

PMM

Power Management Module

- Smart load protection device protects electrical circuits from damage caused by an overload condition or short circuit
- Detects fault conditions and interrupts current flow
- Can be manually, automatically or remotely reset to resume normal operation
- Solid-state high-side switch is protected in case of extreme overload, output shorts to ground, and thermal conditions
- Protected from reverse connection currents
- Configurable to trip at several breaker currents from 1 to 30 amps
- No moving parts; can be used as a solid-state relay (SSR) or as a battery saver
- CSA certified for Class I, Div 2, Groups C & D, Temp Code T3C hazardous locations

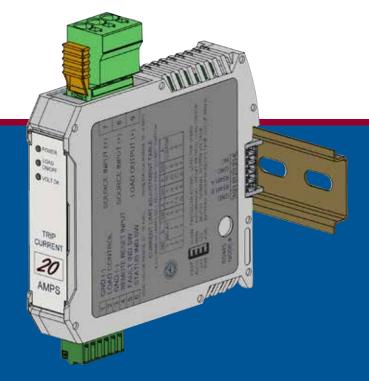
The Power Management Module (PMM) is a smart load protection device designed to protect an electrical circuit from damage caused by an overload condition or short circuit. Basically, it detects a fault condition and interrupts current flow. Unlike a one-time fuse, the PMM can be manually, automatically or remotely reset. It uses a solid-state high-side switch that is protected from extreme overload, output shorts to ground, thermal conditions, and reverse connection currents. The PMM can be configured to trip at several breaker currents from 1 to 30 amps, and for "fast" or "slow-acting" trip response times.

The PMM can also be used as a solid-state relay (SSR). It contains a solid-state high-side power switch that can be controlled by grounding or ungrounding a load control signal input. The high-side switch can switch currents up to 30 amps at voltages between 10 and 32 volts DC. Unlike a mechanical relay, the PMM has no moving parts to wear out and is not required to be hermetically sealed to be used in Div. 2 locations. When used as an SSR it can be configured to trip with no delay time or as a time delay relay. The PMM is limited to SPST switching.

The PMM can act as a battery saver to prevent the discharge of cranking batteries by automatically disconnecting the load at a preconfigured value. Its circuitry measures the source input voltage to the module. Load disconnect can occur upon recognition of a low voltage condition caused by the loss of the charging current, either from an alternator or a line powered charger. When it senses the loss of the charging current it disconnects the load, preventing further battery drain. The PMM can be configured for an immediate notification of the loss of charging current, with or without a time delay, for load disconnect. The user can be notified either by a remote output switch or Modbus communication. The PMM can be configured to auto-reclose when the voltage returns to an acceptable value or reclose through a manual or remote reset. This will allow for servicing of the condition without the load being immediately disconnected. The PMM can be configured to react to under- or over-voltage conditions as well.

The PMM contains diagnostic LED's, remote indication output switches, local and remote test and reset functions, as well as Modbus RTU serial communications for supervisory computer monitoring and control.







General Specifications

Operating Voltage			
Load Current			
Operating Current			
Current Drain In Battery Saver Mode			
Current Measurement and Trip Accuracy $\pm (5\% + 0.1 \text{ amp})$			
Voltage Measurement and Trip Accuracy:			
Ambient Temperature Range40°C to 85° C (-40°F to 185° F)			
Mounting35mm DIN rails			
Enclosure			
Terminal Blocks Pluggable, with push-in spring-cage connections			
Source/Load Terminal Block 41 amps, 18 to 8 AWG wire sizes, locking			
Control Terminal Block20 to 16 AWG wire sizes			
Modbus ConnectionsDIN rail bus connector			
RS485 Serial Communications Modbus RTU, default (38400 8N1)			
Load Control Activated by pulling terminal low (configurable)			
Remote Reset Input Activated by momentarily pulling input low			
Fault Indication Output SwitchOpen drain Mosfet closes to GND (-) rated 32Vdc, 200mA			
Status Indication Output SwitchOpen drain Mosfet closes to GND (-) rated 32Vdc, 200mA $$			

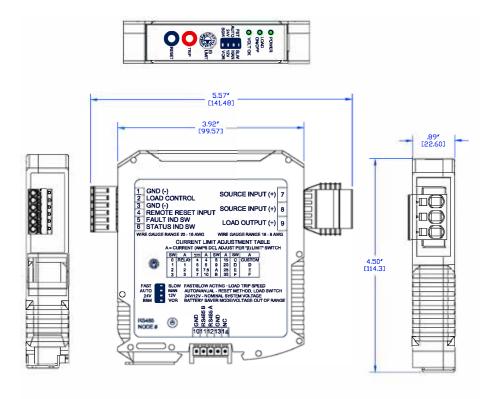
To Order

PMM Power Management Module	.691745-1
RS485 Bus Connector, 5-position	.604425
RS485 Bus to PC/PLC Connector, 5-position	.604427

Hazardous Area Classification

Class I, Div. 2, Groups C & D for Direct Hookup, Temp Code T3C, Maximum Ambient Temperature 85°C

Dimensions





NOTE: MOUNT TO A 35MM DIN RAIL IN A SUITABLE ENCLOSURE. STRIVE TO MOUNT WITH TERMINALS 7, 8, AND 9 UP TO ALLOW FOR BEST HEAT DISSIPATION OUT OF THE MODULE WITHOUT TRAVELING THROUGH IT.