COMTROL
Pepperl+Fuchs

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

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