YORK Technical Guide: JMC Series

Variable Speed ECM Modular Multi-position Air Handlers - 208/230 V Single-Phase and Three-Phase

York International Corporation, 5005 York Drive, Norman, OK 73069

6523680-YTG-A-0624

Supersedes: Nothing

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Description

The modular air handler series provides the flexibility for installation in any position. This unit can be used for upflow, downflow, horizontal right, or horizontal left applications. These units may be located in a closet, utility room, attic, crawl space, or basement. These versatile models can be used for cooling, or for heat pump operation with or without electric heat.

They can be combined with cased coils to function as a cooling only unit or with a heat pump including electric heat for 208-230-1 phase applications and 208-230-3 phase applications.

Top or side power and control wiring, color-coded leads for control wiring, and electric heaters all combine to make the installation easy and minimize installation cost.

Electric heat kits are available as field installed accessories. Single-phase kits are available from 2 kW to 25 kW. 208/230 V three-phase kits are available from 10 kW to 25 kW. The JMC blower and 8HK electric heater kits can be used as stand alone electric furnaces.

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Additional rating information can be found at www.ahridirectory.org.

Due to continuous product improvement, specifications are subject to change without notice. **This document is only for distribution use - it is not to be used at point of retail sale.**

Certification

Assembled at a facility with an ISO 9001:2015-certified Quality Management System

Features

Next generation high-efficiency blower

Delivers increased airflow and reduces blower watts by 10%, using a variable speed ECM motor

Variable speed operation

Provides flexibility in application as well as upgraded system efficiency

Next generation insulation and gasket design

Reduces thermal transmission paths and reduces sweating

Electric heat kit

8HK field-installed series available for easy installation and service application

Two-stage operation

Provides flexibility in application with single and two-stage outdoor equipment

Modular blower control board

The control board can be controlled with a standard (conventional) thermostat or with a HX communicating control

Designed for easy installation and service

A casing size of 20.5 in., smooth sides, and rigid construction provide ease access to, for example, attic space and tight applications. In addition, front-facing components, a slide-out blower, laser cut knock outs, and integrated duct flanges help to shorten the install time.

Cabinet air leakage

Less than 2% at 1 in. W.C. external static pressure when tested in accordance with ASHRAE Standard 193

Long lasting quality

Structural components made of post powder painted steel or galvanized steel to prevent corrosion

Accessories

Refer to the *Price Manual* for specific model numbers.

Table 1: Accessories

Single source power accessory (three-phase)	
S1-32436041000	Contains a terminal block and wiring to connect service disconnects together.

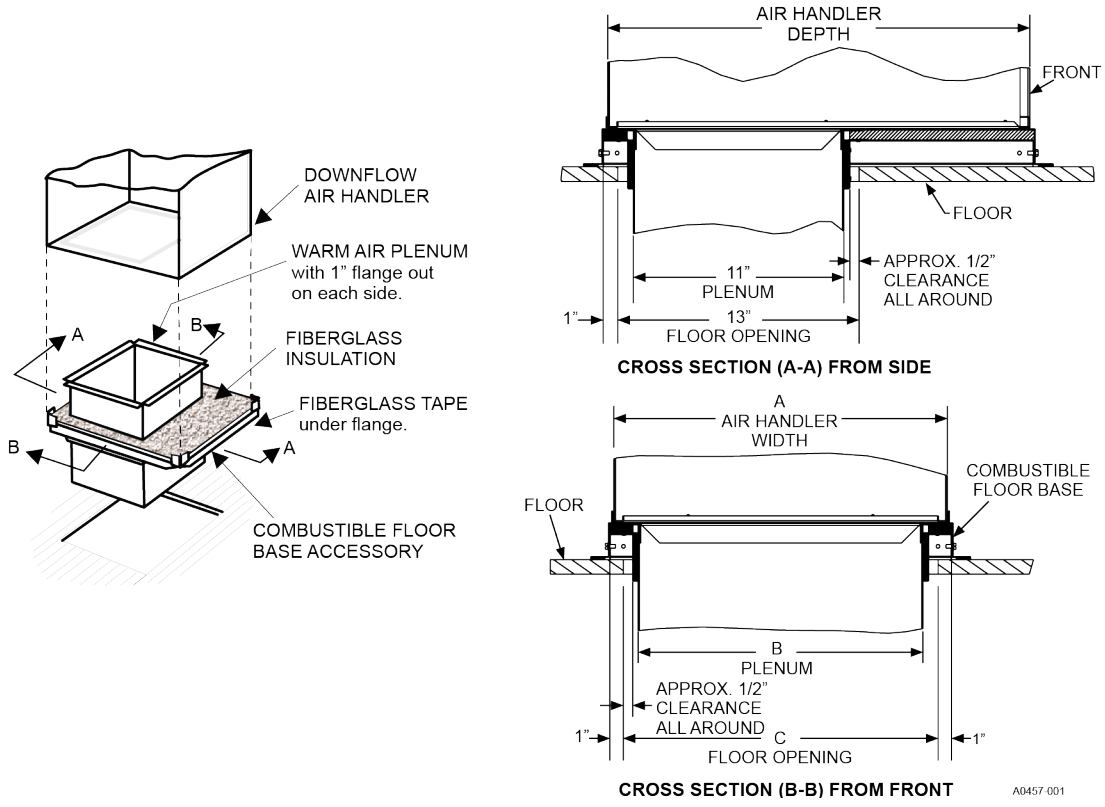
Electric heaters

8HK models shown under electrical data include sequential operation and temperature dual limit switches for safe, efficient operation. Service disconnects are provided where shown.

