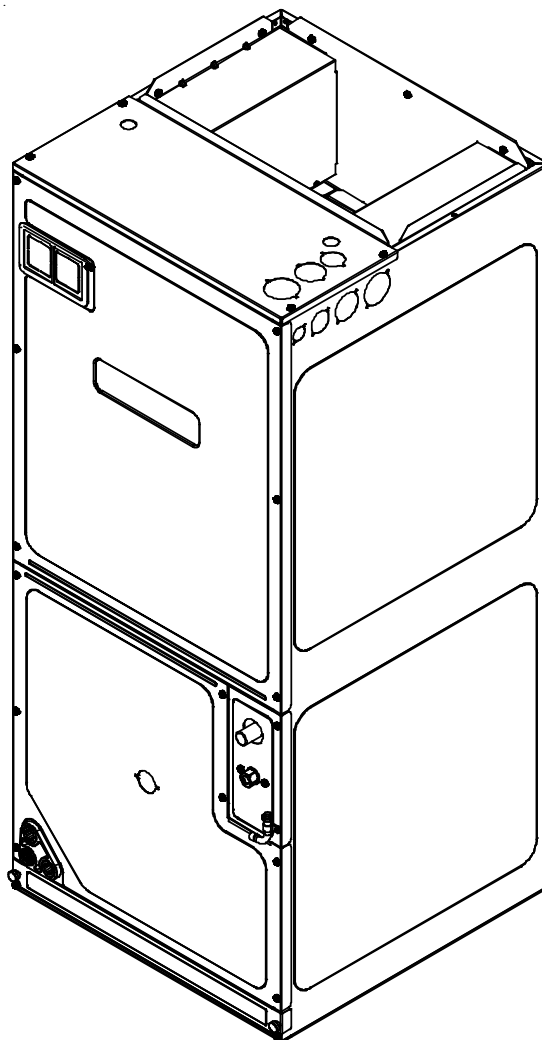


DAIKIN TECHNICAL MANUAL

DVPVC*14A* Air Handlers**

- Refer to Service Manual RSD6115001 for installation, operation & troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.



This manual is to be used by qualified, professionally trained HVAC technicians only. Daikin does not assume any responsibility for property damage or personal injury due to improper service procedures or services performed by an unqualified person.

RTD6125001r1
July 2014

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.

	D	V	24	P	V	C	C	1	4	AA	
	1	2	3,4	5	6	7	8	9	10	11,12	
Brand	D - Daikin Single-Piece Airhandler		V - Multi-Position Variable-Speed Motor Communicating		24 - 2 24 - 2 Tons 36 - 3 Tons		P - Painted		Engineering* Major/Minor Revisions *Not used for inventory management		
Unit Application											
Nominal Capacity Range									Refrigerant Compatability 4 = R-410A		
									Electrical 1 208/230V, 1 Phase, 60 Hz		
									Nominal Width C - 21" D - 24½"		
									Communications C - ComfortNet™ Compatible		
									Expansion Device T - Expansion Valve V - Inverter Tuned Expansion Valve		

All Airhandlers use DIRECT DRIVE MOTORS. Power supply is AC 208/230v, 60 Hz, 1 Phase.

**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.



**WARNING**

Daikin will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

**WARNING**

Installation and repair of this unit should be performed ONLY by individuals meeting (at a minimum) the requirements of an "entry level technician", as specified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.

DV24PVCC14A*

DV36PVCD14A*

DV48PVCD14A*

DV60PVCD14A*



WARNING

The United States Environmental Protection Agency (“EPA”) has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.



WARNING

Do not connect or use any device that is not design certified by Daikin for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.



WARNING

To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.



WARNING

When installing or servicing this equipment, safety clothing, including hand and eye protection, is strongly advised. If installing this equipment in an area that has special safety requirements (hard hats etc.), observe these requirements. To protect the unit when brazing close to the painted surfaces, the use of a quenching cloth is strongly advised to prevent scorching or marring of the equipment finish.



WARNING

The unit **MUST** have an uninterrupted, unbroken electrical ground to minimize the possibility of personal injury if an electrical fault should occur. The electrical ground circuit may consist of an appropriately sized electrical wire connecting the ground lug in the unit control box to the building electrical service panel. Other methods of grounding are permitted if performed in accordance with the “National Electric Code” (NEC)/“American National Standards Institute” (ANSI)/“National Fire Protection Association” (NFPA) 70 and local/state codes. In Canada, electrical grounding is to be in accordance with the Canadian Electric Code CSA C22.1. Failure to observe this warning can result in electrical shock that can cause personal injury or death.

