3000W Front End AC-DC Power Supply

FEATURES
- 80 PLUS Plantinum Efficiency (>96%)
- 12V main output
- 12V standby output
- Redundant (N+1) operation
- Power Factor Correction
- Overvoltage, overcurrent, overtemperature protection
- Remote on/off control
- Internal cooling fan (variable speed)
- PMBus interface
- RoHS compliant
- Two year warranty

Model List

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fan Airflow Direction</th>
<th>Input Voltage Range</th>
<th>Output Voltage Range</th>
<th>Output Current Range</th>
<th>Output Standby Voltage Range</th>
<th>Output Standby Current</th>
<th>Rated Power</th>
<th>AC Input Current</th>
<th>Insurh Current</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPS-3000AB-2A</td>
<td>Reverse: AC input to DC output</td>
<td>180~264</td>
<td>12</td>
<td>1<del>220(180</del>207VAC)</td>
<td>1<del>245(208</del>240VAC)</td>
<td>12</td>
<td>0.05~4.5</td>
<td>2700</td>
<td>16 @ 208 Vac</td>
<td>&lt;55</td>
</tr>
<tr>
<td>DPS-3000AB-1A</td>
<td>Forward: DC output to AC output</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Input Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>47~63 Hz</td>
</tr>
<tr>
<td>Power Factor</td>
<td>&gt;0.98 @ 50% load</td>
</tr>
<tr>
<td>Leakage Current</td>
<td>&lt;1.5mA @ 240VAC/50Hz</td>
</tr>
</tbody>
</table>

Output Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ripple &amp; Noise (Note 1)</td>
<td>12V: &lt;160mVp-p</td>
</tr>
<tr>
<td></td>
<td>12VSB: &lt;160mVp-p</td>
</tr>
<tr>
<td>Voltage Regulation</td>
<td>12V: ±5%</td>
</tr>
<tr>
<td></td>
<td>12VSB: ±5%</td>
</tr>
<tr>
<td>Rise Time</td>
<td>5~70ms</td>
</tr>
<tr>
<td>Hold Up Time</td>
<td>&gt;10ms</td>
</tr>
</tbody>
</table>

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http://www.deltaww.com/epsbg
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<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overload</td>
<td>&gt;270A for 200ms, shutdown and recovery</td>
</tr>
<tr>
<td>Over Voltage</td>
<td>12V: 13.5V–15V</td>
</tr>
<tr>
<td></td>
<td>12VSB: 13.5V–15V</td>
</tr>
<tr>
<td></td>
<td>Shutdown and latch off</td>
</tr>
<tr>
<td>Over Temperature</td>
<td>Shutdown</td>
</tr>
</tbody>
</table>

### Environmental Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>0<del>45°C (Forward) / 0</del>45°C (Reverse) Sea level</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-40~70°C</td>
</tr>
<tr>
<td>Storage Humidity</td>
<td>5~90%</td>
</tr>
<tr>
<td>Altitude</td>
<td>&lt;5000m</td>
</tr>
<tr>
<td>MTBF</td>
<td>400,000 hours (100% load and 40°C by Telcordia SR332)</td>
</tr>
<tr>
<td>Weight</td>
<td>Maximum 3.0Kg</td>
</tr>
</tbody>
</table>

### Safety

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Approvals</td>
<td>UL 60950-1 Second Edition</td>
</tr>
<tr>
<td></td>
<td>CSA</td>
</tr>
<tr>
<td></td>
<td>EN-60950 CB Scheme amendment 2</td>
</tr>
<tr>
<td></td>
<td>GHINA CQC</td>
</tr>
<tr>
<td></td>
<td>BSMI</td>
</tr>
<tr>
<td>EMC Emission</td>
<td>EN55022 (CISPR22) Class A, EN61000-3-2, -3</td>
</tr>
<tr>
<td>EMC Immunity</td>
<td>EN55024, EN61000-4-2,3,4,5,6,8,11</td>
</tr>
</tbody>
</table>

