



**MULTI-POSITION, VARIABLE-SPEED,  
ECM-BASED, COMFORTNET™ COMPATIBLE,  
INVERTER-TUNED AIR HANDLER  
2 TO 5 TONS**

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## Product Features

- Internal factory-installed, inverter tuned thermal expansion valve for cooling and heat pump applications
- Variable-speed ECM blower motor
- ComfortNet™ Communicating System compatible
- Auto configuration of the airflow and tonnage in communicating mode
- Provides constant CFM over a wide range of static pressure conditions independent of duct system
- CFM indicator
- Fault recall of six most recent faults
- Provides adjustable low CFM for efficient fan-only operation
- Improved humidity and comfort control
- Built-in compatibility with multi-stage heat pump and cooling applications
- All-aluminum evaporator coil
- AHRI certified; ETL listed
- Rigid SmartFrame™ cabinet
- Cabinet air leakage less than 2.0% at 1.0 inch H2O when tested in accordance with ASHRAE standard 193
- Cabinet air leakage less than 1.4% at 0.5 inch H2O when tested in accordance with ASHRAE standard 193
- 3 kW – 25 kW electric heater kits
- Horizontal or vertical configuration capabilities
- 21" depth for easier attic access
- DecaBDE-free thermoplastic drain pan with secondary drain connections
- Screw-less sides and back helps to reduce condensation when installed in humid locations
- Foil-faced insulation covers the internal casing to reduce cabinet condensation
- Galvanized, leather grain-embossed finish
- Glue-less cabinet insulation retention
- Tool-less filter access



\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.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.

