



Air Conditioning & Heating

MBVC

MULTI-POSITION VARIABLE-SPEED ECM BASED COMFORTNET™ COMPATIBLE MODULAR BLOWER 1½ TO 5 TONS

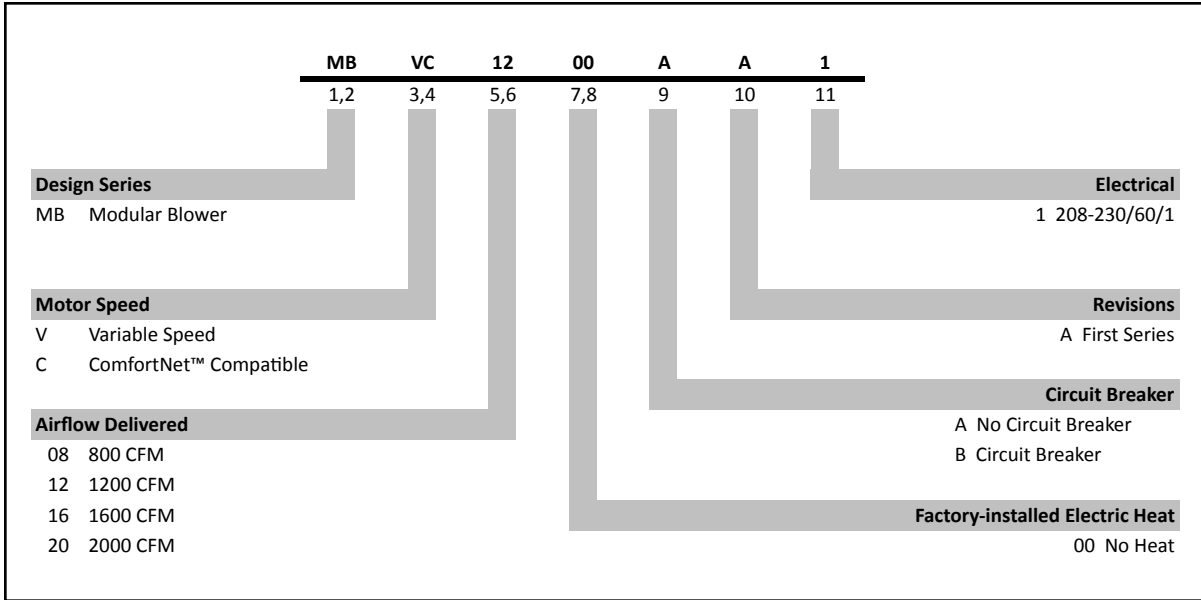
Product Features

- Variable-speed ECM blower motor
- Direct drive, multi-speed PSC 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
- 3 kW – 21 kW electric heat kits
- Blower section usable as electric heater
- Horizontal or vertical configuration capabilities
- 21" depth for easier attic access
- Foil-faced insulation covers the internal casing to reduce cabinet condensation
- Galvanized, leather grain-embossed finish
- AHRI certified; ETL listed



* Complete warranty details available from your local dealer or at www.goodmanmfg.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 Quebec.

NOMENCLATURE



SPECIFICATIONS

MODEL	CFM @ 0.3" ESP (HIGH TO LOW)	VOLTAGE- PHASE	MCA*	MOP*	BLOWER DIMENSIONS		MOTOR HP	SHIP WEIGHT (LBS)
					DIAMETER	WIDTH		
MBVC1200AA-1	1,200 to 600	208/230-1	4.3	15	10"	8"	½	67
MBVC1600AA-1	1,600 to 1,000	208/230-1	6.3	15	10"	8"	¾	80
MBVC2000AA-1	2,000 to 1,200	208/230-1	5.8	15	11"	10"	¾	86

* Minimum Circuit Ampacity (MCA) and Maximum Overcurrent Protection (MOP) for blower without supplemental heat installed. Refer to unit name-plate for these specifications with approved accessory heaters installed.

