DC to DC Converter
Rack Mounting Version
24 V DC 4.2 Amps (100 Watts)
4 Circuit Breaker Outputs

Data Sheet & Product Brochure

Headquarters: Phoenix, Arizona
Orion Telecom Networks Inc.
20100, N 51st Ave, Suite B240,
Glendale AZ 85308
Phone: +1 480-816-8672
Fax: +1 480-816-0115
E-mail: sales@oriontelecom.com
Website: http://www.oriontelecom.com

Regional Office: Miami, Florida
Orion Telecom Networks Inc.
4000 Ponce de Leon Blvd. Suite 470,
Coral Gables, FL 33146 U.S.A.
Phone: 1-305-777-0419,
Fax: 1-305-777-0201
E-mail: sales@oriontelecom.com
Website: http://www.oriontelecom.com
Description

Orion’s DC to DC converter may be used to convert - 48 V DC (range 36 V DC to 76 V DC) Main Input Voltage to 24 V DC output voltage.

The DC to DC converter is designed for telecom applications requiring stable DC voltage.

This is an external converter power supply which is available in a 19 inch rack mount version, with four input/output terminals:

- INPUT - 48 V DC (range 36 V DC to 76 V DC)
- OUTPUT 24 V DC 4.2 Amps 100 Watts

Application Diagram

Features

- Converts - 48 V DC (range 36 V DC to 76 V DC) Main Input Voltage to 24 V DC, 4.2 Amps (100 Watts)
- Small and compact
- High quality and cost effective
- UL, recognized, TUV approved, CSA certified
- Rugged PCB type construction

Safety Agency Approvals

- UL60950
- C-UL recognized
- TUV approved

CE Marking

- Low Voltage Directive
- EMC Directive

<table>
<thead>
<tr>
<th>INPUT VOLTAGE [V]</th>
<th>- 48 V DC (range DC 36-76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX OUTPUT WATTAGE [W]</td>
<td>100 W</td>
</tr>
<tr>
<td>DC OUTPUT</td>
<td>4.2A @ 24 V DC</td>
</tr>
</tbody>
</table>
**Technical Specifications**

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>[V]</th>
<th>DC 36 to 76</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>[A]</td>
<td>2.39typ</td>
</tr>
<tr>
<td>Efficiency</td>
<td>[%]</td>
<td>88typ</td>
</tr>
<tr>
<td><strong>Output Voltage</strong></td>
<td>[V]</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Current</td>
<td>[A]</td>
<td>0 to 4.2A (Peak)</td>
</tr>
<tr>
<td>Line Regulation</td>
<td>[mV]</td>
<td>48 max</td>
</tr>
<tr>
<td>Load Regulation</td>
<td>[mV]</td>
<td>48 max</td>
</tr>
<tr>
<td>Ripple</td>
<td>[mVp-p]</td>
<td>120 max</td>
</tr>
<tr>
<td>Ripple Noise</td>
<td>[mVp-p]</td>
<td>150 max</td>
</tr>
<tr>
<td>Temperature</td>
<td>[°C]</td>
<td>240 max</td>
</tr>
<tr>
<td>Regulation</td>
<td>[mV]</td>
<td>480 max</td>
</tr>
<tr>
<td>Drift</td>
<td>[mV]</td>
<td>90 max</td>
</tr>
<tr>
<td>Start-Up Time</td>
<td>[mS]</td>
<td>200 max (DC/IN 48V, Io=100%)</td>
</tr>
</tbody>
</table>

**Overcurrent Protection**
Works over 105% of rating and recovers automatically

**Overvoltage Protection** [V]
27.60 - 33.60

**Operating Temp., Humidity and Altitude**
-40 to +100°C, 20 to 95% RH (Non-condensing)
3000 m (10,000 feet) max

**Storage Temp., Humidity and Altitude**
-40 to +100°C, 20 to 95% RH (Non-condensing)
9000 m (30,000 feet) max

**Vibration**
10 to -55Hz, 49.0m/s² (5G), 3 minutes period,
60 minutes each along X, Y and Z axis

**Impact**
196.1m/s² (20G), 11ms, once each X, Y and Z axis

**Safety Agency Approvals**
UL60950-1, C-UL, EN60950-1

**Conducted Noise**
Complies with FCC-B, CISPR22-B, EN55022-B

**Cooling Method**
Convection
## Ordering Information

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Part #</th>
<th>Product Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VCL-48V DC-24DC-100W-4.2A-RK PS</td>
<td>Power Supply (External) DC to DC Converter, 19 inch Rack Mount External Converter, Converts - 48 V DC (range 36 V DC - 76 V DC) to 24 V DC Output 4.2 Amps (100 watts)</td>
<td>1</td>
</tr>
</tbody>
</table>

Technical specifications are subject to changes without notice.
Revision 5 - November 19, 2013