

Air handler configuration

These air handler units are supplied ready to install in an upflow or horizontal left position. See **Figure 3**. If the unit requires either downflow or horizontal right airflow configurations, the unit must have the coil assembly repositioned. See **Downflow or horizontal right conversion**.

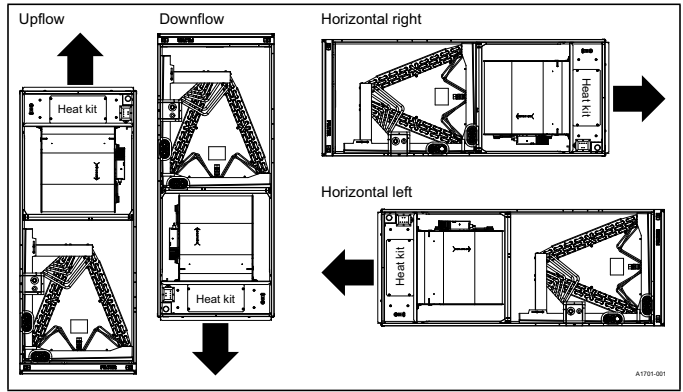


Figure 3: Typical installation

Downflow or horizontal right conversion

NOTICE
Convert the air handler to the desired orientation prior to installation. Conversion must be made before brazing the refrigerant connections to the coil.

NOTICE
These models are shipped with a horizontal baffle plate. Remove and retain this plate for horizontal right application. Discard for all other applications.

1. Remove the coil access panel.
2. Slide the coil and drain pan assembly out of the air handler.
3. Turn the air handler cabinet upside down (downflow position).
4. If installing the unit in a horizontal right position, the following models require installation of a horizontal baffle plate shipped with the unit: C48G and C60H. The horizontal baffle plate must be secured to the coil delta plates. See **Installing a horizontal baffle plate**.
5. Slide the coil back into the cabinet.
6. Install the coil access panel. Conversion is now complete.

Installing a horizontal baffle plate

1. With the coil removed from the air handling unit and laying on its horizontal drain pan, locate the pre-drilled holes in the front and rear coil delta plates.
2. Insert the horizontal baffle plate into the end of the coil. Insert one end of the horizontal baffle plate into the top side of the primary drain pan as shown in **Figure 5** in the *Installation Manual*.
3. Secure the horizontal baffle plate in place with two screws, one in the front delta plate and one in the rear delta plate.

Horizontal left applications (all models)

Air handling units are supplied ready to install in a horizontal left position. A horizontal drain pan is factory installed. Refer to the *Installation Manual* for further installation instructions.

Positioning the unit in horizontal applications

Set the unit so that it is sloped 1/4 in. towards the drain line connection.

Horizontal suspension

These air handlers may be suspended in horizontal applications. Use angle steel support brackets with minimum 3/8 in. threaded rods, supporting the unit from the bottom. Attach the threaded rods at the locations shown in **Figure 4**, leaving enough clearance between the door and the rod so that doors can be removed for service.

CAUTION
 Do not lift the air handler by the cabinet brace. The cabinet brace is held in place by the coil channel. The cabinet brace could become disengaged from the cabinet causing the air handler to fall, potentially causing injury or damaging property. Refer to **Figure 1** in the *Installation Manual* for the location of the cabinet braces.

NOTICE
 When assembling the support structure, size to provide clearance for access door removal.

