

### VM7 Micro AC Drive

#### Ratings:

- 0.13 to 5 HP at 230 Vac
- 0.50 to 5 HP at 460 Vac



The VM7 is the newest addition to our inverter family. The small footprint, RS-485 port (optional), and programmable I/O make this product ideal for new and retrofit applications. The enclosure is a protected chassis, ideal for mounting in a larger enclosure. The VM7 combined with an inexpensive three-phase AC motor is an ideal replacement for single-phase DC controls.

#### Approvals:

- UL, cUL, CE (73 / 23 / EEC)

#### Design:

- Analog monitor output (programmable)
- Form C output relay (programmable)
- MTBF: exceeds 83 years
- Protected chassis enclosure
- Overload capacity: 150% / 1 min.
- Peak current rating: 250%
- Quick start keypad with speed potentiometer and 3 digit LED display
- Up to 10 kHz carrier for low noise
- 5 programmable digital inputs
- 9 preset speeds

#### Operating Conditions:

- Altitude: to 3280 ft (1000 m); higher by derating
- Ambient service temperature: -10°C to 50°C (122°F) Chassis
- Ambient storage temperature: -20° to 60°C (-4° to 140°F)
- Humidity: to 95% non-condensing
- Input voltage: +10% / -15%  
200 to 230 Vac, 3-Phase  
380 to 460 Vac, 3-Phase
- Single-phase input with 30% derate
- Service factor: 1.0

#### Options:

- DIN Rail Kit
- RS-485 port (Modbus)
- Flat heatsink design
- Open chassis design
- Rapidpak (future)
- Remote operator
- Saflink

#### Performance:

- Adjustable accel/dec: 0.1 to 6000 sec
- Braking torque:  
Average decel torque:  
50% to 2 HP  
30% 3-10 HP  
Cont. regen torque:  
20% - no DB Resistor
- Controlled speed range  
40:1 Volts/Hertz
- Displacement power factor: 0.98
- Drive efficiency: 96 to 98%
- Output frequency: 0.1 to 400 Hz

#### Protection:

- DC bus CHARGE indicator
- Electronic motor overload (UL approved)
- Fault circuit: overcurrent, inverter overload, overvoltage, undervoltage, overtemperature and fan fault.
- Ground fault protection
- Optical isolated inputs
- Phase-to-phase / phase-to-neutral short circuit protection
- Stall prevention to prevent nuisance trips

#### V/Hz Mode:

- Speed regulation: (15° to 35°C)  
0.5 to 1% with slip compensation
- Speed resolution:  
Digital 0.01 Hz to 100 Hz  
0.1 Hz above 100 Hz  
Analog 1/1000 or Fmax
- 150% starting torque @ 3 Hz