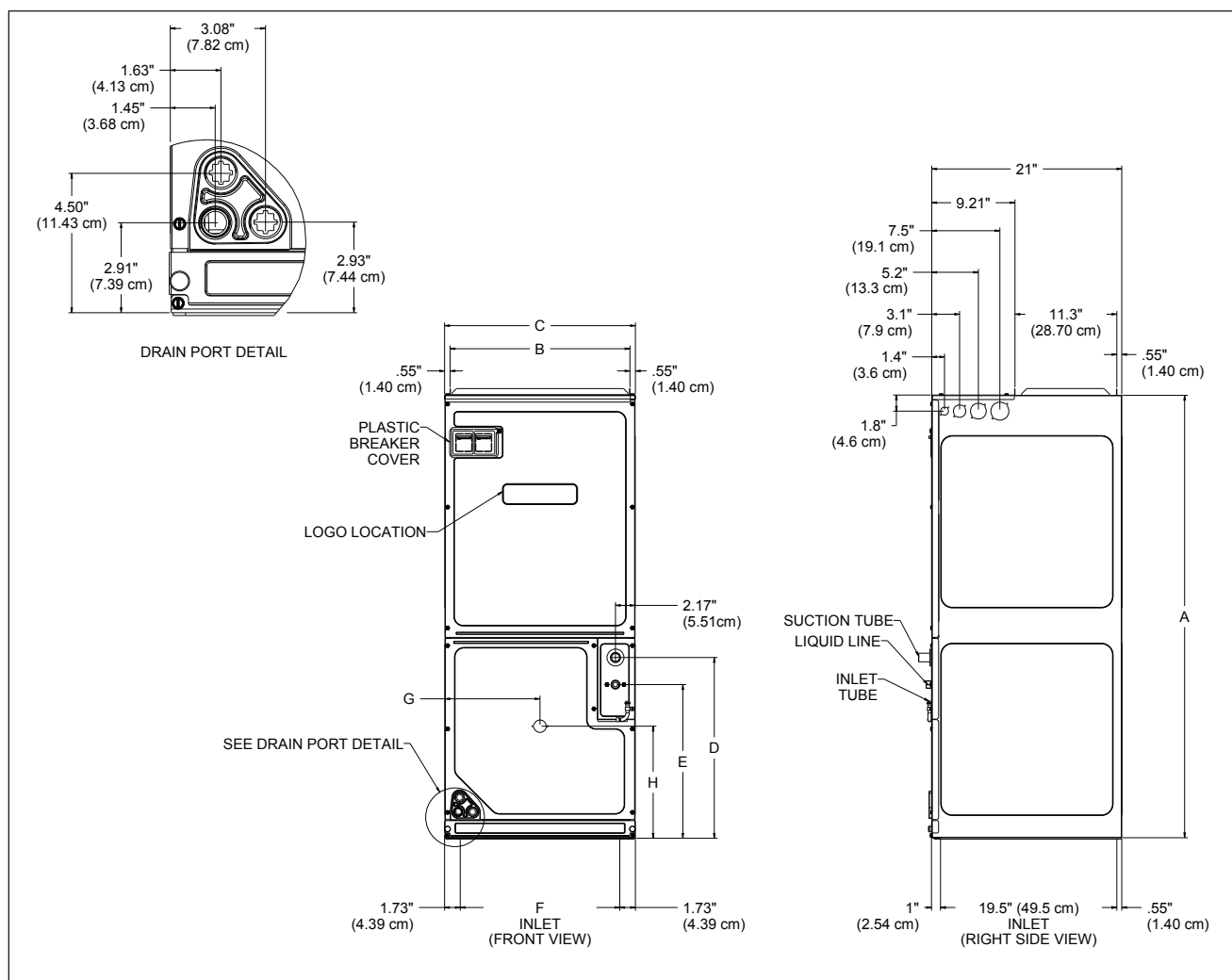
|                                                       | A | V | P | V | C | 18  | B | 1 | 4  | AA    |                                    |
|-------------------------------------------------------|---|---|---|---|---|-----|---|---|----|-------|------------------------------------|
|                                                       | 1 | 2 | 3 | 4 | 5 | 6,7 | 8 | 9 | 10 | 11,12 |                                    |
| <b>Brand</b>                                          |   |   |   |   |   |     |   |   |    |       | <b>Engineering*</b>                |
| A Single-Piece Airhandler                             |   |   |   |   |   |     |   |   |    |       | Major/Minor Revisions              |
|                                                       |   |   |   |   |   |     |   |   |    |       | *Not used for inventory management |
| <b>Unit Application</b>                               |   |   |   |   |   |     |   |   |    |       | <b>Refrigerant Charge</b>          |
| R Multi Position PSC Motor                            |   |   |   |   |   |     |   |   |    |       | 4 = R-410A                         |
| S Multi Position EEM Motor                            |   |   |   |   |   |     |   |   |    |       |                                    |
| V Multi Position Variable-Speed Motor-Communitacating |   |   |   |   |   |     |   |   |    |       | <b>Electrical</b>                  |
|                                                       |   |   |   |   |   |     |   |   |    |       | 1 208/230V, 1 Phase, 60 Hz         |
| <b>Cabinet Finish</b>                                 |   |   |   |   |   |     |   |   |    |       | <b>Cabinet Width</b>               |
| U Unpainted                                           |   |   |   |   |   |     |   |   |    |       | B = 17½"                           |
| P Painted                                             |   |   |   |   |   |     |   |   |    |       | C = 21"                            |
|                                                       |   |   |   |   |   |     |   |   |    |       | D = 24½"                           |
| <b>Expansion Device</b>                               |   |   |   |   |   |     |   |   |    |       | <b>Nominal Capacity @ 13SEER</b>   |
| T Expansion Device                                    |   |   |   |   |   |     |   |   |    |       | 18 = 1½ Tons    42 = 3½ Tons       |
| V Inverter Tuned Expansion Valve                      |   |   |   |   |   |     |   |   |    |       | 24 = 2 Tons    48 = 4 Tons         |
|                                                       |   |   |   |   |   |     |   |   |    |       | 30 = 2½ Tons    60 = 5 Tons        |
|                                                       |   |   |   |   |   |     |   |   |    |       | 36 = 3 Tons                        |
|                                                       |   |   |   |   |   |     |   |   |    |       | <b>Communications</b>              |
|                                                       |   |   |   |   |   |     |   |   |    |       | C = ComfortNet™ Compatible         |

