## 60W Single Output Switching Power Supply

**Model** LPV-60 series

### Features:
- Constant voltage design
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Over load / Over voltage
- Cooling by free air convection
- Fully encapsulated with IP67 level (Note.8)
- Fully isolated plastic case
- Class I power unit, no FG
- Class 2 power unit
- Pass LPS
- Suitable for LED lighting and moving sign applications (Note.7)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>DC Voltage</th>
<th>Rated Current</th>
<th>Current Range</th>
<th>Ripple &amp; Noise (max.)</th>
<th>Voltage Tolerance</th>
<th>Line Regulation</th>
<th>Load Regulation</th>
<th>Setup, Rise Time Note.2</th>
<th>Hold Up Time (Typ.)</th>
<th>Input Voltage Range</th>
<th>Frequency Range</th>
<th>Efficiency (Typ.)</th>
<th>AC Current (Typ.)</th>
<th>Inrush Current (Typ.)</th>
<th>Max. No. of PSUs on 16A Circuit Breaker</th>
<th>Leakage Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPV-60-5</td>
<td>5V</td>
<td>8A</td>
<td>0 ~ 8A</td>
<td>50mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td>50ms / 230VAC</td>
<td>50V</td>
<td>47 ~ 63Hz</td>
<td>76%</td>
<td>1.2A / 115VAC</td>
<td>COLD START 60A (twidth=525 ms measured at 50% Ipeak) at 230VAC</td>
<td>3 units / (circuit breaker of type B) / 6 units / circuit breaker of type C at 230VAC</td>
<td>0.25mA / 240VAC</td>
</tr>
<tr>
<td>LPV-60-12</td>
<td>12V</td>
<td>5A</td>
<td>0 ~ 5A</td>
<td>80mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td>16ms / 115VAC at full load</td>
<td>20 ~ 36VDC</td>
<td>47 ~ 63Hz</td>
<td>83%</td>
<td>1A / 230VAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPV-60-15</td>
<td>15V</td>
<td>4A</td>
<td>0 ~ 4A</td>
<td>120mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td></td>
<td>10 ~ 30VDC</td>
<td>78%</td>
<td>1.2A / 115VAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPV-60-24</td>
<td>24V</td>
<td>2.5A</td>
<td>0 ~ 2.5A</td>
<td>150mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td></td>
<td>30 ~ 40VDC</td>
<td>83%</td>
<td>1A / 230VAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPV-60-36</td>
<td>36V</td>
<td>1.67A</td>
<td>0 ~ 1.67A</td>
<td>150mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td></td>
<td>40 ~ 50VDC</td>
<td>86%</td>
<td>1A / 230VAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPV-60-48</td>
<td>48V</td>
<td>1.25A</td>
<td>0 ~ 1.25A</td>
<td>150mVp-p</td>
<td>±8.0%</td>
<td>±1.0%</td>
<td>±6.0%</td>
<td>500ms, 20ms / 230VAC</td>
<td></td>
<td>&gt;50VDC</td>
<td>86%</td>
<td>1A / 230VAC</td>
<td></td>
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</tbody>
</table>

**Protection**
- Over Load: 110 ~ 150% rated output power
- Over Voltage: Protection type : Hiccup mode, recovers automatically after fault condition is removed
- Working Temp.: -30 ~ +70°C (Refer to "Derating Curve")
- Working Humidity: 20 ~ 90% RH non-condensing
- Storage Temp. & Humidity: -40 ~ +80°C, 10 ~ 95% RH
- Temp. Coefficient: ±0.03%/°C (0 ~ 50°C)
- Vibration: 10 ~ 500Hz, 2G 10min./cycle, period for 60min. each along X, Y, Z axes

**Safety & EMC**
- Withstand Voltage: UP-O/P > 3kVAC
- Isolation Resistance: UP-O/P > 100M Ohms / 500VDC / 25°C / 70% RH
- EMC Emission: Compliance to EN55022 (CISPR22) Class B, EN61000-3-2 Class A, EN61000-3-3
- EMC Immunity: Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, light industry level, criteria A

**Others**
- MTBF: 720Khrs min.
- DIMENSION: 162.5 x 42.5 x 32mm (L x W x H)
- Packing: 4.4Kg; 32pcs / 13.8Kg / 0.56CUFT

**Note:**
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufactures must re-qualify EMC Directive on the complete installation again.
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
7. The unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit.
8. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minute.
**Mechanical Specification**

- **Case No.:** 976A
- **Unit:** mm

![Block Diagram](image)

- **Note:** T case: Max. Case Temperature.

**Recommend Mounting Direction**

- **Load (%):**
  - 20
  - 40
  - 60
  - 80
  - 100

- **Input Voltage (V) 60Hz:**
  - 90
  - 100
  - 115
  - 125
  - 135
  - 145
  - 155
  - 165
  - 175
  - 180
  - 200
  - 230
  - 264

**Derating Curve**

- **Ambient Temperature (°C):**
  - 50
  - 60
  - 70

**Static Characteristics**

- **Input Voltage (V) 60Hz:**
  - 90
  - 100
  - 125
  - 135
  - 145
  - 155
  - 165
  - 175
  - 180
  - 200
  - 230
  - 264

**Note:**
- fosc: 65KHz
- T case: Max. Case Temperature.
Click to View Pricing, Inventory, Delivery & Lifecycle Information:

**Mean Well:**

LPV-60-36  LPV-60-48  LPV-60-15  LPV-60-5  LPV-60-12  LPV-60-24