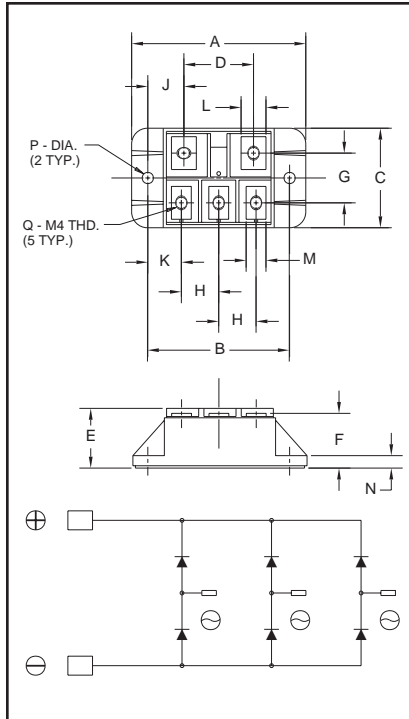


**Three-Phase**  
**Diode Bridge Modules**  
**40 Amperes/1200-1600 Volts**



**Outline Drawing**

Dimension	Inches	Millimeters
A	2.76	70
B	2.244±0.010	57±0.25
C	1.57	40
D	1.10	28
E	0.94	24
F	0.87	22
G	0.79	20
H	0.59	15
J	0.57	14.5
K	0.53	13.5
L	0.39	10
M	0.31	8
N	0.20	5
P	0.18 Dia.	Dia. 4.5
Q	Metric M4	M4



**RM20TPM-24, RM20TPM-2H**  
**Three-Phase Diode Bridge Modules**  
 40 Amperes/1200-1600 Volts

**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 baseplate for easy mounting on a common heatsink with other components.

**Features:**

- Isolated Mounting
- Metal Baseplate
- Low Thermal Impedance

**Applications:**

- Motor Control
- Inverters
- UPS

**Ordering Information:**

Select the complete eight digit module part number you desire from the table below.

Example: RM20TPM-2H is a 1600 Volt, 40 Ampere Three-Phase Diode Bridge Module.

Type	Current Rating Amperes (x2)	Voltage Volts
RM	20	24 (1200)
RM	20	2H (1600)

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

**RM20TPM-24, RM20TPM-2H**  
**Three-Phase Diode Bridge Modules**  
 40 Amperes/1200-1600 Volts

**Absolute Maximum Ratings**

Characteristics	Symbol	RM20TPM-24	RM20TPM-2H	Units
Peak Reverse Blocking Voltage	$V_{RRM}$	1200	1600	Volts
Peak Reverse Blocking Voltage (Non-Repetitive)	$V_{RSM}$	1350	1700	Volts
Recommended AC Input Voltage	$E_A$	370	440	Volts
DC Output Current	$I_{F(DC)}$	40	40	Amperes
Peak Half-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	$I_{FSM}$	400	400	Amperes
$I^2t$ (for Fusing), 8.3 milliseconds	$I^2t$	670	670	A <sup>2</sup> sec
Junction Temperature	$T_j$	-40 to 125	-40 to 125	°C
Storage Temperature	$T_{STG}$	-40 to 150	-40 to 125	°C
Maximum Mounting Torque M4 Mounting Screw	—	15	15	kg.-cm.
Maximum Mounting Torque M4 Terminal Screw	—	15	15	kg.-cm.
Module Weight (Typical)	—	100	100	Grams
V Isolation	$V_{RMS}$	2500	2500	Volts

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

Characteristics	Symbol	Test Conditions	RM20TPM-24/RM20TPM-H	Units
<b>Blocking State Maximums</b>				
Reverse Leakage Current, Peak	$I_{RRM}$	$T_j = 150^\circ\text{C}$ , $V_{RRM} = \text{Rated}$	10	mA
<b>Conducting State Maximums</b>				
Peak On-State Voltage	$V_{FM}$	$T_j = 25^\circ\text{C}$ , $I_{FM} = 40\text{A}$	1.3	Volts
<b>Thermal Maximums</b>				
Thermal Resistance, Junction-to-Case	$R_{\theta(J-C)}$	Per Module	0.35	°C/Watt
Thermal Resistance, Case-to-Sink (Lubricated)	$R_{\theta(C-S)}$	Per Module	0.09	°C/Watt