# AC/DC External Desktop

## 100 Watts
## AED100 Series

**XPiQ inc.**
Intelligent Design Quality Product

- CE Marked For EMC & LVD
- Active PFC - Meets EN61000-3-2, -3
- High Efficiency - 85% Typical
- High Power Density
- Small Size, Low Profile
- Overvoltage & Short Circuit Protected
- International Safety Approvals

## Specification

### Input

| | | |
|---|---|---|
| *Input Voltage* | • | *90-264 VAC* |
| *Input Frequency* | • | *47-63 Hz* |
| *Inrush Current* | • | *50 A @ 115 VAC,<br>100 A max at 264 VAC* |
| *Input Current* | • | *1.10 A max at 115 VAC,<br>0.55A max at 230 VAC* |
| *Power Factor* | • | *0.99 typical* |

### Output

| | | |
|---|---|---|
| *Output Voltage* | • | *12-48 VDC* |
| *Output Power* | • | *100 Watts* |
| *Minimum Load* | • | *0 minimum load required* |
| *Line Regulation* | • | *±1% max* |
| *Load Regulation* | • | *See Table* |
| *Set Point Accuracy* | • | *±2% max* |
| *Ripple & Noise* | • | *±1% max (peak-peak)* |
| *Transient Response* | • | *4% max deviation, 500µs recovery time for a 25% load change* |
| *Temperature Coefficient* | • | *±0.04%/°C* |
| *Hold Up Time* | • | *20 ms minimum at 115 VAC* |
| *Overvoltage Protection* | • | *110% to 130% with auto recovery* |
| *Overcurrent Protection* | • | *120% to 140% with auto recovery* |

### General

| | | |
|---|---|---|
| *Efficiency* | • | *85% typical* |
| *Power Density* | • | *4.4 W/in³* |
| *Withstand Voltage* | • | *3000 VAC Input to Output<br>1500 VAC Input to Ground<br>500 VAC Output to Ground* |
| *MTBF* | • | *100,000 hrs min per MIL-HDBK-217F* |
| *Size* | • | *2.76" x 5.91" x 1.38"* |
| *Weight* | • | *520 grams* |

### Environmental

| | | |
|---|---|---|
| *Operating Temperature* | • | *0°C to +65°C with derating<br>Derate linearly from 100% load at 50°C to 0% load at 65°C* |
| *Relative Humidity* | • | *5% to 95%, non condensing* |
| *Storage Temperature* | • | *-20 °C to +85 `°C* |

### EMC & Safety

| | | |
|---|---|---|
| *EMI/EMC* | • | *EN55022, CISPR22 and<br>FCC Class B conducted and radiated<br>CE Mark* |
| *Safety Approvals* | • | *UL1950, CSA C22.2 No 234 per cUL<br>EN60950* |


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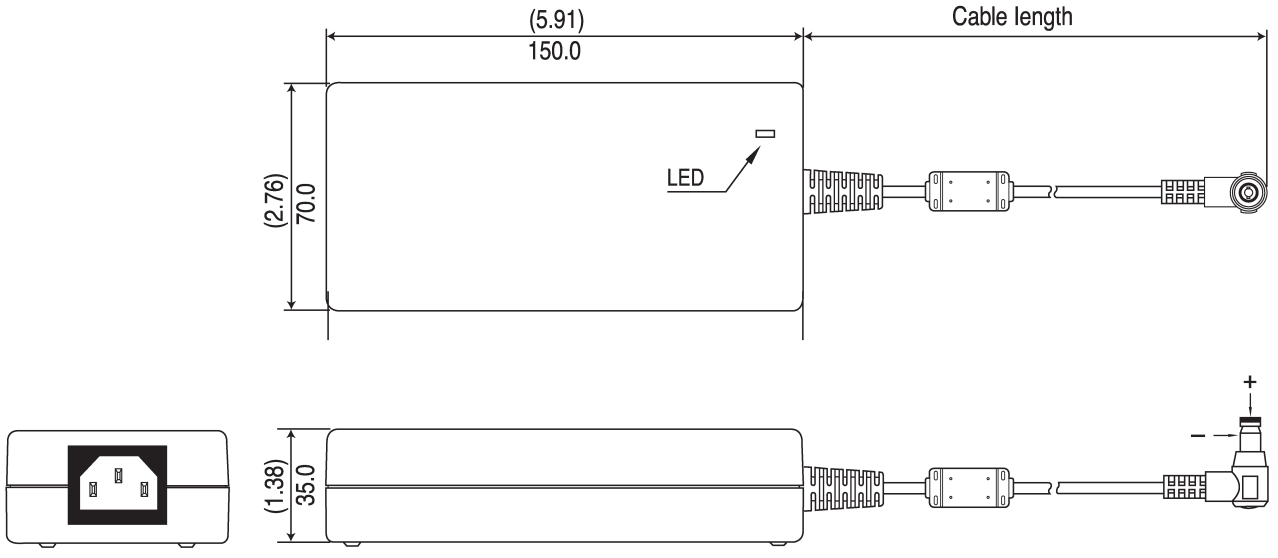
| OUTPUT VOLTAGE & CURRENT RATINGS | | | | | AED100 |
|---|---|---|---|---|---|
| Vnom | Imin | Imax | Total Regulation | Maximum Output Power | Model Number |
| 12 V | 0 A | 8.33 A | 4% | 100 W | AED100US12 |
| 15 V | 0 A | 6.67 A | 4% | 100 W | AED100US15 |
| 18 V | 0 A | 5.56 A | 2% | 100 W | AED100US18 |
| 19 V | 0 A | 5.26 A | 2% | 100 W | AED100US19 |
| 24 V | 0 A | 4.17 A | 2% | 100 W | AED100US24 |
| 48 V | 0 A | 2.08 A | 2% | 100 W | AED100US48 |

Note

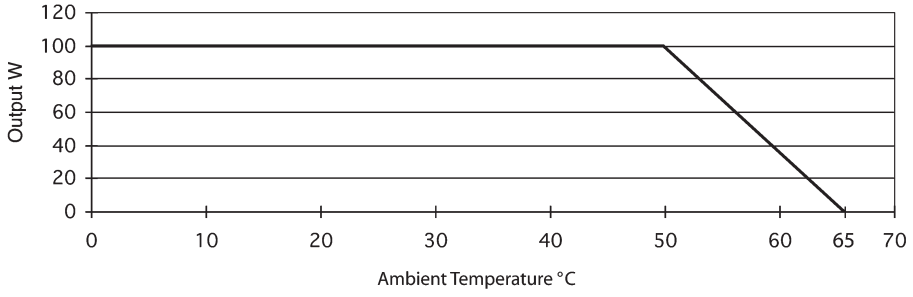
** Total regulation includes initial tolerance, line regulation and load regulation.*

## Mechanical Details




NOTES
1. Dimensions shown in mm (inches).
2. Tolerance 0.5 (0.02) maximum.
3. Output connector is 5.5mm outer diameter barrel. Inner diameter is 2.5mm with center positive (+)/outer shell negative (-) polarity.
4. Cable length for AED100US12 and US15 is 1219 mm (48") typical, other models is 1800mm (70") typical.
5. Optional output connectors available.

## Derating Curve





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