

MBVK



Multi-Position, Variable-Speed ECM-Based, Modular Blower Communicating

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Product Features

- Variable-speed ECM blower motor
- Compatible with Daikin One+ smart thermostat and other Daikin communicating equipment
- Advanced 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
- UL 60335 2-40 Compliant
- AHRI certified; ETL listed

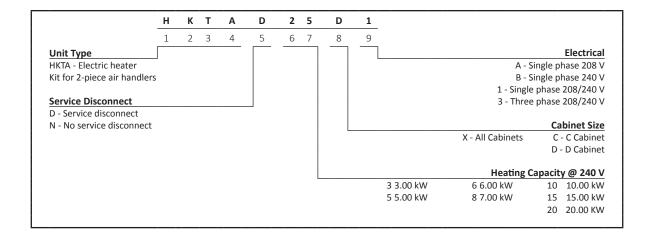
Cabinet Features

- 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
- Cabinet air leakage less than 2% at
 1 0 inch H 0 when tested in accordant
- 1.0 inch H_20 when tested in accordance with ASHRE standard 193
- Cabinet air leakage less than 1.4% at 0.5 inch H₂O when tested in accordance with ASHRE standard 193
- Field Installed 3 kW 20 kW electric heater kits available



* 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 Québec. The duration of warranty coverage in Texas and Florida differs in some cases..

| | М | В | v | к | 12 | В | Р | 1 | х | 0 0 | Α | Α | |
|------------------------------|------|---|---|---|-----|---|---|---|----|-------|-------|---------|-------------------------|
| | 1 | 2 | 3 | 4 | 5,6 | 7 | 8 | 9 | 10 | 11 12 | 13 | 14 | |
| | | | | | | | | | | | | | MINOR REVISION |
| BRAND | | | | | | | | | | | | - | A |
| MB - MODULAR BLOWER | | | | | | | | | | | | | MAJOR REVISION |
| | | | | | | | | | | | _ | | A |
| | | | | | | | | | | | _ | | |
| | | | | | | | | | | l | FACTO | | OO -NO ELECTRIC HEAT KW |
| | | | | | | | | | | | | , | |
| MOTOR SPEED | | | | | | | | | | | | | |
| V - VARIABLE | | | | | | | | | L | | | | CIRCUIT BREAKER |
| | | | | | | | | | | | | X - | NO CIRCUIT BREAKER |
| COMMUNICATING CONTROLS PROTO | DCOL | | | | | | | | | | | | |
| B - COMFORTBRIDGE | | | | | | | | | | | | | ELECTRICAL |
| K - ClimateTalk | | | | | | | | - | | | | 1 208/2 | 230 V, 1 Рнаѕе, 60 Hz |
| | | | | | | | | | | | | | |
| AIRFLOW DELIVERED | | | | | | | | | | | | | CABINET |
| 12 - 1200 CFM | | | | | | | | | | | | | P - PAINTED |
| 16 - 1600 сғм | | | | | | | | | | | | | |
| 20 - 2000 CFM | | | | | | | | | | | | | CABINET WIDTH |
| | | | | | | | | | | | | | B - 17.5" |
| | | | | | | | | | | | | | C - 21.0" |
| | | | | | | | | | | | | | D - 24.5" |



| Model | MBVK12BP1X00 | MBVK16CP1X00 | MBVK20DP1X00 |
|-------------------------|--------------|--------------|--------------|
| BLOWER | | | |
| Diameter | 10" | 10" | 11" |
| Width | 8" | 8" | 10" |
| ELECTRICAL DATA | | | |
| Voltage (V) | 208/230 | 208/230 | 208/230 |
| MCA (A) | 4.9 | 6.5 | 6.5 |
| MOP (A) | 15 | | |
| Blower Motor Power (HP) | 1/2 | 3⁄4 | 3∕₄ |
| Dimensions | | | |
| Width | 17½" | 21" | 24½" |
| Depth | 21" | 21" | 21" |
| Height | 26" | 30" | 30" |
| Ship Weight (Lbs.) | 67 | 80 | 86 |

Minimum Circuit Ampacity and Maximum Overcurrent Protection Device (MOD) for blower without supplemental heat installed.
 Refer to unit nameplate for these specifications with approved accessory heaters installed.
 Condensate management kits are available for units installed in high temperature and high humidity areas. Kit number MBK0002

Condensate management kits are available for units installed in high temperature and high humidity areas. Kit number MBK0002
has been developed to resolve condensate issues in the field and is available from the Service Parts Department. Refer to IO-849
for installation instructions.

