



10 year limited parts warranty available when applied with a system. See limited warranty document for details.

## Features

### Application

- 1-1/2 - 5 ton sizes
- Upflow, counterflow and horizontal positions

### Cabinet

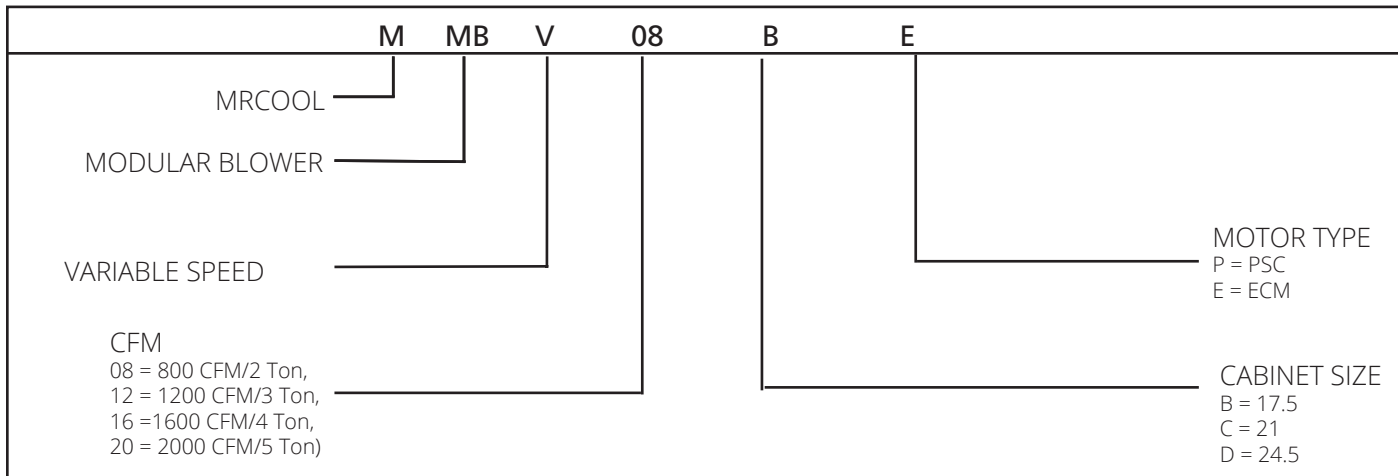
- Cabinet dimensions match standard furnace widths
- Painted galvanized cabinet

## Components

- Models feature ECM™ variable speed motors
- Field installed 5 - 20 kW heat strips
- Factory installed fan relays for non-heat strip Installations



### Model Number Guide



### Physical Data

| Model    | Voltage/Phase/Hz | Blower Motor (hp) | Blower Motor Speeds | Maximum Duct Static | Rated Load Amps | Nominal Tonnage | Weight (lbs.) |
|----------|------------------|-------------------|---------------------|---------------------|-----------------|-----------------|---------------|
| MMBV08BE | 208-230/1/60     | 1/3               | *                   | .40                 | 2.4             | 1-1/2 - 2       | 79            |
| MMBV12BE | 208-230/1/60     | 1/2               | *                   | .40                 | 3.1             | 1-1/2 - 3       | 86            |
| MMBV16CE | 208-230/1/60     | 3/4               | *                   | .40                 | 5.7             | 2 - 4           | 97            |
| MMBV20DE | 208-230/1/60     | 3/4               | *                   | .40                 | 5.7             | 3 - 5           | 105           |