Combustible floor base accessory

If an electric heat accessory rated for greater than zero clearance to combustible surfaces is installed in these air handlers in the downflow operating positions on a combustible floor, one of the following combustible floor base accessory models is required: S1-1FB1917, S1-1FB1921, S1-1FB1924. See Figure 1.

Figure 1: Combustible floor base accessory



Floor base model	Used with	Dimensions		
		A	B	C
1FB1917	JMC12B	17.5	14.0	16.0
1FB1921	JMC16C, JMC17C	21.0	17.5	19.5
1FB1924	JMC20D	24.5	21.0	23.0

Breaker moisture seal accessory

A clear circuit breaker moisture barrier seals the breakers from humidity and dust. The flexibility of the clear cover allows circuit breakers to be turned ON or OFF without removing the cover. The cover firmly attaches to the access panel around the circuit breakers with the use of double backed adhesive tape. To ensure that moisture or dust does not contaminate circuit breakers, an S1-02435672000, circuit breaker, cover seal may be ordered.

Thermostat

Compatible thermostat controls are available through accessory sourcing. For optimum performance, these indoor units are fully compatible with our residential Hx™ Touch Screen Thermostat with proprietary hexagon interface. For more information, see the thermostat section of the Product Equipment Catalog.

Filter rack

Filtration must be installed external to the unit using an accessory filter rack kit. See the filter rack dimensions in Figure 2.

Figure 2: Filter rack dimensions

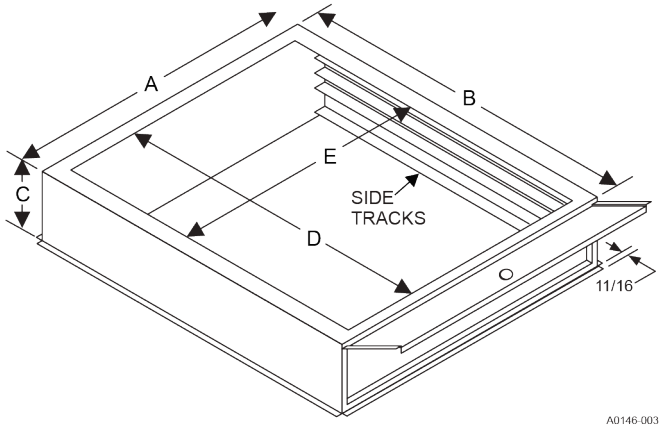


Table 2: Filter rack dimensions

Galvanised model	A	B	C	D	E	Filter size
1BR01117	17.5	21.56	4	18.63	14.25	16 x 20 x 1 or 2
1BR01121	21	21.56	4	18.63	17.75	20 x 20 x 1 or 2
1BR01124	24.5	21.56	4	18.63	21.25	20 x 24 x 1 or 2
ⓘ **Note:** The filter is not supplied.						

Nomenclature

Table 3: Nomenclature for JMC air handler models

Number	Category	Option	Description
1	Product type	J	Air handler
2	Air handler type	M	Modular
3	Motor type	E	Constant torque
		C	Constant CFM
		V	Variable speed ECM
4, 5	Nominal airflow	08	800
		10	1000
		12	1200
		14	1400
		16	1600
		18	1800
		20	2000
6	Cabinet width	A	14.5 in.
		B	17.5 in.
		C	21.0 in.
		D	24.5 in.
		E	19.6 in.
		F	22.0 in.
7	Voltage (voltage-phase-hertz)	2	208/230-1-60
		3	208/230-3-60
		4	460-3-60
8	Control strategy	C	Communicating
		B	Wireless (communicating)
		S	Standard (conventional)
		W	Wireless (conventional)
9	Accessories	S	A2L sensor
		N	None (no sensor)
10	Generation (major revision)	1	First generation
		2	Second generation
		3	Third generation
		4	Fourth generation
11	Style letter (minor revision) not used for ordering	A	Style A
		B	Style B
		C	Style C
		D	Style D

Table 4: Model nomenclature example

Number	1	2	3	4, 5	6	7	8	9	10	11
Option	J	M	C	12	B	2	S	N	1	A

Example:
The JMC12B2SN1 is a conventional modular air handler using constant CFM. The nominal airflow is 1200. The voltage is 208/230-1-60. There is no sensor on this Style-A model.