| Model | Speed Tap | Speed | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 |
|----------|-----------|-------|------|------|------|------|------|------|------|------|------|
| | A | Low | 420 | 415 | 400 | 400 | 395 | 390 | 390 | 390 | 380 |
| | В | Low | 550 | 545 | 540 | 540 | 535 | 530 | 530 | 525 | 520 |
| | С | Low | 680 | 675 | 670 | 665 | 660 | 655 | 655 | 650 | 640 |
| MBVK12 | D | Low | 810 | 805 | 800 | 800 | 800 | 795 | 790 | 785 | 785 |
| BP1X00A* | А | High | 615 | 605 | 600 | 600 | 595 | 590 | 590 | 585 | 580 |
| | В | High | 805 | 805 | 800 | 800 | 800 | 795 | 790 | 785 | 780 |
| | С | High | 1010 | 1005 | 1000 | 1000 | 995 | 995 | 990 | 985 | 975 |
| | D | High | 1210 | 1205 | 1200 | 1200 | 1200 | 1195 | 1195 | 1190 | 1180 |
| | A | Low | 690 | 680 | 670 | 665 | 660 | 655 | 625 | 595 | 575 |
| | В | Low | 850 | 830 | 800 | 795 | 790 | 785 | 775 | 750 | 725 |
| | С | Low | 980 | 970 | 940 | 935 | 930 | 910 | 890 | 865 | 860 |
| MBVK16 | D | Low | 1110 | 1085 | 1070 | 1055 | 1045 | 1025 | 1000 | 990 | 975 |
| CP1X00A* | A | High | 1045 | 1015 | 1000 | 990 | 975 | 950 | 935 | 920 | 900 |
| | В | High | 1245 | 1215 | 1200 | 1180 | 1175 | 1165 | 1150 | 1130 | 1115 |
| | С | High | 1415 | 1410 | 1400 | 1365 | 1360 | 1350 | 1340 | 1330 | 1320 |
| | D | High | 1605 | 1600 | 1600 | 1540 | 1530 | 1520 | 1510 | 1500 | 1490 |
| | A | Low | 835 | 815 | 800 | 800 | 795 | 795 | 790 | 775 | 750 |
| | В | Low | 1075 | 1070 | 1070 | 1065 | 1050 | 1045 | 1045 | 1040 | 1035 |
| | С | Low | 1210 | 1205 | 1200 | 1200 | 1195 | 1190 | 1190 | 1185 | 1175 |
| MBVK20 | D | Low | 1345 | 1340 | 1340 | 1320 | 1320 | 1315 | 1315 | 1305 | 1305 |
| DP1X00A* | А | High | 1210 | 1205 | 1200 | 1195 | 1150 | 1150 | 1145 | 1135 | 1115 |
| | В | High | 1610 | 1605 | 1600 | 1540 | 1535 | 1535 | 1530 | 1520 | 1510 |
| | С | High | 1830 | 1805 | 1800 | 1785 | 1760 | 1760 | 1755 | 1750 | 1715 |
| | D | High | 2020 | 2010 | 2000 | 1995 | 1995 | 1970 | 1970 | 1965 | 1955 |

COOLING AND HEAT PUMP AIRFLOW

| S1 | S2 | Speed Tap | MBVK12BP1X00 Airflow (SCFM) | MBVK16CP1X00 Airflow (SCFM) | MBVK20DP1X00 Airflow (SCFM) |
|-----------|-----------|-----------|--------------------------------|--------------------------------|--------------------------------|
| off | off | А | 600 | 1000 | 1200 |
| on | off | В | 800 | 1200 | 1600 |
| off | on | С | 1000 | 1400 | 1800 |
| on | on | D | 1200 | 1600 | 2000 |

| Coo | DLING / HP / A | AUX TRIM | | | | | |
|-----|----------------|------------|-----|-----|---|--|--|
| S3 | S4 | Trim Value | S5 | S6 | | | |
| off | off | 0 | off | off | А | | |
| on | off | 10% | on | off | В | | |
| off | on | -10% | off | on | С | | |
| on | on | 0 | on | on | D | | |

HEAT KIT AIRFLOW

| S9 | S10 | S11 | HEATER KW | MBVK12BP1X00 Airflow (SCFM) | MBVK16CP1X00 Airflow (SCFM) | MBVK20DP1X00 Airflow (SCFM) |
|-----|-----|-----|-----------|--------------------------------|--------------------------------|--------------------------------|
| off | off | on | 20 | NA | NA | 2000 |
| off | on | off | 15 | 1400 | 1500 | 1500 |
| off | on | on | 10 | 1000 | 1000 | 1200 |
| on | off | off | 8 | 740 | 1000 | 1000 |
| on | off | on | 6 | 635 | 800 | 800 |

