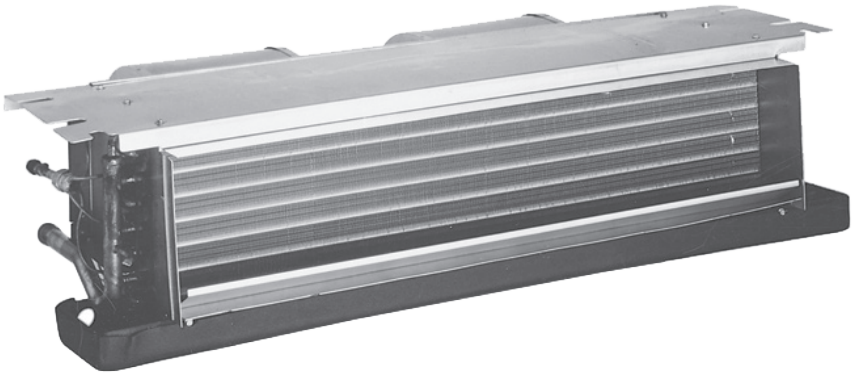
Franklin™
Air Conditioning & Heating

ACNF Series

Ceiling-Mount Air Handlers
1½ to 2½ Tons

Contents

Nomenclature 2
Heat Kit Data.....2
Product Specifications 3
Dimensions 5
Airflow Data 5
Wiring Diagram 6
Accessories 8



Features

- Check flowrater for heat pump and cooling-only applications
- All-Aluminum tube/aluminum fin coil
- Direct-drive, resilient-mount, multi-speed motor
- Available without heat or with sequence-controlled and rust-resistant nickel chromium heating elements of 5, 6, 8 or 10 kW
- High-efficiency evaporator coil
- Quiet operation
- Models with EEM motor: ACNF25 & ACNF31
- Models with PSC motors: ACNF18, ACNF24, & ACNF30
- AHRI Certified; ETL Listed
- Primary/secondary drain connection in a high-temperature plastic drain pan
- Suitable for free-return installation (non-ducted return air)
- Galvanized-steel construction
- Factory-installed pull-type disconnect
- Easy service access

10 YEAR PARTS LIMITED WARRANTY*

ALL ALUMINUM COIL

Intertek

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.franklinhvacsystems.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.

A	C	N	F	24	05	1	6	AA
1	2	3	4	5,6	7,8	9	10	11,12

Brand

A Single-piece Air Handler

Unit Application

C Ceiling Mount

R Multi-Position PSC Motor

S Multi-Position EEM Motor

W Wall Mount

Cabinet Finish

U Unpainted

N Uncased

P Painted

Expansion Device

F Flowrater

T Expansion Valve

Engineering *

Major/ Minor Revisions

* Not used for inventory management

Refrigerant Charge

6 = R-410 or R-22A

Electrical

1 208/240 V, 1 Phase, 60 Hz

Heater Kits

00 No Heat

06-- 6 kW

03- 3 kW

08- 8 kW

05- 5 kW

10- 10 kW

Nominal Capacity Range

18- 1½ Tons (PSC motor)

24- 2 Tons (PSC motor)

25- 2 Tons (EEM motor)

30 2½ Tons (PSC motor

31 2½ Tons (EEM motor)

	ACNF18 0016	ACNF18 0516	ACNF18 0816	ACNF24 0016	ACNF24 0516	ACNF24 0616	ACNF24 0816
Performance Ratings							
Cooling (BTU/h)	18,000	18,000	18,000	24,000	24,000	24,000	24,000
Piston Size[2]	0.051	0.051	0.051	0.057	0.057	0.057	0.057
Blower							
Diameter	5.75	5.75	5.75	6.31	6.31	6.31	6.31
Width	6.75	6.75	6.75	8.25	8.25	8.25	8.25
Coil Drain Connect FPT	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Blower Motor							
FLA	0.66	0.66	0.66	1.29	1.29	1.29	1.29
HP	1/8	1/8	1/8	1/4	1/4	1/4	1/4
Refrigerant Line Connection Size							
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	¾"	¾"	¾"	¾"	¾"	¾"
Electrical Data							
Voltage	208/230	208/230	208/230	208/230	208/230	208/230	208/230
Min Circuit Ampacity @ 230V	0.8	27	40.5	1.6	28	34.2	41
Min Circuit Ampacity @ 208V	0.8	24.5	37	1.6	25.3	31	37.6
Max. Overcurrent Device @ 230V	15	30	45	15	30	35	45
Max. Overcurrent Device @ 208V	15	25	40	15	30	35	40
Minimum Voltage VAC	197	197	197	197	197	197	197
Maximum Voltage VAC	253	253	253	253	253	253	253
Electric Heat							
kW @ 230 Volts	0.0	4.8	7.3	0.0	4.8	6.0	7.3
BTU/h @ 230 Volts	0	16,400	24,900	0	16,400	20,500	24,900
Ship Weight (lbs)	59	59	59	69	69	69	69

