

CP053

REMOTE FEEDING CENTRAL UP CONVERTER

- › RFT-C operation mode
- › Up to 32 output lines (36 without monitoring)
- › Full front access
- › 640W output power capability
- › Start-up protection system
- › Modular, hot pluggable module
- › Monitoring capabilities with Compas for Remote (Eth/USB) and CEM03 monitoring (up/down side)



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 32 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.

The standard supports two modes for power transmission: RFT-C and RFT-V. The CP053/xxL350 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.

The remote feeding solution from Alpha Innovations 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 350V in normal operation, the voltage of each line will go independently below 50V if the line is opened.

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.

The system is designed primarily to be installed in central office equipment, but can also be installed as one component of a delocalized 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.

Electrical

Input Voltage: -39.6 to -72Vdc
Input Current
per module: 2.2A@39.6Vdc - 1.62@54Vdc
Full 9 cards system: 19,8A@39,6Vdc - 14,5A@54Vdc
Number of input: 1 (protected by breaker)
Efficiency: 85% typical @54Vdc (including start-up protection system)
Power output:
per line: 18.6W
Full 9 cards system: 670W
Current output
per line: 58mA @ 350Vdc
Full 9 cards system: 2.08A @ 350Vdc

Environment

Temperature:
Standard: -5 to 70°C (23 to 158°F)
Storage: -40 to 85°C (-40 to 185°F)
Humidity:
Operating: 5 to 95% RH non-condensing
Storage: 5 to 100% RH non-condensing
Elevation: Up to 2000m
Cooling: Fan cooled (with fan tray)

Mechanical

Dimensions:
mm: 88,5H x 483W x 267D
inches: 2H x 19W x 10,5D
Mounting: 19" or ETSI (Additional brackets)
Weight:
Empty shelf: 3.8kg (6.61lb)
Up converter module: 0.23kg (0.51lb)
Connections
DC output:
4 Positions: Female 8 poles connector
DC Input: Female 2 poles connector (Molex Mini-Fit)
Alarms: Female 2X2 poles connectors

Standards

Safety: CE marked
EN60950 / EN60950-21
Environment: RoHS compliant
IEC 60068-2-27
EMC: ETSI EN 300 386

9400 053 00101: CP053 STD1 (RACK/INPUT/FAN MODULE)

Related Items

Connectors & cables:

- 5304 500 00721: Mating power connector 8p, 3,50mm 8A (Multiple = 50p)
- 5304 500 00961: Mating con 2p for monitor COM or CAN (Qty=50)

Down Converter Module:

- REC006D48FN: Remote Feeding Low Power Down Converter

Fan Tray:

- CO4489/50: Rear Fan Tray
- CO4489/51: Fan Control Card
- CO4489/53: Front Fan Tray

Filler:

- 5304 500 00711: BLIND PANEL 3U CENTRAL (Qty=10)

Monitoring & Control:

- CEM03C: Controller for up to four remote sites.
- CES48-COMPAS: CES48 Monitoring And Control Unit
- MCU-CES48: Control Card with comp@s card for monitoring over TCP/IP. Can monitor up to 256 Sites
- REM06L3MOD: MON. FOR REC006D48 REM06L3MOD

Solution:

- Compas: Compas Board
- RES96: Remote Feeding High Power Down Converter

Up Converter Module:

- CEC4L350WGAC: RLP UP-CONV 48V/350V K20 COMPLIANT CEC4L350WGAC (Coated)
- RLP Splitter Module: 1U Splitter RLP for DSL
- RLP Splitter Shelf: Subrack for up to 4 RLP DSL splitter module