PRODUCT DESIGN



WARNING

If this appliance is installed in an enclosed area such as a garage or utility room with any carbon monoxide (CO) producing appliance (i.e. automobile, furnace, water-heaters, etc.), ensure the area is properly ventilated.



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.



AIR HANDLERS

See Air Handler Specification Sheet for Proper Combinations.

ALL AIR HANDLERS USE DIRECT DRIVE MOTORS. POWER SUPPLY IS 208/230V, 60 HZ, 1 PHASE.

Installation

Before installing this appliance insure that it is properly sized and adequate power is available.

This appliance can be installed in the vertical or right horizontal position without modification. The horizontal left and downflow positions require product modification.

This product is designed for zero inches (0 inches) clearance; however, adequate access for service or replacement must be considered without removing permanent structure. This unit can be installed on a platform when deemed necessary.

In an attic installation a secondary drain pan must be provided by the installer and placed under the entire unit with a separate drain line properly sloped and terminated in an area visible to the owner. This secondary drain pan is required in the event that there is a leak or main drain blockage. Closed cell insulation should be applied to the drain lines in unconditioned spaces where sweating may occur.

Appliances installed in garages, warehouses or other areas where they may be subjected to mechanical damage must be suitably guarded against such damage by installing behind protective barriers, being elevated or located out of the normal path of vehicles. When installed on a base, the base must also be protected by similar means.

Heating and cooling equipment located in garages, which may generate a glow, spark or flame capable of igniting flammable vapors, must be installed with the ignition source at least 18" [46cm] above the floor level.

When more than one appliance is installed in a building it shall be permanently identified as to the area or space serviced by the equipment.

When this product is installed in the downflow installation in an unconditioned space, remove the horizontal drain pan and install the following insulation kit.

MODEL LIST FOR DOWNFLOW KITS

DFK-C Downflow Kit	DFK-D Downflow Kit
DV24PVCC14A*	DV36PVCD14A*
	DV48PVCD14A*
	DV60PVCD14A*

This kit is used to prevent sweating on the vertical drain pan.

DVPVC*14A*** is a multi-position, variable-speed air handler and is used with R-410A. The unit's blower design includes a variable-speed ECM motor and is compatible with heat pumps and variable-capacity cooling applications.

DVPVC*14A*** air handlers are available in 2 to 5 ton sizes with optional 3kW to 25kW electric heat kits available for field installation. (See note below.)

NOTE: Factory-sealed to achieve a 2% or less leakage rate at 1.0" water gauge external duct static pressure.