[1] CFM @.3 static [2]Shipped with Coil

Notes

- For a properly matched system and piston sizing information, refer to Amana piston kit chart of the corresponding Amana® outdoor unit.
- When the room thermostat calls for second stage heat, the first stage (heat pump) operation must be locked out. When matching the "AC" unit that has electric heat with a heat pump, order "HEAT PUMP SHUT OFF KIT HPSK-01." The ACXX-00 units do not require this kit.

	ACNF25 0016	ACNF25 0516	ACNF25 0616	ACNF25 0816	ACNF25 1016	ACNF30 0516
Performance Ratings						
Cooling (BTU/h)	24,000	24,000	24,000	24,000	24,000	30,000
Piston Size[2]	0.055	0.055	0.055	0.055	0.055	0.061
Blower						
Diameter	6.31	6.31	6.31	6.31	6.31	6.75
Width	8.25	8.25	8.25	8.25	8.25	8.25
Coil Drain Connect FPT	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Blower Motor						
FLA	2	2	2	2	2	1.29
HP	1/4	1/4	1/4	1/4	1/4	1/4
Refrigerant Line Connection Size						
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	¾"	¾"	¾"	¾"	¾"
Electrical Data						
Voltage	208/230	208/230	208/230	208/230	208/230	208/230
Min Circuit Ampacity @ 230V	2.5	28.6	35.1	42	56	28
Min Circuit Ampacity @ 208V	2.5	26	32	38.4	50.7	25.3
Max. Overcurrent Device @ 230V	15	30	40	45	60	30
Max. Overcurrent Device @ 208V	15	30	35	40	60	30
Minimum Voltage VAC	197	197	197	197	197	197
Maximum Voltage VAC	253	253	253	253	253	253
Electric Heat						
kW @ 230 Volts	0.0	4.8	6.0	7.3	9.8	4.8
BTU/h @ 230 Volts	0	16,400	20,500	24,900	33,500	16,400
Ship Weight (lbs)	69	69	69	69	69	79