|                                         | HKS | X | 03 | X | A | AA  |                           |
|-----------------------------------------|-----|---|----|---|---|-----|---------------------------|
|                                         | 1   | 2 | 3  | 4 | 5 | 6,7 |                           |
| <b>Unit Type</b>                        |     |   |    |   |   |     | <b>Revisions</b>          |
| HKS Heat Kit for Air Handlers           |     |   |    |   |   |     | Engineering Revisions     |
| <b>Circuit Breaker</b>                  |     |   |    |   |   |     | <b>Phase</b>              |
| X No circuit breaker                    |     |   |    |   |   |     | A Single Phase 208 V      |
| C Circuit Breaker                       |     |   |    |   |   |     | E Three Phase 240 V       |
|                                         |     |   |    |   |   |     | B Single Phase 240 V      |
|                                         |     |   |    |   |   |     | F Three Phase 208/240 V   |
|                                         |     |   |    |   |   |     | C Single Phase 208/240 V  |
|                                         |     |   |    |   |   |     | G Three Phase 460 V       |
|                                         |     |   |    |   |   |     | D Three Phase 208 V       |
| <b>Heating Capacity @ 240 Volts</b>     |     |   |    |   |   |     | <b>Cabinet Size (MAX)</b> |
| 03 3.0 kW    15 14.4 kW                 |     |   |    |   |   |     | C C Cabinet               |
| 05 4.5 kW    19 19.2 kW wth 150F limit  |     |   |    |   |   |     | D D Cabinet               |
| 06 6.0 kW    20 19.2 kW with 170F limit |     |   |    |   |   |     | X All Cabinet Sizes       |
| 08 8.0 kW    25 25.0 kW                 |     |   |    |   |   |     |                           |
| 10 9.6 kW                               |     |   |    |   |   |     |                           |

|                                | AVPVC24<br>C14A*   | AVPVC36<br>D14A*   | AVPVC48<br>D14A*   | AVPVC60<br>D14A*   |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|
| <b>NOMINAL RATINGS</b>         |                    |                    |                    |                    |
| Cooling (BTU/h)                | 24,000             | 36,000             | 48,000             | 60,000             |
| <b>BLOWER</b>                  |                    |                    |                    |                    |
| Diameter                       | 10 $\frac{5}{8}$ " | 10 $\frac{5}{8}$ " | 10 $\frac{5}{8}$ " | 11 $\frac{5}{8}$ " |
| Width                          | 8"                 | 10 $\frac{5}{8}$ " | 10 $\frac{5}{8}$ " | 10 $\frac{5}{8}$ " |
| <b>COIL CONNECTIONS</b>        |                    |                    |                    |                    |
| Liquid                         | $\frac{3}{8}$ "    | $\frac{3}{8}$ "    | $\frac{3}{8}$ "    | $\frac{3}{8}$ "    |
| Suction                        | $\frac{7}{8}$ "    | $\frac{7}{8}$ "    | $\frac{7}{8}$ "    | $\frac{7}{8}$ "    |
| Coil Drain Connection (FPT)    | $\frac{3}{4}$ "    | $\frac{3}{4}$ "    | $\frac{3}{4}$ "    | $\frac{3}{4}$ "    |
| <b>ELECTRICAL DATA</b>         |                    |                    |                    |                    |
| Voltage                        | 208/240            | 208/240            | 208/240            | 208/240            |
| Min Circuit Ampacity           | 4.9/4.9            | 6.5/6.5            | 6.5/6.5            | 8.6/8.6            |
| Max. Overcurrent Device (Amps) | 15/15              | 15/15              | 15/15              | 15/15              |
| Minimum VAC                    | 197                | 197                | 197                | 197                |
| Maximum VAC                    | 253                | 253                | 253                | 253                |
| <b>BLOWER MOTOR</b>            |                    |                    |                    |                    |
| Full Load Amps (FLA)           | 3.9                | 5.2                | 5.2                | 6.9                |
| Horsepower (HP)                | $\frac{1}{2}$      | $\frac{3}{4}$      | $\frac{3}{4}$      | 1                  |
| <b>SHIP WEIGHT (LBS.)</b>      | 118                | 155                | 167                | 167                |

