# 360W Single Output Switching Power Supply

**Features:**
- Universal AC input / Full range
- Protection: Short circuit/Over load/Over voltage
- Forced air cooling by built-in DC fan
- PWM control and regulated
- Built-in cooling Fan ON-OFF control
- 100% full load burn-in test
- Fixed switching frequency at 25KHz
- Low cost

## 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, HOLD TIME</th>
<th>VOLTAGE RANGE</th>
<th>FREQUENCY RANGE</th>
<th>EFFICIENCY (Typ.)</th>
<th>AC CURRENT</th>
<th>INRUSH CURRENT (max.)</th>
<th>LEAKAGE CURRENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL-360-5</td>
<td>5V</td>
<td>50A</td>
<td>0 ~ 50A</td>
<td>260W</td>
<td>150mV/μp-p</td>
<td>4.5 ~ 5.6V</td>
<td>±2.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>90 ~ 132VAC</td>
<td>47 ~ 63Hz</td>
<td>73%</td>
<td>6.5A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-7.5</td>
<td>7.5V</td>
<td>40A</td>
<td>0 ~ 40A</td>
<td>300W</td>
<td>150mV/μp-p</td>
<td>6 ~ 9V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>90 ~ 132VAC</td>
<td>47 ~ 63Hz</td>
<td>76%</td>
<td>6.5A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-12</td>
<td>12V</td>
<td>29A</td>
<td>0 ~ 29A</td>
<td>348W</td>
<td>150mV/μp-p</td>
<td>10 ~ 13.2V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>90 ~ 132VAC</td>
<td>47 ~ 63Hz</td>
<td>74%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-13.5</td>
<td>13.5V</td>
<td>25.8A</td>
<td>0 ~ 25.8A</td>
<td>348.3W</td>
<td>150mV/μp-p</td>
<td>12 ~ 15V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>90 ~ 132VAC</td>
<td>47 ~ 63Hz</td>
<td>79%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-15</td>
<td>15V</td>
<td>23.2A</td>
<td>0 ~ 23.2A</td>
<td>348.3W</td>
<td>150mV/μp-p</td>
<td>13.5 ~ 18V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>90 ~ 132VAC</td>
<td>47 ~ 63Hz</td>
<td>78%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-24</td>
<td>24V</td>
<td>14.6A</td>
<td>0 ~ 14.6A</td>
<td>350.4W</td>
<td>150mV/μp-p</td>
<td>20 ~ 26.4V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>250 ~ 370VDC</td>
<td>47 ~ 63Hz</td>
<td>81%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-27</td>
<td>27V</td>
<td>13A</td>
<td>0 ~ 13A</td>
<td>350.4W</td>
<td>150mV/μp-p</td>
<td>26 ~ 32V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>250 ~ 370VDC</td>
<td>47 ~ 63Hz</td>
<td>82%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
<tr>
<td>NL-360-48</td>
<td>48V</td>
<td>7.3A</td>
<td>0 ~ 7.3A</td>
<td>350.4W</td>
<td>150mV/μp-p</td>
<td>41 ~ 56V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
<td>200ms, 50ns, 20ns</td>
<td>250 ~ 370VDC</td>
<td>47 ~ 63Hz</td>
<td>83%</td>
<td>7.3A</td>
<td>50A/15VAC</td>
<td>&lt;3.5mA</td>
</tr>
</tbody>
</table>

**Protection**
- Over Load: 105~135%, rated output power
- Protection type: Hiccup mode, recovers automatically after fault condition is removed
- Over Voltage: 5.75 ~ 6.75V, 9.4 ~ 10.9V, 13.8 ~ 16.2V, 15.6 ~ 18.2V, 18 ~ 21V, 27.6 ~ 32.4V, 33.7 ~ 39.2V, 57.6 ~ 67.2V
- Protection type: Hiccup mode, recovers automatically after fault condition is removed

**Function**
- Fan On/Off Control: RH3 ≥ 65°C: Fan ON, ≤ 45°C: Fan OFF, ≥ 60°C output shutdown (5 ~ 7.5V)
- RH3 ≥ 65°C: Fan ON, ≤ 55°C: Fan OFF, ≥ 60°C output shutdown (12 ~ 15V)
- RH3 ≥ 70°C: Fan ON, ≤ 60°C: Fan OFF, ≥ 65°C output shutdown (24 ~ 45V)

**Environment**
- Working Temp: -10 ~ +50°C (Refer to output load derating curve)
- Working Humidity: 20 ~ 95% RH non-condensing
- Storage Temp, Humidity: -20 ~ +85°C, 10 ~ 95% RH
- Temp. Coefficient: ±0.03%/°C (0 ~ 50°C)
- Vibration: 10 ~ 50Hz, 2g 10min. / 1cycle, 60min. each along X, Y, Z axes

**Safety & EMC**
- Withstand Voltage: 1000Vrms / 500VDC
- Isolation Resistance: 1000Vrms / 500VDC
- MTBF: 234.3k hrs min. MIL-HDBK-217F (25°C)

**Others**
- Dimension: 223.68 x 140mm (L x W)
- Packing: 0.85Kg, 30pcs / 3Kg / 0.92CUFT

**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 & 4uf parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.