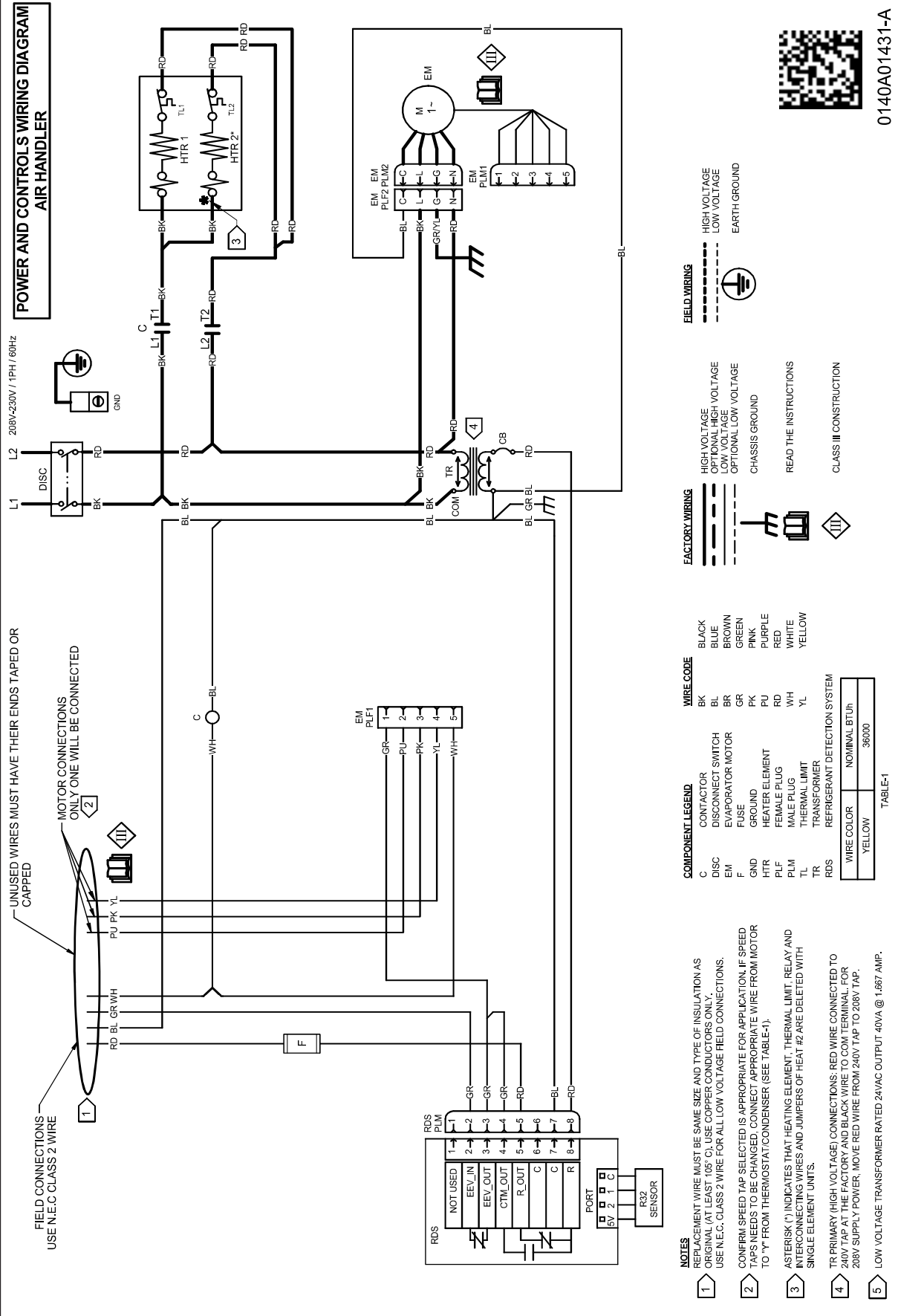
CLASS III CONSTRUCTION

- NOTES**
- 1 REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (AT LEAST 105° C); USE COPPER CONDUCTORS ONLY. USE N.E.C. CLASS 2 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
 - 2 CONFIRM SPEED TAP SELECTED IS APPROPRIATE FOR APPLICATION. IF SPEED TAPS NEEDS TO BE CHANGED, CONNECT APPROPRIATE WIRE FROM MOTOR TO "Y" FROM THERMOSTAT/CONDENSER (SEE TABLE-1).
 - 3 ASTERISK (*) INDICATES THAT HEATING ELEMENT, THERMAL LIMIT, RELAY AND INTERCONNECTING WIRES AND JUMPERS OF HEAT #Z ARE DELETED WITH SINGLE ELEMENT UNITS.
 - 4 TR PRIMARY (HIGH VOLTAGE) CONNECTIONS: RED WIRE CONNECTED TO 240V TAP AT THE FACTORY AND BLACK WIRE TO COM TERMINAL FOR 208V SUPPLY POWER. MOVE RED WIRE FROM 240V TAP TO 208V TAP.
 - 5 LOW VOLTAGE TRANSFORMER RATED 24VAC OUTPUT 40VA @ 1.667 AMP.

WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



POWER AND CONTROL WIRING DIAGRAM
AIR HANDLER

FIELD CONNECTIONS USE N.E.C. CLASS 2 WIRE

UNUSED WIRES MUST HAVE THEIR ENDS TAPED OR CAPPED

MOTOR CONNECTIONS ONLY ONE WILL BE CONNECTED

FACTORY WIRING

HIGH VOLTAGE
OPTIONAL HIGH VOLTAGE
LOW VOLTAGE
OPTIONAL LOW VOLTAGE
CHASSIS GROUND
READ THE INSTRUCTIONS
CLASS III CONSTRUCTION

FIELD WIRING

HIGH VOLTAGE