**NOTE**

- Minimum Circuit Ampacity (MCA) and Maximum Overcurrent Protection (MOP) for blower without supplemental heat installed. Refer to unit nameplate and/or Heat Kit Data for specification with approved accessory heaters installed.



| MODEL      | A  | B                | C                | D                | E                | F                | G                | H                |
|------------|----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| AVPVC24C14 | 49 | 20               | 21               | 20               | 17               | 17 $\frac{3}{4}$ | 10 $\frac{1}{2}$ | 12 $\frac{3}{8}$ |
| AVPVC36D14 | 58 | 23 $\frac{3}{8}$ | 24 $\frac{1}{2}$ | 28 $\frac{3}{4}$ | 25 $\frac{1}{4}$ | 21 $\frac{1}{4}$ | 12 $\frac{3}{8}$ | 12 $\frac{3}{8}$ |
| AVPVC48D14 | 58 | 23 $\frac{3}{8}$ | 24 $\frac{1}{2}$ | 28 $\frac{3}{4}$ | 25 $\frac{1}{4}$ | 21 $\frac{1}{4}$ | 12 $\frac{3}{8}$ | 12 $\frac{3}{8}$ |
| AVPVC60D14 | 58 | 23 $\frac{3}{8}$ | 24 $\frac{1}{2}$ | 28 $\frac{3}{4}$ | 25 $\frac{1}{4}$ | 21 $\frac{1}{4}$ | 12 $\frac{3}{8}$ | 12 $\frac{3}{8}$ |

| MODEL        | RATED AIR FLOW CFM |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|------|------|------|------|------|------|
|              | 0.1                | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| AVPVC24C14A* | 700                | 690  | 690  | 685  | 680  | 670  | 665  | 660  | 655  |
| AVPVC36D14A* | 1190               | 1170 | 1165 | 1160 | 1145 | 1130 | 1120 | 1105 | 1100 |
| AVPVC48D14A* | 1445               | 1440 | 1430 | 1415 | 1405 | 1390 | 1380 | 1375 | 1370 |
| AVPVC60D14A* | 1645               | 1640 | 1640 | 1635 | 1630 | 1625 | 1620 | 1620 | 1615 |

| MODEL        | MAXIMUM AIR FLOW CFM |      |      |      |      |      |      |      |      |
|--------------|----------------------|------|------|------|------|------|------|------|------|
|              | 0.1                  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| AVPVC24C14A* | 770                  | 760  | 760  | 755  | 750  | 735  | 730  | 725  | 720  |
| AVPVC36D14A* | 1310                 | 1285 | 1280 | 1275 | 1260 | 1245 | 1230 | 1215 | 1210 |
| AVPVC48D14A* | 1590                 | 1585 | 1575 | 1560 | 1545 | 1530 | 1520 | 1515 | 1505 |
| AVPVC60D14A* | 1810                 | 1805 | 1805 | 1800 | 1790 | 1785 | 1780 | 1780 | 1775 |

**NOTES**

- The chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on rating plate.
- Use the CFM adjustment factors of .98 for horizontal left, .95 for horizontal right & .96 for downflow orientations.
- Airflow data indicated is at 230V without air filter in place.

**ELECTRIC HEAT AIRFLOW**

| HTR kW    | DIP SWITCH SETTINGS |     |     | AVPVC24<br>C14 | AVPVC36<br>D14† | AVPVC48<br>D14†† | AVPVC60<br>D14††† |
|-----------|---------------------|-----|-----|----------------|-----------------|------------------|-------------------|
|           | 9                   | 10  | 11  |                |                 |                  |                   |
| 3         | ON                  | ON  | ON  | 730            | 850**           | NR               | NR                |
| 5         | ON                  | ON  | OFF | 780            | 1250            | 1250             | 1250              |
| 6         | ON                  | OFF | ON  | 850            | 1300            | 1300             | 1300              |
| 8         | ON                  | OFF | OFF | 950            | 1500            | 1500             | 1500              |
| 10        | OFF                 | ON  | ON  | 1025           | 1550            | 1550             | 1550              |
| 15        | OFF                 | ON  | OFF | NR             | 1720            | 1720             | 1780              |
| 20        | OFF                 | OFF | ON  | NR             | 1800            | 1815             | 1850              |
| 21 or 25* | OFF                 | OFF | OFF | OFF            | NR              | 1850             | 1850              |

\* Within thermostat user menu, CTK0\* communicating thermostat will display 20kW for OFF- OFF- ON dipswitch selection, 21kW for OFF-OFF-OFF dipswitch selection.