## Electrical Data

| Blower Size  | Electrical Heating Cap. |          | Blower Amps |      | (2) (3) Total Amps per Circuit |      |     |      |      |     | Total Unit Amps |      | MCA  |       | Circuit Breaker |     |
|--------------|-------------------------|----------|-------------|------|--------------------------------|------|-----|------|------|-----|-----------------|------|------|-------|-----------------|-----|
|              | kW                      | Btuh     |             |      | 208v                           |      |     | 240v |      |     |                 |      |      |       | Amps per Stage  |     |
|              | (1) 240v                | (1) 240v | 208V        | 240V | 1                              | 2    | 3   | 1    | 2    | 3   | 208             | 240  | 208v | 240v  | 1               | 2   |
| 08 (no heat) | 0                       | 0        | 2.6         | 2.4  | ---                            | ---  | --- | ---  | ---  | --- | 2.3             | 2.4  | 2.9  | 3.0   | 15              | --- |
| 08           | 5                       | 17,100   | 2.6         | 2.4  | 20.7                           | ---  | --- | 23.2 | ---  | --- | 20.7            | 23.2 | 25.8 | 29.0  | 30              | --- |
| 08           | 7.5                     | 25,600   | 2.6         | 2.4  | 29.7                           | ---  | --- | 33.7 | ---  | --- | 29.7            | 33.7 | 37.1 | 42.1  | 45              | --- |
| 08           | 10                      | 34,100   | 2.6         | 2.4  | 38.7                           | ---  | --- | 44.1 | ---  | --- | 37.7            | 44.1 | 48.4 | 55.1  | 60              | --- |
| 12 (no heat) | 0                       | 0        | 2.9         | 2.7  | ---                            | ---  | --- | ---  | ---  | --- | 2.9             | 2.7  | 3.6  | 3.4   | 15              | --- |
| 12           | 5                       | 17,100   | 2.9         | 2.7  | 20.9                           | ---  | --- | 23.5 | ---  | --- | 20.9            | 23.5 | 26.1 | 29.4  | 30              | --- |
| 12           | 7.5                     | 25,600   | 2.9         | 2.7  | 30.0                           | ---  | --- | 34.0 | ---  | --- | 30.0            | 34.0 | 37.5 | 42.5  | 45              | --- |
| 12           | 10                      | 34,100   | 2.9         | 2.7  | 39.0                           | ---  | --- | 44.4 | ---  | --- | 39.0            | 44.4 | 48.8 | 55.5  | 60              | --- |
| 12           | 15                      | 51,200   | 2.9         | 2.7  | 39.0                           | 18.1 | --- | 44.4 | 20.8 | --- | 57.1            | 65.2 | 71.4 | 81.5  | 60              | 30  |
| 16 (no heat) | 0                       | 0        | 3.8         | 3.5  | ---                            | ---  | --- | ---  | ---  | --- | 3.8             | 3.5  | 4.8  | 4.4   | 15              | --- |
| 16           | 10                      | 34,100   | 3.8         | 3.5  | 39.9                           | ---  | --- | 45.1 | ---  | --- | 39.9            | 45.1 | 49.9 | 56.4  | 60              | --- |
| 16           | 15                      | 51,200   | 3.8         | 3.5  | 39.9                           | 18.1 | --- | 45.1 | 20.8 | --- | 58.0            | 65.9 | 72.5 | 82.4  | 60              | 30  |
| 16           | 20                      | 68,300   | 3.8         | 3.5  | 39.9                           | 27.1 | --- | 45.1 | 41.7 | --- | 76.0            | 86.8 | 95.0 | 108.5 | 60              | 60  |
| 20 (no heat) | 0                       | 0        | 4.7         | 4.3  | ---                            | ---  | --- | ---  | ---  | --- | 0.0             | 0.0  | 0.0  | 0.0   | 15              | --- |
| 20           | 10                      | 34,100   | 4.7         | 4.3  | 40.9                           | ---  | --- | 45.9 | ---  | --- | 40.9            | 45.9 | 51.1 | 57.4  | 60              | --- |
| 20           | 15                      | 51,200   | 4.7         | 4.3  | 40.9                           | 18.1 | --- | 45.9 | 20.8 | --- | 59.0            | 66.7 | 73.8 | 83.4  | 60              | 30  |
| 20           | 20                      | 68,300   | 4.7         | 4.3  | 40.9                           | 36.1 | --- | 45.9 | 41.7 | --- | 77.0            | 87.6 | 96.3 | 109.5 | 60              | 60  |

NOTE: If nominal CFM is 1000 (2.5 tons) with 15 kW electric heat, the motor speed must be set at medium or higher.  
 Maximum kW for units with nominal CFM set at 1400 (3.5 tons) is 15 kW.  
 For 208 volt use .751 correction factor for kW and Btuh.  
 15 and 20 kW (2 stage models) require 2 supply circuits.  
 Circuit #1 includes blower motor amps.  
 kW packages in bold indicate that these packages require and include circuit breakers. Optional for others.