Dimensions

Figure 3: Dimensions and duct connection dimensions

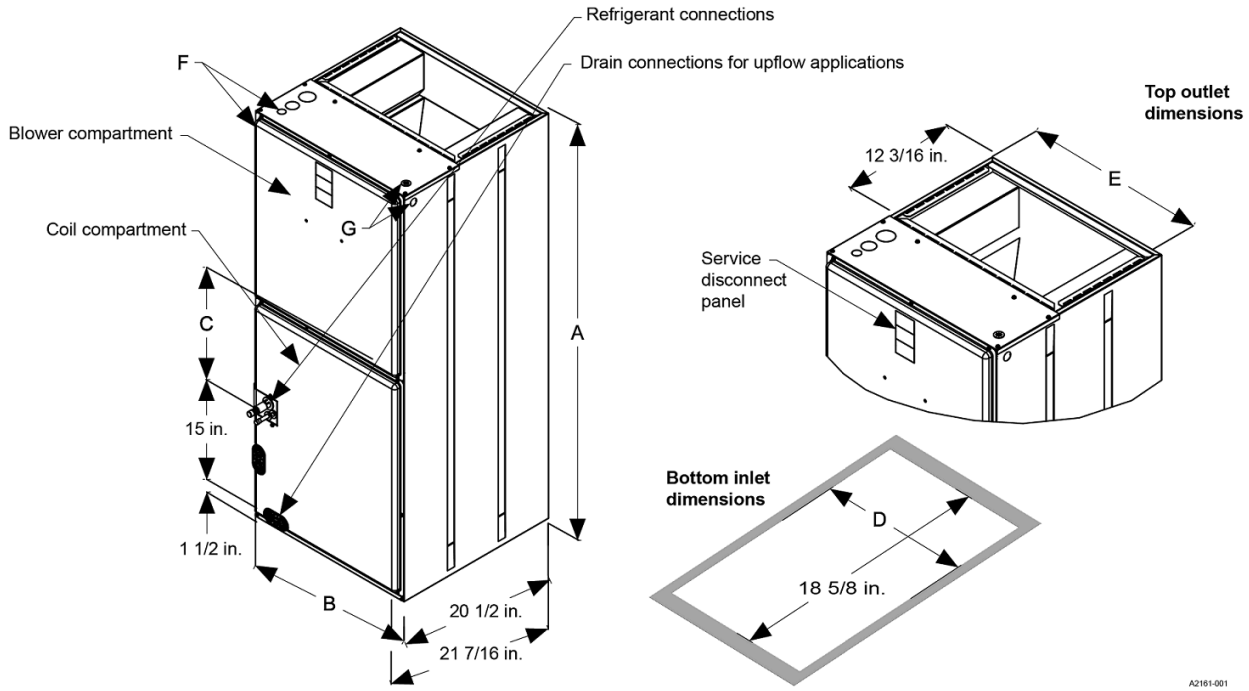


Table 5: Dimensions

Model	Dimensions				Wiring knockouts (actual conduit size)	
	A	B	C	D	E	F
	Height (in.)	Width (in.)	Opening width (in.)		Power (in.)	Control (in.)
JMC12B2SN1	22 3/4	17 1/2	10 1/2	13 1/2	7/8 (1/2) 1 3/8 (1) 1 23/32 (1 1/4)	7/8 (1/2)
JMC16C2SN1	22 3/4	21	13 1/4	16 1/2		
JMC17C2SN1	22 3/4	21	13 1/4	16 1/2		
JMC20D2SN1	22 3/4	24 1/2	14 1/2	20		

Cooling capacity

Table 6: Cooling capacity: CTF coils

Model	Rated CFM	Entering air dry bulb/wet bulb (°F)	MBH at evaporation temperature and corresponding R-454B pressure (°F/psig)			
			35/107.9	40/118.9	45/130.7	50/143.3
CTF18A5*A	600	85/72	43.1	38.6	33.4	27.9
		80/67	35.0	30.3	25.2	19.6
		75/62	27.5	22.8	17.8	11.9
		70/57	20.8	16.1	11.0	8.5
CTF18B5*A	600	85/72	43.1	38.6	33.4	27.9
		80/67	35.0	30.3	25.2	19.6
		75/62	27.5	22.8	17.8	11.9
		70/57	20.8	16.1	11.0	8.5
CTF24A5*B	800	85/72	56.0	50.0	43.3	35.9
		80/67	45.5	39.5	32.6	25.2
		75/62	36.0	29.8	23.0	15.4
		70/57	27.3	21.0	14.8	11.4
CTF24B5*B	800	85/72	56.0	50.0	43.3	35.9
		80/67	45.5	39.5	32.6	25.2
		75/62	36.0	29.8	23.0	15.4
		70/57	27.3	21.0	14.8	11.4
CTF30B5*C	1000	85/72	66.1	60.1	52.9	44.6
		80/67	54.6	48.2	40.2	31.9
		75/62	43.9	36.9	29.1	19.0
		70/57	33.8	26.6	19.0	14.8
CTF30C5*C	1000	85/72	66.1	60.1	52.9	44.6
		80/67	54.6	48.2	40.2	31.9
		75/62	43.9	36.9	29.1	19.0
		70/57	33.8	26.6	19.0	14.8
CTF30A5*D	1000	85/72	72.4	65.0	56.6	47.2
		80/67	59.0	51.4	42.7	33.2
		75/62	46.8	39.0	30.2	19.9
		70/57	35.6	27.4	19.2	14.8
CTF36B5*D	1200	85/72	86.0	77.6	68.0	57.1
		80/67	70.6	61.7	52.0	40.7
		75/62	56.4	47.2	37.2	24.7
		70/57	43.1	33.8	23.9	18.6
CTF36C5*D	1200	85/72	86.0	77.6	68.0	57.1
		80/67	70.6	61.7	52.0	40.7
		75/62	56.4	47.2	37.2	24.7
		70/57	43.1	33.8	23.9	18.6
CTF36B5*E	1200	85/72	85.2	77.0	67.7	57.2
		80/67	70.2	61.5	51.9	41.1
		75/62	56.3	47.1	37.3	25.1
		70/57	43.2	34.0	24.0	18.9
CTF42C5*E	1400	85/72	93.5	84.6	74.6	62.9
		80/67	77.1	67.8	57.4	45.4
		75/62	62.0	52.2	41.5	27.3
		70/57	47.8	37.8	27.1	21.3
CTF48C5*F	1600	85/72	95.4	86.1	75.5	63.0
		80/67	78.5	68.7	57.7	45.0
		75/62	62.9	44.6	41.5	27.7
		70/57	48.4	38.1	27.5	21.0

