

**Description**

The S60A40AC PWM servo drive is designed to drive three phase brushless motors with sine wave current at a high switching frequency. The drive requires two sinusoidal command signals with a 120-degree phase shift (external commutation). The phase angle must correspond to the position of the motor rotor, while the signal amplitude controls the motor torque. The S60A40AC interfaces directly with digital controllers. The drive is fully protected against over-voltage, over-current, over-heating, and short-circuits, and requires only a three-phase AC power supply. A red/green LED and two digital outputs indicate operating status. All signal inputs and outputs are optically isolated from the power section to eliminate the need for a transformer coupled power supply.

**Power Range**

Peak Current	60 A (42.4 A <sub>RMS</sub> )
Continuous Current	30 A <sub>RMS</sub>
Supply Voltage	45 - 270 VAC



Actual product will differ from photo; shown for reference only

**Features**

- ▲ Four Quadrant Regenerative Operation
- ▲ Adjustable Current Limits
- ▲ Differential Input Command
- ▲ Selectable Inhibit/Enable Logic
- ▲ Digital Fault Output Monitor
- ▲ Sinusoidal Current Output
- ▲ Built in Shunt Regulator Circuit
- ▲ Adjustable Input Gain
- ▲ DIP Switch Selectable Tuning
- ▲ Drive Status LED
- ▲ Current Monitor Output
- ▲ No Crossover Distortion
- ▲ Built-in brake/shunt regulator
- ▲ Internal brake/shunt resistor

**MODES OF OPERATION**

- Current

**COMMAND SOURCE**

- 120° Sine

**COMPLIANCES & AGENCY APPROVALS**

- UL
- cUL
- CE Class A (LVD)
- CE Class A (EMC)
- RoHS





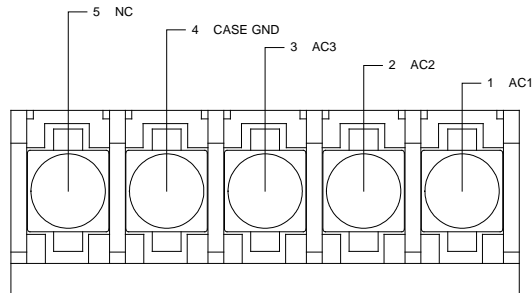




**MECHANICAL INFORMATION**

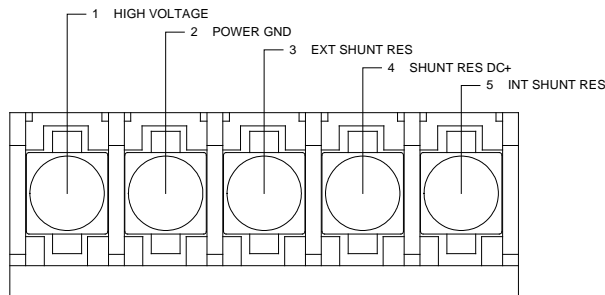
**C1 - Power Connector**

Connector Information		5-contact, 13 mm spaced, tri-barrier terminal block
Mating Connector	Details	Not applicable
	Included with Drive	Not applicable



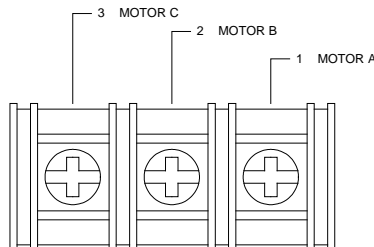
**C2 - Power Connector**

Connector Information		5-contact, 13 mm spaced, tri-barrier terminal block
Mating Connector	Details	Not applicable
	Included with Drive	Not applicable



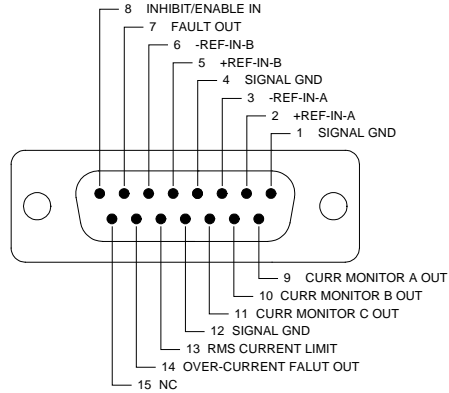
**P2 - Motor Power Connector**

Connector Information		3-contact, 11.10 mm spaced, dual-barrier terminal block
Mating Connector	Details	Not applicable
	Included with Drive	Not applicable

