# 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

#### Output

Output Voltage
Initial Set Accuracy
Minimum Load
Start Up Delay
Start Up Rise Time
Hold Up Time
Line Regulation
Load Regulation
Transient Response

**Ripple & Noise** 

Temperature

Coefficient

**Overload Protection** 

- See table
- See table
- · No mimimum load required
- 3 s max
- 3 ms
- 8 ms minimum at 115 VAC
- ±1%
- See table
- 5% max deviation recovering to within 1% within 500 µs for 50% load change
- 1% max, 20 MHz bandwidth (see note 2) Overvoltage Protection . See table
  - 120-150%, trip & restart (hiccup mode), auto-recovery
- Short Circuit Protection Continuous
  - ±0.05%/°C

General

Efficiency Isolation Switching Frequency Power Density MTBF

- 85%, see note 5
- 4000 VAC Input to Output
- 100 kHz typical
- 4.2 W/Inch<sup>3</sup>
- 300 kHrs to MIL-HDBK-217F at 25 °C, GB

#### Environmental

Cooling **Operating Humidity** Storage Temperature **Operating Altitude** Vibration Shock

### EMC & Safety

Emissions Harmonic Currents Voltage Flicker **ESD** Immunity Radiated Immunity EFT/Burst Surge **Conducted Immunity Dips & Interruptions** 

Safety Approvals

- Operating Temperature 0 °C to +60 °C, derate linearly from 100% load at +40 °C to 50% load at +60 °C
  - Convection-cooled
  - 15-95% non-condensing
  - -20 °C to +85 °C
  - 3000 m
  - 5-500 Hz at 3 g for 10 mins on each axis
  - 30 g with 18 ms half sine wave, 3 times on each axis
  - EN55011 Level B conducted & radiated
  - EN61000-3-2, class A
  - EN61000-3-3
  - EN61000-4-2 Level 3, Perf Criteria A
  - EN61000-4-3 Level 2, Perf Criteria A
  - EN61000-4-4, Level 3, Perf Criteria A
  - EN61000-4-5 Level 3, Perf Criteria A
  - EN61000-4-6 Level 3, Perf Criteria A
  - EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms Perf Criteria A, B, B
  - UL60601-1, EN60601-1, IEC60601-1, CE & UKCA meets all applicable directives & legislation.

- 80-264 VAC, derate output power 5% <90 VAC and 10% <85 VAC • 47-63 Hz
- 1.5 A rms max
- 80 A max at 240 VAC
- Fitted with a T2 A/250 VAC fuse in live line
- <0.5 W for  $\geq$ 12 V output

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### **Models and Ratings**

Output	Output	Overvoltage	Initial Set	Regulation		Model
Voltage	Current	Setpoint	Accuracy <sup>(1)</sup>	Line <sup>(3)</sup>	Load <sup>(4)</sup>	Number
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.

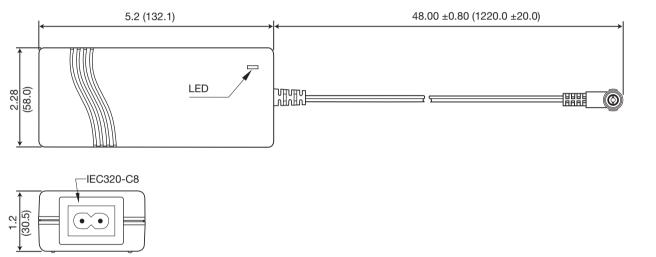
2. Add a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor to output for ripple and noise measuring at 20 MHz bandwidth.

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%  $\pm$ 40% full load).

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

### Mechanical Details -





Output connector is right angle jack  $0.22 \times 0.10 \times 0.47$  (5.5 x 2.5 x 12.0), center postive. Weight: 345 g (0.77 lbs). All dimensions in inches (mm). Tolerance:  $\pm 0.02$  ( $\pm 0.51$ ) 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** -

