

## ELECTRIC AIR HANDLERS FOR 7½- & 10-TON SPLIT SYSTEMS

### ■ Standard Features

- Upflow or horizontal (left side) installation positions in 7½- and 10-ton cooling-only or heat pump applications
- 10-ton model circuited for use with two 4- or 5-ton cooling-only or heat pump systems, or one 10-ton cooling-only or heat pump system
- All models convertible to 460-3-60 from 208/230-3-60
- Transformer and blower relay
- TXV control; 7½-ton unit has one (1) thermal expansion check valve; 10-ton unit has two (2) thermal expansion check valves
- Draw-thru centrifugal blower is belt-driven for quiet, efficient operation
- Copper tube/aluminum fin coils

### ■ Cabinet Features

- Heavy-gauge, reinforced, galvanized-steel cabinet
- Fully insulated with fiberglass blanket
- Horizontal and vertical condensate pans
- Built-in filter rack (2" filter included)
- Entry on top of panel for both low and high voltage
- Removable access panels make servicing of unit faster and easier

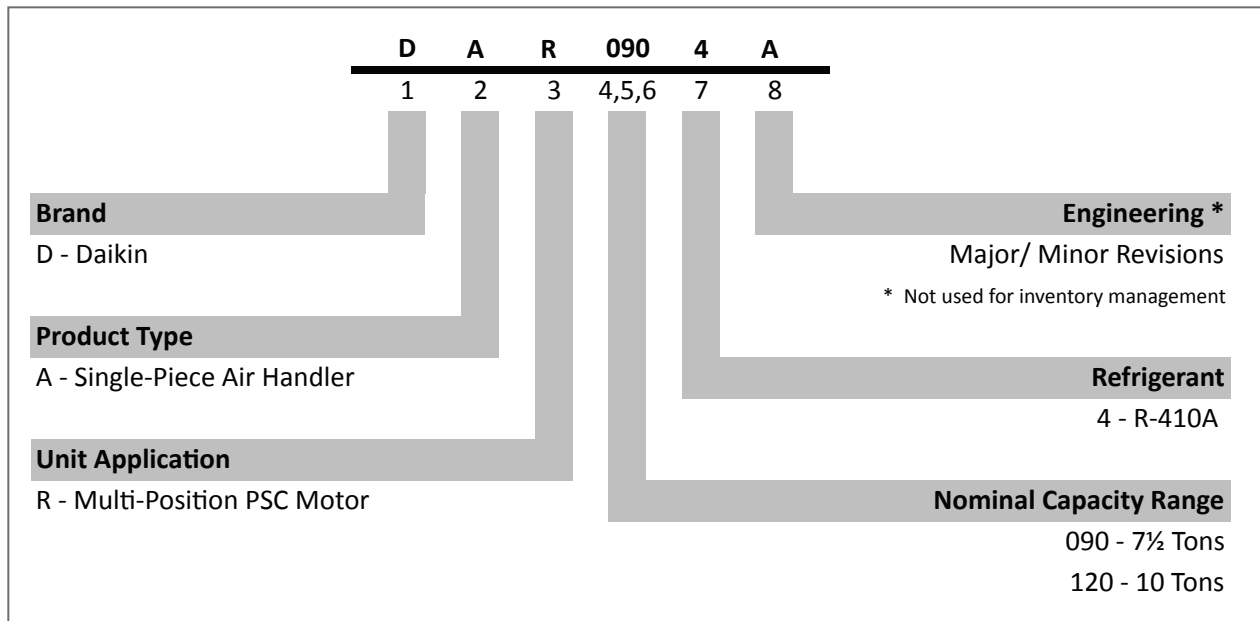
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\* Complete warranty details available from your local dealer or at [www.daikincomfort.com](http://www.daikincomfort.com).

