## Specification

### Model: RS-50 Series

<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>
</tr>
</thead>
<tbody>
<tr>
<td>RS-50-3.3</td>
<td>3.3V</td>
<td>10A</td>
<td>0 - 10A</td>
<td>33W</td>
<td>80mVp-p</td>
<td>3V - 3.6V</td>
<td>±3.0%</td>
<td>±0.5%</td>
<td>±2.0%</td>
</tr>
<tr>
<td>RS-50-5</td>
<td>5V</td>
<td>10A</td>
<td>0 - 10A</td>
<td>50W</td>
<td>80mVp-p</td>
<td>4.75 - 5.9V</td>
<td>±2.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
</tr>
<tr>
<td>RS-50-12</td>
<td>12V</td>
<td>4.2A</td>
<td>0 - 4.2A</td>
<td>50.4W</td>
<td>120mVp-p</td>
<td>10.8 - 13.2V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
</tr>
<tr>
<td>RS-50-15</td>
<td>15V</td>
<td>3.4A</td>
<td>0 - 3.4A</td>
<td>51W</td>
<td>120mVp-p</td>
<td>13.5 - 16.5V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
</tr>
<tr>
<td>RS-50-24</td>
<td>24V</td>
<td>2.2A</td>
<td>0 - 2.2A</td>
<td>52.8W</td>
<td>120mVp-p</td>
<td>22 - 27.2V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
</tr>
<tr>
<td>RS-50-48</td>
<td>48V</td>
<td>1.1A</td>
<td>0 - 1.1A</td>
<td>52.8W</td>
<td>200mVp-p</td>
<td>42 - 54V</td>
<td>±1.0%</td>
<td>±0.5%</td>
<td>±1.0%</td>
</tr>
</tbody>
</table>

### Output
- **Voltage Range**: 3V ~ 3.6V
- **Ripple & Noise (Max.)**: 80mVp-p
- **Current Range**: 0 - 10A
- **Voltage Tolerance**: ±3.0%
- **Line Regulation**: ±0.5%
- **Load Regulation**: ±2.0%
- **Setup, Rise Time**: 500ms, 230VAC
- **Hold Time (Typ.)**: 1200ms, 115VAC at full load

### Input
- **Frequency Range**: 47 ~ 63Hz
- **Efficiency (Typ.)**: 72%
- **Inrush Current (Typ.)**: COLD START 33A/230VAC
- **Leakage Current**: <2mA / 240VAC

### Protection
- **Over Load**: Protection type: Hiccup mode, recovers automatically after fault condition is removed
- **Over Voltage**: Protection type: Hiccup mode, recovers automatically after fault condition is removed

### Environment
- **Working Temperature**: -25 ~ +70°C (Refer to output load derating curve)
- **Working Humidity**: 20 ~ 90% RH non-condensing
- **Storage Temperature, Humidity**: -40 ~ +85°C, 10 ~ 95% RH
- **Temp. Coefficient**: ±0.03%/°C (0 ~ 50°C)
- **Vibration**: 10 ~ 500Hz, 5G 10min./cycle, period for 60min. each along X, Y, Z axes

### Safety & EMC (Note 6)
- **Safety Standards**: UL60950-1, TUV EN60950-1 Approved
- **Withstand Voltage**: I/P-O/P: 3KVAC, I/P-FG: 1.5KVAC, O/P-FG: 0.5KVAC
- **Isolation Resistance**: I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC
- **EMI Conduction & Radiation**: Compliance to EN55022 (CISPR22) Class B (EN55022-2) heavy industry level, criteria A
- **Harmonic Current**: Compliance to EN61000-3-2, -3
- **EMS Immunity**: Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, 12

### Others
- **MTBF**: 228Khrs min.
- **Dimension**: 99.7" x 36mm (L" x W")
- **Packaging**: 0.41Kg, 45pcs/19.5Kg/0.9CUFT

### 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.
4. Line regulation is measured from low line to high line at rated load.
5. Load regulation is measured from 0% to 100% rated load.
6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

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File Name: RS-50-SPEC 2006-04-12
**Mechanical Specification**

- Case No. 905B
- Unit: mm

**Terminal Pin No. Assignment**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC/L</td>
<td>4</td>
<td>DC OUTPUT -V</td>
</tr>
<tr>
<td>2</td>
<td>AC/N</td>
<td>5</td>
<td>DC OUTPUT +V</td>
</tr>
<tr>
<td>3</td>
<td>FG</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

**Output Derating**

- Load (%)
- AMBIENT TEMPERATURE (°C)

**Output Derating VS Input Voltage**

- Load (%)
- INPUT VOLTAGE (VAC) 60Hz

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