Table 6: Cooling capacity: CTF coils

Model	Rated CFM	Entering air dry bulb/wet bulb (°F)	MBH at evaporation temperature and corresponding R-454B pressure (°F/psig)			
			35/107.9	40/118.9	45/130.7	50/143.3
CTF48D5*F	1600	85/72	95.4	86.1	75.5	63.0
		80/67	78.5	68.7	57.7	45.0
		75/62	62.9	44.6	41.5	27.7
		70/57	48.4	38.1	27.5	21.0
CTF60C5*G	1600	85/72	115.6	104.2	91.0	76.2
		80/67	94.9	82.8	67.4	54.3
		75/62	75.6	63.1	49.4	33.6
		70/57	57.9	45.1	32.1	24.8
CTF60D5*G	1800	85/72	115.6	104.2	91.0	76.2
		80/67	94.9	82.8	67.4	54.3
		75/62	75.6	63.1	49.4	33.6
		70/57	57.9	45.1	32.1	24.8
CTF60C5*H	1800	85/72	113.0	102.6	90.1	75.7
		80/67	93.2	82.1	68.8	54.3
		75/62	74.7	62.9	49.4	33.4
		70/57	57.5	45.1	32.2	25.1
CTF60D5*H	1800	85/72	113.0	102.6	90.1	75.7
		80/67	93.2	82.1	68.8	54.3
		75/62	74.7	62.9	49.4	33.4
		70/57	57.5	45.1	32.2	25.1
CTF60D5*J	1800	85/72	111.3	100.0	87.1	72.3
		80/67	91.5	79.6	66.3	51.3
		75/62	73.1	60.9	46.9	32.6
		70/57	56.1	43.0	32.5	25.0

ⓘ **Note:**

- Actual capacity varies with the outdoor air conditioning unit or heat pump that is used with the system. See the Condensing Unit or the Heat Pump Technical Guide for total cooling capacity and sensible capacity.
- Airflow is calculated for each system tonnage.

Table 7: Cooling capacity: CTM coils

Model	Rated CFM	Entering air dry bulb/wet bulb (°F)	MBH at evaporation temperature and corresponding R-454B pressure (°F/psig)			
			35/107.9	40/118.9	45/130.7	50/143.3
CTM18A5*A	600	85/72	43.1	38.6	33.4	27.9
		80/67	35.0	30.3	25.2	19.6
		75/62	27.5	22.8	17.8	11.9
		70/57	20.8	16.1	11.0	8.5
CTM24A5*B	800	85/72	56.0	50.0	43.3	35.9
		80/67	45.5	39.5	32.6	25.2
		75/62	36.0	29.8	23.0	15.4
		70/57	27.3	21.0	14.8	11.4
CTM24B5*B	800	85/72	56.0	50.0	43.3	35.9
		80/67	45.5	39.5	32.6	25.2
		75/62	36.0	29.8	23.0	15.4
		70/57	27.3	21.0	14.8	11.4
CTM30B5*C	1000	85/72	66.1	60.1	52.9	44.6
		80/67	54.6	48.2	40.2	31.9
		75/62	43.9	36.9	29.1	19.0
		70/57	33.8	26.6	19.0	14.8

Table 7: Cooling capacity: CTM coils

Model	Rated CFM	Entering air dry bulb/wet bulb (°F)	MBH at evaporation temperature and corresponding R-454B pressure (°F/psig)			
			35/107.9	40/118.9	45/130.7	50/143.3
CTM30C5*C	1000	85/72	66.1	60.1	52.9	44.6
		80/67	54.6	48.2	40.2	31.9
		75/62	43.9	36.9	29.1	19.0
		70/57	33.8	26.6	19.0	14.8
CTM36B5*D	1200	85/72	86.0	77.6	68.0	57.1
		80/67	70.6	61.7	52.0	40.7
		75/62	56.4	47.2	37.2	24.7
		70/57	43.1	33.8	23.9	18.6
CTM36C5*D	1200	85/72	86.0	77.6	68.0	57.1
		80/67	70.6	61.7	52.0	40.7
		75/62	56.4	47.2	37.2	24.7
		70/57	43.1	33.8	23.9	18.6
CTM42C5*E	1400	85/72	93.5	84.6	74.6	62.9
		80/67	77.1	67.8	57.4	45.4
		75/62	62.0	52.2	41.5	27.3
		70/57	47.8	37.8	27.1	21.3
CTM48C5*F	1600	85/72	95.4	86.1	75.5	63.0
		80/67	78.5	68.7	57.7	45.0
		75/62	62.9	44.6	41.5	27.7
		70/57	48.4	38.1	27.5	21.0
CTM48D5*F	1600	85/72	95.4	86.1	75.5	63.0
		80/67	78.5	68.7	57.7	45.0
		75/62	62.9	44.6	41.5	27.7
		70/57	48.4	38.1	27.5	21.0
CTM60C5*G	1800	85/72	115.6	104.2	91.0	76.2
		80/67	94.9	82.8	67.4	54.3
		75/62	75.6	63.1	49.4	33.6
		70/57	57.9	45.1	32.1	24.8
CTM60D5*G	1800	85/72	115.6	104.2	91.0	76.2
		80/67	94.9	82.8	67.4	54.3
		75/62	75.6	63.1	49.4	33.6
		70/57	57.9	45.1	32.1	24.8
CTM60C5*H	1800	85/72	113.0	102.6	90.1	75.7
		80/67	93.2	82.1	68.8	54.3
		75/62	74.7	62.9	49.4	33.4
		70/57	57.5	45.1	32.2	25.1
CTM60D5*H	1800	85/72	113.0	102.6	90.1	75.7
		80/67	93.2	82.1	68.8	54.3
		75/62	74.7	62.9	49.4	33.4
		70/57	57.5	45.1	32.2	25.1
CTM60D5*J	1800	85/72	111.3	100.0	87.1	72.3
		80/67	91.5	79.6	66.3	51.3
		75/62	73.1	60.9	46.9	32.6
		70/57	56.1	43.0	32.5	25.0

