

# MIL-STD-1275 Power Line Protectors (PLP) series

## Power supply protection for any equipment directly connected to vehicle power system

### General Description

MIL-STD-1275 Power Line Protection are unique, small dimension units that provide adequate protection against all over voltage transients (Surges and Spikes) phenomena of power lines, in ground mobile vehicles.

It is designed for both floating and grounded to chassis input voltage.

The small dimension enables PCB mounting for ease of usage. The product is also available in wire-lead termination for other installation options.

The product contains reversed polarity protection and clamping of high voltage input.

The protection is against high (up to 100V@50ms) surges and spikes ( $\pm 250V@15mJ$ ).

This power line protection is the solution for equipment that does not powered by PDSU product



### Typical Specifications

- Input Working Voltage: 12V to 33V
- Input Transient Voltage: +100V@50msec@0.5Ω source impedance  
±250Vpk@50usec@15mj
- Output Working Voltage:  $V_O = V_{IN} - D_{dropout}$  (11Vmin to 33Vmax)
- Output Transient Working Voltage: 33V to 37V@50msec
- Working Current: 20A max.
- Input to Output Voltage Dropout: 1V@20A, 100mV@0.5A, 0.6V@12A,
- Power Dissipation: 20W max@20A, 10W@10A
- Transient Power Dissipation: 2000W@50msec
- Shut Down: "0" Enabled
- Insulation (Only for floated configuration):
  - ✓ Input to Chassis: 1500Vdc@1sec
  - ✓ Output to Chassis: 1500Vdc@1sec
- Quiescent Current: 20mA@  $V_{IN}=24V$
- Reverse Voltage Protection: 0 to (-36V)
- Response Time:  $t_{on}=20msec@V_{in}=0V$  to  $V_{IN}=24V$
- Dimensions: half brick case (57.9mmX61.0mmX21.4mm)
- Weight: 125gr.

### Environmental Conditions:

- Operating Temperatures: - 40°C to 71°C
- Storage temperatures: - 40°C to 71°C
- Vibration: Method 514.5, Proc I, Cat 20 Ground Vehicle.
- Shock: 40g X 15ms Saw Tooth

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