



The newest addition to Magnetek Mining's line of technologically advanced drives, our M-Force General Purpose Drive can handle applications that include conveyors, pumps and fans as well as other mining and prep plant applications. This line of 240V, 480V and 575V AC drives offer the same features, dependability, durability and quality you've come to expect from Magnetek.

To ease installation, we can customize a solution for you by integrating the drive with a panel/enclosure. Custom panels are available with an unlimited number of configurations, components and accessories.

Magnetek...Over 30 Years and 10,000 Drives of Mining Experience.

PERFORMANCE FEATURES

- Overload capacity: 150% for 1 min heavy duty, nominal 110% for 1 min normal duty
- Starting torque, heavy duty: 150% at 0.5 Hz (open loop), 150% at 0.3 Hz (closed loop)
- Starting torque, normal duty: 120% at .05 Hz (V/f)
- Output frequency: 0.01 to 300Hz for heavy duty, 400Hz for normal duty
- Controlled speed range: 40:1 (V/f), 40:1 (V/f with PG), 100:1 (open loop), 1000:1 (closed loop)
- Speed regulation: 2-3% (V/f), 0.02% (V/f with PG), 0.2% (open loop), 0.01% (closed loop)
- Speed/frequency resolution: 0.01% with digital reference, 0.1% with analog reference, 0.01 Hz with Modbus
- Electronic reversing
- Adjustable accel/decel: 0.1 to 6000 sec
- Stall prevention
- Drive efficiency: 96 to 98%
- Displacement power factor: 0.98
- Power loss ride-thru: 2 sec
- Inertial ride-thru
- Selectable auto restart after momentary power loss
- Programmable auto restart (0 to 10 attempts) on re-settable fault
- Critical frequency rejection: 3 selectable, adjustable bands

M-Force General Purpose Drive

PROTECTIVE FEATURES

- DC-BUS CHARGE indicator
- Optically-Isolated controls
- Phase-to-phase/phase-to-neutral short circuit protection
- Ground fault protection
- Electronic motor overload (UL)
- Current and torque limit
- Over-torque/under-torque detection
- Fault circuit: over-current, over-voltage, and over-temperature
- Input/output phase loss

SERVICE CONDITIONS

- Ambient service temperatures: -10° to 40°C (104°F) NEMA 1, to 45°C (113°F) protected chassis
- Humidity: non-condensing 95%
- Altitude: to 3300 feet (1000 meter)
- Enclosure: NEMA 1 or protected chassis (other options)
- Input frequency: 50/60Hz ± 5%
- 3-phase, 3-wire phase insensitive
- Vibration: 1G, (10 to 20Hz), 0.2G (20 to 50Hz)

INPUTS AND OUTPUTS

- Analog inputs: -10 to +10 Vdc (20K ohms) or 4 to 20mA (250 ohm)
- Analog outputs: -10 to +10 Vdc or 4-20mA proportional to output parameters
- Digital pulse train input/output (32KHz max)
- Digital Inputs: 8 multi-function
- Programmable outputs: Three form A
- Fault contacts: form C
- RS-485/422 communication terminals

DESIGN FEATURES

- LCD keypad display, 5 lines x 16 characters, backlit, 7 languages, copy function
- Multi-speed settings: 17 available
- Setpoint (PID) trim control
- Signal follower: bias and gain
- Up/down/hold reference (digital M.O.P.)
- Timer function; on/off delay
- 32-bit microprocessor logic
- Non-volatile memory/program retention
- Flash memory for update and custom applications
- 24 Vdc control logic
- DC injection braking, adjustable level
- Dynamic braking
- High-slip braking
- Ramp to stop or coast to stop
- Dual motor parameter sets
- Synchronized start into rotating motor
- Motor auto-tuning, static and dynamic
- Common bus capability
- DC link choke: 30 to 150HP at 240 Vac, 30 to 500HP at 480 Vac

STANDARDS AND RELIABILITY

- UL, cUL & CE listed
- IEC: 146A
- MTBF: Exceeds 28 years
- Tested on fully-loaded motors
- Surface mount technology

OPTIONS

- Remote display/keyboard
- DriveWizard™ software (upload/download)
- DeviceNet, Profibus-DP, EtherNet/IP, Modbus TC/IP

Contact us today at 888.428.2299 for a power solution to optimize your mining application.