HEAT KIT DATA

Models	Circuit 1			Circuit 2			Single-Point Kit	
	Heater Amps	MCA ¹	MOP ²	Heater Amps	MCA ¹	MOP ²	MCA ¹	MOP ²
MBVC1200AA-1A*	0 / 0	4.3 / 4.3	15 / 15	---	---	---	---	---
HKR-03*	10.8 / 12.5	17.8 / 19.9	20 / 20	---	---	---	---	---
HKR-05* / 05C*	17.2 / 19.8	25.7 / 29.0	30 / 30	---	---	---	---	---
HKR-06*	21.7 / 25.0	31.3 / 35.5	35 / 40	---	---	---	---	---
HKR-08* / -08C*	25.3 / 29.2	35.8 / 40.7	40 / 45	---	---	---	---	---
HKR-10* / -10C*	34.3 / 39.6	47.1 / 53.7	50 / 60	---	---	---	---	---
HKA-15C*	34.3 / 39.6	47.1 / 53.7	50 / 60	17.2 / 19.8	21.4 / 24.7	25 / 25	69/79	70 / 80
MBVC1600AA-1A*	0 / 0	6.3 / 6.3	15 / 15	---	---	---	---	---
HKR-03*	10.8 / 12.5	19.8 / 21.9	20 / 25	---	---	---	---	---
HKR-05* / 05C*	17.2 / 19.8	27.7 / 31.0	30 / 35	---	---	---	---	---
HKR-06*	21.7 / 25.0	33.3 / 37.5	35 / 40	---	---	---	---	---
HKR-08* / -08C*	25.3 / 29.2	37.8 / 42.7	40 / 45	---	---	---	---	---
HKR-10* / -10C*	34.3 / 39.6	49.1 / 55.7	50 / 60	---	---	---	---	---
HKA-15C*	34.3 / 39.6	49.1 / 55.7	50 / 60	17.2 / 19.8	21.4 / 24.7	25 / 25	71/81	80 / 90
MBVC2000AA-1A*	0 / 0	5.8 / 5.8	15 / 15	---	---	---	---	---
HKR-03*	10.8 / 12.5	19.3 / 21.4	20 / 25	---	---	---	---	---
HKR-05* / 05C*	17.2 / 19.8	27.2 / 30.5	30 / 35	---	---	---	---	---
HKR-06*	21.7 / 25.0	32.8 / 37.0	35 / 40	---	---	---	---	---
HKR-08* / -08C*	25.3 / 29.2	37.3 / 42.2	40 / 45	---	---	---	---	---
HKR-10* / -10C*	34.3 / 39.6	48.6 / 55.2	50 / 60	---	---	---	---	---
HKA-15C*	34.3 / 39.6	48.6 / 55.2	50 / 60	17.2 / 19.8	21.4 / 24.7	25 / 25	70/80	70 / 80
HKA-20C*	34.3 / 39.6	48.6 / 55.2	50 / 60	34.3 / 39.6	42.9 / 49.5	45 / 50	92/105	100 / 110

¹ Minimum Circuit Ampacity @ 208 / 240 V

² Maximum Overcurrent Protection Device @ 208 / 240 V

* Revision level that may or may not be designated

C = Circuit Breaker Option HKA meets the new UL1995 requirements for 15 and 20KW heaters

^ Heat Kit requires three-phase power supply

--- indicates Not Required

Note: All HKR ampacities noted above include air handler motor amps, excluding three-phase models.

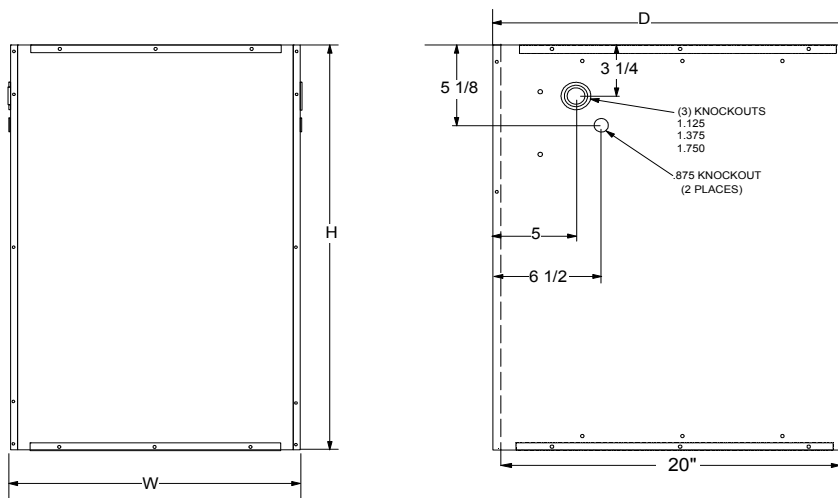
COOLING / HP AIRFLOW

S1	S2	SPEED TAP	MBVC1200 AIRFLOW (SCFM)	MBVC1600 AIRFLOW (SCFM)	MBVC2000 AIRFLOW (SCFM)
off	off	A	600	1000	1200
on	off	B	800	1200	1600
off	on	C	1000	1400	1800
on	on	D	1200	1600	2000

