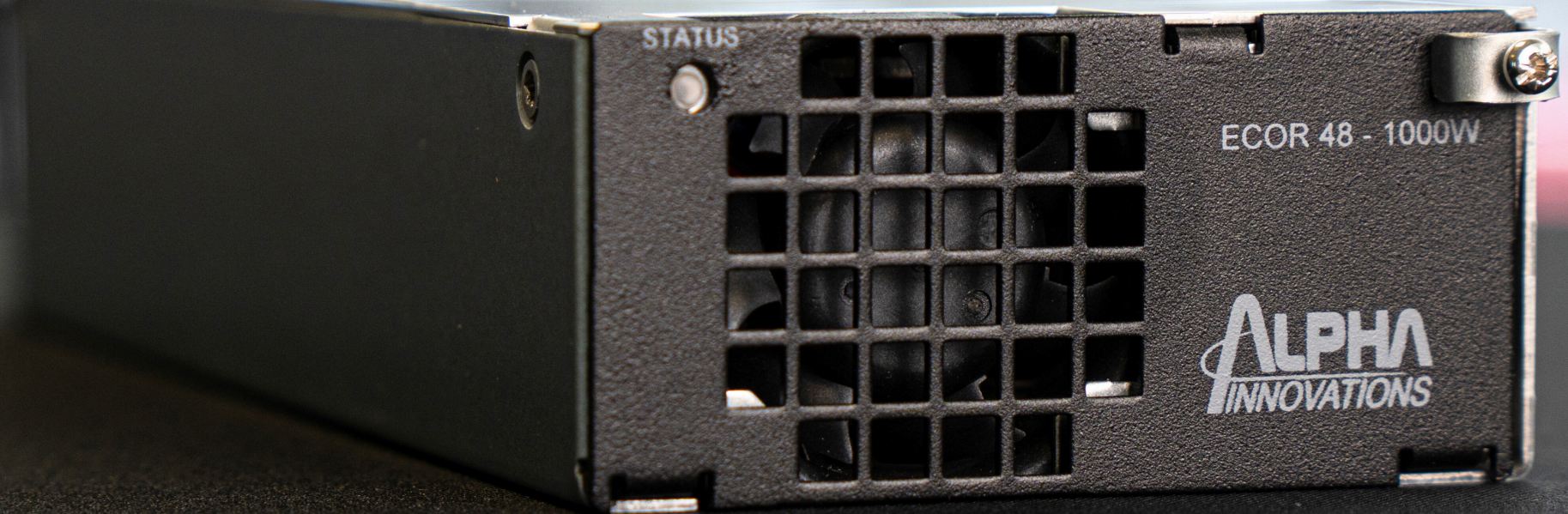


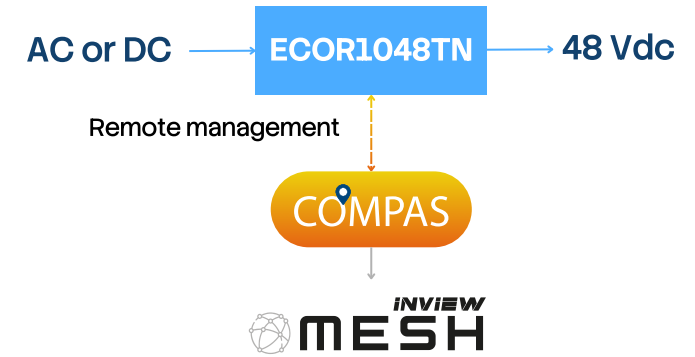
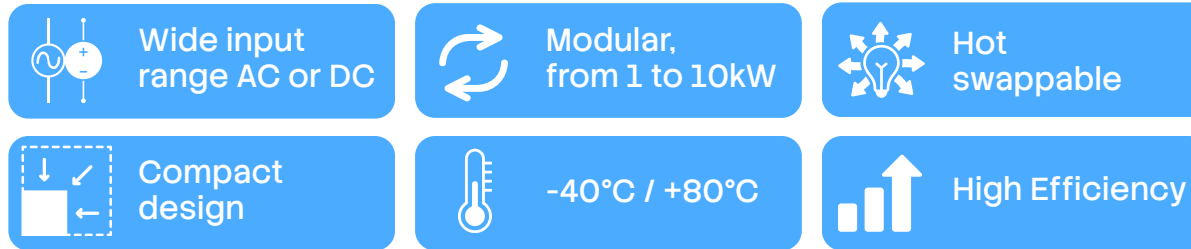
ECOR1048TN