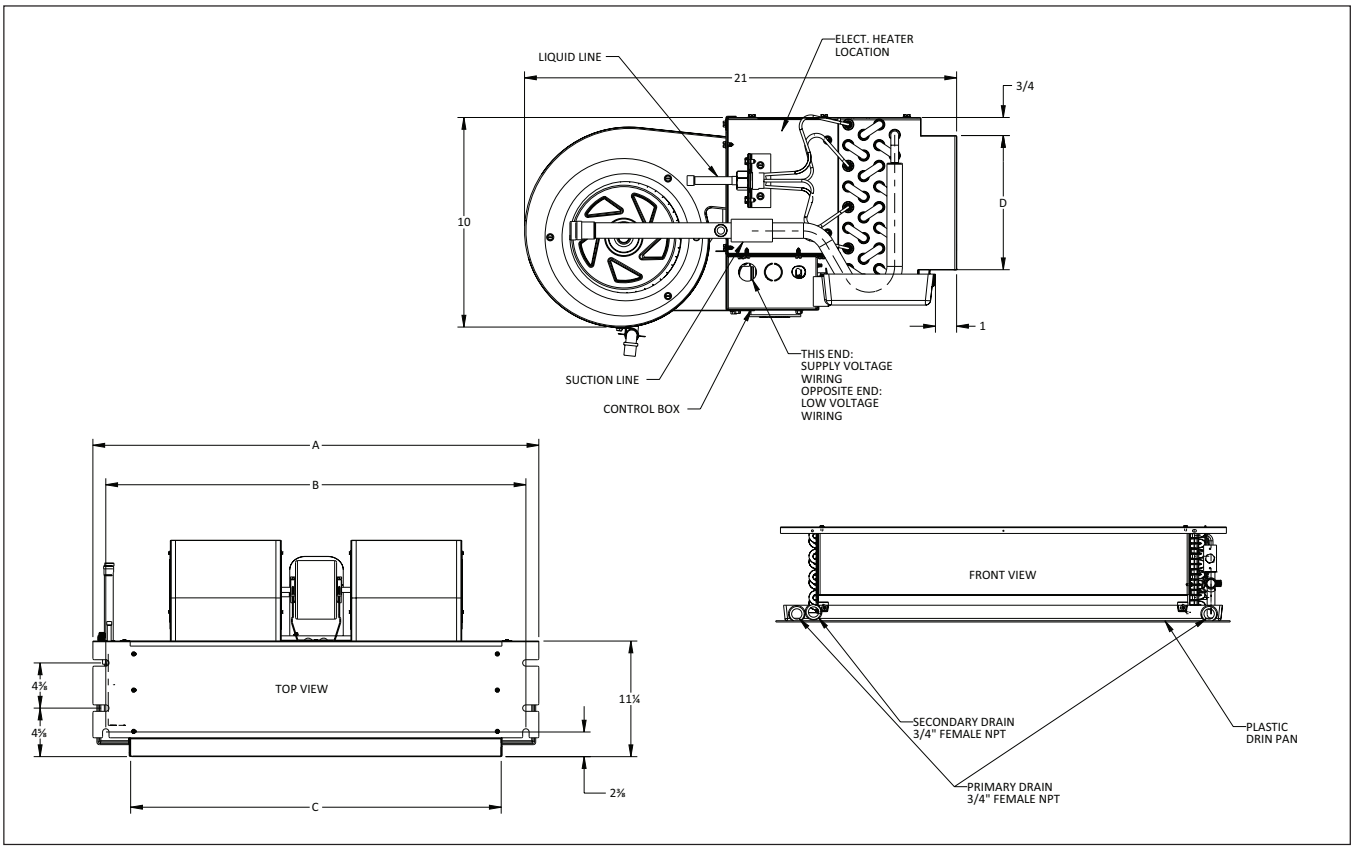
[1] CFM @ .2 static

Note: When the room thermostat calls for second stage heat, the first stage (heat pump) operation must be locked out. When matching the "AC" unit that has electric heat with a heat pump, order "HEAT PUMP SHUT OFF KIT HPSK-01." The ACXX-00 units do not require this kit.

	ACNF30 0816	ACNF30 1016	ACNF31 0016	ACNF31 0516	ACNF31 0616	ACNF31 0816	ACNF31 1016
Performance Ratings							
Cooling (BTU/h)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Piston Size[2]	0.061	0.061	0.059	0.059	0.059	0.059	0.059
Blower							
Diameter	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Width	8.25	8.25	8.25	8.25	8.25	8.25	8.25
Coil Drain Connect FPT	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Blower Motor							
FLA	1.29	1.29	2	2	2	2	2
HP	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Refrigerant Line Connection Size							
Liquid	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Suction	¾"	¾"	¾"	¾"	¾"	¾"	¾"
Electrical Data							
Voltage	208/230	208/230	208/230	208/230	208/230	208/230	208/230
Min Circuit Ampacity @ 230V	41	55	2.5	28.6	35.1	42	56
Min Circuit Ampacity @ 208V	37.6	49.8	2.5	26	32	38.4	50.7
Max. Overcurrent Device @ 230V	45	60	15	30	40	45	60
Max. Overcurrent Device @ 208V	40	50	15	30	35	40	60
Minimum Voltage VAC	197	197	197	197	197	197	197
Maximum Voltage VAC	253	253	253	253	253	253	253
Electric Heat							
kW @ 230 Volts	7.3	9.8	0.0	4.8	6.0	7.3	9.8
BTU/h @ 230 Volts	24,900	33,500	0	16,400	20,500	24,900	33,500
Ship Weight (lbs)	79	79	79	79	79	79	79

[1] CFM @ .2 static

Note: When the room thermostat calls for second stage heat, the first stage (heat pump) operation must be locked out. When matching the "AC" unit that has electric heat with a heat pump, order "HEAT PUMP SHUT OFF KIT HPSK-01." The ACXX-00 units do not require this kit.