Note:

- Actual capacity varies with the outdoor air conditioning unit or heat pump that is used with the system. See the Condensing Unit or the Heat Pump Technical Guide for total cooling capacity and sensible capacity.
- Airflow is calculated for each system tonnage.

Modular blower and indoor coil matches

Table 8: Modular blower and indoor coil matches

Modular blower model	Indoor coil product family	
	CTF	**CTM**
JMC12B	CTF18B5*A	CTM24B5*B
	CTF24B5*B	CTM30B5*C
	CTF30B5*C	CTM36B5*D
	CTF36B5*D	
	CTF36B5*E	
JMC16C	CTF30B5*C	CTM30C5*C
	CTF36B5*D	CTM30C5*D
	CTF42B5*E	CTM42C5*E
	CTF48C5*F	CTM48C5*F
JMC17C	CTF60C5*G	CTM60C5*G
JMC20D	CTF48D5*F	CTM48D5*F
	CTF60D5*G	CTM60D5*G
	CTF60D5*H	CTM60D5*H
	CTF60D5*J	CTM60D5*J

Physical and electrical data

Table 9: Physical and electrical data - cooling only

Model		JMC12B	JMC16C	JMC17C	JMC20D
Blower - diameter x width		11 x 8	11 x 10	11 x 10	11 x 11
Motor	HP	1/2 HP	3/4 HP	1 HP	1 HP
	Nominal RPM	1050	1050	1050	1050
Voltage		208/230	208/230	208/230	208/230
Full Load Amps at 230 V		3.8	5.4	7.0	7.0
Filter	Type	Disposable or cleanable			
	Size	16 x 20 x 1	20 x 20 x 1	20 x 20 x 1	23 x 20 x 1
	Bottom rack kit	1BR01117	1BR01121	1BR01121	1BR01124
Shipping / operating weight (lb)		57 / 56	63 / 62	66 / 65	70 / 69

ⓘ **Note:** The filter is field supplied.

Electrical data - cooling only

Table 10: Electrical data - cooling only

Model	Motor full load amps	Minimum circuit ampacity	MOP
JMC12B	3.8	4.8	15
JMC16C	5.4	6.8	15
JMC17C/JMC20D	7	8.8	15

ⓘ **Note:** MOP stands for maximum overcurrent protection device. It must be a HACR type circuit breaker or a time delay fuse. Refer to the latest edition of the National Electric Code, or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

Electrical heat - minimum fan speed

Table 11: Electrical heat - minimum fan CFM DIP switch settings for single-phase heat kits

Electric heat kit model	Nominal kW at 240 V	DIP switch settings by air handler model and coil matches							
		JMC12B		JMC16C		JMC17C		JMC20D	
Indoor coil product match		CTF	CTM	CTF	CTM	CTF	CTM	CTF	CTM
8HK(0,1)6500206	2.4 kW	00-0001	00-0001	00-0001	00-0001	00-0001	00-0001	00-0001	00-0001
8HK(0,1)6500506	4.8 kW	00-0010	01-0010	00-0010	00-0010	00-0010	00-0010	00-0010	00-0010
8HK(0,1)6500806	7.7 kW	00-0011	01-0011	00-0011	00-0011	00-0011	00-0011	00-0011	00-0011
8HK(0,1)6501006	9.6 kW	00-0100	00-0101	00-0100	00-0100	00-0100	00-0100	00-0100	00-0100
8HK(1,2)6501506	14.4 kW	00-0101	01-0101	00-0101	00-0101	01-0101	01-0101	00-0101	01-0101
8HK(1,2)6502006	19.2 kW	00-0110	00-0110	01-0110	01-0110**	00-0110	00-0110	00-0110	00-0110
8HK(1,2)6502506	24 kW	—	—	—	—	—	—	00-0111	00-0111

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- ** This Heat kit kW is not approved for a horizontal right with heat pump application.
- The DIP switch settings in the table are represented as two digits followed by a set of four digits. The first two digits represent the settings for airflow configuration DIP switches 1 and 2 for heat located in the SW4 switch bank in quadrant C: 00 = nominal, 01 = 20% CFM increase. The last four digits represent the settings for aux heat configuration DIP switches 3, 4, 5, and 6 for electric heat kit selection located in the SW3 switch bank in quadrant B.
  To increase any airflow by approximately 20%, adjust airflow configuration DIP switches 1 and 2 for heat from 00 to 01, if not already assigned as required for minimum CFM to satisfy the kW as given in the table.
  For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.