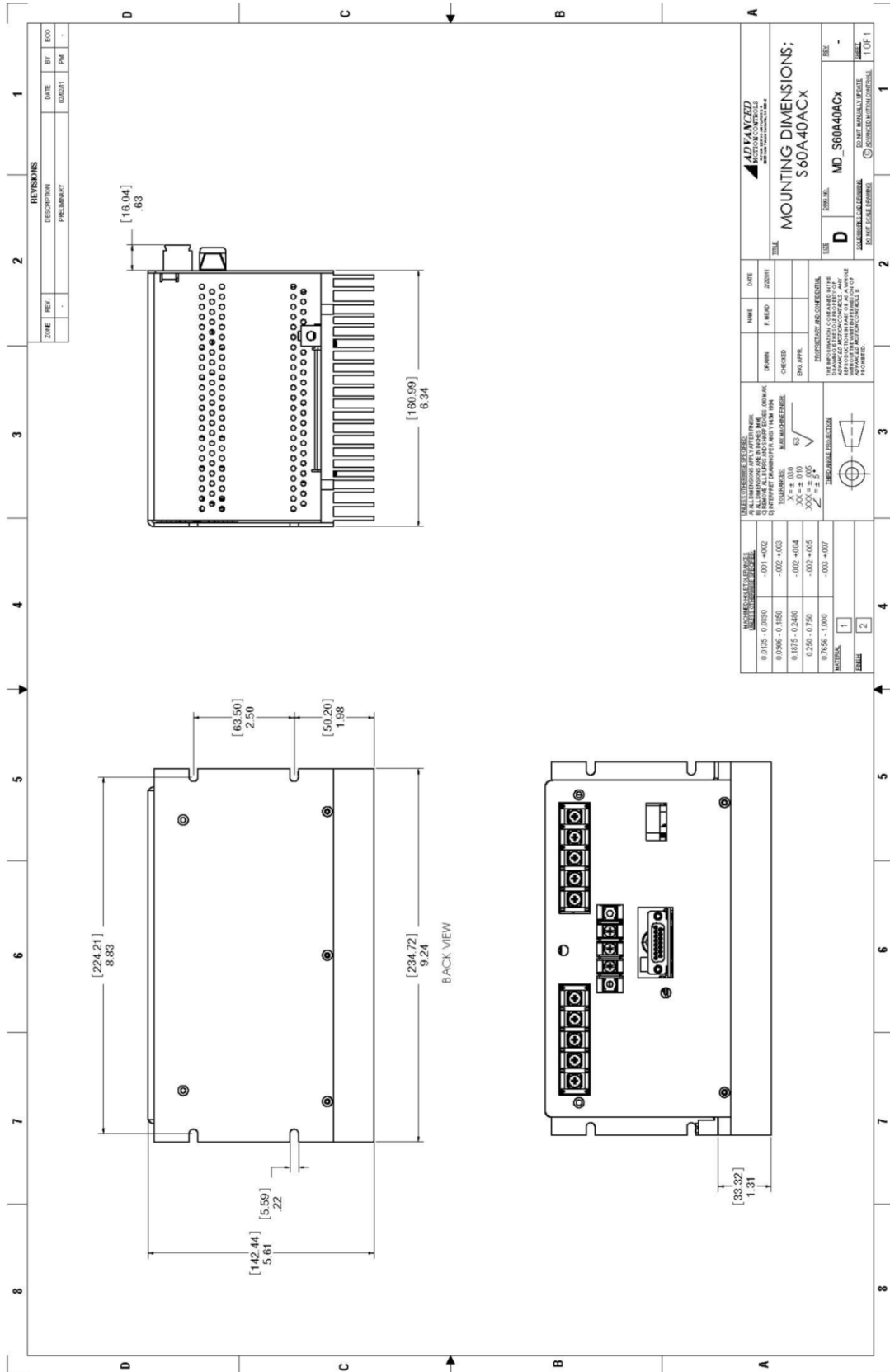


**P3 - Signal Connector**

Connector Information		15-pin, female D-sub
Mating Connector	Details	TYCO: Plug P/N 205206-3; Housing P/N 5745172-1; Terminals P/N 1658540-5 (loose) or 1658540-4 (strip)
	Included with Drive	No