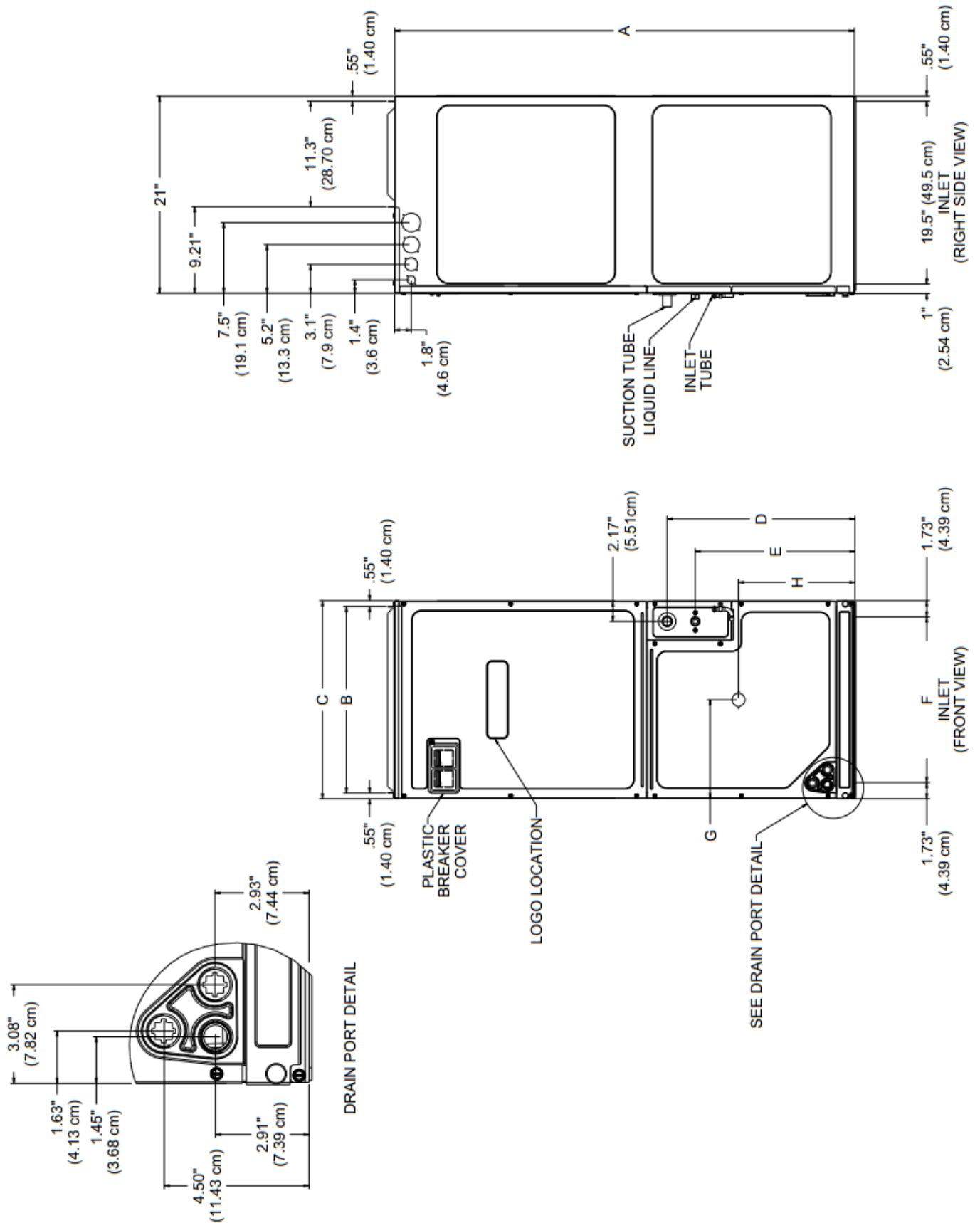
Complies with the Factory-sealed Air Handling Credit as listed in the 2001 Florida Building Code, Chapter 13, Section 610.2.A.2.1.

PRODUCT DIMENSIONS

Model	A	B	C	D	E	F	G	H
DV24PVCC14A*	49	19 ¹⁵ / ₁₆	21	20	17	17 ¹¹ / ₁₆	10 ¹ / ₂	12 ³ / ₈
DV36PVCD14A*	58	23 ⁵ / ₁₆	24 ¹ / ₂	28 ³ / ₁₆	25 ³ / ₁₆	21 ³ / ₁₆	12 ⁵ / ₁₆	12 ³ / ₈
DV48PVCD14A*	58	23 ⁵ / ₁₆	24 ¹ / ₂	28 ³ / ₁₆	25 ³ / ₁₆	21 ³ / ₁₆	12 ⁵ / ₁₆	12 ³ / ₈
DV60PVCD14A*	58	23 ⁵ / ₁₆	24 ¹ / ₂	28 ³ / ₁₆	25 ³ / ₁₆	21 ³ / ₁₆	12 ⁵ / ₁₆	12 ³ / ₈

PRODUCT DIMENSIONS

DV**PVC*14A*



PRODUCT SPECIFICATIONS

DV**PVC*14A*

	DV24PVCC14 A*	DV36PVCD14 A*	DV48PVCD14 A*	DV60PVCD14 A*
Nominal Ratings				
Cooling (Btu/h)	30,000	42,000	48,000	60,000
Airflow Rate CFM*	1200/600	1700/800	1800/1350	2000/1600
Blower				
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 $\frac{5}{8}$ "
Coil Drain Connect FPT	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "
Refrigerant Line Connection Size				
Liquid	$\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "
Suction	$\frac{7}{8}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "
Electrical Data				
Voltage	208/230	208/230	208/230	208/230
Electric Heat Capacity (kW)**	3, 5, 6, 8, 10	5, 6, 8, 10, 15, 20	5, 6, 8, 10, 15, 20	5, 6, 8, 10, 15, 20, 25
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
Blower Motor				
FLA	3.9	5.2	5.2	6.9
HP	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1
Ship Weight (lbs)	118	167	167	167

*Airflow rate @.3 static

**Please refer to Heater Kit Airflow table in the Installation and Operating Instructions for additional guidelines and limitations.