# NOMENCLATURE



# SPECIFICATIONS

	DAR0904A	DAR1204A
<b>COOLING/ HEATING CAPACITIES</b>		
Cooling (BTU/h)	90,000	120,000
Heating (kW)	15, 20, 30	15, 20, 30
CFM	3,000	4,000
<b>ELECTRICAL</b>		
Unit volts	208/240/460	208/240/460
Hertz/ Phase	60/ 3	60/ 3
Voltage Range	187 - 253 / 414-506	187 - 253 / 414-506
FLA (Total)	5.2	6
Minimum Circuit Ampacity	6.5 / 3.3	7.5 / 3.8
<b>BLOWER MOTOR TYPE</b>		
Type	Belt Drive	Belt Drive
Horse Power	1½	2
Volts	208/230/460	208/230/460
Hertz/ Phase	60/ 3	60/ 3
FLA/ LRA	5.2/ 35	6.0/ 32
<b>BLOWER &amp; CONTROLS</b>		
Wheel Dia. & Width (Qty.)	11 x 10 (2)	11 x 10 (2)
Pulley Pitch Dia.	5.9"	6.5"
Bore	1"	1"
Motor Pulley Pitch Dia.	1.9 to 2.9	2.8 to 3.8
Bore	⅝"	⅝"
Belt Length & Width	39 x ½	41 x ½
Nominal Airflow (Ft./Min.)	3,000	4,000
Transformer (60 VAC.)	Standard	Standard
Blower Relay	Standard	Standard
<b>FILTER, COIL &amp; REFRIGERANT</b>		
Filter Size (Disposable) / Qty	16" x 20" x 2" / 4	16" x 20" x 2" / 2 20" x 20" x 2" / 2
Coil Area (sq. ft.)	9	10
FPI - Rows	14 - 4	14 - 4
Metering Device (Qty.)	Expansion Valve (1)	Expansion Valve (2)
Refrigerant	R-410A	R-410A
Liquid Connection (Qty.)	⅝"	⅝" (2) *
Suction Connection (Qty.)	1½"	1½" (2) *
Condensate Drain	¾ FPT	¾ FPT
<b>SHIP WEIGHT (LBS)</b>	405	430

\* For two refrigerant lines

## AIRFLOW DATA

### DAR090A AIR DELIVERY\*

STATIC PRESSURE	MOTOR SHEAVE TURNS OPEN			
	1	2	3	4
0.1"	4,264	3,930	3,633	3,273
0.2"	3,996	3,705	3,235	2,998
0.3"	3,731	3,379	3,002	2,517
0.4"	3,445	3,066	2,613	
0.5"	3,113	2,662		

\* With dry coil and 2" air filter

### DAR120A AIR DELIVERY\*

STATIC PRESSURE	MOTOR SHEAVE TURNS OPEN					
	0	1	2	3	4	5
0.1"	5,193	5,037	4,790	4,529	4,097	4,097
0.2"	5,012	4,873	4,603	4,315	3,842	3,842
0.3"	4,852	4,675	4,393	4,091	3,589	3,589
0.4"	4,687	4,484	4,172	3,853	3,295	3,073
0.5"	4,501	4,268	3,939	3,561	2,922	2,610
0.6"	4,293	4,041	3,673	3,223	2,642	
0.7"	4,073	3,782	3,347	2,892		
0.8"	3,807	3,485	2,962			
0.9"	3,540	3,117				

\* With dry coil and 2" air filter

**NOTE:**

Any adjustment made to the blower should not cause the motor to draw more than the motors rated RLA. Applications that exceed the above could require a larger motor.