### Function

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Good signal</td>
<td>Active TTL high when output is within regulation limits</td>
</tr>
<tr>
<td>PS-ON signal</td>
<td>The output will be enabled when this signal is pulled low, outputs disabled when pin is driven high or left open</td>
</tr>
<tr>
<td>PS Interrupt L (Alert)</td>
<td>Signal high when power supply is working fine. Signal low when error occurs.</td>
</tr>
<tr>
<td>PS_KILL (Short pin)</td>
<td>This input signal has a short pin in the output connector, ANDed with PS_ON_L. It functions as the first break / last mate pin, thus, supports hot-swap capability. This enables or disables the main +12V output of the power supply. When this signal is shorted to ground by the system, the main +12V output shall be enabled.</td>
</tr>
<tr>
<td>PS_Present_Low (short pin)</td>
<td>This input signal is grounded inside the power supply via 50 Ohm resistors. It can be used to sense PSU seated by using a suitable pull-up to Aux bus with a noise filter capacitor connected to Aux return.</td>
</tr>
<tr>
<td>IShare</td>
<td>This signal is an analog bus which should allow two or more power supplies to share the system load current.</td>
</tr>
<tr>
<td>AC_OK</td>
<td>The AC_OK is an open collector output signal which is normally HIGH whenever input AC voltage is within allowable limits.</td>
</tr>
</tbody>
</table>
# 3000W Front End AC-DC Power Supply

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>AC GOOD Green LED</th>
<th>PWR GOOD Green LED</th>
<th>FAULT Amber LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 AC present, Aux output ON, Main</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>2 AC present, Aux output ON, Main</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>3 Fault of any kind; supply in chassis, electrical, thermal or</td>
<td>ON</td>
<td>OFF</td>
<td>Blinking 1.5 Sec on, 1.5 Sec off</td>
</tr>
<tr>
<td>4 Power supply plugged in to a live</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>5 Power supply has AC power but not plugged in to the chassis</td>
<td>Blinking Green 1.5 Sec on 1.5 Sec off</td>
<td>OFF</td>
<td>OFF</td>
</tr>
</tbody>
</table>

**Notes**

1. Ripple & Noise measurement bandwidth is 0-20MHz, with 10µF ceramic capacitor and 1µF ceramic capacitor.
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Mechanical Drawing (DPS-3000AB-1 A/DPS-3000AB-2 A)

Output Pin Assignment

OUTPUT CONNECTOR
MOLEX 75555-104
3000W Front End AC-DC Power Supply

<table>
<thead>
<tr>
<th>PIN No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>POWER_GOOD(SHORT PIN)</td>
<td>PS_KILL(SHORT PIN)</td>
<td>PS_PRESENT(SHORT PIN)</td>
</tr>
<tr>
<td>B</td>
<td>RETURN</td>
<td>ISHARE</td>
<td>RETURN</td>
</tr>
<tr>
<td>C</td>
<td>PS_INTERRUPT</td>
<td>RETURN</td>
<td>ACOK</td>
</tr>
<tr>
<td>D</td>
<td>RETURN</td>
<td>PSON</td>
<td>RESERVED</td>
</tr>
<tr>
<td>E</td>
<td>SDA</td>
<td>SCL</td>
<td>A0</td>
</tr>
<tr>
<td>F</td>
<td>RESERVED</td>
<td>A1</td>
<td>A2</td>
</tr>
<tr>
<td>G</td>
<td>RESERVED</td>
<td>RESERVED</td>
<td>RESERVED</td>
</tr>
<tr>
<td>H</td>
<td>12VSB</td>
<td>12VSB</td>
<td>12VSB</td>
</tr>
<tr>
<td>P1−P2</td>
<td>RETURN</td>
<td>12VSB</td>
<td>12VSB</td>
</tr>
<tr>
<td>P3−P4</td>
<td>12.1V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WARRANTY**
Delta offers a two (2) years limited warranty. Complete warranty information is listed on our web site or is available upon request from Delta.

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