	ACNF18	ACNF24	ACNF25	ACNF30	ACNF31
A	37¼"	43¼”	43¼”	49¼”	49¼”
B	34¾”	40¾”	40¾”	46¾”	46¾”
C	30”	36”	36”	42"	42"
D	6½”	6½”	6½”	6½”	6½”

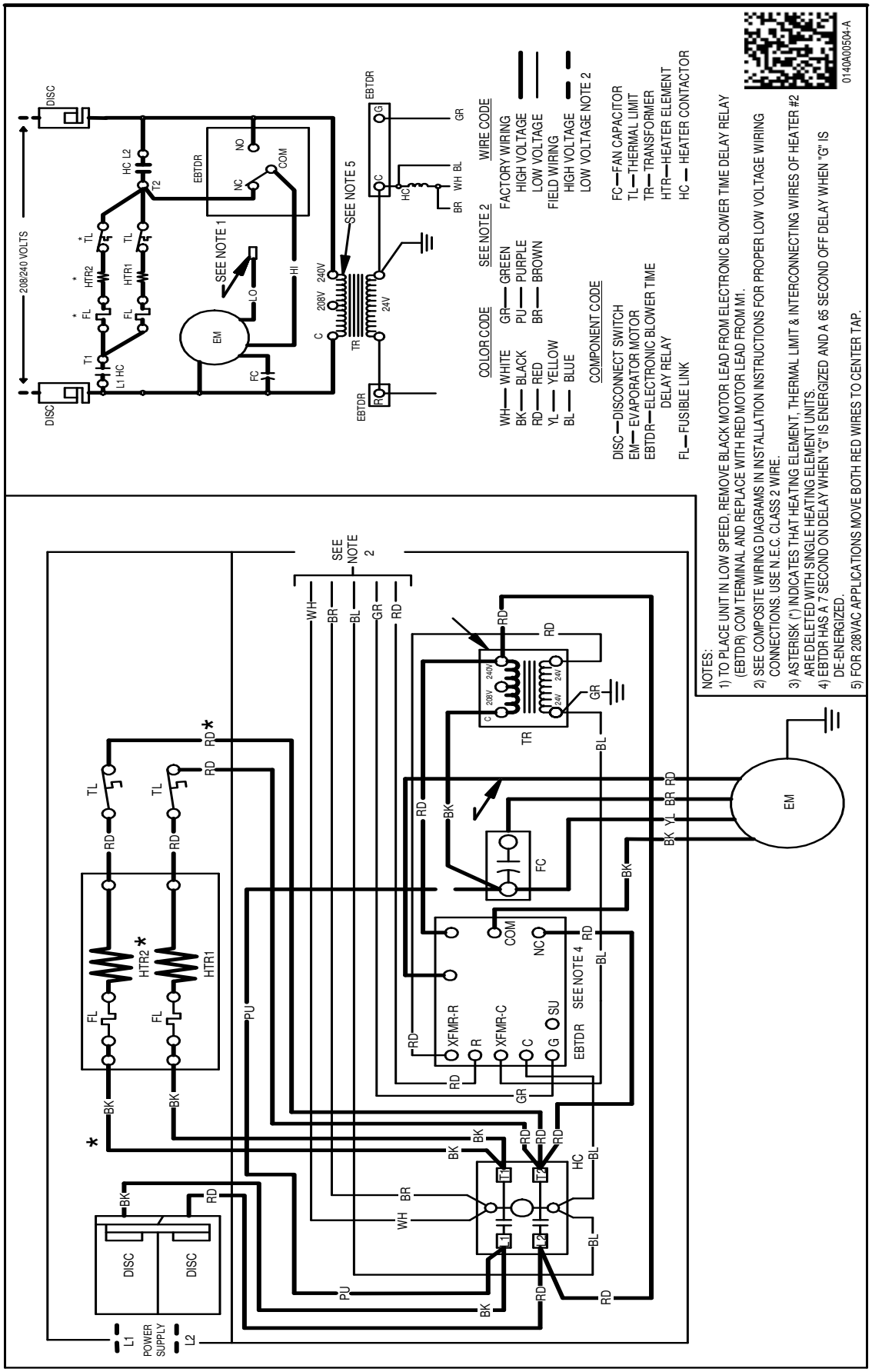
Model	Motor Speed	CFM delivered against External Static Pressure				
		0.1”	0.2”	0.3”	0.4”	0.5”
ACNF18****	High	710	660	590	515	435
	Low	650	595	540	480	390
ACNF24****	High	955	880	820	740	675
	Low	885	840	775	725	620
ACNF25****	T5	969	912	854	798	778
	T4	969	912	854	798	778
	T3	802	776	690	641	584
	T2	680	610	550	484	431
	T1	680	610	550	484	431
ACNF30****	High	1,075	1,005	920	820	730
	Low	945	890	835	760	650
ACNF31****	T5	999	928	868	824	764
	T4	999	928	868	824	764
	T3	871	798	750	687	614
	T2	763	695	625	548	478
	T1	763	695	625	548	478