| Models | Circ | CUIT 1 (208V/24 | 0V) | Circu | ит 2 (208V/24 | 0V) | Single-Point Kit (208V/240V) | | |
|----------------|-------------|------------------|------------------|-------------|------------------|------------------|---------------------------------|------------------|--|
| | HEATER AMPS | MCA ¹ | MOP ² | HEATER AMPS | MCA ¹ | MOP ² | MCA ¹ | MOP ² | |
| MBVK12BP1X00AB | 0/0 | 4.9/4.9 | 15/15 | | | | | | |
| HKTAN031 | 10.8/12.5 | 18.4/20.5 | 20/25 | | | | | | |
| HKTA*051 | 18.1/20.8 | 27.4/30.9 | 30/35 | | | | | | |
| HKTAN061 | 21.7/25.0 | 32.0/36.1 | 35/40 | | | | | | |
| HKTA*081 | 25.3/29.2 | 36.5/41.3 | 40/45 | | | | | | |
| HKTA*101 | 36.1/41.7 | 50.0/57.0 | 50/60 | | | | | | |
| HKTAD151 | 36.1/41.7 | 50.0/57.0 | 50/60 | 18/20.8 | 22.5/26.0 | 25/30 | 72.6/83.0 | 80/90 | |
| MBVK16CP1X00AB | 0/0 | 6.5/6.5 | 15/15 | | | | | | |
| HKTAN031 | 10.8/12.5 | 20.0/22.1 | 20/25 | | | | | | |
| HKTA*051 | 18.1/20.8 | 29.1/32.5 | 30/35 | | | | | | |
| HKTAN061 | 21.7/25.0 | 33.6/37.8 | 35/40 | | | | | | |
| HKTA*081 | 25.3/29.2 | 38.1/43.0 | 40/45 | | | | | | |
| HKTA*101 | 36.1/41.7 | 51.6/58.6 | 60/60 | | | | | | |
| HKTAD151 | 36.1/41.7 | 51.6/58.6 | 60/60 | 18/20.8 | 22.5/26.0 | 25/30 | 74.2/84.6 | 80/90 | |
| MBVK20DP1X00AB | 0/0 | 6.5/6.5 | 15/15 | | | | | | |
| HKTAN031 | 10.8/12.5 | 20.0/22.1 | 20/25 | | | | | | |
| HKTA*051 | 18.1/20.8 | 29.1/32.5 | 30/35 | | | | | | |
| HKTAN061 | 21.7/25.0 | 33.6/37.8 | 35/40 | | | | | | |
| HKTA*081 | 25.3/29.2 | 38.1/43.0 | 40/45 | | | | | | |
| HKTA*101 | 36.1/41.7 | 51.6/58.6 | 60/60 | | | | | | |
| HKTAD151 | 36.1/41.7 | 51.6/58.6 | 60/60 | 18/20.8 | 22.5/26.0 | 25/30 | 74.2/84.6 | 80/90 | |
| HKTAD201 | 36.1/41.7 | 51.6/58.6 | 60/60 | 36.1/41.7 | 45.2/52.1 | 50/60 | 96.8/111 | 100/125 | |

All ampacities noted above include air handler motor amps

Circuit 1: Single-phase for Air Handlers / Circuit 2: Three-phase for HKR3 Heater Kits

¹ Minimum Circuit Ampacity (Heater Amps + Motor Amps) X 1.25

² Maximum Overcurrent Protection = 2.25 X Motor Amps + Heater Amps

* D - Service disconnect, N - No service disconnect

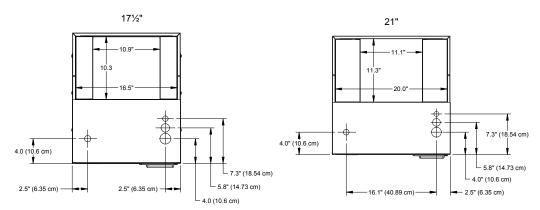
--- indicates Not Required

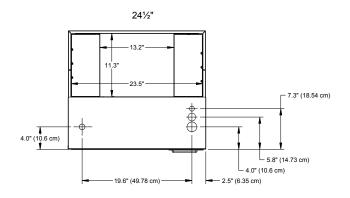
HEATING KW CORRECTION FACTOR

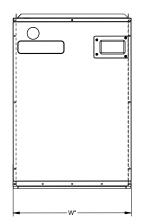
| SUPPLY VOLTAGE | 240 | 230 | 220 | 210 | 208 |
|-------------------|------|------|------|------|------|
| CORRECTION FACTOR | 1.00 | 0.92 | 0.84 | 0.77 | 0.75 |

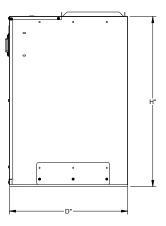
Multiply the 240-volt heating capacity by correction factors.

