

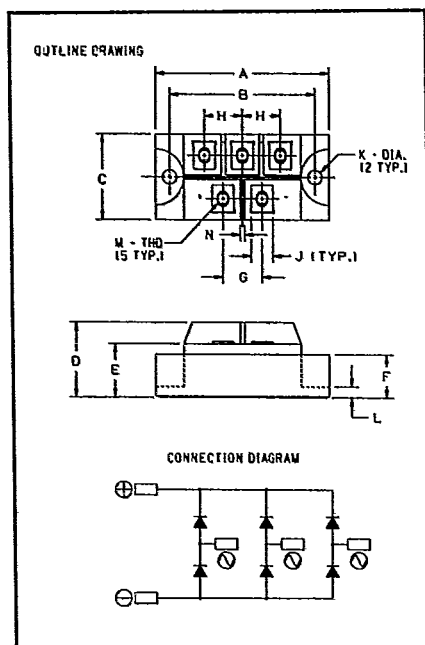


ME500406
ME500806

Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272

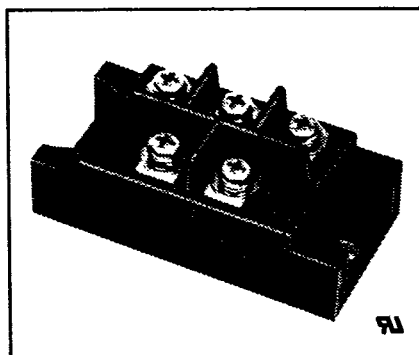
Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 72.75.15

Three-Phase
Diode Bridge Modules
60 Amperes/400-800 Volts



400-800 Volts ME500406, ME500806
Outline Drawing

Dimension	Inches	Millimeters
A	3.150	80
B	2.638 ± .012	67 ± 0.3
C	1.575	40
D	1.378	35
E	.984	25
F	.787	20
G	.709	18
H	.689	17.5
J	.394	10
K	.256 ± .008 Dia.	Dia. 6.5 ± 0.2
L	.197	5
M	M5 Metric	M5
N	.118	3



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Description

Powerex Three-Phase Diode Bridge Modules are designed for use in three phase bridge applications. The modules are isolated consisting of six rectifier diodes. The ME500806 has been tested and recognized by Underwriters Laboratories (QQX2 Power Switching Semiconductors).

Features:

- ☐ Isolated Mounting
- ☐ Planar Chips
- ☐ UL Recognized

Applications:

- ☐ Inverters
- ☐ DC Power Supplies
- ☐ AC Motor Control Front End

Ordering Information

Example: Select the complete eight digit module part number you desire from the table — i.e. ME500406 is a 400 Volt, 60 Ampere Three-Phase Diode Bridge Module.

Type	V _{RRM} Volts (x100)	Current Rating Amperes (x10)
ME50	04 08	06



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Absolute Maximum Ratings

Characteristics	Symbol	ME500406	ME500806	Units
Peak Reverse Blocking Voltage	V_{RRM}	400	800	Volts
Transient Peak Reverse Blocking Voltage (Non-Repetitive) $t < 5$ ms	V_{RSM}	480	900	Volts
DC Reverse Blocking Voltage	$V_{R(DC)}$	320	640	Volts
DC Output Current, $T_c = 90^\circ\text{C}$	I_o	60	60	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	I_{FSM}	1000	1000	Amperes
Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)	I_{FSM}	910	910	Amperes
I^2t (for Fusing), 8.3 milliseconds	I^2t	4200	4200	A^2sec
Storage Temperature	T_{STG}	-40 to 125	-40 to 125	$^\circ\text{C}$
Operating Temperature	T_J	-40 to 125	-40 to 125	$^\circ\text{C}$
Maximum Mounting Torque M6 Mounting Screw	—	26	26	in.-lb.
Maximum Terminal Torque M5 Terminal Screw	—	17	17	in.-lb.
Module Weight (Typical)	—	220	220	Grams
V Isolation	V_{RMS}	2000	2000	Volts



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Electrical and Thermal Characteristics, $T_J = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Test Conditions	ME500406	ME500806	Units
Blocking State Maximums					
Reverse Leakage Current, Peak	I_{RRM}	$T_J = 125^\circ\text{C}$, $V_{RRM} = \text{rated}$	1.5		mA
Conducting State Maximums					
Peak On-State Voltage	V_{FM}	$I_{FM} = 60\text{A}$	1.3		Volts
Thermal Maximums					
Thermal Resistance, Junction to Case	$R_{\theta JC}$	Per Module	0.24		$^\circ\text{C/Watt}$
Thermal Resistance, Case to Sink Lubricated	$R_{\theta CS}$	Per Module	0.06		$^\circ\text{C/Watt}$



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