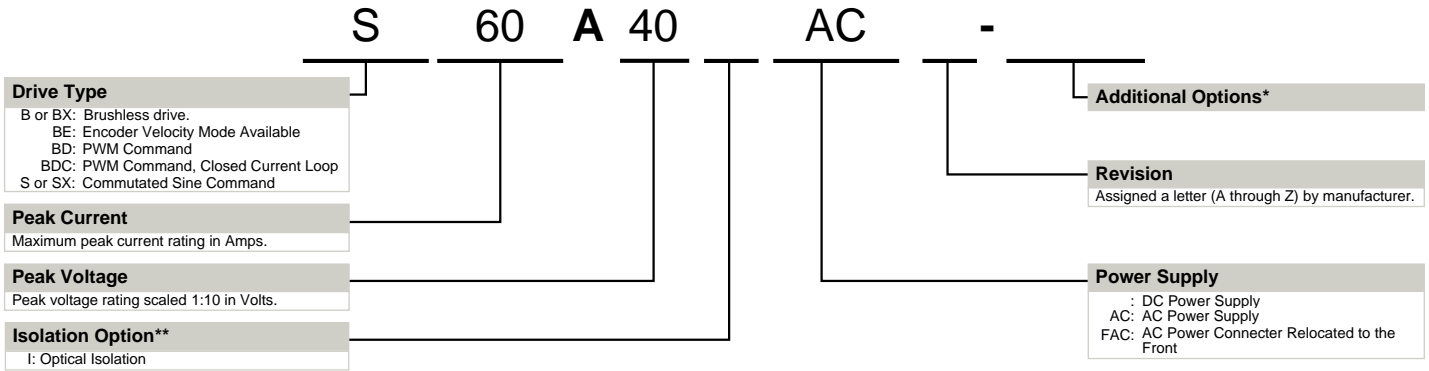


**MOUNTING DIMENSIONS**





**PART NUMBERING INFORMATION**



\* Options available for orders with sufficient volume. Contact *ADVANCED* Motion Controls for more information.  
 \*\* Isolation comes standard on all AC supply drives and most DC supply drives 200V and above. Consult selection tables of the website or drive datasheet block diagram to see if isolation is included.

*ADVANCED* Motion Controls analog series of servo drives are available in many configurations. Note that not all possible part number combinations are offered as standard drives. All models listed in the selection tables of the website are readily available, standard product offerings.

*ADVANCED* Motion Controls also has the capability to promptly develop and deliver specified products for OEMs with volume requests. Our Applications and Engineering Departments will work closely with your design team through all stages of development in order to provide the best servo drive solution for your system. Equipped with on-site manufacturing for quick-turn customs capabilities, *ADVANCED* Motion Controls utilizes our years of engineering and manufacturing expertise to decrease your costs and time-to-market while increasing system quality and reliability.

**Examples of Modifications and Customized Products**

- ▲ Integration of Drive into Motor Housing
- ▲ Mount OEM PCB onto Drive Without Cables
- ▲ Multi-axis Configuration for Compact System
- ▲ Custom PCB and Baseplate for Optimized Footprint
- ▲ RTV/Epoxy Components for High Vibration
- ▲ OEM Specified Connectors for Instant Compatibility
- ▲ OEM Specified Silkscreen for Custom Appearance
- ▲ Increased Thermal Limits for High Temp. Operation
- ▲ Integrate OEM Circuitry onto Drive PCB
- ▲ Custom Control Loop Tuned to Motor Characteristics
- ▲ Custom I/O Interface for System Compatibility
- ▲ Preset Switches and Pots to Reduce User Setup
- ▲ Optimized Switching Frequency
- ▲ Ramped Velocity Command for Smooth Acceleration
- ▲ Remove Unused Features to Reduce OEM Cost
- ▲ Application Specific Current and Voltage Limits

Feel free to contact Applications Engineering for further information and details.

**Available Accessories**

*ADVANCED* Motion Controls offers a variety of accessories designed to facilitate drive integration into a servo system. Visit [www.a-m-c.com](http://www.a-m-c.com) to see which accessories will assist with your application design and implementation.



All specifications in this document are subject to change without written notice. Actual product may differ from pictures provided in this document.