# 40W Single Output Switching Power Supply

**Features:**
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 37kHz

## SPECIFICATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DC VOLTAGE</th>
<th>RATED CURRENT</th>
<th>CURRENT RANGE</th>
<th>RATED POWER</th>
<th>RIPPLE &amp; NOISE (max.)</th>
<th>VOLTAGE ADJ. RANGE</th>
<th>VOLTAGE TOLERANCE</th>
<th>LINE REGULATION</th>
<th>LOAD REGULATION</th>
<th>SETUP, RISE TIME</th>
<th>HOLD UP TIME (Typ.)</th>
<th>VOLTAGE RANGE</th>
<th>FREQUENCY RANGE</th>
<th>EFFICIENCY (Typ.)</th>
<th>AC CURRENT (Typ.)</th>
<th>INRUSH CURRENT (Typ.)</th>
<th>LEAKAGE CURRENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-40-5</td>
<td>5V</td>
<td>8A</td>
<td>0 - 8A</td>
<td>40W</td>
<td>50mVp-p</td>
<td>4.75 - 5.5V</td>
<td>±2.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>300ms, 50ms/230VAC</td>
<td>90ms/230VAC</td>
<td>85 ~ 264VAC</td>
<td>47 ~ 63Hz</td>
<td>72%/115VAC</td>
<td>COLD START 15A/115VAC</td>
<td>&lt;0.75mA / 240VAC</td>
<td></td>
</tr>
<tr>
<td>MS-40-12</td>
<td>12V</td>
<td>3.4A</td>
<td>0 - 3.4A</td>
<td>40W</td>
<td>100mVp-p</td>
<td>10.8 - 13.2V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>800ms, 50ms/115VAC at full load</td>
<td>12ms/115VAC</td>
<td>120 ~ 370VDC</td>
<td>78%/115VAC</td>
<td>72%/115VAC</td>
<td>25A/230VAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS-40-24</td>
<td>24V</td>
<td>1.7A</td>
<td>0 - 1.7A</td>
<td>40W</td>
<td>100mVp-p</td>
<td>21.6 ~ 28.4V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>800ms, 50ms/115VAC at full load</td>
<td>12ms/115VAC</td>
<td>120 ~ 370VDC</td>
<td>78%/115VAC</td>
<td>72%/115VAC</td>
<td>25A/230VAC</td>
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</tr>
</tbody>
</table>

### Protection
- **Overload:** 105 ~ 150% rated output power. Protection type: Hiccup mode, recovers automatically after fault condition is removed.

### Environment
- **Working Temp.:** -10 ~ +60°C (Refer to "Derating Curve")
- **Working Humidity:** 20 ~ 90% RH non-condensing
- **Storage Temp., Humidity:** -20 ~ +85°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
- **UL1012, TUV EN60065-1 approved**
- **Withstand Voltage:** IP-0/IP-1.5kVAC, IP-2/IP-5kVAC, IP-3/IP-10kVAC
- **ISO Emission Resistance:** 100M Ohms / 500VDC / 25°C / 10% RH
- **EMC Emission:** Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,3,3
- **EMC Immunity:** Compliance to EN61000-4-2,3,4,5, EN555024, light industry level, criteria A

### Others
- **MTBF:** 330.8K hrs min. MIL-HDBK-217F (25°C)
- **Dimension:** 84*58*38mm (L*W*H)
- **Packing:** 0.17Kg, 80pcs/13Kg/0.6CUFT

### 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 0.1uf & 47uf parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.