† For match up with a 2 ton outdoor unit: Heater kit application shall not exceed 10 kW. Airflow for 5 kW up to 10 kw heater kits shall be set to 850 cfm speed tap of ON-ON-ON.

†† For match up with a 3 ton outdoor unit: Heater kit application shall not exceed 15 kW. Airflow for 5 kW up to 15 kw heater kits shall be set to 1300 cfm speed tap of ON-OFF-ON.

††† For match up with a 3.5 ton outdoor unit: Heater kit application shall not exceed 20 kW. Airflow for 5 kW up to 20 kw heater kits shall be set to 1500 cfm speed tap of ON-OFF-OFF.

\*\* 3 kW heater kit is not applicable for this indoor application.

NR - Not rated

**NOTES**

- Airflow data shown applies to the electric heat only in either legacy mode or communicating mode operation
- Within thermostat user menu CTK04 communicating thermostat will display 20KW for OFF- OFF- ON dip switch selection, 21kW for OFF-OFF-OFF dip switch selection.

| MODELS              | CIRCUIT 1 |                  |                  | CIRCUIT 2 |                  |                  | SINGLE-POINT KIT |                  |
|---------------------|-----------|------------------|------------------|-----------|------------------|------------------|------------------|------------------|
|                     | AMPS      | MCA <sup>1</sup> | MOP <sup>2</sup> | AMPS      | MCA <sup>1</sup> | MOP <sup>2</sup> | MCA <sup>1</sup> | MOP <sup>2</sup> |
| <b>AVPVC24C14AA</b> | 0.0/0.0   | 4.9/4.9          | 15/15            | ---       | ---              | ---              | ---              | ---              |
| HKS*03XC*           | 10.8/12.5 | 18/21            | 20/25            | ---       | ---              | ---              | ---              | ---              |
| HKS*05XC*           | 17.3/20.0 | 27/30            | 30/30            | ---       | ---              | ---              | ---              | ---              |
| HKS*06XC*           | 21.7/25.0 | 32/36            | 35/40            | ---       | ---              | ---              | ---              | ---              |
| HKS*08XC*           | 28.9/33.3 | 41/47            | 45/50            | ---       | ---              | ---              | ---              | ---              |
| HKS*10XC*           | 34.7/40.0 | 48/55            | 50/60            | ---       | ---              | ---              | ---              | ---              |
| <b>AVPVC36D14AB</b> | 0.0/0.0   | 6.5/6.5          | 15/15            | ---       | ---              | ---              | ---              | ---              |
| HKS*03XC*           | 10.8/12.5 | 20/22            | 20/25            | ---       | ---              | ---              | ---              | ---              |
| HKS*05XC*           | 17.3/20.0 | 28/32            | 30/35            | ---       | ---              | ---              | ---              | ---              |
| HKS*06XC*           | 21.7/25.0 | 34/38            | 35/40            | ---       | ---              | ---              | ---              | ---              |
| HKS*08XC*           | 28.9/33.3 | 43/48            | 45/50            | ---       | ---              | ---              | ---              | ---              |
| HKS*10XC*           | 34.7/40.0 | 50/57            | 50/60            | ---       | ---              | ---              | ---              | ---              |
| HKSC15*##           | 34.7/40.0 | 50/57            | 50/60            | 17.3/20.0 | 22/25            | 25/25            | 72/82            | 80/90            |
| HKSC20D##           | 34.7/40.0 | 50/57            | 50/60            | 34.7/40   | 43/50            | 45/50            | 93/107           | 100/110          |
| HKSC15XF*           | 0.0/0.0   | 6.5/6.5          | 15/15            | 30.0/34.6 | 38/43            | 40/45            | ---              | ---              |
