## Features:
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan (Note5)
- Low profile 40.5mm
- High efficiency up to 90.5%
- Built-in remote ON-OFF control
- Built-in remote sense function
- LED indicator for power on
- 3 years warranty

### 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>SETUP, RISE TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSP-500-3.3</td>
<td>3.3V</td>
<td>90A</td>
<td>0 ~ 90A</td>
<td>297W</td>
<td>120mVp-p</td>
<td>2.8 ~ 3.6V</td>
<td>±0.5%</td>
<td>1500ms, 80ms/230VAC</td>
</tr>
<tr>
<td>RSP-500-4</td>
<td>4V</td>
<td>90A</td>
<td>0 ~ 90A</td>
<td>360W</td>
<td>120mVp-p</td>
<td>3.6 ~ 4.3V</td>
<td>±0.5%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-5</td>
<td>5V</td>
<td>90A</td>
<td>0 ~ 90A</td>
<td>450W</td>
<td>150mVp-p</td>
<td>4.5 ~ 5.5V</td>
<td>±0.5%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-12</td>
<td>12V</td>
<td>41.7A</td>
<td>0 ~ 17.1A</td>
<td>500.4W</td>
<td>150mVp-p</td>
<td>10 ~ 13.2V</td>
<td>±1.0%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-15</td>
<td>15V</td>
<td>33.4A</td>
<td>0 ~ 17.1A</td>
<td>510W</td>
<td>150mVp-p</td>
<td>13.5 ~ 18V</td>
<td>±1.0%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-24</td>
<td>24V</td>
<td>18.6A</td>
<td>0 ~ 17.1A</td>
<td>504W</td>
<td>150mVp-p</td>
<td>20 ~ 26.4V</td>
<td>±2.0%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-27</td>
<td>27V</td>
<td>10.5A</td>
<td>0 ~ 17.1A</td>
<td>502.2W</td>
<td>150mVp-p</td>
<td>26 ~ 30V</td>
<td>±2.0%</td>
<td>150ms/115VAC</td>
</tr>
<tr>
<td>RSP-500-48</td>
<td>48V</td>
<td></td>
<td></td>
<td>504W</td>
<td>150mVp-p</td>
<td>41 ~ 56V</td>
<td>±5.0%</td>
<td>150ms/115VAC</td>
</tr>
</tbody>
</table>

### INPUT

- **VOLTAGE RANGE**: Not specified
- **FREQUENCY**: 47 ~ 63Hz
- **POWER FACTOR (Typ.)**: PF>0.95
- **EFFICIENCY (Typ.)**: 81%
- **AC CURRENT (Typ.)**: 4.2A/115VAC
- **INRUSH CURRENT (Typ.)**: 20A/115VAC
- **LEAKAGE CURRENT**: <2mA

### OUTPUT

- **OVERLOAD**: 105 ~ 130% rated output power
- **OVER VOLTAGE**: 3.8 ~ 4.5V
- **OVER TEMPERATURE**: Shuts down above 105°C
- **REMOTE CONTROL**: POWER OFF: 4 ~ 10VDC between RC+(Pin 4)&RC-(Pin 3) on CN100
- **REMOTE SENSE**: Compensate voltage drop on the load wiring up to 0.3V
- **FAN CONTROL (Typ.)**: RTH2 ≥50°C ±10°C Fan on ; RTH2 ≥40°C ±10°C Fan off (Fan always on for 3.3-5V, Fan ON/OFF control for 12-48V)

### ENVIRONMENT

- **WORKING TEMP.**: -30 ~ +70°C (Refer to "Derating Curve")
- **HUMIDITY**: 20 ~ 90% RH non-condensing
- **VIBRATION**: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes

### SAFETY & EMC

- **SAFETY STANDARDS**: UL60950-1, TUV EN60950-1, EAC TP TC 004, CCC GB4943.1 approved
- **EMC EMISSION**: Compliance to EN55032 (CISPR32) Class B, EN61000-3-2, 3, EN55022, EN61000-4-3, EN61204-3 heavy industry level, criteria A, EAC TP TC 020
- **EMC IMMUNITY**: Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61204-3

### OTHERS

- **MTBF**: 187.7K hrs min.
- **DIMENSION**: 230*127*40.5mm (L*W*H)
- **PACKING**: 1.3Kg; 9pcs/12.7Kg/0.7CUFT

### 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. Derating may be needed under low input voltages. Please check the derating curve for more details.
5. Fan always on for 3.3-5V, Fan ON/OFF control for 12-48V.
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. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on http://www.meanwell.com)
7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft)
500W Single Output with PFC Function

**RSP-500 series**

**Mechanical Specification**

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Unit:mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>226A</td>
<td></td>
</tr>
</tbody>
</table>

![Mechanical Diagram](image)

**AC Input Terminal Pin No. Assignment (TB1)**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ACL</td>
</tr>
<tr>
<td>2</td>
<td>AC/N</td>
</tr>
<tr>
<td>3</td>
<td>FG</td>
</tr>
</tbody>
</table>

**DC Output Terminal Pin No. Assignment (TB2)**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>DC OUTPUT-V</td>
</tr>
<tr>
<td>4-6</td>
<td>DC OUTPUT+V</td>
</tr>
</tbody>
</table>

**Connector Pin No. Assignment (CN100):**

HRS DF11-04DP-2DS or equivalent

**Block Diagram**

![Block Diagram](image)

**Derating Curve**

![Derating Curve](image)

**Static Characteristics**

![Static Characteristics](image)
### Function Description of CN100

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-S</td>
<td>Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.</td>
</tr>
<tr>
<td>2</td>
<td>+S</td>
<td>Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.</td>
</tr>
<tr>
<td>3</td>
<td>RC-</td>
<td>Return for RC+ signal input.</td>
</tr>
<tr>
<td>4</td>
<td>RC+</td>
<td>Turns the output on and off by electrical or dry contact between pin 4 (RC+) and pin 3 (RC-). 0–0.8VDC or open: Power ON, 4–10VDC: Power OFF.</td>
</tr>
</tbody>
</table>

### Function Manual

1. **Remote Control**
   - The PSU can be turned ON/OFF by using the "Remote Control" function.
   - Between RC-(pin3) and RC+(pin4) on CN100
   - SW OFF (0 – 0.8VDC) or open: ON
   - SW ON (4 – 10V): OFF

2. **Remote Sense**
   - The remote sensing compensates voltage drop on the load wiring up to 0.3V
   - Sense lines should be twisted in pairs.