

## PULS ML60.242

Part Number: 32112-5



### KEY FEATURES AND BENEFITS

- Wide operating temperature range for extreme and outdoor applications
- Compact DIN rail design
- 100-240V input range
- Adjustable output voltage
- Up to 90.4% efficiency
- NEC Class 2/LPS Compliant
- No load power consumption < 0.75W

### PRODUCT DESCRIPTION

The PULS ML60.242 is a compact, industrial-class DIN rail power supply designed for harsh environments where inrush current limitation and wide temperature capabilities are required. The ML60.242 features high immunity against electrical disturbances and operates in an extended

temperature range to reliably function in even the most demanding environments. Standard features include low no-load losses, excellent partial load efficiency, and an operating temperature range compliant with the NEMA TS2 traffic standard.

## SPECIFICATIONS

### HARDWARE

**Enclosure**  
UL Compliant Fully  
Isolated Plastic Housing

**Enclosure Degree of Protection**  
IP20

**Installation Method**  
DIN RAIL (35MM)

**DIN Rail Mounting**  
TS35/7.5 or TS35/15

**LED Indicators**  
Output Voltage Status

**Dimensions (D x W X H)**  
3.58" x 1.77" x 2.95"

**Product Weight**  
0.55 lb

### INPUT SPECIFICATIONS

**Connector Type**  
Screw Terminals

**Wire Gauge**  
10-20AWG

**Recommended Tightening Torque**  
9lb.in

**AC Voltage Range**  
85 ~ 264VAC

**Frequency Range**  
47 ~ 63Hz

**AC Input Current**  
0.66A / 230VAC  
1.05A / 120VAC

**DC Voltage Range**  
88 ~ 375VDC

**DC Input Current**  
0.22A / 300VDC  
0.62A / 110VDC

**Efficiency**  
90.4%

**Cold Start Inrush Current (Max.)**  
8A

**No Load Power Consumption**  
< 0.85W

**Leakage Current**  
< 0.85mA

### OUTPUT SPECIFICATIONS

**Connector Type**  
Screw Terminals

**Wire Gauge**  
10-20AWG

**Recommended Tightening Torque**  
9lb.in

**DC Voltage**  
24VDC

**Voltage Adjustable Range**  
24 ~ 28VDC

**Rated Current (Max.)**  
2.5A

**Current Range**  
0 ~ 2.5A

**Rated Power**  
60W

**Output Load Derating**  
1.5W/°C from  
60 to 70° C

**Ripple and Noise (Max.)**  
50mVp-p,  
20Hz ~ 20MHz

**Line Regulation (Max.)**  
10mV

**Load Regulation (Max.)**  
100mV

**Turn-on Overshoot (Max.)**  
200mV

**Start-up Delay**  
90ms/ 230VAC  
110ms / 120VAC

**Rise Time**

60ms/ 230VAC  
50ms/ 110VAC

**Hold-up Time**  
107ms / 230VAC at Full Load  
24ms / 120VAC at Full Load

### PROTECTION SPECIFICATIONS

**Short Circuit/ Overload**  
Overload Protection Type  
Electronically limited Output voltage dips during overload

**Over Voltage**  
Rated Voltage 31 ~ 32.5VDC  
Over Voltage Protection Type  
Shutdown output voltage, re-power required to recover

**Input Transient Protection**  
Metal Oxide Varistor (MOV)

**Internal Input Fuse**  
3.15A / 250VAC

### SAFETY AND DIELECTRIC STRENGTH SPECIFICATIONS

**Input / Output Separation**  
SELV per IEC/EN 60950-1  
PELV per IEC/EN 60204-1, EN 50178, IEC 62103, IEC60364-4-41

**Isolation Resistance**  
> 5Mohm Input to output, 500VDC

**Dielectric Withstanding Voltage**  
Input to Output 4000VAC  
Input to Earth Ground 2500VAC  
Output to Earth Ground 2000VAC

### ENVIRONMENTAL SPECIFICATIONS

**Air Temperature**  
System On -40 to 74°C  
System Off -40 to 85°C

**Operating Humidity**  
5% to 95% r.H.

**Vibration**  
2 ~ 17.8Hz: ±1.6mm  
17.8 ~ 500Hz: 2g  
2 hours/ axis

**Shock**  
15g 6ms, 10g 11ms  
3 bumps / direction,  
18 bumps in total

**Altitude**  
0 to 6000m

**Altitude De-rating**  
4W / 1000m or 5°C/1000m from  
2000m to 6000m

**MTBF (Mean Time Between Failures)**  
367.1 years

### EXPORT INFORMATION

**Packaged Shipping Weight**  
0.75 lb

**Package Dimensions (L x H x W)**  
5.9" x 2.4" x 5.5"

**UPC Code**  
8-75404-00160-9

**ECCN**  
4A994

**Schedule B Number**  
8504.40.6007

**Warranty**  
3 Years

### REGULATORY APPROVALS

**Emissions**  
European Standard EN55011  
European Standard EN55022  
Class B Limit  
AS/NZS CISPR11, CISPR 22  
Class B Limit  
FCC Part 15  
Class B Limit  
IEC 1000-3-2/EN61000-3-2: Harmonics  
IEC 1000-3-2/EN61000-3-3: Limitation of Voltage Fluctuations and Flicker

**Immunity**  
European Standard 61000-6-1  
European Standard 61000-6-2  
European Standard EN55024:  
IEC 1000-4-2/EN61000-4-2: Electrostatic Discharge (ESD)  
IEC 1000-4-3/EN61000-4-3: Radiated Radio-Frequency (RF)  
IEC 1000-4-4/EN61000-4-4: Fast Transient/Burst  
IEC 1000-4-5/EN61000-4-5: Surge  
IEC 1000-4-6/EN61000-4-6: Conducted Disturbance  
IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations

**Safety**  
UL508  
UL60950

**Other**  
European Standard: RoHS 2 compliant under CE

**Regulatory Approvals**



*Note: Unless otherwise specified, the specifications listed are typical or nominal values*



**Warranty Information**  
Control offers a 30-day satisfaction guarantee and 3-year limited warranty.

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