Note: Airflow data for 240 Vac with dry coil and no filter in place.

Heating Capacity/kW Correction Factor

Supply Voltage	240	230	220	210	208
Correction Factor	1.08	1.00	0.92	0.84	0.82

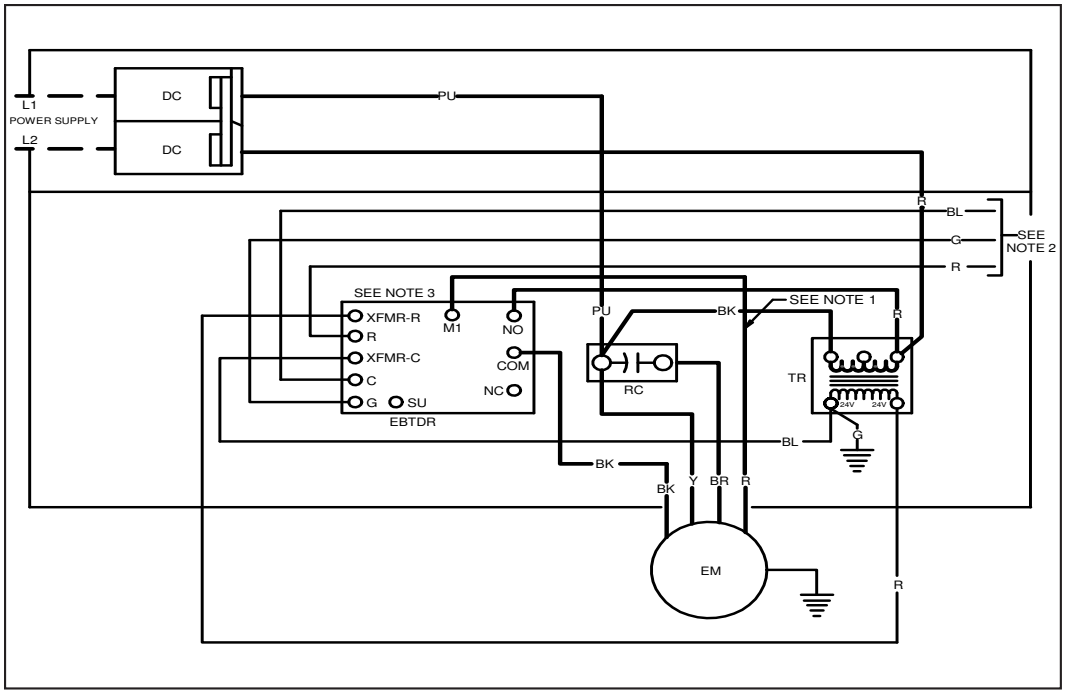
(Multiply the 230-volt capacity by factors)