## Accessories

| Kit Number | Description                | Used with  |
|------------|----------------------------|------------|
| MHK05B     | 5kW with Circuit Breaker   | 8, 12      |
| MHK07B     | 7.5kW with Circuit Breaker | 8, 12      |
| MHK10B     | 10kW with Circuit Breaker  | All        |
| MHK15B     | 15kW with Circuit Breaker  | 12, 16, 20 |
| MHK20B     | 20kW with Circuit Breaker  |            |

\*C - Constant or V - Variable

1 N = No circuit breaker

1 C = Circuit breaker

## Blower Performance

| Air Handler Model | Energized Thermostat Terminal | Control Board Tap | CFM @ ESP. in W.C. |       |       |       |       |       |       |       |
|-------------------|-------------------------------|-------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
|                   |                               |                   | .10                | .20   | .30   | .40   | .50   | .60   | .70   | .80   |
| MMBV08BE          | Y1                            | A                 | 710                | 690   | 680   | 690   | 690   | 690   | 690   | 690   |
|                   |                               | B                 | 560                | 560   | 560   | 570   | 560   | 560   | 570   | 570   |
|                   |                               | C                 | 490                | 490   | 500   | 500   | 500   | 500   | 490   | 490   |
|                   |                               | D                 | 430                | 430   | 430   | 430   | 440   | 440   | 440   | 440   |
|                   | Y1 / Y2                       | A                 | 1010               | 980   | 970   | 980   | 980   | 980   | 980   | 970   |
|                   |                               | B                 | 800                | 800   | 800   | 810   | 800   | 800   | 810   | 810   |
|                   |                               | C                 | 700                | 700   | 710   | 710   | 710   | 710   | 700   | 700   |
|                   |                               | D                 | 610                | 610   | 620   | 620   | 630   | 630   | 630   | 630   |
|                   | G                             | A                 | 510                | 490   | 480   | 490   | 490   | 490   | 490   | 490   |
|                   |                               | B                 | 400                | 400   | 400   | 410   | 400   | 400   | 410   | 410   |
|                   |                               | C                 | 350                | 350   | 360   | 360   | 360   | 360   | 350   | 350   |
|                   |                               | D                 | 310                | 310   | 310   | 310   | 320   | 320   | 320   | 320   |
| MMBV12BE          | Y1                            | A                 | 850                | 860   | 860   | 870   | 880   | 880   | 880   | 880   |
|                   |                               | B                 | 710                | 720   | 730   | 740   | 740   | 750   | 730   | 730   |
|                   |                               | C                 | 620                | 600   | 600   | 600   | 610   | 600   | 610   | 610   |
|                   |                               | D                 | 500                | 480   | 470   | 470   | 460   | 450   | 440   | 420   |
|                   | Y1 / Y2                       | A                 | 1,220              | 1,220 | 1,210 | 1,210 | 1,210 | 1,210 | 1,200 | 1,200 |
|                   |                               | B                 | 1,000              | 1,010 | 1,040 | 1,040 | 1,040 | 1,040 | 1,040 | 1,020 |
|                   |                               | C                 | 820                | 820   | 830   | 830   | 840   | 840   | 840   | 840   |
|                   |                               | D                 | 650                | 640   | 640   | 650   | 650   | 660   | 660   | 640   |
|                   | G                             | A                 | 640                | 620   | 640   | 640   | 640   | 640   | 630   | 630   |
|                   |                               | B                 | 570                | 560   | 560   | 550   | 560   | 550   | 520   | 520   |
|                   |                               | C                 | 510                | 500   | 490   | 480   | 470   | 460   | 440   | 430   |
|                   |                               | D                 | 470                | 450   | 440   | 410   | 400   | 400   | 390   | 380   |
| MMBV16CE          | Y1                            | A                 | 1,130              | 1,120 | 1,120 | 1,110 | 1,100 | 1,090 | 1,080 | 1,070 |
|                   |                               | B                 | 990                | 970   | 960   | 950   | 940   | 920   | 910   | 910   |
|                   |                               | C                 | 850                | 830   | 810   | 790   | 780   | 750   | 740   | 710   |
|                   |                               | D                 | 690                | 660   | 650   | 620   | 610   | 580   | 560   | 530   |
|                   | Y1 / Y2                       | A                 | 1,680              | 1,660 | 1,640 | 1,620 | 1,610 | 1,610 | 1,610 | 1,600 |
|                   |                               | B                 | 1,440              | 1,400 | 1,400 | 1,400 | 1,390 | 1,380 | 1,380 | 1,360 |
|                   |                               | C                 | 1,230              | 1,220 | 1,210 | 1,210 | 1,200 | 1,180 | 1,170 | 1,160 |
|                   |                               | D                 | 1,000              | 990   | 980   | 980   | 960   | 950   | 950   | 940   |
|                   | G                             | A                 | 800                | 790   | 760   | 750   | 720   | 710   | 680   | 660   |
|                   |                               | B                 | 680                | 670   | 650   | 630   | 610   | 580   | 550   | 520   |
|                   |                               | C                 | 580                | 540   | 510   | 480   | 460   | 430   | 390   | 370   |
|                   |                               | D                 | 480                | 430   | 390   | 410   | 400   | 400   | 400   | 400   |

