



an EnerSys company

# LPR48-150-IP68

±190Vdc to 48Vdc Line Powering  
Remote Down-Converter Unit



- Remote powering module providing up to 150W output at 48Vdc to power remote nodes
- Designed for installation in underground vaults, poles, walls and strand mount
- Wide operating temperature range for deployment in harsh OSP environments
- High reliability IP68 sealed and ruggedized design for a long life cycle
- Built-in holdup to ensure that the remote equipment rides through line surges

**The LPR48-150-IP68 is a compact, sealed, standalone, line powered down-converter unit designed for remote site powering applications using ±190Vdc (RFT-V circuit) over twisted copper pairs.**

The LPR48-150-IP68 contains two isolated down-converter circuits to convert the input from two (2) twisted copper pairs and provide up to 150W at 48Vdc to remote telecommunication equipment.

Applications include powering mini-DSLAM's (sealed DSLAM's), Multi-Dwelling Units (MDU) in Fiber to the Home Networks (FTTH), Distribution Points (FTTdP) as well as outdoor small cells in wireless networks. The LPR48-150-IP68 is sealed to an IP68 rating and may be discreetly deployed virtually anywhere: telecom vaults, pedestals, aerial strands, walls, lamp posts, poles, sides of buildings, bus stops, etc.

Line powering enables use of the existing centralized power node backup; eliminating the need at the remote site for AC utility or battery backup. This reduces installation and operating expenses, and provides flexibility related to site selection for the installation of the remote communication equipment.

Power holdup capabilities are incorporated into the LPR48-150-IP68 to provide at least 150 milliseconds of backup for a 100W load. The holdup prevents potential lengthy customer communication outages due to delayed remote node resetting (caused by line surges), ensuring maximum network reliability.

# LPR48-150-IP68 $\pm 190\text{Vdc}$ to $48\text{Vdc}$ Line Powering Remote Down-Converter Unit 07/2020

P/N: 0370414-001 LPR48-150-IP68

Electrical	
Input Voltage:	200 to 380Vdc ( $\pm 100$ to $\pm 190\text{Vdc}$ )
Number of Inputs:	2
Input Current Per Feed:	245mA max
Output Voltage:	-54 to -56Vdc
Output Power:	Up to 150W (the power available from the unit depends on the distance from the up-converter and wire gauge of the twisted copper pairs)
Output Current (de-rates with input voltage):	2.74A
Efficiency:	89.5%
Electrical Noise:	<ul style="list-style-type: none"><li>&lt;100mVRMS to 20MHz (wide band)</li><li>&lt;500mVp-p to 20MHz</li></ul>
Holdup:	>150 millisecond at 100W load
Load Sharing:	Within 10%
Mechanical	
Dimensions:	<b>mm:</b> 70H x 255W x 140D <b>inches:</b> 2.8H x 10.0W x 5.5D
Weight:	1.5kg (3.3lbs)
Connections:	Two IP68 sealed connectors

Environmental	
Temperature:	<b>Operation:</b> -40 to 65°C (-40 to 149°F) <b>Storage:</b> -40 to 85°C (-40 to 185°F)
Environmental Protection:	IP68
Humidity:	5 to 95% RH
Elevation:	-500 to 2800m (-1640 to 9186ft)
Performance/Features	
Alarm:	Form C contact
Agency Compliance	
Safety:	<ul style="list-style-type: none"><li>IEC/CSA/UL 60950-1</li><li>Compatible with IEC/CSA/UL 60950-21 (RFT-V circuit)</li><li>IEC/CSA/UL 60950-22</li><li>Low Voltage Directive 2006/95/EC</li><li>GR-1089-CORE Safety</li></ul>
EMC:	<ul style="list-style-type: none"><li>CFR47 (FCC) Part 15 Class B</li><li>EN 300 386 v1.6.1</li></ul>

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