

AEP Series



- Universal Input 90-264 VAC
- Continuous Short Circuit Protection
- EN550022 Class B
- Low Cost
- 6, 15 and 25 Watt Versions
- Non-standard Outputs Available
- 3 Year Warranty

Specification

Input

| | |
|-----------------|---|
| Input Voltage | • 90-264 VAC |
| Input Frequency | • 47-63 Hz |
| Input Current | • 0.5/0.25 A max at 115/230 VAC (6 W & 15 W) 0.7/0.3 A at 115/230 VAC (25 W) |
| Inrush Current | • 15/30 A max at 115/230 VAC (6 W) 25/50 A max at 115/230 VAC (15 W & 25 W) |
| Power Factor | • Meets EN61000-3-2, Class A |

Output

| | |
|--------------------------|--|
| Output Voltage | • See tables |
| Initial Set Accuracy | • See tables |
| Minimum Load | • No minimum load requirement |
| Start Up Delay | • 6 W 100 ms, 15 W 270 ms, 25 W 280 ms |
| Hold Up Time | • 10 ms typical at 115 VAC, 60 ms typical at 230 VAC |
| Line Regulation | • See tables |
| Load Regulation | • See tables |
| Ripple & Noise | • 1 % pk-pk max (see note 2) |
| Overvoltage Protection | • 125% typical |
| Overload Protection | • Trip and restart (Hiccup mode) |
| Short Circuit Protection | • Constant current (6 W) Continuous (auto recovery) (15 W & 25 W) |
| Temp. Coefficient | • $\pm 0.05\%/^{\circ}\text{C}$ |

General

| | |
|---------------------|---|
| Efficiency | • Typically 67% for 6 W, 75% for 15 W, 80% for 25 W |
| Isolation | • 3000 VAC Input to Output |
| Switching Frequency | • 30-200 kHz (6 W) 30-35 kHz typical (15 W & 25 W) |
| Power Density | • 0.75 W/in ³ (6W), 1.87 W/in ³ (15 W) 1.88 W/in ³ (25 W) |
| MTBF | • >200 kHrs to MIL-HDBK-217F at 25 °C, GB |

Environmental

| | |
|-----------------------|--|
| Operating Temperature | • 0 °C to +60 °C, derate linearly from +40 °C at 100% load to 60% load at +60 °C (6 W & AEP15 5 V-13.6 V), 50% load at 60 °C (25 W & AEP15 15 V-24 V) |
| Storage Temperature | • -20 °C to +85 °C |
| Operating Humidity | • 93% RH, non-condensing |
| Operating Altitude | • 2000 m |

EMC & Safety

| | |
|----------------------|--|
| Emissions | • EN55022 Class B conducted and radiated |
| Harmonic Currents | • EN61000-3-2 Class A |
| Voltage Flicker | • EN61000-3-3 |
| ESD Immunity | • EN61000-4-2, level 2 Perf Criteria B |
| Radiated Immunity | • EN61000-4-3, level 2 Perf Criteria A |
| EFT/Burst | • EN61000-4-4, level 2 Perf Criteria B |
| Surge | • EN61000-4-5, Installation Class 2, Perf Criteria B |
| Conducted Immunity | • EN61000-4-6, level 2 Perf Criteria B |
| Dips & Interruptions | • EN61000-4-11, 5 % U _T 10 ms, Perf Criteria B, 70 % U _T 500 ms, Perf Criteria C |
| Safety Approvals | • EN60950, UL1950, CSA C22.2 No.234 cUL |