## FILTERS

MODEL	FILTER SIZE
DAR090A	16" x 20" x 2"
DAR120A	16" x 20" x 2" 20" x 20" x 2"

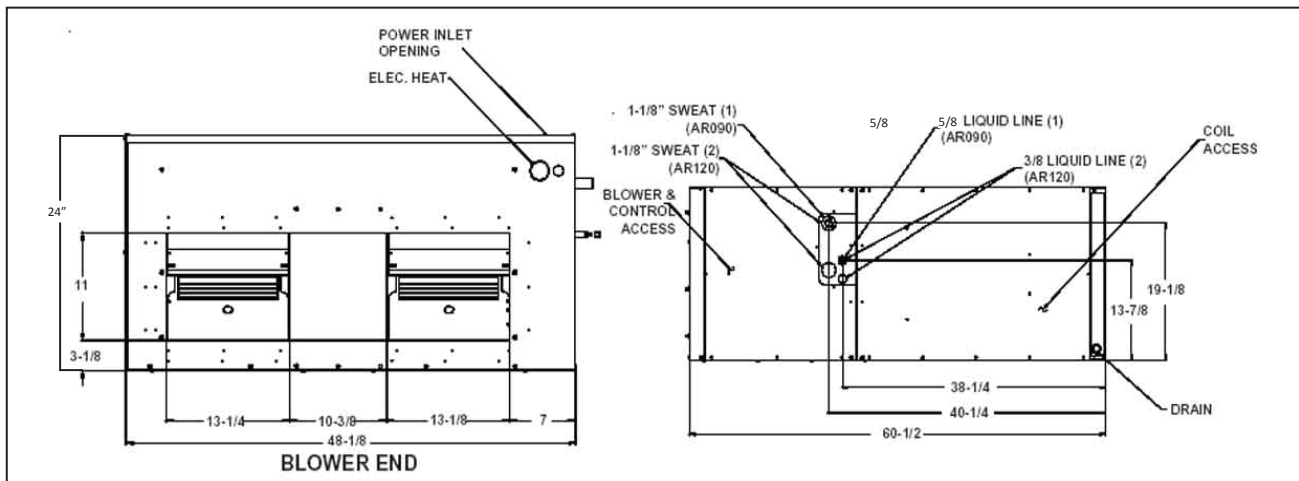
TEMPERATURE RISE (°F)

MODEL	HEAT KIT kW	CFM	SUPPLY VOLTAGE		
			208	240	480
DAR 090A	15	2,800	14	19	19
		2,900	14	18	18
		3,000	13	18	18
		3,100	13	17	17
		3,200	12	17	17
	20	2,800	19	25	25
		2,900	18	24	24
		3,000	18	24	24
		3,100	17	23	23
		3,200	17	22	22
	30	2,800	28	38	38
		2,900	27	37	37
		3,000	27	35	35
		3,100	26	34	34
		3,200	25	33	33

MODEL	HEAT KIT kW	CFM	SUPPLY VOLTAGE		
			208	240	480
DAR 120A	15	3,800	10	14	14
		3,900	10	14	14
		4,000	10	13	13
		4,100	10	13	13
		4,200	9	13	13
	20	3,800	14	19	19
		3,900	14	18	18
		4,000	13	18	18
		4,100	13	17	17
		4,200	13	17	17
	30	3,800	21	28	28
		3,900	20	27	27
		4,000	20	27	27
		4,100	19	26	26
		4,200	19	25	25

\* Tables above are calculated with both stages of electric heat engaged (2-stage heat systems). Divide the temperature rise from the table by 2 for 1st stage operation for systems using staged electric heat.

DIMENSIONS



Note: DAR090A (1) 5/8" Liquid Line    DAR120A (2) 3/8" Liquid Line

## ELECTRIC HEATER KITS

AIR HANDLER	AHKD MODEL	NOMINAL KW	ELECTRICAL DATA	STAGES	WEIGHT (LBS.)	MCA <sup>1</sup>	MOP <sup>2</sup>
DAR090A	AHKD15-3	15	208-230/3/60	1	56	50	50
	AHKD15-4	15	460/3/60	1	55	25	25
	AHKD20-3	20	208-230/3/60	2	59	64	70
	AHKD20-4	20	460/3/60	2	57	32	35
	AHKD30-3	30	208-230/3/60	2	60	93	100
	AHKD30-4	30	460/3/60	2	58	47	50
DAR120A	AHKD15-3	15	208-230/3/60	1	56	53	60
	AHKD15-4	15	460/3/60	1	55	27	30
	AHKD20-3	20	208-230/3/60	2	59	68	70
	AHKD20-4	20	460/3/60	2	57	34	35
	AHKD30-3	30	208-230/3/60	2	60	96	100
	AHKD30-4	30	460/3/60	2	58	48	50