Table 12: Electrical heat - minimum fan CFM DIP switch settings for three-phase heat kits

Electric heat kit model	Nominal kW at 240 V	Air handler model							
		JMC12B		JMC16C		JMC17C		JMC20D	
Indoor coil product match		CTF	CTM	CTF	CTM	CTF	CTM	CTF	CTM
8HK06501025	9.6kW	00-1000	00-1000	00-1000	00-1000	00-1000	00-1000	00-1000	00-1000
8HK06501525	14.4kW	00-1001	01-1001	00-1001	01-1001	01-1001	01-1001	00-1001	00-1001
8HK16502025	19.2kW	00-1010	00-1010	01-1010	01-1010	00-1010	00-1010	00-1010	00-1010
8HK16502525	24kW	—	—	—	—	—	—	00-1011	00-1011

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- The DIP switch settings in the table are represented as two digits followed by a set of four digits. The first two digits represent the settings for airflow configuration DIP switches 1 and 2 for heat located in the SW4 switch bank in quadrant C: 00 = nominal, 01 = 20% CFM increase. The last four digits represent the settings for aux heat configuration DIP switches 3, 4, 5, and 6 for electric heat kit selection located in the SW3 switch bank in quadrant B.
  To increase any airflow by approximately 20%, adjust airflow configuration DIP switches 1 and 2 for heat from 00 to 01, if not already assigned as required for minimum CFM to satisfy the kW as given in the table.
  For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.

Table 13: AUX heat configuration - stage 1 KW DIP switch settings

W1 = W1	00, 01
W1 = W2	10
W1 = W1 and W2	11

Table 14: Default blower speeds for FER compliance - electrical heat only

Model	High sales volume heat kit	Nominal kW at 240 V	Thermostat input		Default blower speed	
			w1/[w1+w2]	Heat	Maximum air flow	Continuous fan
JMC12B	8HK(0,1)6500806	7.7	w1	01-0011	111 (High)	01
JMC16C	8HK(1,2)6501506	14.4	w1+w2	01-0100	111 (High)	01
JMC17C	8HK(1,2)6501506	14.4	w1+w2	01-0110	111 (High)	01
JMC20D	8HK(1,2)6501506	14.4	w1+w2	00-0101	111 (High)	01

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- For JMC16C, JMC17C and JMC20D models with 15kW such as the 8HK*65015** heat kit, connect the AHU W1 and W2 thermostat inputs together for FER compliance.

Application limitations

Adhere to the following:

- These units must be installed in accordance with all national and local safety codes.
- Airflow must be within the minimum and maximum limits approved for electric heat, indoor coils, and outdoor units.

Table 15: Voltage limits

Air handler voltage	Normal operating voltage range
208/230-1-60	187-253
ⓘ **Note:** Normal operating voltage range is rated in accordance with ARI standard 110, utilization range A.	

Table 16: Application factors - rated CFM versus actual CFM

Percentage of rated airflow (CFM)	80	90	100	110	120
Capacity factor	0.96	0.98	1	1.02	1.03

Table 17: kW and MBH conversions for total power input requirement

Distribution power (V)	Nominal voltage (V)	Conversion factor
208	240	0.75
220	240	0.84
230	240	0.92

ⓘ **Note:** For a power distribution voltage that is different than the provided nominal voltage, multiply the kW and MBH data from the table by the conversion factor in Table 18.

Electric heat performance data

Table 18: Electric heat performance data: 208/230-1-60 and 208/230-3-60

Electric heat kit model		Nominal kW at 240 V	Total heat				kW staging			
			kW		MBH		W1 only		W1 and W2	
			208 V	230 V	208 V	230 V	208 V	230 V	208 V	230 V
Single phase	8HK(0,1)6500206	2.4	1.8	2.2	6.2	7.5	1.8	2.2	1.8	2.2
	8HK(0,1)6500506	4.8	3.6	4.4	12.3	15	3.6	4.4	3.6	4.4
	8HK(0,1)6500806	7.7	5.8	7.1	19.7	24.1	5.8	7.1	5.8	7.1
	8HK(0,1)6501006	9.6	7.2	8.8	24.6	30.1	7.2	8.8	7.2	8.8
	8HK(1,2)6501506	14.4	10.8	13.2	36.9	45.1	3.6	4.4	10.8	13.2
	8HK(1,2)6502006	19.2	14.4	17.6	49.2	60.2	7.2	8.8	14.4	17.6
	8HK(1,2)6502506	24	18	22	61.5	75.2	7.2	8.8	18	22
Three phase	8HK06501025	9.6	7.2	8.8	24.6	30.1	7.2	8.8	7.2	8.8
	8HK06501525	14.4	10.8	13.2	36.9	45.1	10.8	13.2	10.8	13.2
	8HK16502025	19.2	14.4	17.6	49.2	60.2	7.2	8.8	14.4	17.6
	8HK16502525	24	18	22	61.5	75.2	9	11	18	22

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- For different power distributions, see Table 17.