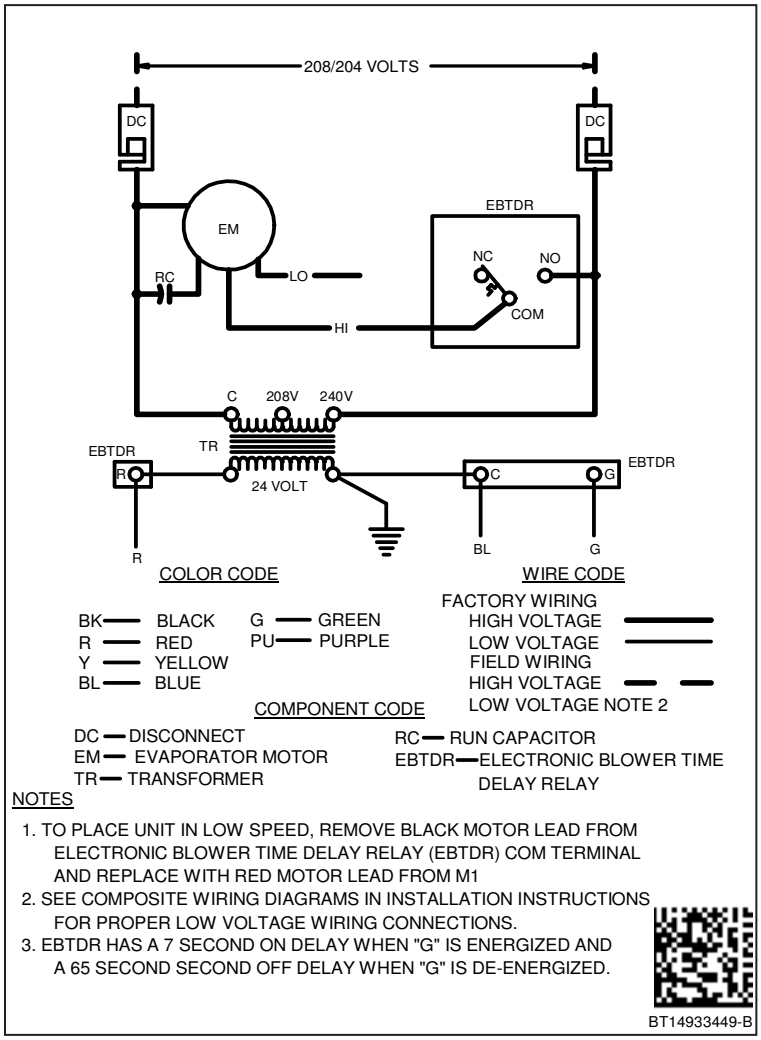


WARNING

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