

PDM30 Series



- Energy Star & CEC 2008 Compliant ≥ 9 V
- Worldwide Medical Approvals
- 4000 VAC Isolation
- Class II Construction
- Single Outputs from 5 V to 24 V
- High Efficiency
- Operation to +60 °C

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 0.6 A rms max
Inrush Current	• 50 A max at 264 VAC
Input Protection	• Fitted with a T2 A/250 VAC fuse in live line

Output

Output Voltage	• See table
Initial Set Accuracy	• $\pm 2\%$ set at 60% load
Minimum Load	• No minimum load required
Start Up Delay	• 3 s max
Start Up Rise Time	• 2 ms
Hold Up Time	• 16 ms minimum at 115 VAC
Line Regulation	• $\pm 1\%$
Load Regulation	• See tables
Transient Response	• 5% max deviation recovering to within 1% within 500 μ s for 50% load change
Ripple & Noise	• 1% max, 20 MHz BW see note 2
Overvoltage Protection	• See tables
Overload Protection	• 120-150%
Short Circuit Protection	• Trip & restart (hiccup mode), auto-recovery
Temperature Coefficient	• $\pm 0.05\%/^{\circ}\text{C}$

General

Efficiency	• 82% typical
Isolation	• 4000 VAC Input to Output
Switching Frequency	• 70 kHz typical
Power Density	• 3 W/Inch ³
MTBF	• 500 kHrs to MIL-STD-217F

Environmental

Operating Temperature	• 0 °C to +60 °C, derate from 100% load at +40 °C to 60% load at +60 °C for 5, 9 & 12 V models. Derate from 100% load at +50 °C to 80% load at +60 °C for 15, 18 & 24 V models
Cooling	• Convection-cooled
Operating Humidity	• 15-95% non-condensing
Storage Temperature	• -20 °C to +85 °C
Operating Altitude	• 3000 m
Vibration	• 5-500 Hz at 3 g for 10 mins on each axis
Shock	• 30 g with 18 ms half sine wave, 3 times on each axis

EMC & Safety

Emissions	• EN55011 Level B conducted & radiated
Harmonic Currents	• EN61000-3-2
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2 Level 3, Perf Criteria A
Radiated Immunity	• EN61000-4-3 Level 2, 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 Level 3, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 70% U_T for 500 ms, 40% U_T for 100 ms, <5% U_T for 5000 ms Perf criteria A, B, B
Safety Approvals	• UL60601-1, EN60601-1, IEC60601-1, CE Mark

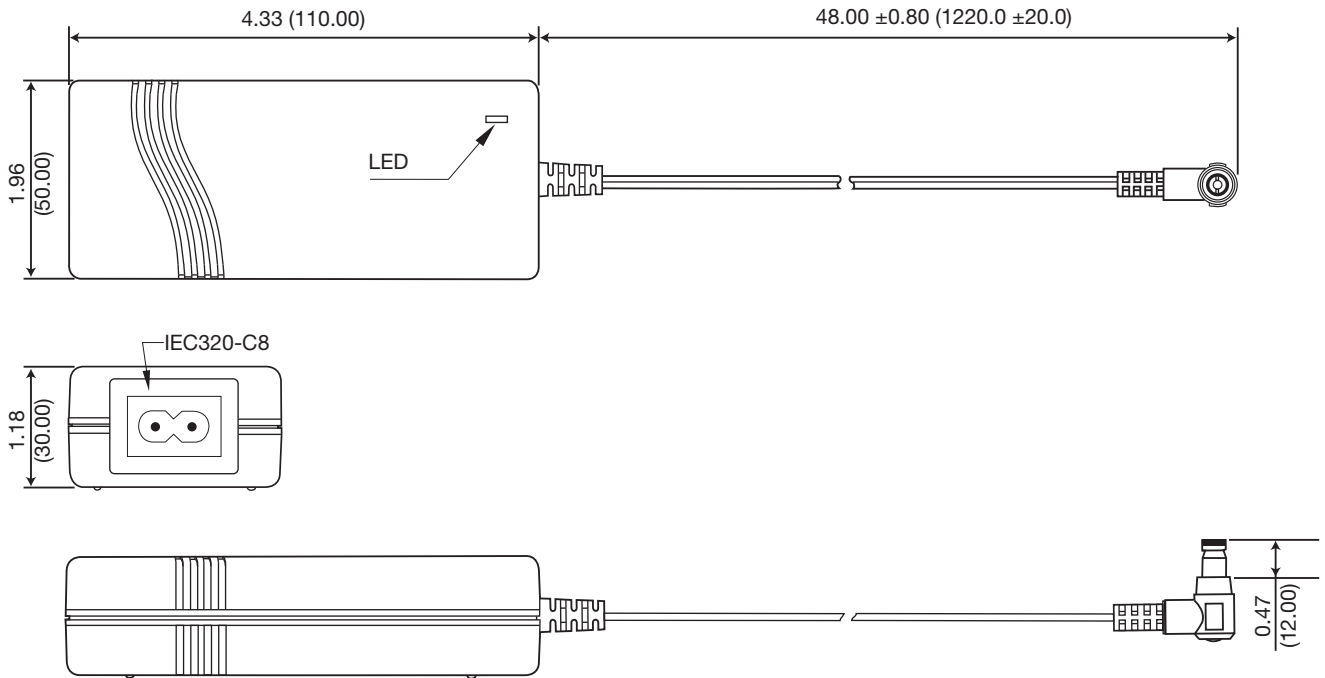
Models and Ratings

Output Voltage	Output Current	OVP Range	Efficiency	Regulation		Model Number
				Line ⁽³⁾	Load ⁽⁴⁾	
5 V	4.00 A	6.45-7.14 V	74%	±1%	±6%	PDM30US05
9 V	3.00 A	10.5-11.6 V	81%	±1%	±4%	PDM30US09
12 V	2.50 A	14.3-15.8 V	82%	±1%	±3%	PDM30US12
15 V	2.00 A	17.1-18.9 V	83%	±1%	±3%	PDM30US15
18 V	1.65 A	20.9-23.1 V	83%	±1%	±2%	PDM30US18
24 V	1.25 A	25.7-28.4 V	83%	±1%	±2%	PDM30US24

Notes

1. Initial set accuracy is set at 60% full load.
2. Add a 0.1 μF ceramic capacitor and a 10 μF electrolytic capacitor to output for ripple and noise measuring at 20 MHz bandwidth.
3. Line regulation is measured from 100 VAC to 240 VAC with full load.
4. Load regulation is measured from 20% to 100% full load (60% ±40% full load).

Mechanical Details



Output connector is right angle jack 0.22 x 0.08 x 0.47 (5.5 x 2.1 x 12.0), center positive.
 Weight: 210 g (0.46 lbs).
 All dimensions in inches (mm).

Derating Curves