Electrical data for single-source power supply, 208/230-1-60

Table 19: Electrical data for single-source power supply: 208/230-1-60

Modular blower model	Electric heat kit model	Heater amps (A) at 240 V	Field wiring			
			Minimum circuit ampacity (A)		MOP (A)	
			208 V	230 V	208 V	230 V
JMC12B	8HK(0,1)6500206	10	15.6	16.7	20	20
	8HK(0,1)6500506	20	26.4	28.7	30	30
	8HK(0,1)6500806	32	39.6	43.3	40	45
	8HK(0,1)6501006	40	48.0	52.6	50	60
	8HK(1,2)6501506	60	69.7	76.5	70	80
	8HK(1,2)6502006	80	91.3	100.4	100	110
JMC16C	8HK(0,1)6500206	10	17.6	18.7	20	20
	8HK(0,1)6500506	20	28.4	30.7	30	35
	8HK(0,1)6500806	32	41.6	45.3	45	50
	8HK(0,1)6501006	40	50.0	54.6	50	60
	8HK(1,2)6501506	60	71.7	78.5	80	80
	8HK(1,2)6502006	80	93.3	102.4	100	110
JMC17C	8HK(0,1)6500206	10	19.6	20.7	20	25
	8HK(0,1)6500506	20	30.4	32.7	35	35
	8HK(0,1)6500806	32	43.6	47.3	45	50
	8HK(0,1)6501006	40	52.0	56.6	60	60
	8HK(1,2)6501506	60	73.7	80.5	80	90
	8HK(1,2)6502006	80	95.3	104.4	100	110
JMC20D	8HK(0,1)6500206	10	19.6	20.7	20	25
	8HK(0,1)6500506	20	30.4	32.7	35	35
	8HK(0,1)6500806	32	43.6	47.3	45	50
	8HK(0,1)6501006	40	52.0	56.6	60	60
	8HK(1,2)6501506	60	73.7	80.5	80	90
	8HK(1,2)6502006	80	95.3	104.4	100	110
	8HK(1,2)6502506	100	116.9	128.3	125	150

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- MOP = Maximum overcurrent protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

Electrical data for multi-source power supply, 208/230-1-60

Table 20: Electrical data for multi-source power supply, 208/230-1-60

Air handler model	Electric heat kit model	Heater amps (A) at 240 V	Minimum circuit ampacity (A)						MOP (A)					
			208 V			230 V			208 V			230 V		
			Circuit											
			First	Second	Third	First	Second	Third	First	Second	Third	First	Second	Third
12B	8HK16501506	60	26.2	43.5	—	28.4	48.1	—	30	45	—	30	50	—
	8HK16502006	80	48.0	43.3	—	52.6	47.8	—	50	45	—	60	50	—
16C	8HK16501506	60	28.2	43.5	—	30.4	48.1	—	30	45	—	35	50	—
	8HK16502006	80	50.0	43.3	—	54.6	47.8	—	50	45	—	60	50	—
17C	8HK16501506	60	30.2	43.5	—	32.4	48.1	—	35	45	—	35	50	—
	8HK16502006	80	52.0	43.3	—	56.6	47.8	—	60	45	—	60	50	—
20D	8HK16501506	60	30.2	43.5	—	32.4	48.1	—	35	45	—	35	50	—
	8HK16502006	80	52.0	43.3	—	56.6	47.8	—	60	45	—	60	50	—
	8HK16502506	100	52.0	43.3	21.6	56.6	47.8	23.9	60	45	25	60	50	25

Note:

- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect.
- For electric heat kit model numbers in this table that include (1,2) - 1 indicates with service disconnect and no breaker jumper bar or 2 indicates with service disconnect and breaker jumper bar.
- MOP = Maximum overcurrent protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

Electrical data for single-source power supply, 208/230-3-60

Table 21: Electrical data for single-source power supply, 208/230-3-60

Air handler model	Electric heat kit model	Heater amps (A) at 240 V	Field wiring			
			Minimum circuit ampacity (A)		MOP (A)	
			208 V	230 V	208 V	230 V
12B	8HK06501025	23.1	29.7	32.4	30	35
	8HK06501525	34.6	42.2	46.2	45	50
	8HK06502025	46.2	54.7	60.0	60	60
16C	8HK06501025	23.1	31.7	34.4	35	35
	8HK06501525	34.6	44.2	48.2	45	50
	8HK0502025	46.2	56.7	62.0	60	70
17C	8HK06501025	23.1	33.7	36.4	35	40
	8HK06501525	34.6	46.2	50.2	50	60
	8HK06502025	46.2	58.7	64.0	60	70
20D	8HK06501025	23.1	33.7	36.4	35	40
	8HK06501525	34.6	46.2	50.2	50	60
	8HK06502025	46.2	58.7	64.0	60	70
	8HK06502525	57.7	71.2	77.8	80	80

Note:

- MOP = Maximum Overcurrent Protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.
- For electric heat kit model numbers in this table that include (0,1), 0 indicates no service disconnect or 1 indicates with service disconnect. The 20 kW and 25 kW heater models (8HK16502025 and 8HK16502525) come with circuit breakers standard. Single source power MCA and MOP requirements are given here only for reference if used with field installed single point power modification.