BLOWER PERFORMANCE DATA

Airflow Table		
Model	Airflow Level	CFM
DV24PVCC14A*	High	690
	Low	495
DV36PVCD14A*	High	1165
	Low	795
DV48PVCD14A*	High	1430
	Low	870
DV60PVCD14A*	High	1640
	Low	1070

HEAT KIT INFORMATION

DV**PVC*14A*

ELECTRIC HEAT AIRFLOW TABLE							
Htr kW	9	10	11	DV24PVCC14*	DV36PVCD14A+	DV48PVCD14A*++	DV60PVCD14A++
3	ON	ON	ON	730	850**	NR	NR
5	ON	ON	OFF	780	1250	1550	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
19*	OFF	OFF	ON	NR	NR	NR	NR
20				NR	1800	1815	1850
21 or 25*	OFF	OFF	OFF	NR	NR	1850	1850

Note: Airflow data shown applies to the electric heat only.

* 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.

NR Not rated

† 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.

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

HEAT KIT SELECTION

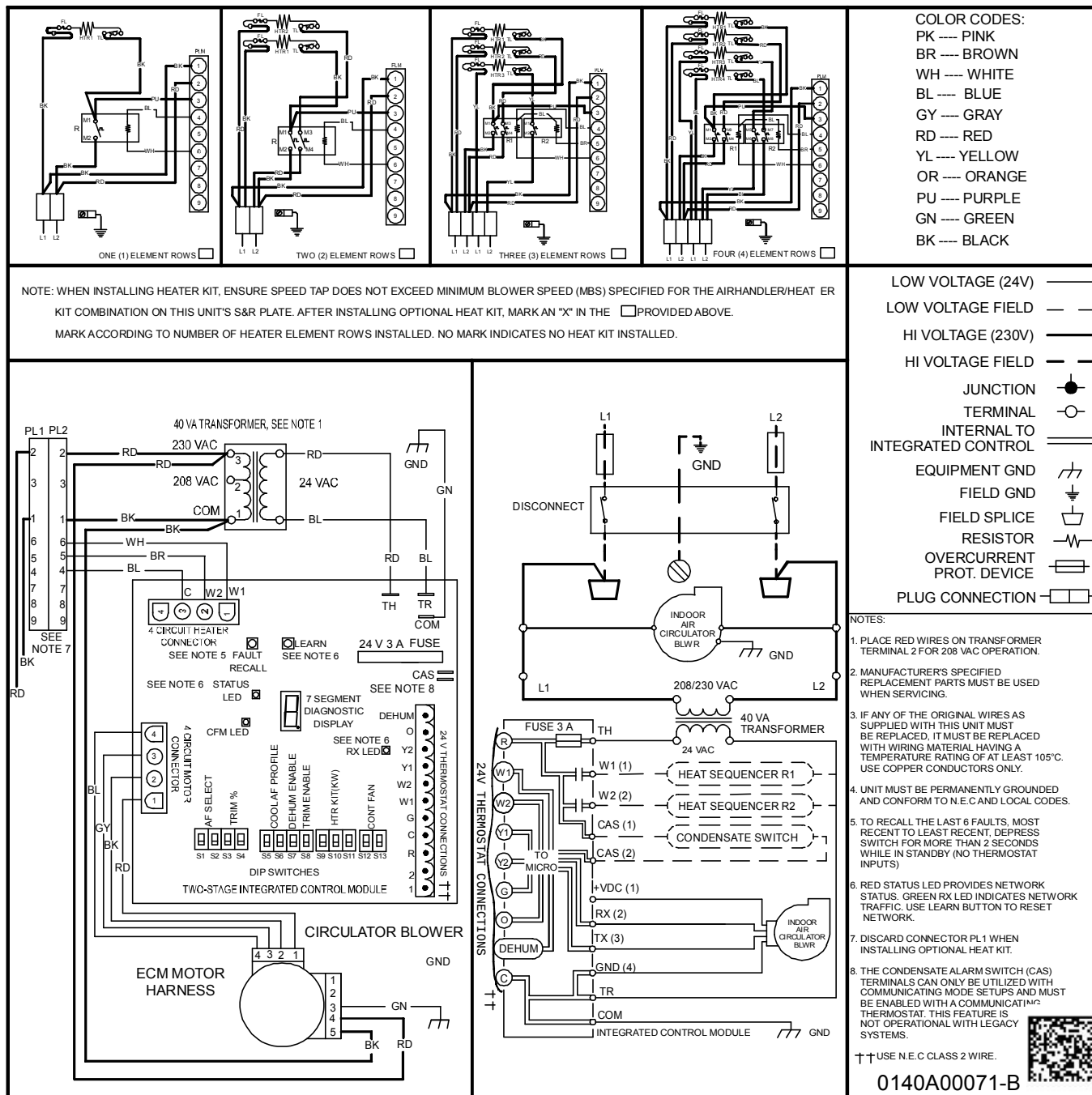
Models	HKX03XC	HKX05XC	HKX06XC	HKX08XC	HKX10XC	HKX05XC	HKX08XC	HKX10XC	HKX15XA	HKX15XB	HKX15XF	HKX19CA	HKX19CB	HKX20DA	HKX20DB	HKX20XF	HKX25DC
DV24PVCC14A*	X	X	X	X	X	X	X	X									
DV36PVCD14A*		X	X	X	X	X	X	X	X	X	X			X	X	X	
DV48PVCD14A*		X	X	X	X	X	X	X	X	X	X			X	X	X	X
DV60PVCD14A*		X	X	X	X	X	X	X	X	X	X			X	X	X	X

