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# Cordex® HP LPS36

## -48VDC to $\pm 190$ VDC Line Power System



- Modular Line Powering System designed for remotely powering network equipment over twisted copper lines
- High efficiency >92% for increased OPEX savings and reduced carbon footprint
- High temperature tolerance for installation in Central Office or harsh OSP cabinet environments
- Industry leading power density enabling up to 48 channels in a compact 23" 2RU footprint
- High reliability convection-cooled design with optional fan tray
- Cordex® CXCI HP system controller provides advanced remote web based monitoring and control features

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### **The LPS36 is a compact, modular DC to DC up-converter system designed for distributed power communications applications using $\pm 190$ VDC (RFT-V circuit) over existing copper network.**

Using switched mode technology, the LPS36 quad output converter module provides outstanding efficiency in a compact design. Applications include powering DSLAM's as well as the Optical Network Terminals in Fiber to the Home networks. The LPS36 can be installed in the Central Office or in a remote OSP cabinet. Line powering enables the use of central office backup power without the need at the remote site for AC utility or battery backup, thus reducing truck rolls and operating expenses.

The LPS36 packs maximum power into minimum space without compromising on features. A fully equipped 2RU 23" shelf includes up to 48 channels. Standard system features include Alpha Cordex CXCI HP controller, front access connection points and connectorized cable output.

Alpha's LPS36 modular DC to DC converter systems incorporate a full range of standard features, including current limiting and individual ground fault interrupt for each circuit. Particular emphasis is placed on recognizing a fault condition and shutting down the circuit as quickly as possible to ensure the highest level of safety. Compliance with GR-1089-CORE - Class A2 enables craftspeople to safely work on the equipment while powered which significantly reduces the administrative, labeling requirements and overheads normally associated with the high voltage wiring.

# Cordex® HP LPS36 -48VDC to ±190VDC Line Power System

P/N: 0120011-001

Electrical	
<b>Input Voltage:</b>	-40 to -60VDC
<b>Output Voltage:</b>	±190VDC
<b>Power:</b>	96W nominal per output >92W worst case conditions (4 outputs per module)
<b>Efficiency:</b>	>92%
<b>Regulation:</b>	<2% no load to full load <1% line
<b>Noise:</b>	<b>Wide band:</b> <500mV RMS (10kHz to 10MHz) <2.5V pk to pk (10kHz to 100MHz) <b>Acoustic:</b> <60dBa @ 1m (3ft), 55°C
Mechanical	
Quad Output Power Module	
<b>Dimensions:</b>	<b>mm:</b> 86H x 35W x 283D <b>inches:</b> 3.4H x 1.4W x 11.1D
<b>Weight:</b>	0.61kg (1.4lbs)
Shelves	
23" Shelf - 12 Modules	
<b>P/N: 0300090-001</b> <b>A/B Input P/N: 0300090-011</b>	
<b>Dimensions:</b>	<b>mm:</b> 88H x 536W x 311D <b>inches:</b> 3.5H x 21.1W x 12.3D
<b>Weight:</b>	7.28kg (16lbs)
19" Shelf - 9 Modules	
<b>P/N: 0300055-001</b> <b>A/B Input P/N: 0300055-011</b>	
<b>Dimensions:</b>	<b>mm:</b> 88H x 435W x 311D <b>inches:</b> 3.5H x 17.1W x 12.3D
<b>Weight:</b>	5.45kg (12lbs)
Connections	
<b>Input:</b>	<b>HOT:</b> 2x sets, ¼" holes on ⅝" centers <b>RTN:</b> 2x sets, ¼" holes on ⅝" centers
<b>Output:</b>	Two 50-pin amp-champ style connector



Environmental	
<b>Temperature:</b>	Operation with forced air cooling: -40 to 65°C (-40 to 149°F) with minimum cabinet air flow @ 200LFM Operation with convection cooling: -40 to 45°C (-40 to 122°F) single shelf operation only or separated by 1RU baffle
<b>Storage:</b>	-40 to 85°C (-40 to 185°F)
<b>Humidity:</b>	0 to 95% RH non-condensing
<b>Elevation:</b>	-500 to 2800m (-1640 to 9186ft)
<b>Heat Dissipation:</b>	<118 BTU per hour/module
Performance/Features	
<b>P/N: 0180053-001</b>	CXCI-HP Controller
<b>P/N: 0380070-001</b>	Blanking Plate Kit (2 items)
<b>P/N: 0300090-002</b>	23" Fan Tray
<b>P/N: 0300090-003</b>	23" Baffle
<b>P/N: 0300055-002</b>	19" Fan Tray
<b>P/N: 0300055-003</b>	19" Baffle
Communication Ports:	
<b>CAN:</b>	Smart Peripherals
<b>Ethernet:</b>	10/100 Base-T for TCP/SNMP features
<b>Alarm Relays:</b>	<ul style="list-style-type: none"> <li>Form C major</li> <li>Form C minor</li> <li>Form C fan tray alarm</li> </ul>
<b>Tri Color LED:</b>	<ul style="list-style-type: none"> <li>System ok (green)</li> <li>Minor alarm (yellow)</li> <li>Major alarm (red)</li> </ul>
<b>Test Points:</b>	4 connectors to test output voltages
Agency Compliance	
<b>Safety:</b>	<ul style="list-style-type: none"> <li>CSA/UL 60950-1</li> <li>CSA/UL 60950-21 (RFT-V circuit)</li> </ul>
<b>EMC:</b>	ETSI 300 386
<b>Emissions:</b>	CFR47 (FCC) Part 15 Class A
<b>Immunity:</b>	<ul style="list-style-type: none"> <li>EN 61000-4-2</li> <li>EN 61000-4-3</li> <li>EN 61000-4-4</li> <li>EN 61000-4-5</li> <li>EN 61000-4-6</li> </ul>
<b>NEBS/Telcordia:</b>	<ul style="list-style-type: none"> <li>GR-1089-CORE - Class A2</li> <li>GR-63-CORE</li> </ul>



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