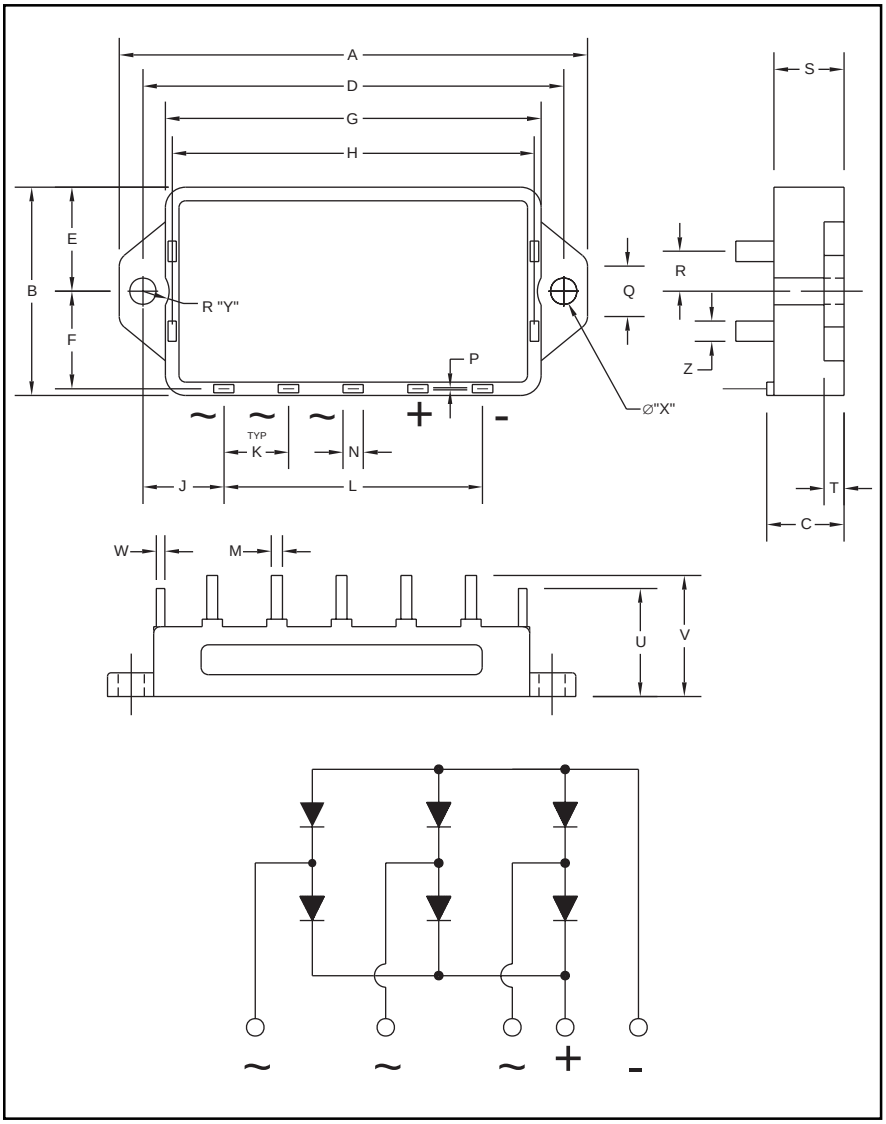
Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

Three-Phase Diode Bridge Module

15 Amperes/1600 Volts



Outline Drawing and Circuit Diagram

Dimensions	Inches	Millimeters
A	2.83	71.8
B	1.18	30.0
C	0.35	9.0
D	2.55	64.8
E	0.59	15.0
F	0.54	13.7
G	2.32	58.8
H	2.21	56.2
J	0.48	12.08
K	0.40	10.16
L	1.60	40.64
M	0.05	1.20

Dimensions	Inches	Millimeters
N	0.16	4.0
P	0.02	0.6
Q	0.55	14.0
R	0.20	5.0
S	0.35	9.0
T	0.14	3.5
U	0.45	11.5
V	0.71	18.0
W	0.06	1.5
X	0.16	4.0
Y	0.16	4.0
Z	0.08	2.0

Description:
Powerex Three-Phase Diode Bridge Modules are designed for use in applications requiring rectification of three-phase AC lines into DC voltage. Each module consists of six diodes and the interconnect required to form a complete three-phase bridge circuit. Each diode is electrically insulated from the mounting base plate for easy mounting on a common heatsink with other components.

Features:

- ☐ Isolated Mounting
- ☐ Metal Base Plate
- ☐ Low Thermal Impedance

Applications:

- ☐ Motor Control
- ☐ Inverters
- ☐ UPS

Ordering Information:

RM25TN-2H

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RM25TN-2H
Three-Phase Diode Bridge Module
15 Amperes/1600 Volts

Absolute Maximum Ratings, T_j = 25 °C unless otherwise specified

Characteristics	Symbol	RM25TN-2H	Units
Repetitive Peak Reverse Voltage	V_{RRM}	1600	Volts
Non-Repetitive Peak Reverse Voltage	V_{RSM}	1700	Volts
Recommended AC Input Voltage	E_A	440	Volts
DC Output Current (T_b = 100°C)	I_O	15	Amperes
Surge (Non-Repetitive) Forward Current (One Half Cycle at 60Hz, Peak Value)	I_{FSM}	400	Amperes
I^2t for Fusing (Value for One Cycle of Surge Current)	I^2t	667	A^2sec
Junction Temperature	T_j	-40 ~ +125	°C
Storage Temperature	T_{stg}	-40 ~ +125	°C
Operating Frequency	f	1000	Hz
Maximum Mounting Torque M3.5 Mounting Screw	–	11	in-lb
Maximum Mounting Torque M3.5 Terminal Screw	–	11	in-lb
Dielectric Strength (AC 60Hz, 1 minute between terminal and base plate)	V_{iso}	2500	Volts

Electrical and Thermal Characteristics, T_j = 25 °C unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Repetitive Reverse Current	I_{RRM}	T_j = 125°C, V_{RRM} = Rated	–	–	8.0	mA
Forward Voltage Drop	V_{FM}	T_j = 25°C, I_{FM} = 25A, Instantaneous Meaurement	–	–	1.7	Volts
Thermal Resistance	$R_{th(j-b)}$	Junction to Base Plate	–	-	2.0	°C/ W
Thermal Resistance	$R_{th(b-f)}$	Base to Fin, Thermal Grease Applied	–	–	0.3	°C/W
Isolation Resistance		At 500V DC Between Terminal and Base Plate	10	–	–	MΩ