Modular and scalable power supply for
48Vdc applications



DISCOVER →

Product Highlights



Applications Areas



Customer : Telecom integrators, Telecom operators
Application : Telecom access network street cabinets
Country : Worldwide
Expertise : Customized system 2kW - 4kW, environmental monitoring



Customer : Telecom kit provider
Application : Telephony service platforms
Country : Worldwide
Expertise : Custom mechanical shelf up to 2kW



Customer : Utility company
Application : Supply and back-up of their telecom infrastructure
Country : Costa Rica
Expertise : Dual input (AC-DC) 4kW, tropicalized

ECOR1048TN

1kW - 48 Vdc
Rectifier/Converter



Versatile, Rugged, and Reliable Power Conversion

The **ECOR1048TN** efficiently powers DC loads from a wide input range, seamlessly operating from either **AC sources** (90 to 265 Vac) or **DC sources** (85 to 408 Vdc). It automatically detects the input type by monitoring frequency and intelligently adapts to ensure continuous operation without user intervention.

Built for **durability**, the ECOR1048TN boasts a high MTBF of 500,000 hours, calculated according to Telcordia SR-332 RPP standards, ensuring long-term reliability in demanding applications.

Engineered for **harsh environments**, it operates across an extended temperature range from -40°C to +80°C, with derating starting at 65°C. This wide thermal tolerance helps reduce cabinet cooling requirements and contributes to cost savings in thermal management.

A built-in redundancy diode supports **hot-swap** and fault-tolerant configurations, enhancing system availability. The unit is safeguarded by advanced protection features, including smart output power limitation, overtemperature shutdown, input undervoltage and overvoltage protection (withstand up to 300 Vac without damage), and output overvoltage protection.

Specifications

Electrical

Input AC	
Input Standard Voltage	90 to 265 Vac
Input Nominal Voltage	200-240 Vac ; 230 Vac
Input Frequency	47 to 63Hz
Power Factor	> 98 %
Input Current	4.60A @ 230Vac 4.90A @ 110Vac 7A max (AC or DC input mode)
Input DC	
Input Voltage Nominal	85 to 408Vdc
Output DC	
Output Voltage	40.5 to 58Vdc
Output power	1000W from 180Vac to 264Vac input 500W from 90Vac to 132Vac input 525W to 1000W from 85Vdc to 180Vdc input 1000W from 180Vdc to 408Vdc input
Output current	18.5A @ -54Vdc High mains 9.3A @ -54Vdc Low mains - Load regulation :±0.5% - Line regulation :±0.2% - Wide band noise : 10mVrms - Psophometric noise : 5mVrms - Acoustic noise: 35dBA typ. (25°C)
Efficiency	96 %
MTBF	500 000 hours per Telcordia SR-332 (25°C)

Environmental

Operating Temperature	-40 to +80 °C
Full nominal output power T°	-33 to +65 °C
Storage Temperature	TBC
Humidity Operating	20 to 80% RH non-condensing
Humidity Operating Option	20 to 95% RH non-condensing
Humidity Storage	10 to 95% RH non-condensing
Elevation	Up to 3000 m
Cooling	Fan cooled (Front to rear)

Standards

Safety	- CE marked - EN 62368-1 - IEC 62368-1 (formerly IEC 60950-1) - CEBEC and c-SGS-us markings
Environment	- RoHS compliant 1-2 (class 2.3), 1-3 (class 3.3)
EMC	- EN 61000-6-1 - ETSI EN300386 - EN 61000-6-3
Global Approvals	- UL 62368 certified - c-SGS-us