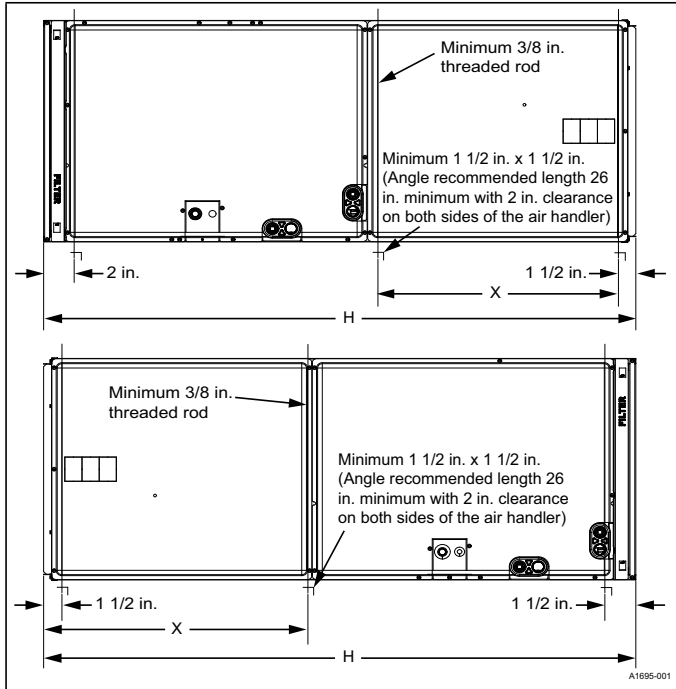


Figure 4: Suspension support locations

Table 4: Horizontal suspension dimensions

Air handler cabinet size	X (in.)	H (in.)
B18B	21 3/4	47
B24C/B30D/B36D	21 3/4	49 5/8
C36D	21 3/4	51
C42F	21 3/4	57
C48G/D48G/D60J	21 3/4	61 1/4
C60H/D60H	21 3/4	63

Quick Reference Guide

Single-piece ECM multi-position residential air handlers

This document does not replace the Installation Manual, which must be referred to for detailed information.