COOLING / HP / AUX TRIM			COOLING PROFILE		
S3	S4	Trim Value	S5	S6	
off	off	0	off	off	A
on	off	10%	on	off	B
off	on	-10%	off	on	C
on	on	0	on	on	D

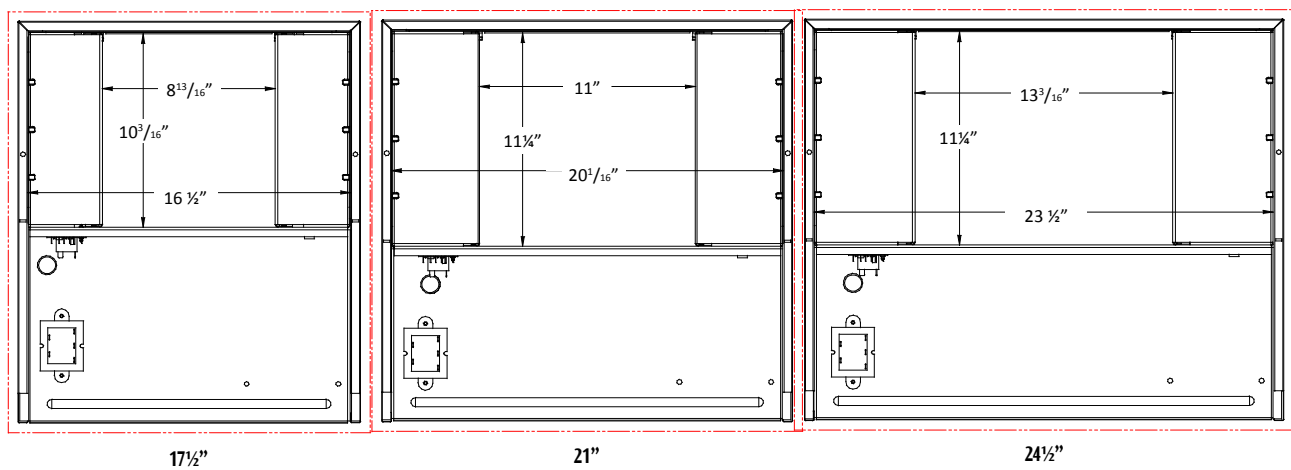
DIMENSIONS

SIDE AND FRONT VIEWS

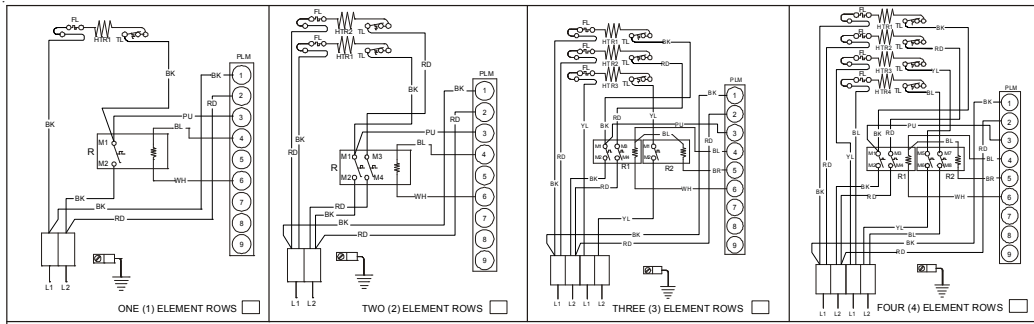


MODEL	DIMENSIONS		
	WIDTH	DEPTH	HEIGHT
MBVC1200AA-1	17 1/2"	21"	26"
MBVC1600AA-1	21"	21"	30"
MBVC2000AA-1	24 1/2"	21"	30"