| HKSC20XF*           | 0.0/0.0   | 6.5/6.5          | 15/15            | 37.5/43.3 | 47/54            | 50/60            | ---              | ---              |
| <b>AVPVC48D14AB</b> | 0.0/0.0   | 6.5/6.5          | 15/15            | ---       | ---              | ---              | ---              | ---              |
| HKS*03XC*           | 10.8/12.5 | 20/22            | 20/25            | ---       | ---              | ---              | ---              | ---              |
| HKS*05XC*           | 17.3/20.0 | 28/32            | 30/35            | ---       | ---              | ---              | ---              | ---              |
| HKS*06XC*           | 21.7/25.0 | 34/38            | 35/40            | ---       | ---              | ---              | ---              | ---              |
| HKS*08XC*           | 28.9/33.3 | 43/48            | 45/50            | ---       | ---              | ---              | ---              | ---              |
| HKS*10XC*           | 34.7/40.0 | 50/57            | 50/60            | ---       | ---              | ---              | ---              | ---              |
| HKSC15*##           | 34.7/40.0 | 50/57            | 50/60            | 17.3/20.0 | 22/25            | 25/25            | 72/82            | 80/90            |
| HKSC20D##           | 34.7/40.0 | 50/57            | 50/60            | 34.7/40   | 43/50            | 45/50            | 93/107           | 100/110          |
| HKSC15XF*           | 0.0/0.0   | 6.5/6.5          | 15/15            | 30.0/34.6 | 38/43            | 40/45            | ---              | ---              |
| HKSC20XF*           | 0.0/0.0   | 6.5/6.5          | 15/15            | 37.5/43.3 | 47/54            | 50/60            | ---              | ---              |
| HKSC25DC*           | 52.0/60.0 | 74/84            | 80/90            | 34.7/40.0 | 43/50            | 45/50            | 117/134          | 125/150          |
| <b>AVPVC60D14AC</b> | 0.0/0.0   | 8.6/8.6          | 15/15            | ---       | ---              | ---              | ---              | ---              |
| HKS*03XC*           | 10.8/12.5 | 22/24            | 25/25            | ---       | ---              | ---              | ---              | ---              |
| HKS*05XC*           | 17.3/20.0 | 30/34            | 35/35            | ---       | ---              | ---              | ---              | ---              |
| HKS*06XC*           | 21.7/25.0 | 36/40            | 40/40            | ---       | ---              | ---              | ---              | ---              |
| HKS*08XC*           | 28.9/33.3 | 45/50            | 45/60            | ---       | ---              | ---              | ---              | ---              |
| HKS*10XC*           | 34.7/40.0 | 52/59            | 60/60            | ---       | ---              | ---              | ---              | ---              |
| HKSC15*##           | 34.7/40.0 | 52/59            | 60/60            | 17.3/20   | 22/25            | 25/25            | 74/84            | 80/90            |
| HKSC20D##           | 34.7/40.0 | 52/59            | 60/60            | 34.7/40.0 | 43/50            | 45/50            | 95/109           | 100/110          |
| HKSC15XF*           | 0.0/0.0   | 8.6/8.6          | 15/15            | 30.0/34.6 | 38/43            | 40/45            | ---              | ---              |
| HKSC20XF*           | 0.0/0.0   | 8.6/8.6          | 15/15            | 37.5/43.3 | 47/54            | 50/60            | ---              | ---              |
| HKSC25DC*           | 52.0/60.0 | 74/84            | 80/90            | 35/40     | 43/50            | 45/50            | 117/134          | 125/150          |