Models and Ratings

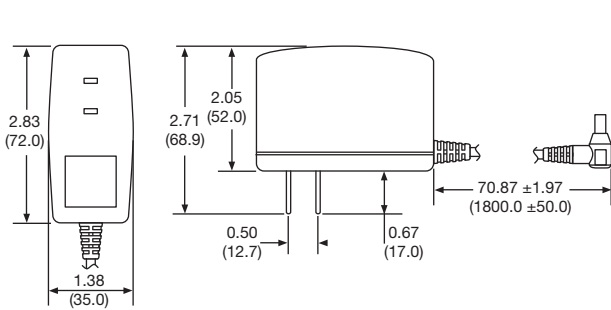
| Output Voltage | Output Current | Ripple & Noise ⁽²⁾ | Initial Set Accuracy ⁽¹⁾ | Line Regulation ⁽³⁾ | Load Regulation ⁽⁴⁾ | Model Number |
|----------------|----------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------|--------------|
| 4.2 V | 1000 mA | 1% | ±3% | ±1% | ±4% | AEPO6US042 |
| 5.0 V | 1200 mA | 1% | ±3% | ±1% | ±4% | AEPO6US05 |
| 6.0 V | 1000 mA | 1% | ±3% | ±1% | ±4% | AEPO6US06 |
| 6.5 V | 650 mA | 1% | ±3% | ±1% | ±3% | AEPO6US065 |
| 7.0 V | 650 mA | 1% | ±3% | ±1% | ±3% | AEPO6US07 |
| 7.5 V | 650 mA | 1% | ±3% | ±1% | ±3% | AEPO6US075 |
| 8.0 V | 650 mA | 1% | ±3% | ±1% | ±3% | AEPO6US08 |
| 9.0 V | 650 mA | 1% | ±3% | ±1% | ±2% | AEPO6US09 |
| 10.0 V | 600 mA | 1% | ±3% | ±1% | ±2% | AEPO6US10 |
| 12.0 V | 500 mA | 1% | ±3% | ±1% | ±2% | AEPO6US12 |

Notes

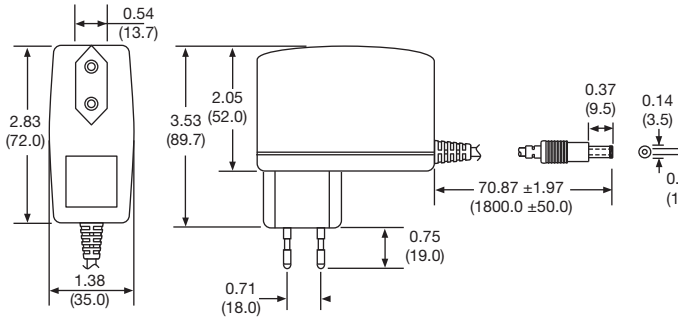
1. Initial set accuracy is at 60% full load.
2. Add a 0.1µF E.L capacitor to output for ripple & noise measurement at 20 MHz BW.
3. Line regulation measured from 100 VAC to 240 VAC, full load.
4. Load regulation measured from 60% to full load and from 60% to 20% load (60% ±40% load).

Mechanical Details 6 & 15 Watt Models

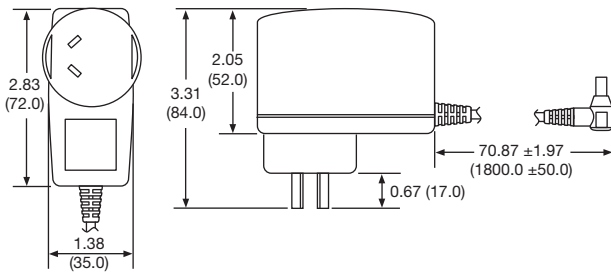
All dimensions are in inches (mm)



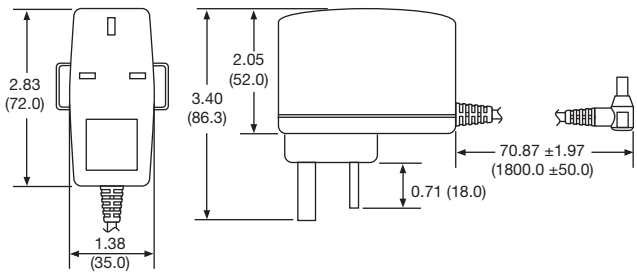
To order US add suffix '-US' to model number



To order European add suffix '-EU' to model number



To order Australian add suffix '-AU' to model number



To order UK add suffix '-UK' to model number

Weight: AEP06: 0.3 lb (135 g)
AEP15: 0.35 lb (160 g)

Output Plug: 0.22 x 0.10 x 0.37 (5.5 x 2.5 x 9.5)