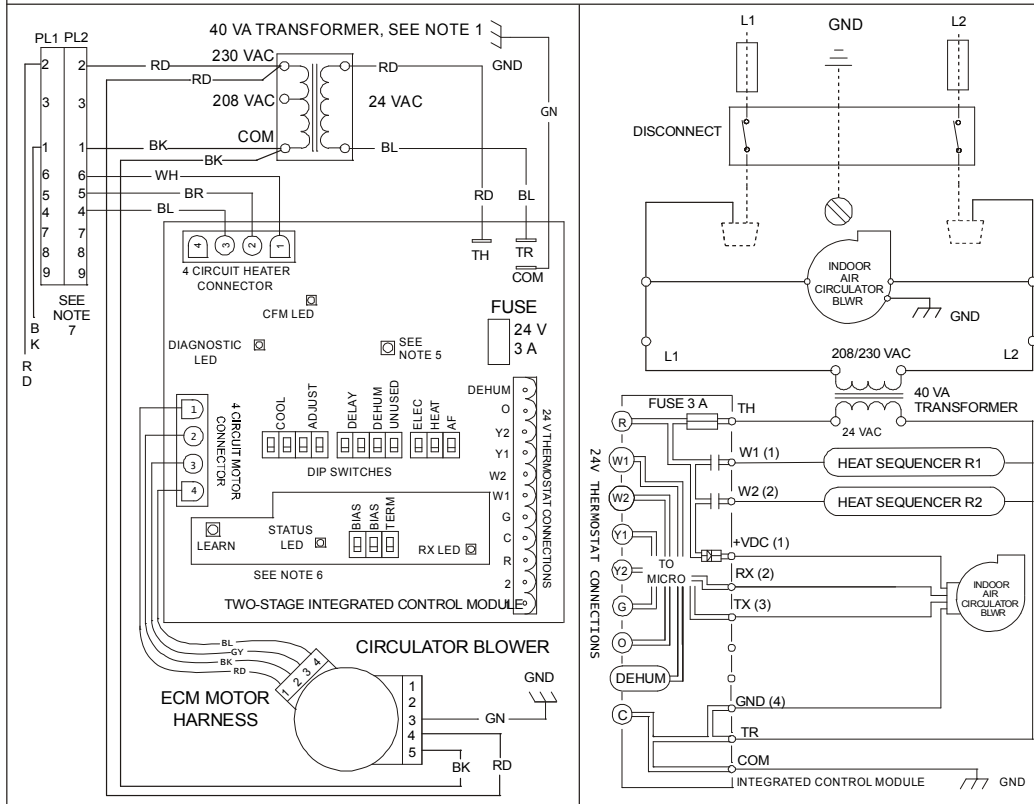
TOP VIEW



WIRING DIAGRAMS



NOTE: WHEN INSTALLING HEATER KIT, ENSURE SPEED TAP DOES NOT EXCEED MINIMUM BLOWER SPEED (MBS) SPECIFIED FOR THE AIRHANDLER/HEATER KIT COMBINATION ON THIS UNIT'S S&R PLATE. AFTER INSTALLING OPTIONAL HEAT KIT, MARK AN "X" IN THE PROVIDED ABOVE. MARK ACCORDING TO NUMBER OF HEATER ELEMENT ROWS INSTALLED. NO MARK INDICATES NO HEAT KIT INSTALLED.



- NOTES:
1. PLACE RED WIRE ON TRANSFORMER TERMINAL 2 FOR 208 VAC OPERATION.
 2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
 3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE BLOWER MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
 4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
 5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (N THERMOSTAT INPUTS).
 6. BIAS AND TERM DIPSWITCHES MUST BE IN "ON" POSITION. RED STATUS LED PROVIDES NETWORK STATUS. GREEN RX LED INDICATES NETWORK TRAFFIC. USE LEARN BUTTON TO RESET NETWORK.
 7. DISCARD CONNECTOR PL1 WHEN INSTALLING OPTIONAL HEAT KIT.

COLOR CODES:	LOW VOLTAGE (24V)	—————
PK PINK	LOW VOLTAGE FIELD	- - - - -
BR BROWN	HI VOLTAGE (230V)	—————
WH WHITE	HI VOLTAGE FIELD	- - - - -
BL BLUE	JUNCTION	●
GY GRAY	TERMINAL	○
RD RED	INTERNAL TO INTEGRATED CONTROL	≡
YL YELLOW	EQUIPMENT GND	⎓
OR ORANGE	FIELD GND	⊥
VT VIOLET	FIELD SPLICE	⌋
GN GREEN	RESISTOR	⎓
BK BLACK	OVERCURRENT PROT. DEVICE	⎓
	PLUG CONNECTION	⌋

0140A0039 REV. A

NOTE: The five element, 25 kW heater kit is not shown above.

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

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

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