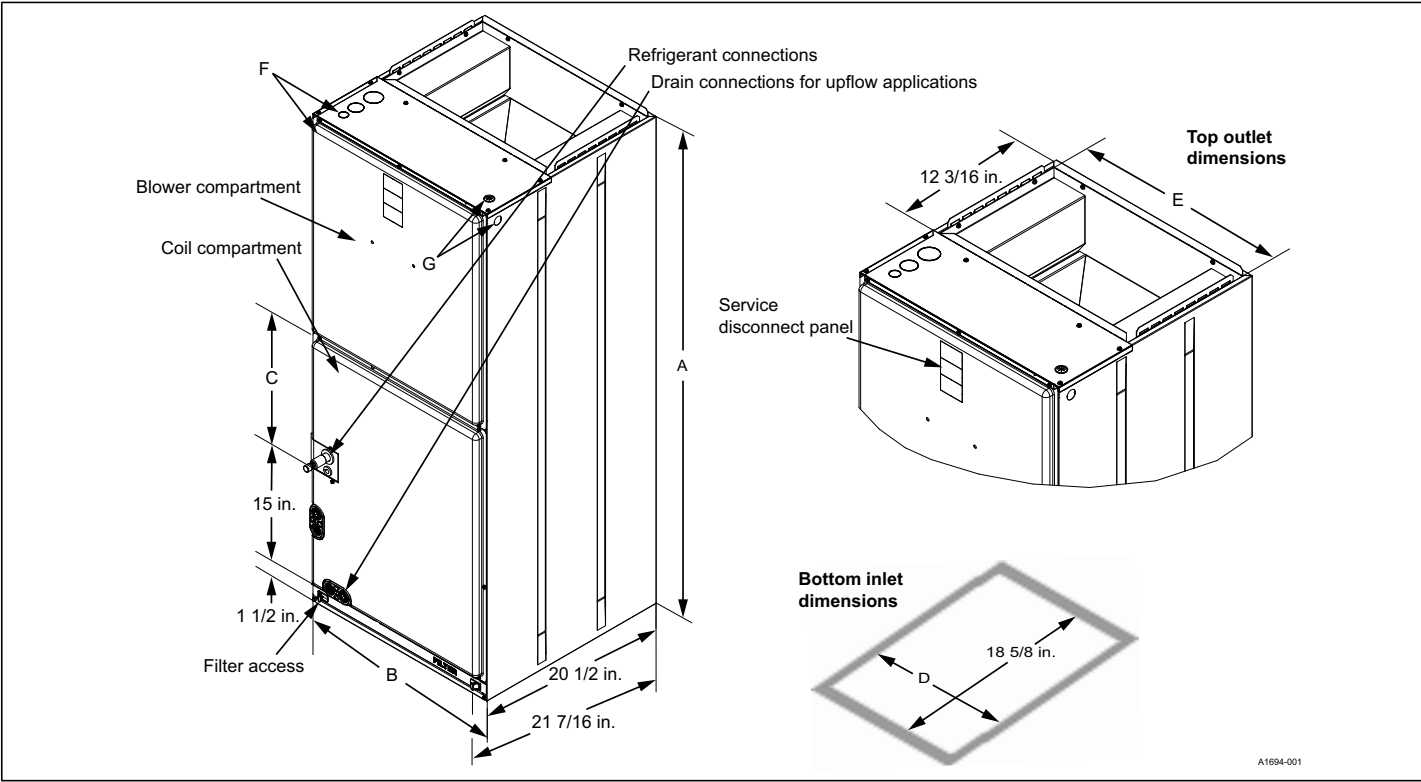


Figure 1: Dimensions

Table 1: Dimensions¹

Models	Dimensions					Wiring knockouts ²		Refrigerant connections line size	
	A	B	C	D	E	F	G	Liquid (in.)	Vapor (in.)
	Height (in.)	Width (in.)	Opening widths (in.)			Power (in.)	Control (in.)		
RFCB18BXEMP2S1	47	17 1/2	7 1/2	16 1/2	16 1/2	7/8 (1/2) 1 3/8 (1) 1 23/32 (1 1/4)	7/8 (1/2)	3/8	3/4
RFCB24CXEMP2N1	49 5/8	17 1/2	10	16 1/2	16 1/2				
RFCB30DXEMP2N1	49 5/8	17 1/2	10	16 1/2	16 1/2				
RFCB36DXEMP2N1	49 5/8	17 1/2	10	16 1/2	16 1/2				
RFCC36DXEMP2N1	51	21	11 1/2	20	20			7/8	7/8
RFCC42FXEMP2N1	57	21	17 1/2	20	20				
RFCC48GXEMP2N1	61 1/4	21	21 3/4	20	20				
RFCD48GXEMP2N1	61 1/4	24 1/2	21 3/4	23 1/2	23 1/2				
RFCC60HXEMP2N1	63	21	23 1/2	20	20				
RFCD60HXEMP2N1	63	24 1/2	23 1/2	23 1/2	23 1/2				
RFCD60JXEMP2N1	61 1/4	24 1/2	21 3/4	23 1/2	23 1/2				

1. All dimensions are in inches.
2. Actual size (conduit size)

Notes:

1. The controls may require correct polarity on the power supply and a adequate ground.
2. These units are rated for use with single and three phase 208 V or 230 V supply power.
3. Use flexible duct connectors.
4. Supply air ductwork must remain the size of the supply opening for the first 12 in. before transition to the correct duct size.
5. The return and supply duct may be fastened to the bottom or sides of the air handler using screws no longer than 1/2 in..
6. Line voltage electrical knockouts are available on the left top and left casing side. Refer to the *Installation Manual* for information on correct sizing of overcurrent protection and supply wire sizes.
7. Low voltage electrical knockouts are available on the right top and right casing side.
8. Seal electrical openings and duct connections to prevent air infiltration.
9. If installing the air handler above a finished ceiling, use a secondary drain pan.
10. It is necessary to trap condensate drain pans and slope them toward the drain.

Table 2: Airflow data (CFM)