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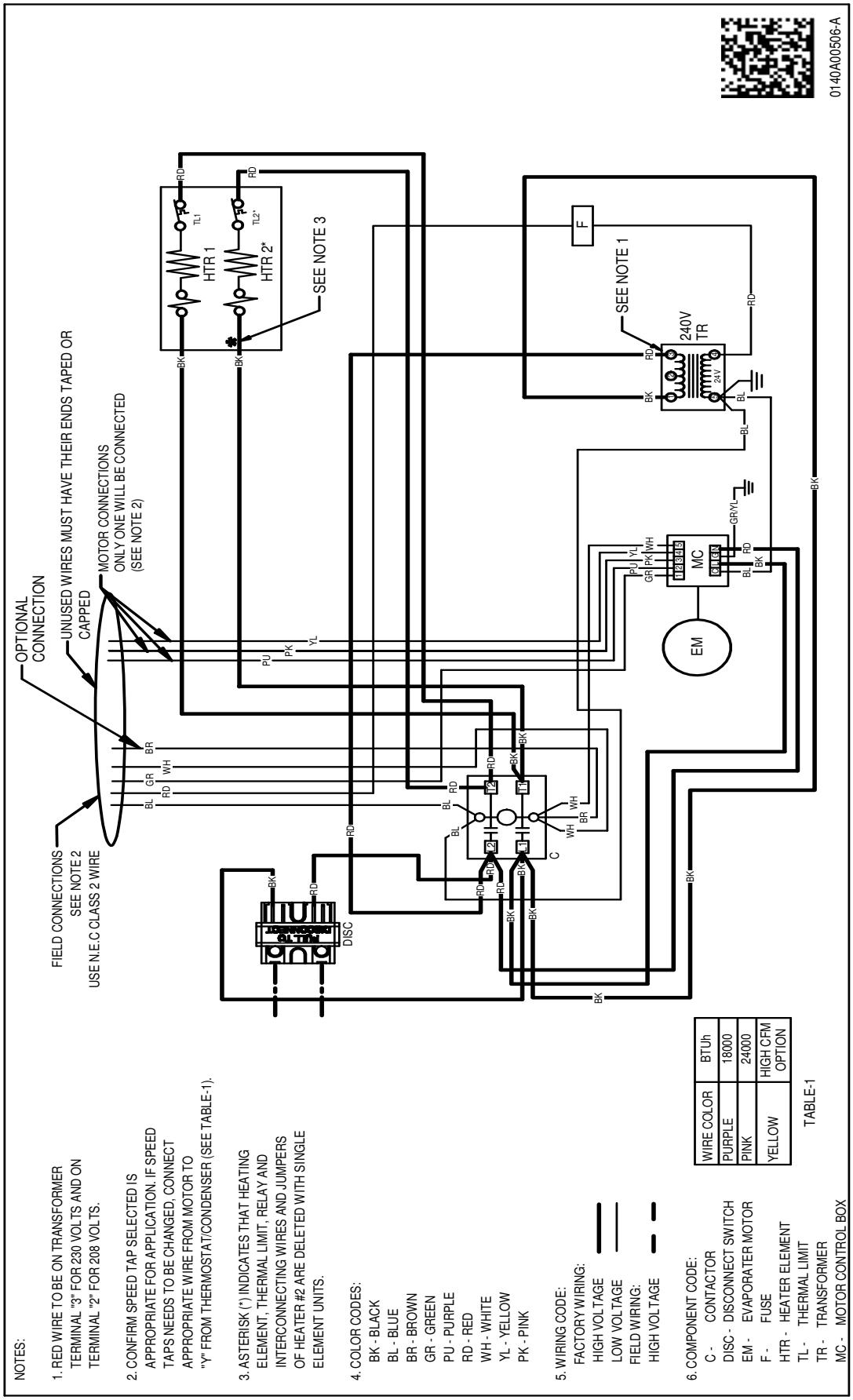