Electrical data for multi-source power supply, 208/230-3-60

Table 22: Electrical data for multi-source power supply, 208/230-3-60

Air handler model	Electric heat kit model	Heater amps (A) at 240 V	Minimum circuit ampacity (A)				MOP (A)			
			208 V		230 V		208 V		230 V	
			Circuit							
			First	Second	First	Second	First	Second	First	Second
12B	8HK16502025	46.2	29.7	25.0	32.4	27.6	30	25	35	30
16C	8HK16502025	46.2	31.7	25.0	34.4	27.6	35	25	35	30
17C	8HK16502025	46.2	33.7	25.0	36.4	27.6	35	25	40	30
20D	8HK16502025	46.2	33.7	25.0	36.4	27.6	35	25	40	30
	8HK16502525	57.7	40.0	31.2	43.3	34.5	40	35	45	35

Note:

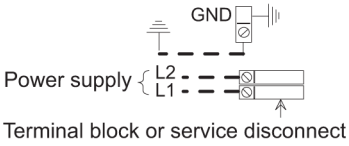
- The 20 kW and 25 kW heater models (8HK16502025 and 8HK16502525) come with circuit breakers standard.
- MOP = Maximum Overcurrent Protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

Power wiring

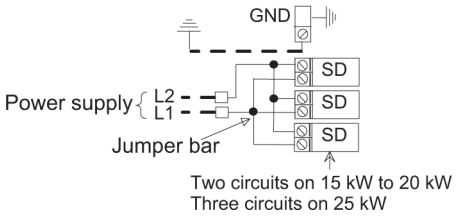
Figure 4: Power wiring - line connections

1 Phase Electric Heat Power Options:

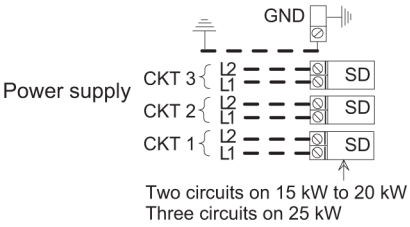
Single source power



Multi-source power with jumper bar

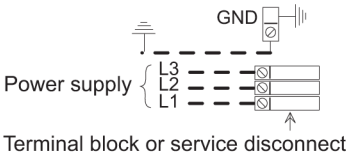


Multi-source power

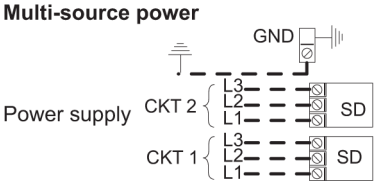


3 Phase Electric Heat Power Options:

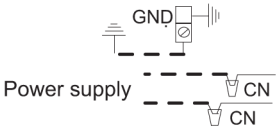
Single source power



Multi-source power



No Electric Heat:



Component Codes:

GND - Ground lug
SD - Service disconnect
CKT - Circuit
CN - Wire connector/nut
Field power wiring (208/230 V)

A1699-001

Airflow data

Table 23: Airflow (CFM) - High/low speed cooling and heat pump - electric heat kit

Aux heat configuration DIP switch settings for electric heat kit selection	JMC12B		JMC16C		JMC17C		JMC20D	
	High	Low	High	Low	High	Low	High	Low
0001	625	625	825	825	825	825	825	825
0010	650	650	825	825	825	825	825	825
0011	750	750	1100	1100	1100	1100	1150	1150
0100	750	750	1100	1100	1100	1100	1500	1500
0101	975	650	1100	825	1100	825	1700	825
0110	975	750	1300	1100	1300	1100	1700	1500

Table 24: High/low speed cooling and heat pump CFM

Airflow configuration DIP switch setting	JMC12B		JMC16C		JMC17C		JMC20D	
	High cool	Low cool	High cool	Low cool	High cool	Low cool	High cool	Low cool
000	800	550	1100	700	1150	725	1500	925
001	900	600	1200	750	1250	775	1475	1050
010	975	650	1300	800	1350	850	1750	1125
011	1075	700	1400	850	1450	900	1875	1225
100	1150	775	1500	925	1575	975	2000	1350
101	1250	825	1625	975	1675	1025	2000	1400
110	1325	900	1725	1050	1775	1100	2000	1475
111	1400	950	1825	1100	1875	1150	2000	1575

Note:

- Air handler units have been tested to UL 60335-2-40 / CSA 22.2 No. 236 standards up to 0.60 in. W.C. external static pressure.
- Dry coil conditions only, tested without filters.
- For optimal performance, external static pressures of 0.2 in. to 0.5 in. are recommended. Heating applications tested at 0.50 in. W.C. esp. Above 0.5 in. CFM is reduced by 2% per 0.1 in. increase in static.
- Low speed cooling is used only with two-stage outdoor units.
- Dehumidification speed is 85% of the selected High speed COOL.
- When operating in both heat pump and electric heat modes, the airflow (CFM) will be whichever speed is greater.
- At some settings, LOW COOL and/or LOW HEAT airflow may be lower than what is required to operate an airflow switch on certain models of electronic air cleaners. Consult the instructions for the electronic air cleaner for further details.
- The airflow (CFM) indicator flashes once for every 100 CFM, for example, 12 flashes is 1200 CFM. Flashes are approximately +/- 10% of actual CFM.