60 Watts
AEM60 Series

- CEC 2008 & EISA 2007 Compliant 12 V
- Worldwide Medical Approvals
- 4000 VAC Isolation
- Class II Construction
- Single Outputs from 5 V to 48 V
- High Efficiency
- 3 Year Warranty

Specification

Input

Input Voltage	• 80-264 VAC, derate output power 5% <90 VAC and 10% <85 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.5 A rms max
Inrush Current	• 80 A max at 240 VAC
Input Protection	• Fitted with a T2 A/250 VAC fuse in live line
No Load Input Power	• <0.5 W for ≥12 V output

Output

Output Voltage	• See table
Initial Set Accuracy	• See table
Minimum Load	• No mimimum load required
Start Up Delay	• 3 s max
Start Up Rise Time	• 3 ms
Hold Up Time	• 8 ms minimum at 115 VAC
Line Regulation	• ±1%
Load Regulation	• See table
Transient Response	• 5% max deviation recovering to within 1% within 500 µs for 50% load change
Ripple & Noise	• 1% max, 20 MHz bandwidth (see note 2)
Overvoltage Protection	• See table
Overload Protection	• 120-150%, trip & restart (hiccup mode), auto-recovery
Short Circuit Protection	• Continuous
Temperature Coefficient	• ±0.05%/°C

General

Efficiency	• 85%, see note 5
Isolation	• 4000 VAC Input to Output
Switching Frequency	• 100 kHz typical
Power Density	• 4.2 W/Inch^3
MTBF	• 300 kHrs to MIL-HDBK-217F at 25 ˚C, GB

Environmental

Operating Temperature	• 0 °C to +60 °C, derate linearly from 100% load at +40 °C to 50% load at +60 °C
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, class A
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, 30% 10 ms, 60% 100 ms, 100% 5000 ms Perf Criteria A, B, B
Safety Approvals	• UL60601-1, EN60601-1, IEC60601-1, CE Mark

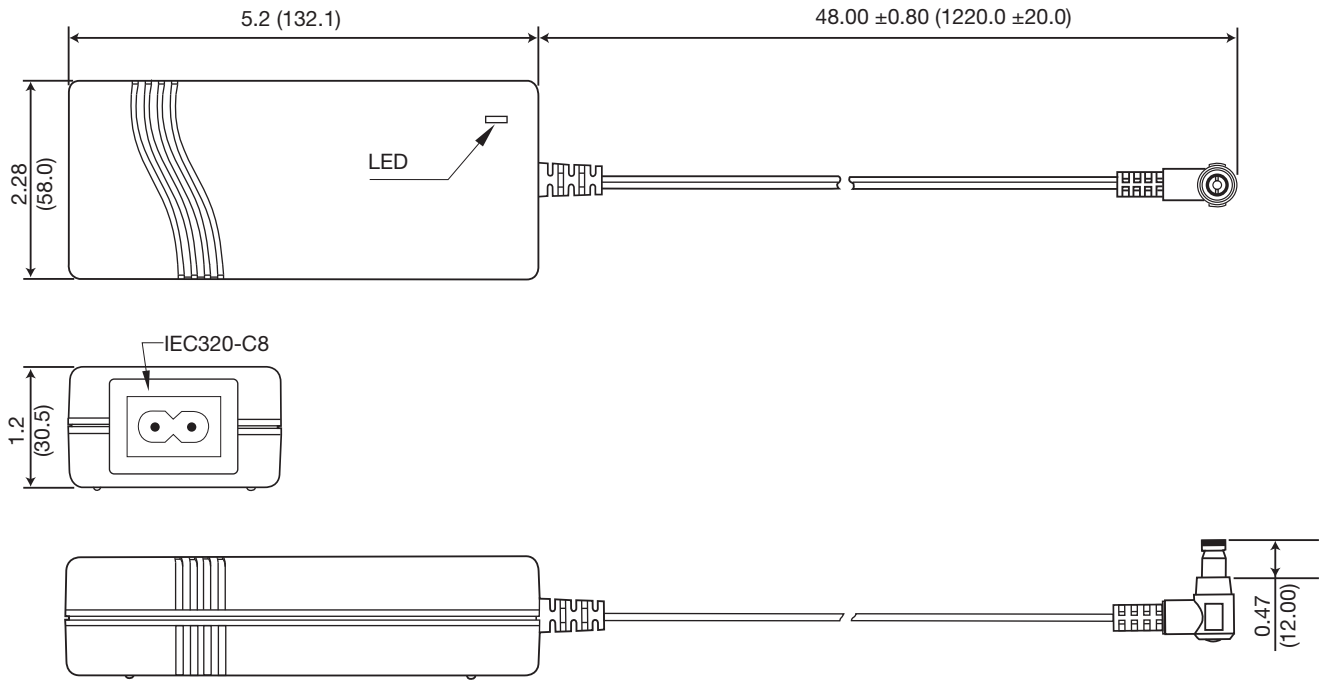
Models and Ratings

Output Voltage	Output Current	Overvoltage Setpoint	Initial Set Accuracy[1]	Regulation		Model Number
				Line[3]	Load[4]	
5 V	6.00 A	6.45 - 7.14	± 4%	± 1%	± 6%	AEM60US05
12 V	5.00 A	14.3 - 15.8	± 2%	± 1%	± 5%	AEM60US12
15 V	4.00 A	17.1 - 18.9	± 2%	± 1%	± 3%	AEM60US15
18 V	3.33 A	20.9 - 23.1	± 2%	± 1%	± 2%	AEM60US18
19 V	3.15 A	20.9 - 23.1	± 2%	± 1%	± 2%	AEM60US19
24 V	2.50 A	28.5 - 31.5	± 2%	± 1%	± 2%	AEM60US24
36 V	1.66 A	40.9 - 45.2	± 2%	± 1%	± 2%	AEM60US36
48 V	1.25 A	53.2 - 58.8	± 2%	± 1%	± 2%	AEM60US48

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).*
5. *Minimum average of efficiencies measured at 25%, 50%, 75% and 100% load.*

Mechanical Details



Output connector is right angle jack 0.22 x 0.10 x 0.47 (5.5 x 2.5 x 12.0), center postive.
Weight: 345 g (0.77 lbs). All dimensions in inches (mm). Tolerance: ±0.02 (±0.51) except where indicated
For European mains lead order part EU-MAINS-8
For UK mains lead order part: UK-MAINS-8
For US mains lead order part US-MAINS-8

Derating Curves