LOW VOLTAGE
EARTH GROUND

COMPONENT LEGEND

C	CONTACTOR
DISC	DISCONNECT SWITCH
EM	EVAPORATOR MOTOR
F	FUSE
GND	GROUND
HTR	HEATER ELEMENT
PLF	FEMALE PLUG
PLM	MALE PLUG
TL	THERMAL LIMIT
TR	TRANSFORMER
RDS	REFRIGERANT DETECTION SYSTEM

WIRE CODE

BK	BLACK
BL	BLUE
BR	BROWN
GR	GREEN
PK	PINK
PU	PURPLE
RD	RED
WH	WHITE
YL	YELLOW

TABLE-1

WIRE COLOR	NOMINAL BTUh
YELLOW	36000

- NOTES**
- REPLACE WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (AT LEAST 105° C). USE COPPER CONDUCTORS ONLY. USE N.E.C. CLASS 2 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
 - CONFIRM SPEED TAP SELECTED IS APPROPRIATE FOR APPLICATION. IF SPEED TAPS NEEDS TO BE CHANGED, CONNECT APPROPRIATE WIRE FROM MOTOR TO "Y" FROM THERMOSTAT/CONDENSER (SEE TABLE-1).
 - ASTERISK (*) INDICATES THAT HEATING ELEMENT, THERMAL LIMIT, RELAY AND SENSORS CONNECTED TO WIRES AND JUMPERS OF HEAT RZ ARE DELETED WITH SINGLE ELEMENT UNITS.
 - TR PRIMARY (HIGH VOLTAGE) CONNECTIONS: RED WIRE CONNECTED TO 240V TAP AT THE FACTORY AND BLACK WIRE TO COM TERMINAL FOR 208V SUPPLY POWER. MOVE RED WIRE FROM 240V TAP TO 208V TAP.
 - LOW VOLTAGE TRANSFORMER RATED 24VAC OUTPUT 40VA @ 1.667 AMP.



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WARNING

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