

MC40-22HV DIGITAL 2-AXIS 440VAC 3-PH BRUSHLESS MOTOR CONTROLLER



This series of digital militarized high voltage, 2-Axis, Brushless Motor Controllers is designed to provide torque, velocity and position loop closure. The controller accepts command signals from any fire control system (FCS) in either digital or analog format, and interfaces with a control handle. The advanced space vector algorithms provide optimum performance for new or existing motors to provide outstanding power densities. There is also an IGBT (Insulated-Gate Bipolar Transistor) and resistor shunt regulator circuit to control regenerative energy if required. Additionally, there are a wide range of end user programmable software features, as listed below.

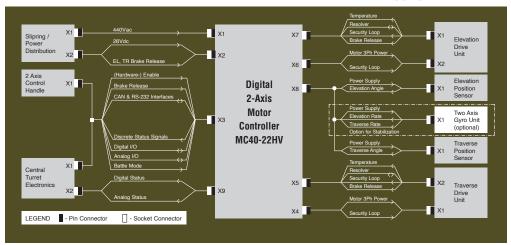






PROGRAMMABLE SOFTWARE FEATURES

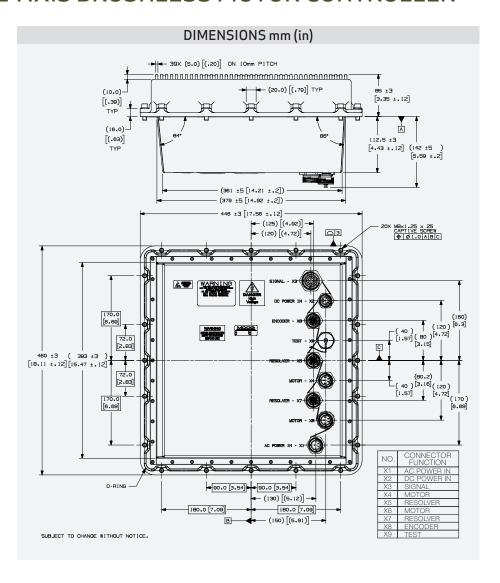
- Extensive built in test
- No-fire zones
- Obstacle avoidance zones
- End-damping limits
- HUMS (Health Usage Monitoring System)
- Acceleration limits
- Comprehensive loop tuning
- Tracking/Stabilization Modes
- Field weakening
- Joystick shaping function
- Analog and digital I/O
- $\bullet\,\mathsf{Status}\,\mathsf{and}\,\mathsf{fault}\,\mathsf{history}$
- Data logging





MC40-22HV SERIES 2-AXIS BRUSHLESS MOTOR CONTROLLER

SPECIFICATIONS	
Parameter	Performance
Power Supply (Control Electronics)	18Vdc-32Vdc (per VG96916)
Power Supply (Motors)	440VAC ±10%, 3 Phase, 50-60Hz (per STANAG 1008)
Temperature (Ambient)	-40°C to 65°C
Environmental Specification	Complies with Mil-Std-810
Command Communication Interface	CAN-Bus and RS-232
EMC Specification	Complies with Mil-Std-461
Weight	24kg (53lb)
Position Sensor Interface	SSI or EnDat Serial Interface
Motor Commutation Sensor	Resolver
Envelope	460 x 446 x 227mm (18.1 x 17.6 x 8.9in)
Self Protection	Over-Temperature and Over-Current
Output Current (for each axis)	20A Peak
Option: Stabilization Kit	2-Axis Gyro Interface





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