

# PDM60 SERIES

AC/DC Single Output Medical: 60 Watts



- Medical & Industrial/IT Approvals
- 4000 VAC Isolation
- Class II Construction
- Single Outputs from 12 V to 48 V
- High Efficiency
- Non-standard Connectors Available
- Operation to +60 °C

## Specification

### Input

Input Voltage	• 85-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.5 A rms max at 85 VAC
Inrush Current	• 30/60 A max at 115/230 VAC cold start at +25 °C
Power Factor	• Compliant with EN61000-3-2 Class A equipment
Input Protection	• Internal fuse in live line

### Output

Output Voltage	• See table
Initial Set Accuracy	• ±1% at 50% load
Minimum Load	• No minimum load required
Start Up Delay	• <500 ms
Start Up Rise Time	• 40 ms typical
Hold Up Time	• 12 ms min at 115 VAC & 100% load
Drift	• <±0.2% after 20 minute warm up
Line Regulation	• ±0.5%
Load Regulation	• ±3%
Transient Response	• 4% max. deviation, recovery to within 1% in 500 µs for a 25% load change at 1 A/µs
Ripple & Noise	• 1% pk-pk, 20 MHz BW (see note 2)
Overvoltage Protection	• 115-150%, recycle input to reset
Overload Protection	• 120-170%, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode) indefinite
Temperature Coefficient	• ±0.05%/°C

### General

Efficiency	• 80% typical
Isolation	• 4000 VAC Input to Output
Switching Frequency	• 55 kHz typical
Power Density	• 2.7 W/in <sup>3</sup>
MTBF	• >420 kHrs per MIL-HDBK-217F, +40 °C ground benign

### Environmental

Operating Temperature	• -10 °C to +60 °C, derate above +40 °C by 2.5%/°C to 50% load at +60 °C
Operating Humidity	• 5-95% RH, non-condensing
Storage Temperature	• -20 °C to +85 °C
Operating Altitude	• 3000 m max
Shock	• 30 g pk, half sine, 6 axes
Vibration	• 2 g, 5-500 Hz, 3 axes

### EMC & Safety

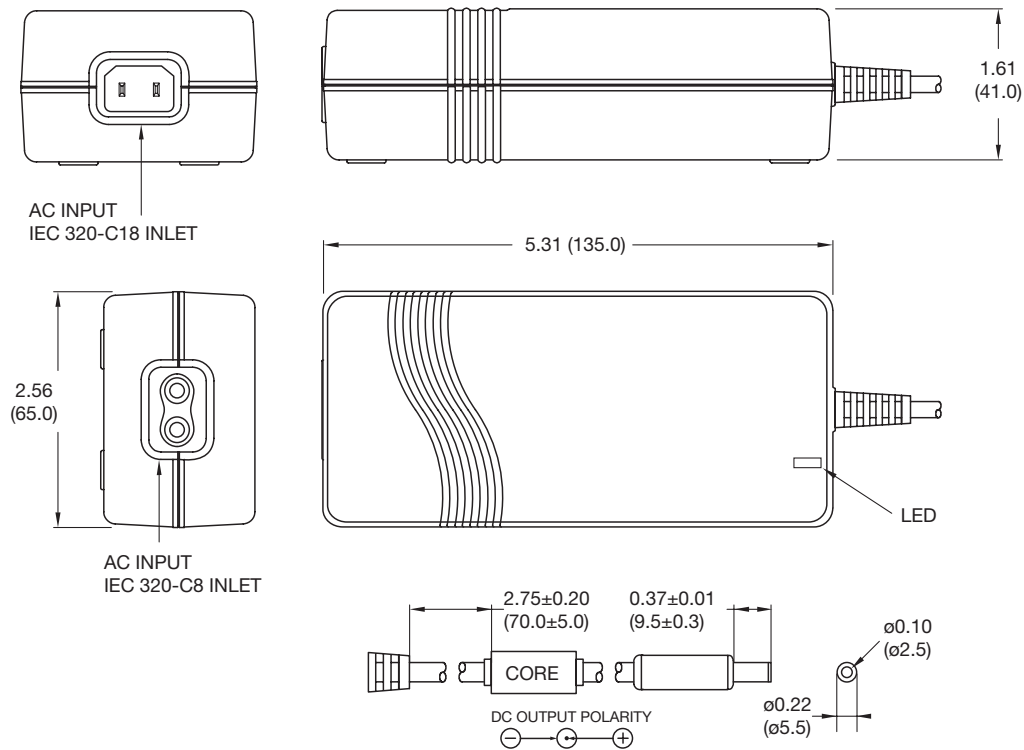
Emissions	• EN55022, level B conducted • EN55022, level B radiated, • EN60601-1-2, EN61204-3, • FCC 20780 level B
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 3 Perf Criteria A
Radiated Immunity	• EN61000-4-3, 10 V/m, 80% mod • Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, level 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 10 Vrms, 80% mod • Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 70% U <sub>r</sub> 10 ms, • 40% U <sub>r</sub> 100 ms, <5% U <sub>r</sub> 5000 ms • Perf Criteria A, B, B
Safety Approvals	• EN60601-1-1, UL60601-1-1:2003, • CSA60601-1, EN60950-1:2001, • UL/cUL60950, CE Mark, CCC Mark

Output Power	Output Voltage	Output Current	Model Number <sup>(1)</sup>
55 W	12 V	4.60 A	PDM60US12
60 W	15 V	4.00 A	PDM60US15
60 W	18 V	3.30 A	PDM60US18
60 W	24 V	2.50 A	PDM60US24
60 W	30 V	2.00 A	PDM60US30
60 W	36 V	1.70 A	PDM60US36
60 W	48 V	1.25 A	PDM60US48

Notes

- IEC320-C18 input connector fitted as standard. For IEC320-C8 input connector add suffix '-C8' to model number.
- Measured at output connector, decoupled by 0.47  $\mu$ F capacitor.

Mechanical Details



Notes

- Dimensions shown in inches (mm).
- Tolerance specified is  $\pm 0.04$  (1.0).
- Cable length is 72" (1830mm) approx.
- Weight 1.28 lbs (580 g).

Derating Curve