Models and Ratings

| Output Voltage | Output Current | Ripple & Noise ⁽²⁾ | Initial Set Accuracy ⁽¹⁾ | Line Regulation ⁽³⁾ | Load Regulation ⁽⁴⁾ | Model Number |
|----------------|----------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------|--------------|
| 5.0 V | 2.00 A | 1% | ±2% | ±1% | ±4% | AEP15US05 |
| 6.0 V | 1.50 A | 1% | ±2% | ±1% | ±4% | AEP15US06 |
| 7.5 V | 1.60 A | 1% | ±2% | ±1% | ±4% | AEP15US075 |
| 9.0 V | 1.40 A | 1% | ±2% | ±1% | ±4% | AEP15US09 |
| 12.0 V | 1.00 A | 1% | ±2% | ±1% | ±4% | AEP15US12 |
| 13.6 V | 1.00 A | 1% | ±2% | ±1% | ±4% | AEP15US136 |
| 15.0 V | 1.00 A | 1% | ±2% | ±1% | ±4% | AEP15US15 |
| 18.0 V | 0.83 A | 1% | ±2% | ±1% | ±4% | AEP15US18 |
| 24.0 V | 0.63 A | 1% | ±2% | ±1% | ±4% | AEP15US24 |
| 3.3 V | 4.00 A | 50 mV pk-pk | ±2% | ±1% | ±6% | AEP25US033 |
| 5.0 V | 4.00 A | 1% | ±2% | ±1% | ±6% | AEP25US05 |
| 12.0 V | 2.10 A | 1% | ±2% | ±1% | ±5% | AEP25US12 |
| 15.0 V | 1.67 A | 1% | ±2% | ±1% | ±3% | AEP25US15 |
| 18.0 V | 1.40 A | 1% | ±2% | ±1% | ±2% | AEP25US18 |
| 24.0 V | 1.05 A | 1% | ±2% | ±1% | ±2% | AEP25US24 |

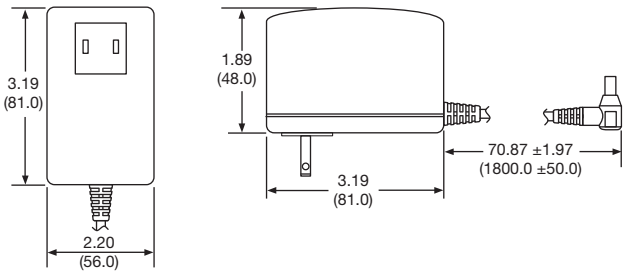
Notes

1. Initial set accuracy is at 60% full load.
2. Add a 0.1µF E.L capacitor to output for ripple & noise measurement at 20 MHz BW.
3. Line regulation measured from 100 VAC to 240 VAC, full load.
4. Load regulation measured from 60% to full load and from 60% to 20% load (60% ±40% load).

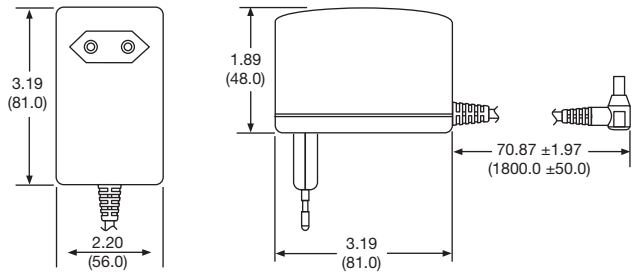
Mechanical Details 25 Watt Models

All dimensions are in inches (mm)

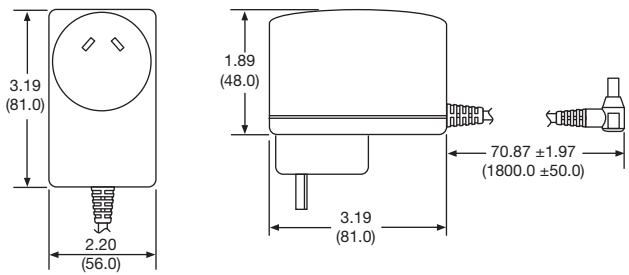
For 15 Watt model mechanical details see 6 Watt model



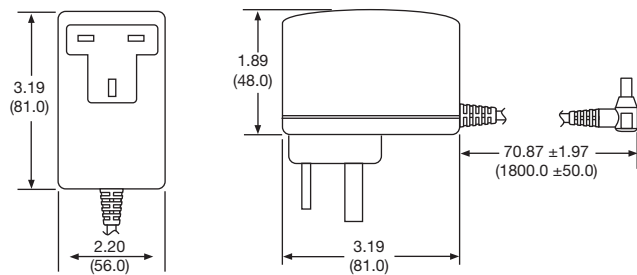
To order US add suffix '-US' to model number



To order European add suffix '-EU' to model number



To order Australian add suffix '-AU' to model number



To order UK add suffix '-UK' to model number

Weight: 0.485 lb (220 g)

Output Plug: 0.22 x 0.10 x 0.37 (5.5 x 2.5 x 9.5)