<sup>1</sup> Minimum Circuit Ampacity

<sup>2</sup> Maximum Overcurrent Protection

**NOTES**

- DAR Series Air handlers do not have factory-installed electric heat. Purchased as an accessory, these are the ONLY heater kits that can be used with the DAR Series.
- The electrical characteristics of the air handler, electric heater kits, and building power supply must be compatible.

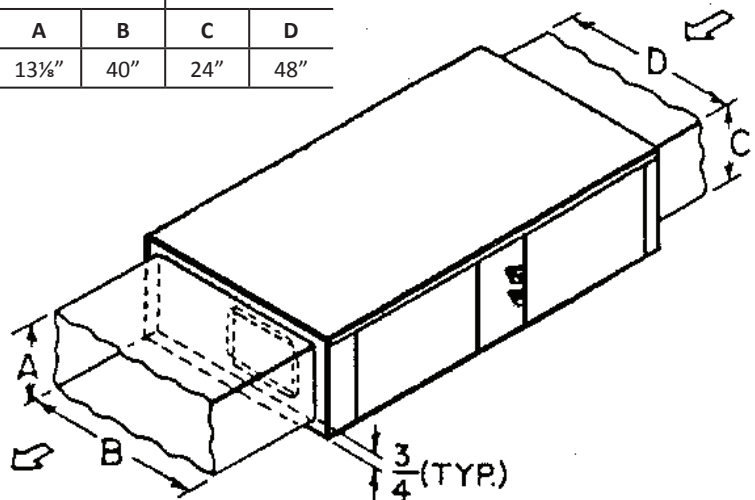
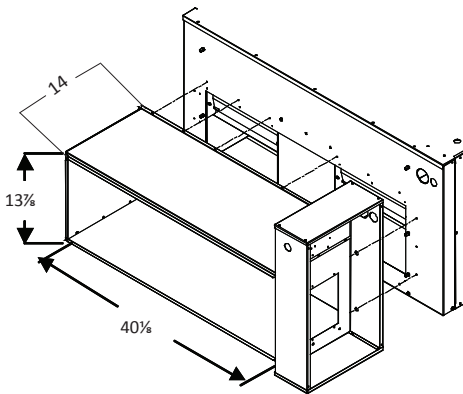
### DUCT CONNECTION SIZING WITHOUT ELECTRIC HEATERS