<sup>1</sup> Minimum Circuit Ampacity (Heater Amps + Motor Amps) X 1.25

<sup>2</sup> Maximum Overcurrent Protection = 2.25 X Motor Amps + Heater Amps

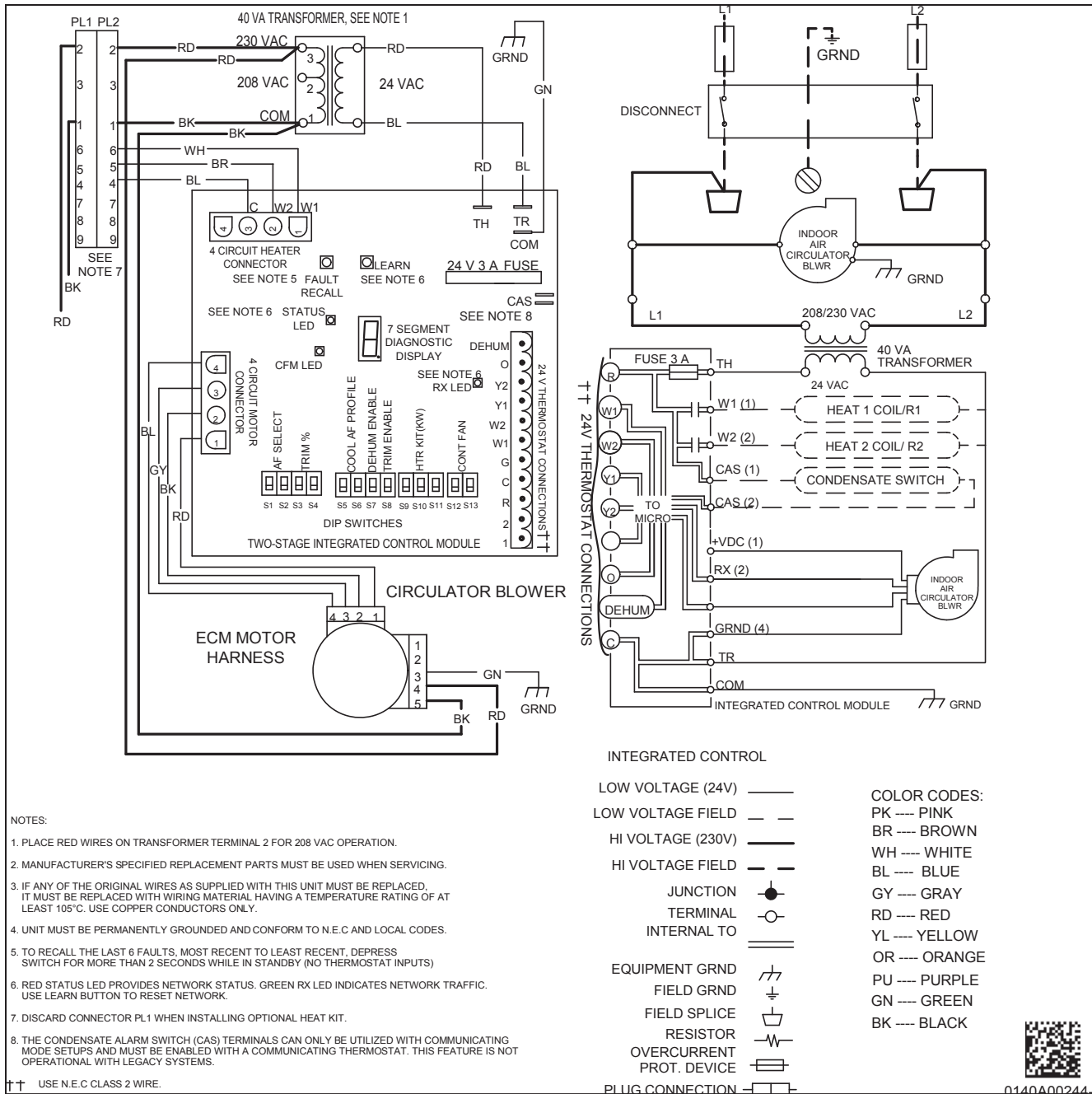
<sup>^</sup> Circuit 1: Single-phase for Air Handlers    Circuit 2: Three-phase for HKR3 Heater Kits

\* Revision level that may or may not be designated

C = Circuit Breaker Option

--- indicates Not Required

HKA meets the new UL1995 requirements for 15 and 20KW heaters



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



**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.



## NOTES