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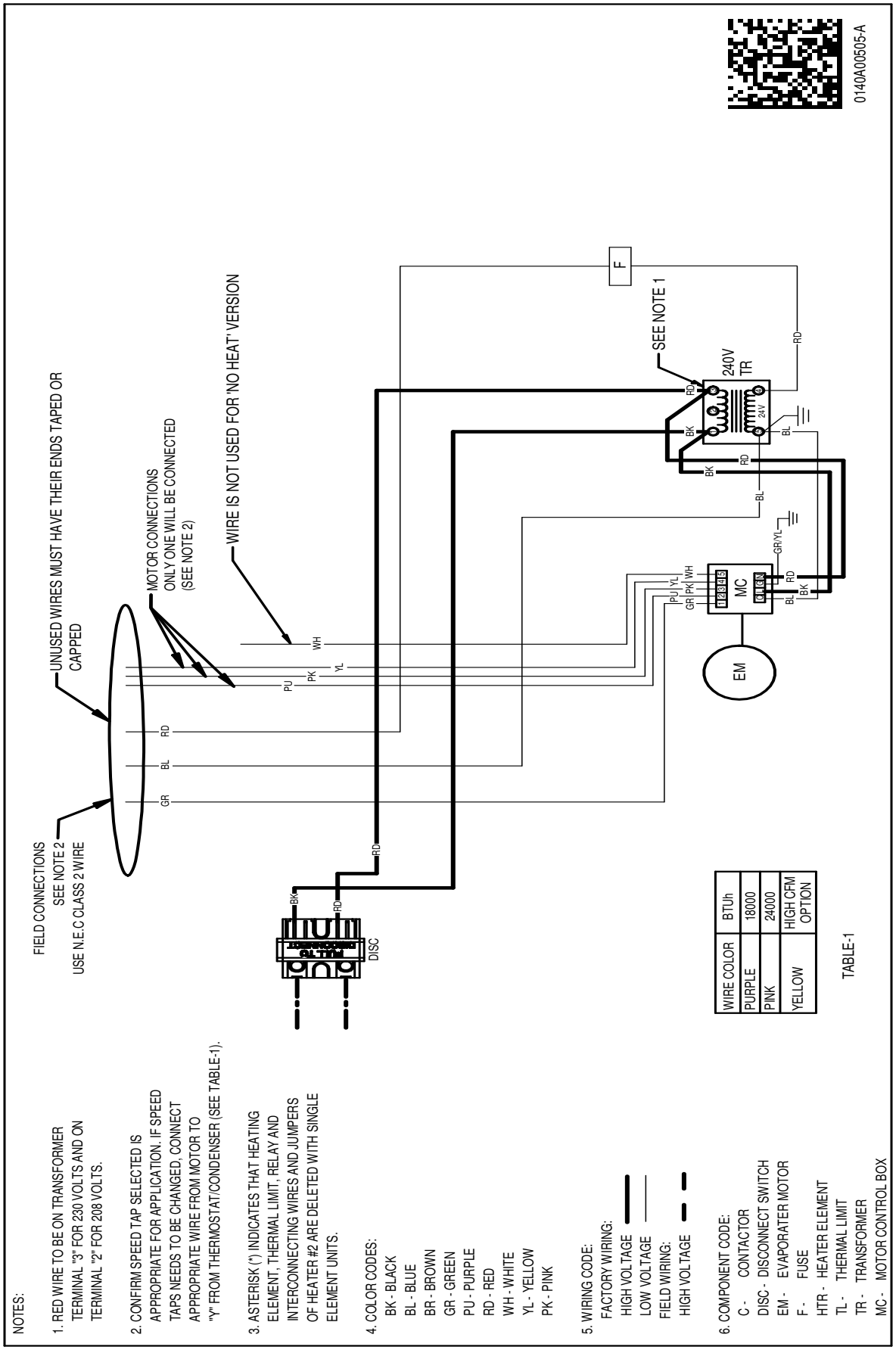

NOTES:

1. RED WIRE TO BE ON TRANSFORMER TERMINAL "3" FOR 230 VOLTS AND ON TERMINAL "2" FOR 208 VOLTS.
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 HEATER #2 ARE DELETED WITH SINGLE ELEMENT UNITS.
4. COLOR CODES:
   - BK - BLACK
   - BL - BLUE
   - BR - BROWN
   - GR - GREEN
   - PU - PURPLE
   - RD - RED
   - WH - WHITE
   - YL - YELLOW
   - PK - PINK
5. WIRING CODE:
   - FACTORY WIRING: HIGH VOLTAGE
   - LOW VOLTAGE
   - FIELD WIRING: HIGH VOLTAGE
6. COMPONENT CODE:
   - C - CONTACTOR
   - DISC - DISCONNECT SWITCH
   - EM - EVAPORATER MOTOR
   - F - FUSE
   - HTR - HEATER ELEMENT
   - TL - THERMAL LIMIT
   - TR - TRANSFORMER
   - MC - MOTOR CONTROL BOX

WIRE COLOR	BTUh
PURPLE	18000
PINK	24000
YELLOW	HIGH CFM OPTION

TABLE-1

0140A00505-A

WARNING

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

Model	Description
HPSK-01	Heat Pump Shut-off Relay Kit

Part Number	Ceiling Access Panel Description	Use With
CAP-1-AM	Ceiling Access Panel- Small- No Louvers	ACNF18
CAP-1L-AM	Ceiling Access Panel- Small- Louvers	ACNF18
CAP-2-AM	Ceiling Access Panel- Medium- No Louvers	ACNF24/25
CAP-2L-AM	Ceiling Access Panel- Medium- Louvers	ACNF24/25
CAP-3-AM	Ceiling Access Panel- Large- No Louvers	ACNF30/31
CAP-3L-AM	Ceiling Access Panel- Large- Louvers	ACNF30/31

The manufacturing entity reserves the right to discontinue or change the specifications or design at any time without notice and without incurring any obligations.