M50 SERIES
POWER MODULES



Features

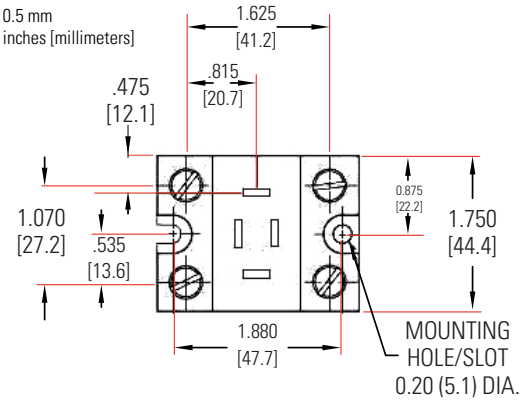
- Over 40 kW output capability
- 4 Different Circuits to Choose from
- 50 and 100 A outputs
- UL Recognized E72445

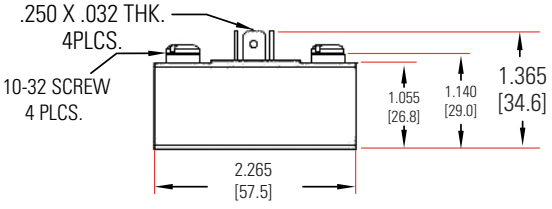
SPECIFICATIONS

Part Number	Symbol	M5050	M50100
Maximum DC Output Current (Tc= 85°C)	I_D	50 A	100 A
Maximum Voltage Drop @ Amps Peak	V_F	1.35V @ 50A	1.2V @ 100 A
Operating Junction Temperature Range	T_J	-40 - 125°C	-40 - 125°C
Repetitive Peak Reverse Voltage (AC Line Nominal) [Vpk]	V_{RMS}	600 (240 VAC)	
		800 (280 VAC)	
		1200 (480 VAC)	
Maximum Non-Repetitive Surge Current (1/2 Cycle, 60 Hz) [A]	I_{TSM}	800	1500
Maximum I^2t for Fusing (t=8.3ms)[A^2 sec]	I^2t	2650	9350
Maximum Thermal Resistance, Junction to Ceramic Base per Chip [°C/W]	R_{JC}	0.45°C/W	0.3°C/W
Isolation Voltage [Vrms]	V_{ISOL}	2500	
Weight (typical)	4.5 oz (158g)		

MECHANICAL SPECIFICATIONS

Tolerances: ±0.02 in / 0.5 mm
All dimensions are in: inches [millimeters]

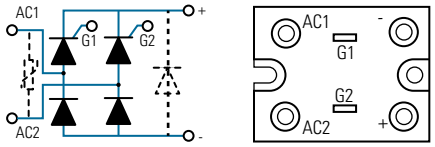




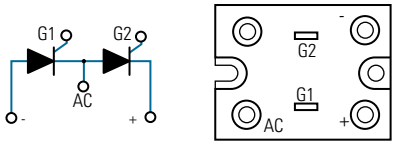
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CIRCUIT DIAGRAMS

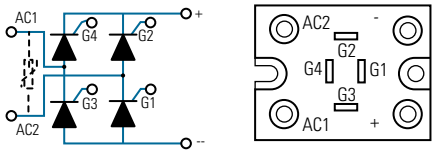
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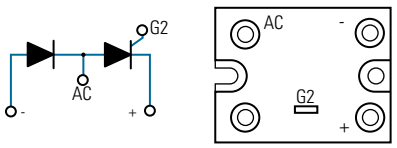
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8



ORDERING OPTIONS

Example : M505012FV

M50	50	1	2	F	V

Series

M50

Load Current

50: 50 Amps
100: 100 Amps

Circuit Type

1 3 5 8
(See schematic diagrams)

AC Line Voltage

2: 240 VAC
3: 280 VAC
5: 480 VAC

Free Wheeling Diode

Blank: Not Included
F: Included (Circuit 1 only)

External Suppressor

Blank: Not included
V: Include (Circuits 1 & 3 only)

— Required for valid part number
☐ For options only and not required for valid part number

NOTE: Not all combinations are available.
Consult factory for information on the availability of a specific part number.

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AGENCY APPROVALS & CERTIFICATIONS

c UL us E72445 RoHS

WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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