C Circuit breaker option

DVPVC*14A***



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.



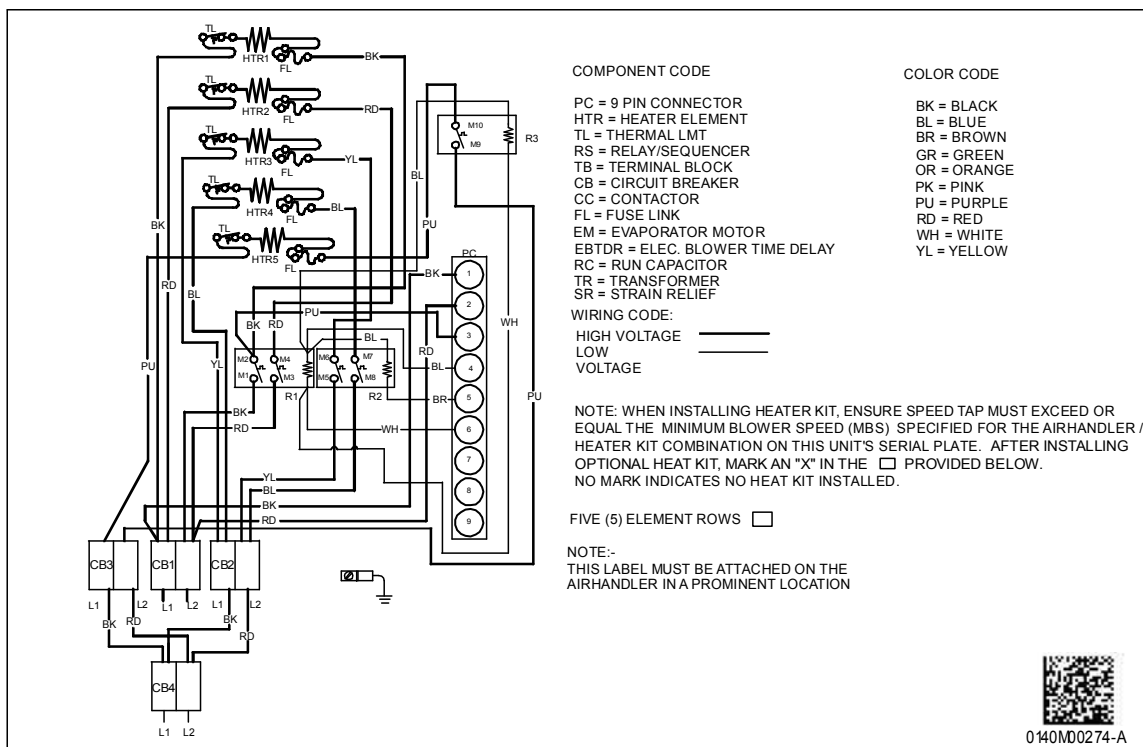
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

WIRING DIAGRAMS

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.

25kW Heat Kit



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