

Product Features:

- RFT-C operation mode
- Up to 52 output lines
- Able to feed and monitor multiple remote sites
- Wide DC input voltage range
- Dual redundant DC input feeds
- 900W output power capability
- Short circuit protection
- Open circuit protection
- Full front access
- Modular, hot pluggable modules
- Alarm management for central up-converter, transmission lines and remote sites



Full control of your power needs

The Central Energy System is a solution to feed remote locations from a power source located in a central location (hub) over existing or new copper networks installed with the regulatory constraints applicable to telecom networks. The design based on the IEC (EN/UL) 60950/21 features the installation of 52 insulated and independent DC/DC converters. The system can be connected to 48V or 60V redundant sources to provide superior availability of the services at remote locations.

Based on IEC/EN 60950-21 RFT-C mode

The standard supports two modes for power transmission: RFT-C and RFT-V. The CES48/00L320 is designed around the RFT-C mode to offer full safety in any conditions of operation and distance from the central office equipment. Furthermore, the RFT-C mode is easy to dimension and implement. The current limitation avoids potential overheating of cables.

Safe far beyond requirements

The remote feeding solution from Mitra E&I results from years of experience and work with leading network operators. Beyond the requirements of the standard, each line is protected to bring the maximum current capability well below the safety limits in case of short circuits line to line or line to ground. Feeding power at 320V in normal operation, the voltage of each line will go independently below 50V if the line is opened.

Multiple benefits

Remote feeding solution offers numerous advantages versus traditional AC/DC conversion for remote locations. If the most obvious advantage is to support high availability of signals while avoiding the multiplication of batteries in the field, it also eases and supports faster network deployment. In many applications it finally brings significant measurable cost savings compared to traditional solutions.

Easy installation and maintenance in Central Office and remote hubs

The system is designed primarily to be installed in central office equipment, but can also be installed as one component of a delocalised power hub serving multiple small remote nodes. Designed and manufactured with state-of-the-art technologies and processes, electronic cards are hot pluggable and very easy to install and replace without any specific tools or special care. Monitoring of each line and converter is done by means of a led and internal alarm. Alarms are combined at the system level to offer quick identification of failure locally or remotely.

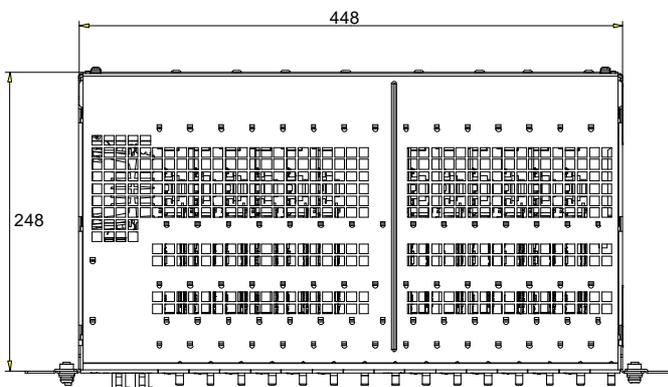
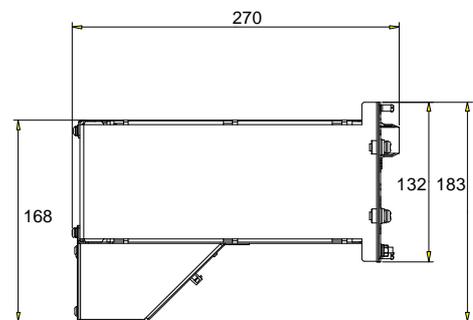
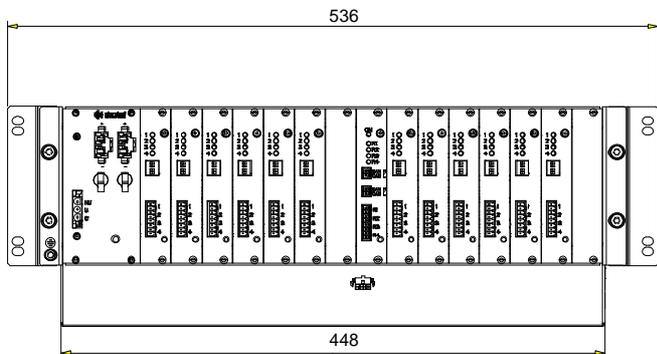


CES48/12L320RFM-2F

Remote feeding central up converter

SPECIFICATIONS	
Safety standards	EN60950-21 RFT-C; EN60950-1 (TNV networks)
Additional safety feature	Output voltage remains below 50V when the twisted pairs are not properly connected to a Mitra E&I remote down converter
Number of slots	14 slots, each slot can be used for either DC/DC up converter or control card
Output Voltage (twisted pairs connected to remote site)	320VDC \pm 8VDC
Output voltage (open circuit or low impedance loop)	50VDC max.
Output current / power	58mA per twisted pair - 232mA per card - 18W per up converter
Number of twisted pairs / card	4
Efficiency	85%
Input connection	2 redundant DC feeds with breaker
Operating input voltage	-39.6VDC to -72VDC
Input current consumption	30A max. (for 14 cards)
Protection	Input redundancy, input reverse polarity, thermal shutdown, open output line, short-circuited output line, low impedance output line, unbalanced output line
Monitoring	One monitoring can control up to four remote sites including remote feeding
Monitored variables	Input feed, central fan operation, functionality of remote feeding lines, operation of remote down converters, central and remote site general alarms, remote site output voltage, line voltage (on medium and high power remote site), line common voltage (on medium and high power remote site)
Visual indicators	One green led per twisted pair - flashing when in protection mode (Uout <50V)
Operating temperature	-5°C to 45°C
Cooling	Fan cooled via external fan tray (vertical airflow)
EMC	Complies with ES300386, ITU K-44 and ITU K-45
Dimensions	19" x 183mm x 250mm (WxHxD) - with fan tray
Access	Front access for all connectors

OUTLINE DIMENSIONS



Connectors

Description	Connector on unit	Mates with
1 DC input	Molex minifit 2 poles	pin tag AWG12 - 10
2 DC outputs	PHOENIX CONTACT MCV 1.5/8 - G - 3.5	PHOENIX CONTACT MCV 1.5/8 - ST - 3.5
4 Alarm	Molex minifit, Sr Reference: 42816 - 0212	Molex minifit, Sr Female Reference: 42816 - 0011

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