

SE41-2730

Remote Power Node Enclosure



Your Power Solutions Partner

- NEMA 3R Outdoor cabinet engineered to support 48Vdc power system and LPS36 Up-Converter system
- Provides up to one hundred forty-four (144) $\pm 190\text{Vdc}$ line powering RFT-V channels with current limiting and ground fault protection
- Wide AC input range (90 – 300Vac) for worldwide deployment
- High efficiency for reduced OPEX and carbon footprint
- Optional battery backup for continuous power during power outages
- Up to (3) 50-pair protector panels provided for output surge protection to each RFT-V circuit
- Flexible thermal management solutions enable convenient matching to load and environmental parameters

The SE41-2730 Remote Power Node (RPN) Enclosure is an outdoor NEMA 3R enclosure designed for distributed power communications applications, using $\pm 190\text{Vdc}$ line powering (RFT-V circuit) over OSP twisted copper pairs. Applications include powering DSLAM's, Security & surveillance remote nodes, ITS equipment and wireless infrastructures.

The SE41-2730 RPN cabinet is installed in locations where 90 to 300V AC utility power is available, to power multiple remote communication equipment located thousands of feet away using energized twisted copper pairs. The SE41-2730 RPN cabinet enables operators to reduce installation and operating expenses, and provides flexibility related to site selection for the remote equipment. The system may include options such as 48Vdc strings of batteries, load center with main disconnect, generator inlet, TVSS and heater.

Alpha's SE41-2730 RPN cabinet incorporates a full range of standard features, including primary surge protection, 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 work on the equipment while powered which significantly reduces administrative overheads and labelling requirements, associated with high voltage wiring. Monitoring and control of the remote equipment is provided through our advanced next-generation Cordex CXC HP system controller allowing the user to manage all aspects of their energy system.



SE41-2730 Remote Line Power Up-Converter System

ELECTRICAL

Input Voltage Range:90 to 300Vac
Output Voltage: ± 190 Vdc (RFT-V)
Output Power:
 • 96W nominal per circuit/channel (4 outputs per LPS36 module)
 • (Qty 1) LPS36 23" shelf = 48 CH
 • (Qty 2) LPS36 23" shelf = 96 CH
 • (Qty 3) LPS36 23" shelf = 144 CH
Protection:.....Up to (3) 50-pair protector panel with 5-pin gas tube modules (sold separately)
Efficiency:.....>92%
Regulation:.....<2% no load to full load

MECHANICAL

Dimensions:
 mm:.....1041H x 686W x 762D
 inches:41H x 27W x 30D
Weight:.....145kg (320lbs)
 Based on SE41-2730 with heat exchanger,
 Cordex 48Vdc power system and (1)
 LPS36 shelf
Mounting:.....Pole/Ground
Connections:
 Input:.....Load center with main disconnect
 Output:.....25-pair 3M 4005-GBM/TR connector

ENVIRONMENTAL

Temperature:
 Operation:-40 to 46°C (-40 to 115°F) plus solar loading
 Storage:-40 to 85°C (-40 to 185°F)
Enclosure Rating:NEMA 3R
Surge Protection:.....UL 497 Listed protectors for RFT-V circuits
Humidity:.....5 to 95% RH
Elevation:.....-500 to 2800m (-1640 to 9186ft)

PERFORMANCE/FEATURES

Alarm:
 • High/Low Temp
 • Intrusion
 • Power system minor/major
 • LPS36 minor/major

AGENCY COMPLIANCE

Safety: IEC/CSA/UL 60950-1, IEC/CSA/UL 60950-21
EMC: CFR47 (FCC) Part 15 Class A, EN 55022 class A

RELATED COMPONENTS

DC-DC Convtr, Pwr Mdl, CX-HP LPS36 P/N: 0120011-001
 Prot Mod, GDT, 5-Pin, 280-420V, Red P/N: 1620018
 Pwr Mdl, CXRF-HP 48-2.4kW, RoHS6 P/N: 0100003-001



Contact Alpha to discuss other configurations


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