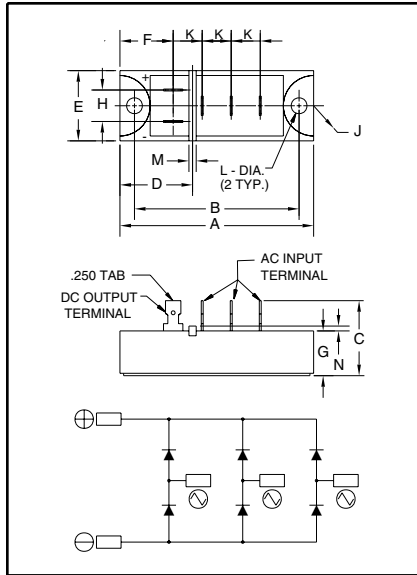
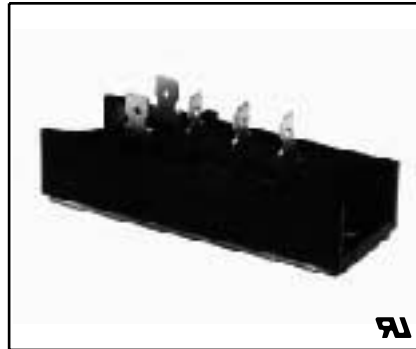


### Three-Phase Diode Bridge Modules 30 Amperes/800 Volts



Outline Drawing

| Dimension | Inches           | Millimeters  |
|-----------|------------------|--------------|
| A         | 3.150            | 80           |
| B         | 2.677±0.012      | 68±0.3       |
| C         | 1.220            | 31           |
| D         | 1.181            | 30           |
| E         | 1.142            | 29           |
| F         | 0.866            | 22           |
| G         | 0.728            | 18.5         |
| H         | 0.512            | 13           |
| J         | 0.492 R          | R12.5        |
| K         | 0.472            | 12           |
| L         | 0.256±0.008 Dia. | Dia. 6.5±0.2 |
| M         | 0.118            | 3            |
| N         | 0.079            | 2            |



**ME700803**  
**Three-Phase Diode Bridge Modules**  
30 Amperes/800 Volts

#### 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. These ME70 Modules have 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:

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

Example: ME700803 is an 800 Volt, 30 Ampere Three-Phase Diode Bridge Module.

| Type | Voltage<br>Volts (x100) | Current Rating<br>Amperes (x10) |
|------|-------------------------|---------------------------------|
| ME70 | 08                      | 03                              |

## ME700803

### Three-Phase Diode Bridge Modules

30 Amperes/800 Volts

#### Absolute Maximum Ratings

| Characteristics                                                            | Symbol      | ME700803   | Units                  |
|----------------------------------------------------------------------------|-------------|------------|------------------------|
| Peak Reverse Blocking Voltage                                              | $V_{RRM}$   | 800        | Volts                  |
| Transient Peak Reverse Blocking Voltage (Non-Repetitive), $t < 5\text{ms}$ | $V_{RSM}$   | 900        | Volts                  |
| DC Reverse Blocking Voltage                                                | $V_{R(DC)}$ | 640        | Volts                  |
| DC Output Current, $T_C = 103^\circ\text{C}$                               | $I_O$       | 30         | Amperes                |
| Peak One-Cycle Surge (Non-Repetitive) On-State Current (60Hz)              | $I_{FSM}$   | 400        | Amperes                |
| Peak One-Cycle Surge (Non-Repetitive) On-State Current (50Hz)              | $I_{FSM}$   | 365        | Amperes                |
| $I^2t$ (for Fusing), 8.3 milliseconds                                      | $I^2t$      | 667        | $\text{A}^2\text{sec}$ |
| Storage Temperature                                                        | $T_{STG}$   | -40 to 125 | $^\circ\text{C}$       |
| Operating Temperature                                                      | $T_j$       | -40 to 150 | $^\circ\text{C}$       |
| Maximum Mounting Torque M6 Mounting Screw                                  | —           | 26         | in.-lb.                |
| Module Weight (Typical)                                                    | —           | 120        | Grams                  |
| V Isolation                                                                | $V_{RMS}$   | 2000       | Volts                  |

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

| Characteristics                               | Symbol            | Test Conditions                                      | ME700803 | Units                        |
|-----------------------------------------------|-------------------|------------------------------------------------------|----------|------------------------------|
| <b>Blocking State Maximums</b>                |                   |                                                      |          |                              |
| Reverse Leakage Current, Peak                 | $I_{RRM}$         | $T_j = 150^\circ\text{C}$ , $V_{RRM} = \text{Rated}$ | 1.5      | mA                           |
| <b>Conducting State Maximums</b>              |                   |                                                      |          |                              |
| Peak On-State Voltage                         | $V_{FM}$          | $I_{FM} = 30\text{A}$                                | 1.1      | Volts                        |
| <b>Thermal Maximums</b>                       |                   |                                                      |          |                              |
| Thermal Resistance, Junction-to-Case          | $R_{\theta(J-C)}$ | Per Module                                           | 0.7      | $^\circ\text{C}/\text{Watt}$ |
| Thermal Resistance, Case-to-Sink (Lubricated) | $R_{\theta(C-S)}$ | Per Module                                           | 0.1      | $^\circ\text{C}/\text{Watt}$ |

