

SMVector | Specifications

World Class Control

Modes of Operation

- Open Loop Flux Vector
 - Speed or Torque Control
- V/Hz (Constant or Variable)
- Enhanced V/Hz with Auto-tuning

Acceleration/Deceleration Profiles

- ▶ Two Independent Accel Ramps
- ▶ Two Independent Decel Ramps
- ▶ Linear
- ▶ S-Type
- ▶ Auxiliary Ramp-to-Stop

Output Frequency

- ▶ 500 Hz Standard
- ▶ 1,000 Hz Optional

Universal Logic Assertion (Selectable)

- ▶ Positive Logic Input
- ▶ Negative Logic Input

Braking Functions

- ▶ DC Injection Braking
- ▶ Optional Regenerative Braking

Speed Commands

- ▶ Keypad
- ▶ Jog
- ▶ Floating Point Control
- ▶ Voltage: Scalable 0 –10 VDC
- ▶ Current: Scalable 4 – 20 mA
- ▶ Potentiometer
- ▶ 8 Preset Speeds

Process Control

- ▶ PID Modes: Direct and Reverse Acting
- ▶ PID Sleep Mode

Vigilant System Protection

Voltage Monitoring

- ▶ Low DC Bus V Protection
- ▶ High DC Bus V Protection
- ▶ Low Line V Compensation

Current Monitoring

- ▶ Motor Overload Protection
- ▶ Current Limiting Safeguard
- ▶ Phase Loss Protection
- ▶ Ground Fault
- ▶ Short Circuit Protection

Loss of Follower Management

- ▶ Protective Fault
- ▶ Go to Preset Speed
- ▶ Initiate System Notification

Over Temperature Protection

Comprehensive Diagnostic Tools

Real Time Monitoring

- ▶ 8 Register Fault History
- ▶ Software Version
- ▶ Drive Network ID
- ▶ DC Bus Voltage (V)
- ▶ Motor Voltage (V)
- ▶ Output Current (%)
- ▶ Motor Current (A)
- ▶ Motor Torque (%)
- ▶ Power (kW)
- ▶ Energy Consumption (kWh)
- ▶ Heatsink Temperature (°C)
- ▶ 0 – 10 VDC Input (User Defined)
- ▶ 4 – 20 mA Input (User Defined)
- ▶ PID Feedback (User Defined)
- ▶ Analog Output (% Load, % Torque, kW)
- ▶ Network Speed (Baud Rate)
- ▶ Terminal Continuity
- ▶ Keypad Status
- ▶ Elapsed Run Time (Hours)
- ▶ Elapsed Power on Time (Hours)

Rugged Environmental Capabilities

Nema Type 1 (IP21) for Indoor Use

Ambient Temperature

- ▶ -10 to 55°C @ 6 kHz
- ▶ Derate 2.5% per °C Above 40°C

International Voltages

- ▶ +10/-15% Tolerance
- ▶ 120V, 1Ø
- ▶ 200/240V, 1 or 3Ø
- ▶ 200/240V, 3Ø
- ▶ 400/480V, 3Ø
- ▶ 480/600V, 3Ø

Global Standards

UL (North America)

cUL (Canada)

CE Low Voltage Directive (EN50178) (Europe)

CE EMC Directive (EN61800-3) with Optional EMC filter

GOST (Russia/Ukraine)

C-Tick (Australia/New Zealand)

Simple Six Button Programming

- Start**
- Stop**
- Forward/Reverse**
- Scroll Up**
- Scroll Down**
- Enter/Mode**

Informative LED Display

Vivid Illumination

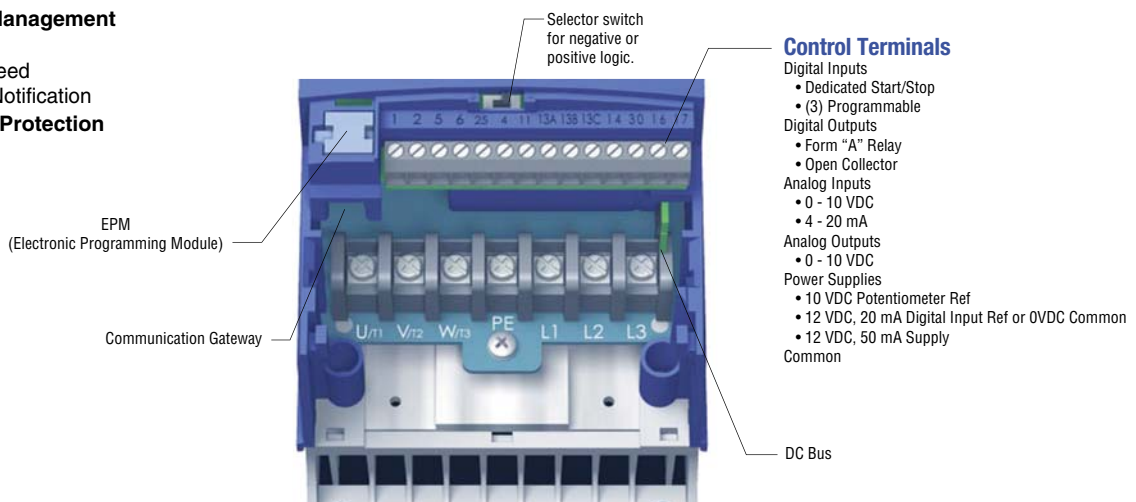
Easily Read from a Distance.

Five Status LEDs

- Run
- Automatic Speed mode
- Manual Speed Mode
- Forward Rotation
- Reverse Rotation

Status Display

- Motor Status
- Fault Management
- Operational Information



Removable terminal cover and steel conduit plate (not shown).
Easy access for control & power wiring.
An extra IP21 finger guard ships with every drive.