Models	Blower motor speed	External static pressure (in. W.C.)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
B18B	High (5)	975	925	875	825	800	750	700	650	600	550
	Medium high (4)	900	850	800	775	725	675	625	575	525	500
	Medium (3)	825	775	725	700	650	600	550	500	450	400
	Medium low (2)	650	600	550	500	425	-	-	-	-	-
	Low (1)	450	-	-	-	-	-	-	-	-	-
B24C	High (5)	1150	1125	1100	1050	1025	975	950	900	875	850
	Medium high (4)	1000	950	925	875	825	775	750	700	650	600
	Medium (3)	775	725	675	625	575	525	450	400	-	-
	Medium low (2)	675	600	550	500	425	-	-	-	-	-
	Low (1)	525	450	-	-	-	-	-	-	-	-
B30D	High (5)	1150	1125	1075	1050	1025	975	950	925	875	850
	Medium high (4)	1000	950	900	875	825	800	750	700	675	625
	Medium (3)	775	725	700	650	600	550	500	450	400	-
	Medium low (2)	650	600	550	500	450	400	-	-	-	-
	Low (1)	575	525	475	400	-	-	-	-	-	-
B36D	High (5)	1500	1475	1450	1425	1425	1400	1375	1350	1325	-
	Medium high (4)	1325	1300	1275	1250	1225	1200	1175	1150	1125	1100
	Medium (3)	975	950	900	875	825	800	750	700	675	625
	Medium low (2)	925	875	825	800	750	700	675	625	575	550
	Low (1)	650	600	550	500	450	400	-	-	-	-
C36D	High (5)	1600	1575	1525	1500	1450	1425	1400	1350	1325	1275
	Medium high (4)	1400	1375	1325	1275	1225	1200	1150	1100	1075	1025
	Medium (3)	1100	1050	1000	950	900	850	800	725	675	625
	Medium low (2)	950	900	825	775	725	650	600	550	475	425
	Low (1)	725	650	575	525	450	375	-	-	-	-
C42F	High (5)	1525	1500	1450	1425	1375	1350	1300	1275	1225	1200
	Medium high (4)	1375	1325	1300	1250	1200	1150	1125	1075	1025	975
	Medium (3)	1050	1000	950	900	850	775	725	675	625	575
	Medium low (2)	925	875	800	750	700	625	575	525	450	400
	Low (1)	700	625	575	500	425	-	-	-	-	-
C48G	High (5)	1925	1900	1875	1850	1800	1775	1750	1725	1700	1675
	Medium high (4)	1750	1700	1675	1650	1600	1575	1550	1500	1475	1450
	Medium (3)	1400	1350	1300	1275	1225	1175	1125	1075	1050	1000
	Medium low (2)	1200	1150	1100	1050	1000	925	875	825	775	725
	Low (1)	925	875	800	750	700	625	575	500	450	375
D48G	High (5)	2050	2000	1975	1950	1900	1875	1850	1800	1775	1750
	Medium high (4)	1850	1800	1775	1725	1700	1650	1625	1575	1550	1500
	Medium (3)	1625	1600	1550	1500	1450	1425	1375	1325	1275	1250
	Medium low (2)	1275	1200	1150	1100	1050	975	925	875	825	750
	Low (1)	1000	925	875	800	750	675	600	550	475	400
C60H	High (5)	1925	1900	1875	1850	1825	1775	1750	1725	1700	1675
	Medium high (4)	1750	1725	1675	1650	1625	1575	1550	1525	1475	1450
	Medium (3)	1375	1350	1300	1250	1225	1175	1125	1100	1050	1000
	Medium low (2)	1200	1150	1100	1050	1000	950	900	850	800	750
	Low (1)	950	900	825	775	725	650	600	550	475	425
D60H	High (5)	1925	1900	1875	1825	1800	1775	1750	1700	1675	1650
	Medium high (4)	1775	1750	1725	1675	1650	1600	1575	1525	1500	1450
	Medium (3)	1450	1400	1325	1275	1225	1175	1125	1075	1025	975
	Medium low (2)	1225	1175	1125	1050	1000	950	875	825	775	700
	Low (1)	975	900	850	775	700	625	550	475	425	-

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Table 2: Airflow data (CFM) (continued)

Models	Blower motor speed	External static pressure (in. W.C.)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
D60J	High (5)	2100	2075	2050	2025	2000	1975	1925	1900	1875	1850
	Medium high (4)	1925	1900	1875	1825	1800	1775	1725	1700	1675	1650
	Medium (3)	1750	1725	1675	1650	1600	1575	1525	1500	1450	1425
	Medium low (2)	1350	1275	1225	1175	1125	1075	1025	975	925	875
	Low (1)	1200	1150	1100	1025	975	925	850	800	750	675

Notes:

- No electric heat installed
- Air handler units are tested to UL60335-2-40 standards up to 0.6 in. W.C. external static pressure.
- Dry coil conditions only; tested without filters
- For optimal performance, external static pressures of 0.2 in. W.C. to 0.5 in. W.C. are recommended. Heating applications are tested at 0.5 in. W.C. external static pressure.
- Airflow data shown is from testing performed at 230 V. These units use a standard ECM constant torque motor and there is minimal variation of airflow at other distribution voltage values. The above data can be used for airflow at other distribution voltages.

