

Drive	Input Voltage (VAC)	Output Voltage Range (VDC)	Max. Armature Current	HP Rating @ 90 VDC Output	HP Rating @ 180 VDC Output	Enclosure	Reversing *****	Isolation	Field Supply (VDC) *****	UL Listed C LISTED UL LISTED	CSA CSA	CE TUV TUV
MM311U	115 / 230	0-90 / 0-180	1.5	1/20 - 1/8	1/10 - 1/4	CHASSIS	-	0-10 VDC 4-20 mA	YES	YES	YES	Pending
MM301U	115 / 230	0-90 / 0-180	10	1/4 - 1	1/2 - 2	CHASSIS	-	0-10 VDC 4-20 mA	YES	YES	YES	Pending
MM301A	115 / 230	0-90 / 0-180	10	1/4 - 1	1/2 - 2	NEMA 4X	-	0-10 VDC 4-20 mA	YES	YES	YES	Pending
MM501U	115 / 230	0-90 / 0-180	25	1 - 2 1/2	2 - 5	CHASSIS	-	0-10 VDC 4-20 mA	YES	YES	-	Pending

**** The MM300 field supply is rated at 1 amp while the MM500 field supply is rated at 3 amps. A 50/100 VDC field is available with 115 VAC input and a 100/200 VDC field is available with 230 VAC input.

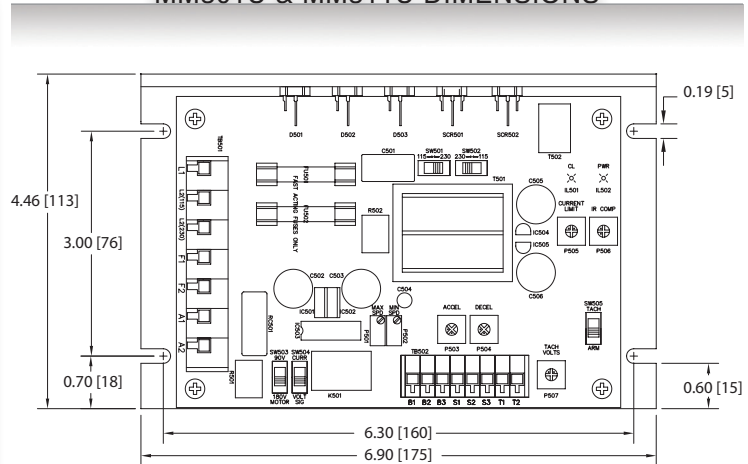
***** See regenerative drives in Section C for SCR drives that can reverse on-the-fly.

The MM300 and MM500 Series of dual-voltage single quadrant SCR drives can control 90 or 180 VDC SCR brush-type motors ranging from 1/20 HP through 5 HP. The MM311U, MM301U, and the MM501U drives have integrated isolation allowing them to precisely follow analog current or voltage signals from external devices or a potentiometer as a reference for motor speed control. This results in significant labor and material cost reduction compared to other systems employing a separate drive and isolation card.

Use the MM300 or MM500 Series for a full featured, high end, great performing single quadrant DC drive.

See page 50 for an in-depth comparison of the different 1Q SCR drives.

MM301U & MM311U DIMENSIONS



Height: 1.90 [48]
All dimensions in inches [millimeters]

Dimensions of drives not shown above can be found on pages 55 and 56.
Wiring diagrams can be found on page 63.

FEATURES

- **Isolated inputs:** Accepts floating or grounded signals of 0-10VDC or 4-20mA for controlling the speed of the motor. Burr-Brown isolation provides .01% linearity.
- **Speed range, regulation, & form factor:** 1% of base speed regulation with a 60:1 speed range. 0.1% of base speed regulation with a 80:1 speed range with the addition of tachogenerator feedback. 1.37 form factor at maximum rated voltage.
- **User adjustable calibration pots:** Minimum Speed (12 turn), Maximum Speed (12 turn), Current Limit, IR Compensation, Acceleration, Deceleration and Tachogenerator Feedback.
- **Diagnostic LEDs:** LEDs for power, current limit status, and run (MM501U only).
- **Stopping modes:** Start/stop circuitry for three wire remote pushbuttons or two wire maintained switches.
- **Cage clamp terminal block:** Quick and easy wire terminations reduce installation time!
- **Additional features:** Tachogenerator feedback mode and on board fusing.
- **RoHS:** Models MM311U, MM301U and MM301A are RoHS compliant.



MM301A



MM301U
MM311U



MM501U