#### MINIMUM SUPPLY AND RETURN DUCT DIMENSIONS

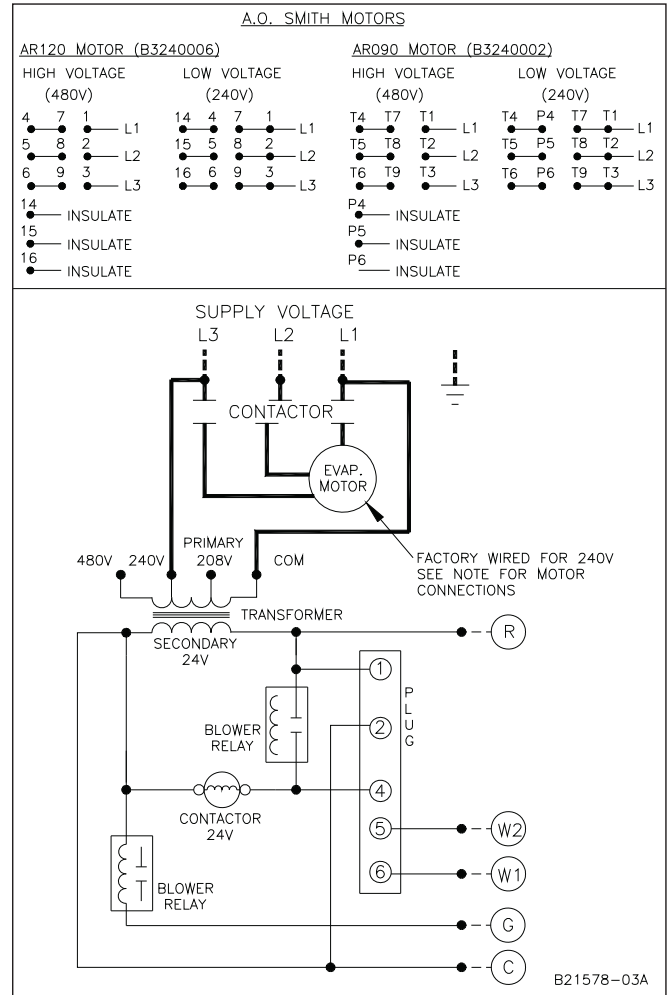
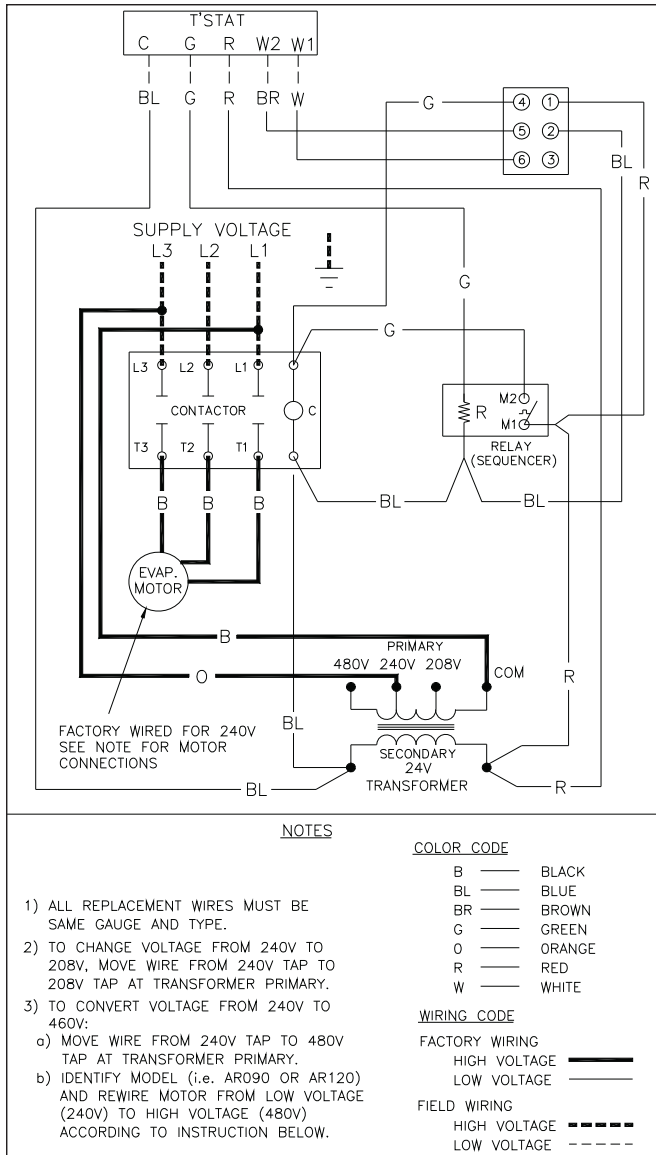
**DIMENSIONAL DATA FOR ELECTRIC HEATER KITS**

- 15, 20, & 30 kW Heater Kits
- Supply opening is 13 $\frac{3}{8}$ " x 40"

SUPPLY DUCT		RETURN DUCT	
A	B	C	D
13 $\frac{3}{8}$ "	40"	24"	48"



# WIRING DIAGRAM



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



**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.



## NOTES