SIDE AND FRONT VIEWS



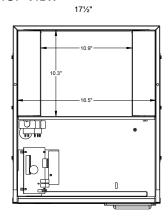


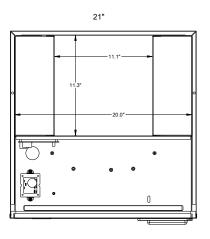




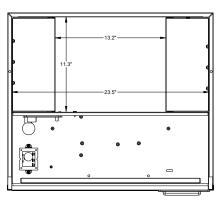
| Moos | | DIMENSIONS | | | | | | |
|--------------|-------|------------|--------|--|--|--|--|--|
| Model | WIDTH | Depth | Неіднт | | | | | |
| MBVK12BP1X00 | 17½" | 21" | 26" | | | | | |
| MBVK16CP1X00 | 21" | 21" | 30" | | | | | |
| MBVK20DP1X00 | 24½" | 21" | 30" | | | | | |

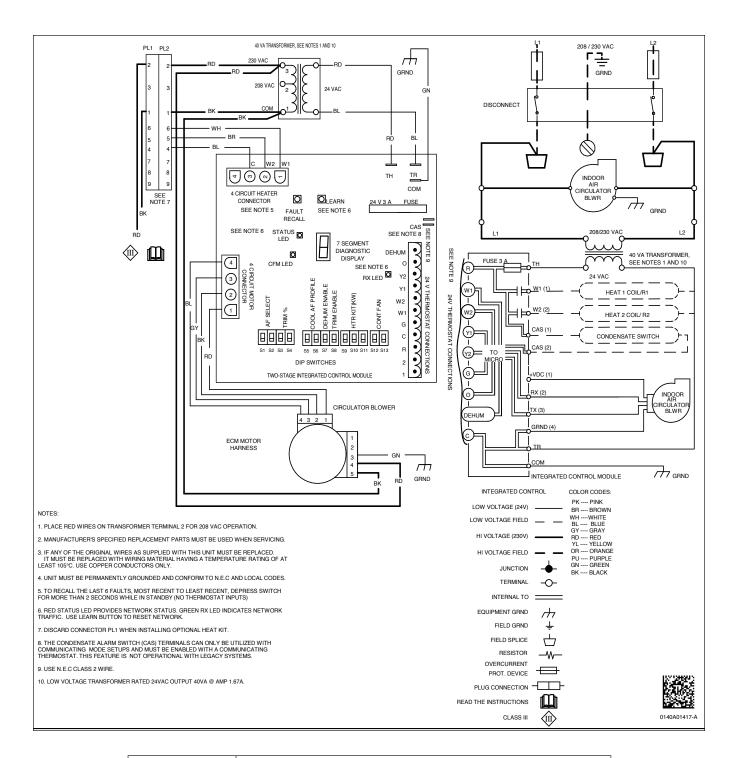
TOP VIEW











 Marning
 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.

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

SINGLE POINT KIT

| | HKTAD151 | HKTAD201 |
|--------|----------|----------|
| SPW-01 | Х | Х |

Can only be installed along with the above heat kits. This kit will fit any MBVK blower as long as a compatible heat kit is installed in the unit.

MBVK BLOWER PERFORMANCE DATA DIPSWITCH SUMMARY

| Dipswitch Number | Function | Default Setting |
|------------------|--|-----------------|
| S1 - S2* | Cooling / HP Airflow A/B/C/D | Airflow D |
| S3 - S4* | Cooling / HP / Aux Trim (-10%, 0, +10%) | No Trim |
| S5 - S6* | Cooling Profile A,B,C,D | Profile 1 |
| S7* | Dehum (on/off) | Off |
| S8 | Unused | On |
| S9 - S11 | Heater Kit Kw | Off/Off/Off |

* Valid only if the system is wired in legacy mode. If system is wired in the 4-wire communicating mode, these functions are selected via the user menu in the CTK01AA T-STAT.

HEAT KIT SELECTION

| Model | MBVK12BP1X00 | MBVK16CP1X00 | MBVK20DP1X00 |
|----------|--------------|--------------|--------------|
| HKTAN031 | Х | Х | х |
| HKTAN051 | Х | Х | х |
| HKTAD051 | Х | Х | Х |
| HKTAN061 | Х | Х | х |
| HKTAN081 | Х | Х | х |
| HKTAD081 | Х | Х | Х |
| HKTAN101 | Х | Х | Х |
| HKTAD101 | Х | Х | х |
| HKTAD151 | Х | Х | Х |
| HKTAD201 | | | Х |

Refer to the minimum airflow requirements for each of the heat kits.

--- Indicates Not Permitted

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