Clearances

It is essential to provide the following clearances:

- Refrigerant piping and connections - minimum 12 in.
- Maintenance and servicing access - minimum 36 in. from the front of the unit for blower motor or coil replacement
- Condensate drain lines routed to clear filter and panel access
- Filter removal - minimum 36 in.
- The supply air ductwork connected to this unit is designed for 1 in. clearance for the first 18 in. of combustible materials if an electric heat kit accessory is installed.
- A combustible floor base accessory is available for downflow applications of this unit, if required by local code.

External duct static

Measure the supply air static pressure. Record this positive number. Measure the return air static pressure. Record this negative number. Treat the negative number as a positive and add the two numbers together to determine the total external system static pressure. If a filter rack is installed on the return air end of the air handler or indoor coil section, make sure to measure the return air duct static between the filter and the indoor coil.

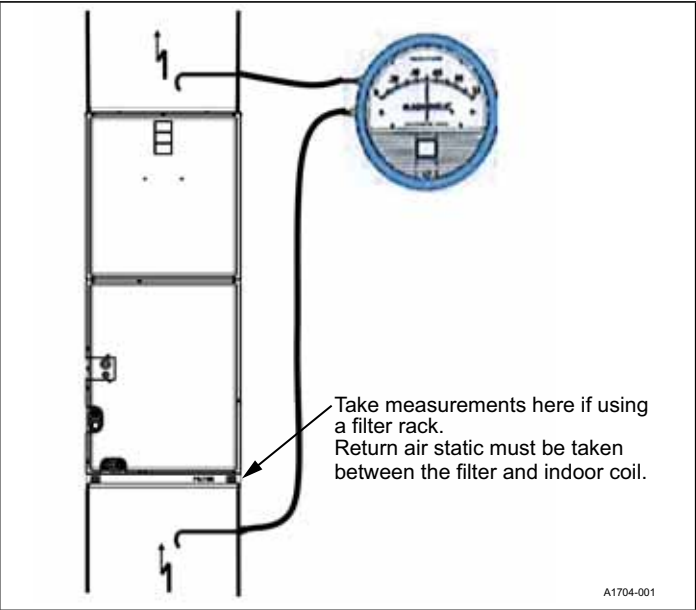


Figure 2: Duct static measurements

Table 3: Electrical heat - minimum fan speed

Heater kit models ^{1,2}	Nominal kW at 240 V	Air handler models										
		B18B	B24C	B30D	B36D	C36D	C42F	C48G	D48G	C60H	D60H	D60J
8HK(0,1)6500206	2.4	Medium Low (2)	Medium (3)	Medium High (4)	Medium (3)	Medium (3)	Medium (3)	Medium Low (2)	Medium Low (2)	Medium Low (2)	Medium Low (2)	Medium Low (2)
8HK(0,1)6500506	4.8	Medium (3)	Medium (3)	Medium High (4)	Medium (3)	Medium (3)	Medium (3)	Medium Low (2)	Medium Low (2)	Medium Low (2)	Medium Low (2)	Medium Low (2)
8HK(0,1)6500806	7.7	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium (3)	Medium (3)	Medium (3)	Medium (3)	Medium Low (2)
8HK(0,1)6501006 8HK06501025	9.6	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)	Medium (3)	Medium (3)	Medium High (4)	Medium (3)	Medium Low (2)
8HK(1,2)6501506 8HK06501525	14.4	-	Medium High (4)	High (5)	Medium High (4)	Medium High (4)	Medium High (4)	Medium (3)	Medium (3)	Medium High (4)	Medium High (4)	Medium (3)
8HK(1,2)6502006 8HK16502025	19.2	-	-	High (5)	Medium High (4)	High (5)	High (5)	Medium High (4)	Medium (3)	Medium High (4)	Medium High (4)	Medium (3)
8HK(1,2)6502506 8HK16502525	24	-	-	-	-	-	-	-	-	-	Medium High (4)	Medium (3)

- (0,1) - 0 = no service disconnect or 1 = with service disconnect
- (1,2) - 1 = with service disconnect, no breaker jumper bar or 2 = with service disconnect and breaker jumper bar