### Blower Performance

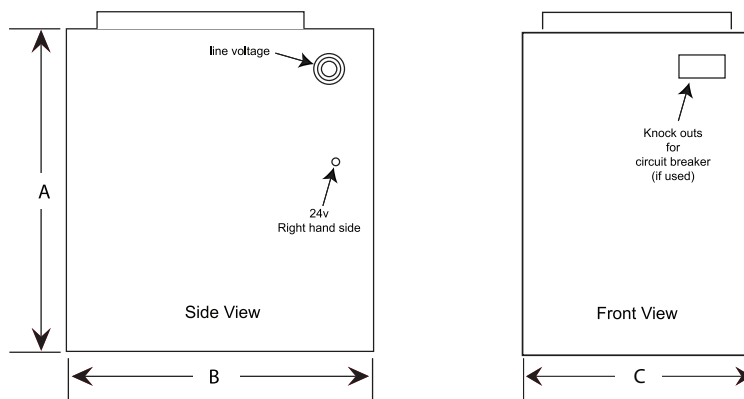
| Air Handler Model | Energized Thermostat Terminal | Control Board Tap | CFM @ ESP. in W.C. |       |       |       |       |       |       |       |
|-------------------|-------------------------------|-------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
|                   |                               |                   | .10                | .20   | .30   | .40   | .50   | .60   | .70   | .80   |
| MMBV20DE          | Y1                            | A                 | 1,250              | 1,230 | 1,210 | 1,180 | 1,140 | 1,100 | 1,070 | 1,050 |
|                   |                               | B                 | 1,120              | 1,100 | 1,080 | 1,040 | 990   | 970   | 940   | 930   |
|                   |                               | C                 | 980                | 950   | 900   | 860   | 840   | 820   | 810   | 800   |
|                   |                               | D                 | 860                | 810   | 760   | 740   | 720   | 710   | 700   | 680   |
|                   | Y1 / Y2                       | A                 | 1,840              | 1,830 | 1,810 | 1,790 | 1,780 | 1,760 | 1,730 | 1,690 |
|                   |                               | B                 | 1,640              | 1,640 | 1,620 | 1,610 | 1,600 | 1,570 | 1,540 | 1,490 |
|                   |                               | C                 | 1,390              | 1,380 | 1,370 | 1,360 | 1,322 | 1,296 | 1,255 | 1,220 |
|                   |                               | D                 | 1,210              | 1,190 | 1,180 | 1,140 | 1,100 | 1,040 | 1,030 | 1,000 |
|                   | G                             | A                 | 910                | 870   | 830   | 790   | 770   | 760   | 740   | 730   |
|                   |                               | B                 | 840                | 790   | 740   | 710   | 710   | 690   | 680   | 660   |
|                   |                               | C                 | 740                | 690   | 640   | 640   | 620   | 610   | 600   | 590   |
|                   |                               | D                 | 680                | 610   | 580   | 570   | 560   | 550   | 530   | 500   |

Notes: Humidistat will reduce colling airflow by 10% in high humidity.  
 Adjust tap (+) will increase airflow by 10%, while tap (-) will decrease airflow by 12%  
 Adjust tap test will cause the motor to run at 70% of full airflow. Use this for troubleshooting only.  
 At the start of a call for cooling, there is a blower delay of 1 minute.

### Dimensions (in.)

| Unit Size | A  | B  | C      | Supply Duct Opening |        | Return Duct Opening |        |
|-----------|----|----|--------|---------------------|--------|---------------------|--------|
|           |    |    |        | Depth               | Width  | Depth               | Width  |
| MMBV08BE  | 25 | 21 | 17-1/2 | 16-1/2              | 15-1/2 | 19-1/2              | 16     |
| MMBV12BE  | 25 | 21 | 17-1/2 | 16-1/2              | 15-1/2 | 19-1/2              | 16     |
| MMBV16CE  | 26 | 21 | 21     | 16-1/2              | 19     | 19-1/2              | 19-1/2 |
| MMBV20DE  | 26 | 21 | 24-1/2 | 16-1/2              | 22-1/2 | 19-1/2              | 23     |

Optional line voltage on top or right side of blower.



All specifications and illustrations subject to change without notice and without incurring obligations.