



## CONTROLLER

The rugged controller monitors and controls the system's M-FORCE® SD500 drives providing operation and fault reporting. It provides full-time monitoring of motor drive temperature, battery health status, system faults, run time, and a host of other features.

of applications including battery-operated mobile vehicles,

conveyors, crushers, drills, and locomotives.

#### **FEATURES**

- CAN-Bus Communication
- Wireless RF capability
- Analog/digital inputs from gas pedal, joystick, temperature transducers and other switching devices
- Inputs from PLC and other controllers
- Multi-language display

### DISPLAY

The display in an MSHA-approved housing provides real-time performance monitoring of the control system through the controller. External controls allow for system programming and re-configuration, data reporting, and troubleshooting within a permissible area.









# SD500 SEVERE DUTY AC TRACTION DRIVE SYSTEM



#### **CUSTOM ENGINEERED SYSTEMS**

Magnetek can provide custom-designed engineered power solutions for applications such as transportation, mining, marine or locomotive applications using our M-FORCE® SD500 Variable Frequency Drives. Magnetek can also provide custom monitoring, data collection and display systems integrated with any Magnetek M-FORCE® severe duty drive to provide the ultimate in assured performance and control. Our flexible building block approach allows us to configure a custom display and controller to your exact requirements. The control interface provides real-time diagnostics for preventative maintenance and troubleshooting, reducing down time and repairs.

## IMPROVED PERFORMANCE

Adjustable operating speeds, torque limits, and controlled stopping allow for smooth operation and torque control from stall to 400 Hz.

#### INCREASED ENERGY EFFICIENCY

A custom engineered system can improve the power factor and reduce in-rush currents to minimize energy consumption.

#### **GREATER RELIABILITY**

Controlled start-up torque decreases the wear and tear on the motor and connected load, which reduces mechanical breakdown to extend motor life.

#### QUALITY BUILT

Magnetek Mining designs, builds and tests our products in our ISO 9001:2008 certified manufacturing facility.

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

## **POWER SOURCE OPTIONS**

Fuel Cell

Ultra Capacitor

Battery

Engine Generator

Generator-Battery Hybrid System

Generator-Capacitor Hybrid System

## PERFORMANCE FEATURES

Flux Vector Control

96% - 98% efficiency

Full regenerative capabilities

Wide battery voltage range: 150 to 400 VDC

input for 230 VAC motor

Smooth torque from stall to 400 Hz

30-135kW peak

-10° to 55° C ambient temperature

Isolated Gate BiPolar Transistors (IGBT)

Air and liquid cooled

Single- or two-pedal control

Reduced EMI emissions

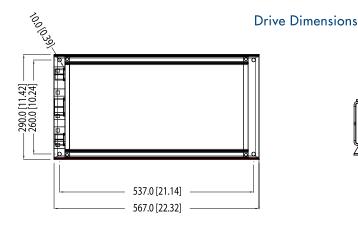
RFI shielding

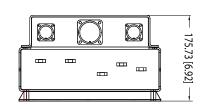
Adjustable over- and under-voltage suppression algorithm

Automatic tuning function for use with custom motors

Communication options available

24 VDC supply start and run signals







122 Gamma Drive, RIDC Park • Pittsburgh, PA 15238 Phone 888.428,2299 • 412,963,6499

ISO 9001:2008 Certified

WWW.MAGNETEKMINING.COM