LRS Series

Rugged convection cooled power supplies

Convection Cooled
Lambda's LRS single output power supplies are ideal for rugged environments found in industrial applications. Environmental conditions, such as shock, vibration, humidity, low and high temperatures can seriously affect the performance of a power supply, thereby jeopardizing the integrity and dependability of electronic equipment. Lambda's LRS Series was specifically designed to operate within these parameters ensuring the highest reliability. Up to 1450 watts without the use of fans and available output voltages from 5 to 28 volts, the LRS Series will be the preferred choice for a high quality, maximum up-time supply.

Low Output Ripple and Noise

Rugged Construction

5 Year Warranty

Meets MIL-STD-810C Environment Tests

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AC Input ................. 95-122VAC, 47-440Hz, for the LRS-56 Series.
167-265VAC, 47-440Hz, for the LRS-59 Series.

DC Input ................. 145VDC ±10% for the LRS-56, 260 to 370 VDC for the LRS-59.

Fusing ..................... Line fuse removes the power supply from the line if a short occurs in the input circuitry.

Inrush Current Limiting .... The turn-on in-rush current will not exceed 40 amps peak from a cold start for the LRS-56, (50)amps on the LRS-59.

DC Output Controls ........ Simple screwdriver adjustment over the entire voltage range.

Remote Programming Voltage ........ Volt per volt.

Remote Resistive Programming .......... 1000 ohms/V.

Line Regulation ............ 0.1% from low line to high line.

Load Regulation ............ 0.1% from no load to full load.

Ripple and Noise ............ 10mV RMS, 35mV pk-pk for 5V models, 15mV RMS, 100mV pk-pk for 12V through 28V models (20mHz bandwidth).

Overshoot .................. No overshoot at turn-on, turn-off or power failure.

Overvoltage Protection ....... Standard on all models. AC must be recycled to reset the OV circuit.


Cooling ..................... All units are convection cooled. No fans or blowers are needed.

Operating Temperature Range Continuous duty -10°C to +71°C with suitable derating above 40°C. Guaranteed turn-on at -20°C.

Storage Temperature .......... -55°C to +85°C.

Fungus Proofing ............ All units are inherently fungi inert.

Temperature Coefficient ...... 0.03%/°C.

Remote On/Off ............... Provision is made for digitally controlled remote turn-on, turn-off (TTL Compatible).

Remote Sensing .............. Provision is made for remote sensing to eliminate the effects of power output lead resistance on DC regulation.

Thermal Protection ........... Self-resetting thermostat.


Safety Agency Approval ...... UL1950, CSA6960

Warranty .................... 5 years.

<table>
<thead>
<tr>
<th>OUTPUT</th>
<th>POWER (W)</th>
<th>40°</th>
<th>60°</th>
<th>71°</th>
</tr>
</thead>
<tbody>
<tr>
<td>5V (4.75-6.25)</td>
<td>450</td>
<td>90.00</td>
<td>77.00</td>
<td>61.00</td>
</tr>
<tr>
<td></td>
<td>1250</td>
<td>250.00</td>
<td>200.00</td>
<td>165.00</td>
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<tr>
<td>12V (11.4-12.6)</td>
<td>564</td>
<td>47.00</td>
<td>41.00</td>
<td>34.00</td>
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<tr>
<td></td>
<td>1320</td>
<td>110.00</td>
<td>92.00</td>
<td>74.00</td>
</tr>
<tr>
<td>15V (14.25-15.75)</td>
<td>570</td>
<td>38.00</td>
<td>33.00</td>
<td>28.00</td>
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<tr>
<td></td>
<td>1350</td>
<td>90.00</td>
<td>75.00</td>
<td>60.00</td>
</tr>
<tr>
<td>24V (22.8-25.2)</td>
<td>600</td>
<td>25.00</td>
<td>22.50</td>
<td>18.50</td>
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<tr>
<td></td>
<td>1440</td>
<td>60.00</td>
<td>50.00</td>
<td>40.00</td>
</tr>
<tr>
<td>28V (26.6-29.4)</td>
<td>616</td>
<td>22.00</td>
<td>20.00</td>
<td>16.00</td>
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<tr>
<td></td>
<td>1456</td>
<td>52.00</td>
<td>43.00</td>
<td>34.00</td>
</tr>
</tbody>
</table>

NOTE:  
1. DIMENSIONS ARE IN INCHES EXCEPT DIMENSIONS ( ) ARE IN MM.  
2. 8-32 UNC-2B TAPPED HOLES FOR CUSTOMER MTG.  
   SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN .25 (6.3).  
   *A* HOLES FOR LRS-56 ONLY.
   *B* HOLES FOR LRS-59 ONLY.  
3. CUSTOMER MUST PROVIDE CLEARANCE AROUND VENT HOLES TO ALLOW FOR AIR FLOW.