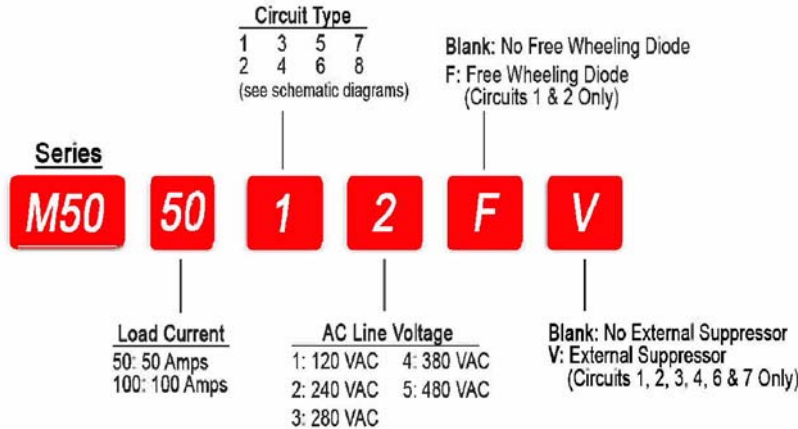


## M50 Series



- Over 40KW output Capability
- 8 Different Circuits to Choose from
- 50 and 100A outputs

### AVAILABLE OPTIONS



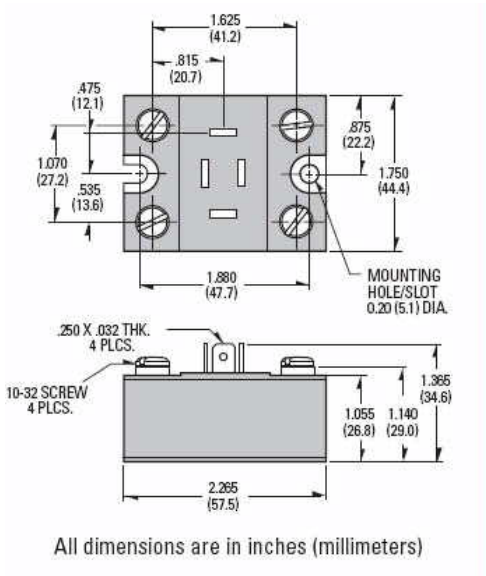
### ELECTRICAL SPECIFICATIONS

Description	Symbol	M5050	M50100
Maximum DC Output Current (Tc = 85°C)	I <sub>D</sub>	50 A	100 A
Maximum Voltage Drop @ Amps Peak	V <sub>F</sub>	1.7V @ 50A	1.4V @ 100A
Operating Junction Temperature Range	T <sub>J</sub>	-40 - 125°C	-40 - 125°C
Critical Rate of Rise of On-State Current @ T <sub>J</sub> =125°C	di/dt	100A/μs	100A/μs
Critical Rate of Rise of Off-State Voltage [V/μs]	dv/dt	500V/μs	500V/μs
Repetitive Peak Reverse Voltage (AC Line Nominal) [Vpk]	V <sub>RRM</sub>	400 (120 VAC) 600 (240 VAC) 800 (280 VAC) 1200 (480 VAC)	
Maximum Non-Repetitive Surge Current (1/2 Cycle, 60 Hz) [A]	I <sub>TSM</sub>	600	1500
Maximum I <sup>2</sup> T for Fusing (t=8.3ms) [A <sup>2</sup> sec]	I <sup>2</sup> T	1500	9350
Maximum Required Gate Current to Trigger @ 25°C [mA]	I <sub>GT</sub>	150	150
Maximum Required Gate Voltage to Trigger @ 25°C [V]	V <sub>GT</sub>	3.0	3.0
Average Gate Power [W]	P <sub>G(AV)</sub>	0.5	0.5
Maximum Peak Reverse Gate Voltage [V]	V <sub>GM</sub>	5.0	5.0
Maximum Thermal Resistance, Junction to Ceramic Base per Chip [°C/W]	R <sub>JC</sub>	0.7°C/W	0.36°C/W
Isolation Voltage [Vrms]	V <sub>ISOL</sub>	2500	2500

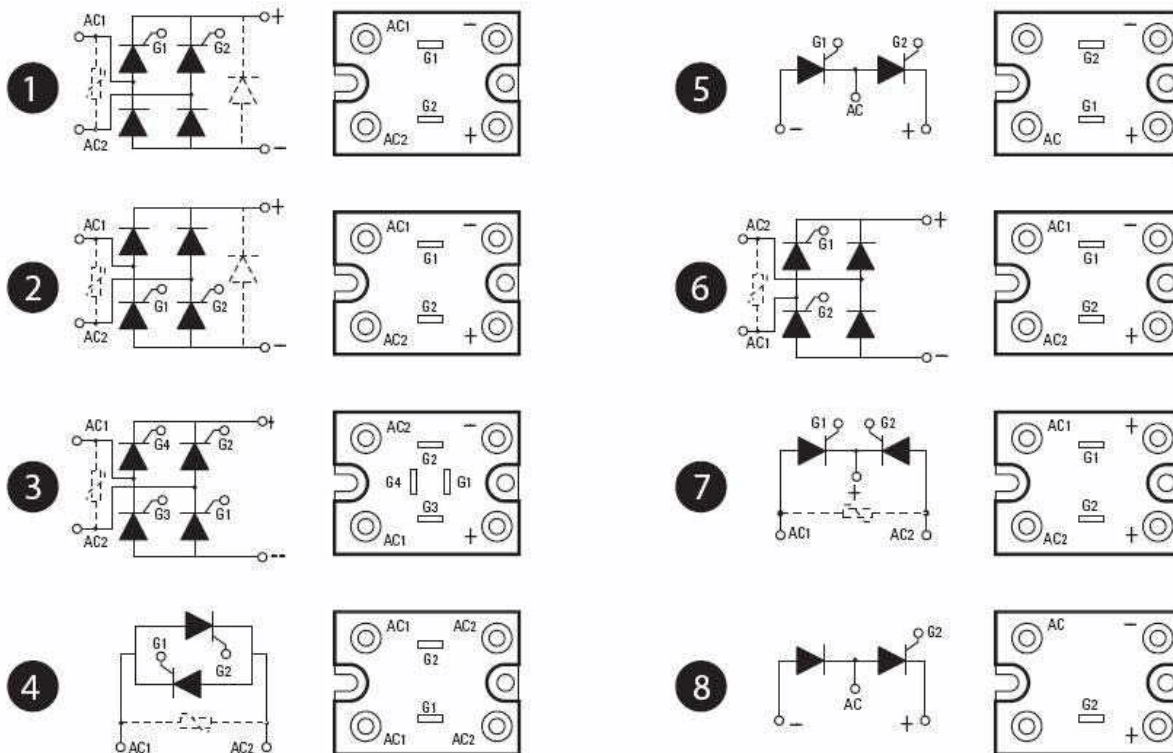
### GENERAL SPECIFICATIONS

Description		
Weight (typical)	3.75 oz (106g)	3.75 oz (106g)

**MECHANICAL SPECIFICATIONS**



**CIRCUIT DIAGRAMS**



**AGENCY APPROVALS**



Rev. 01 2209