Features

Protection	- Automatic input status (Power limits, AC or DC mode) - Mains out of range (input software + fuse) - Output overvoltage and overload Short circuit current - Smart power derating between 65 and 80°C : - Derating of 3% @DC & high AC voltage range - Smart power derating between 70 and 80°C : - Derating of 4% @low AC source voltage - Fan Failure protection - Thermal shutdown Hot swap
Indicators	- LED off : no power available - Green LED : no failure - Orange LED : Stand by (remote off) - Red LED : Low DC voltage (<37Vdc) - Blinking green LED : output power is derated - Blinking red LED : AC failure, thermal failure or short circuit
Customization if combined with monitoring unit	- Specific configuration - Python Scripting - Specific alarming

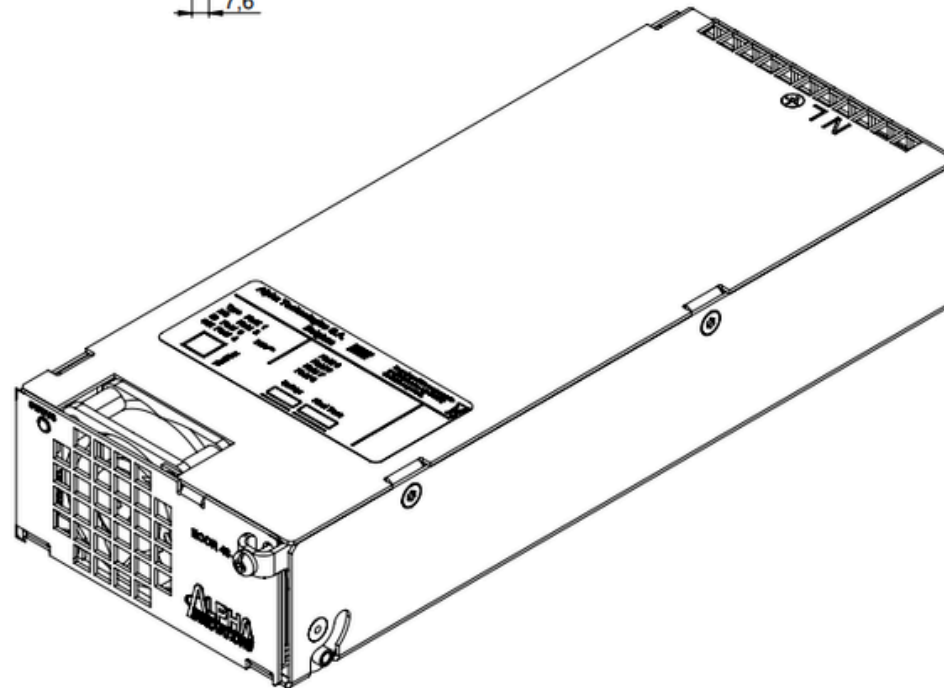
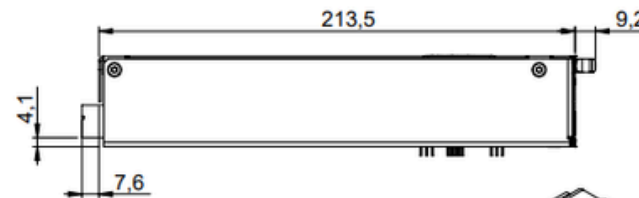
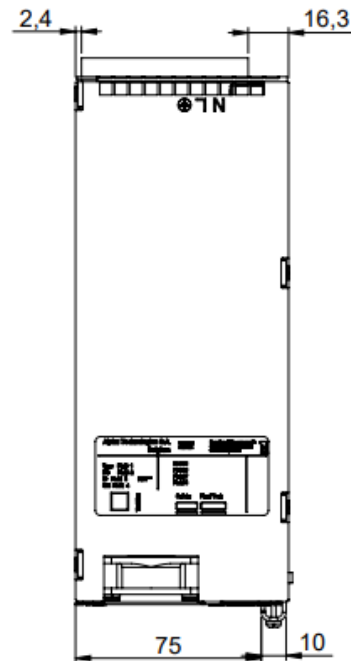
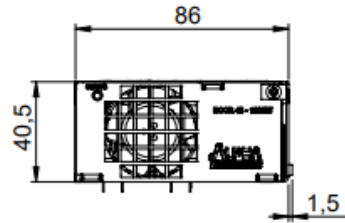


Safely manage your system from anywhere

Part Number

9411 011 05101	ECOR1048TN 1kW Rectifier
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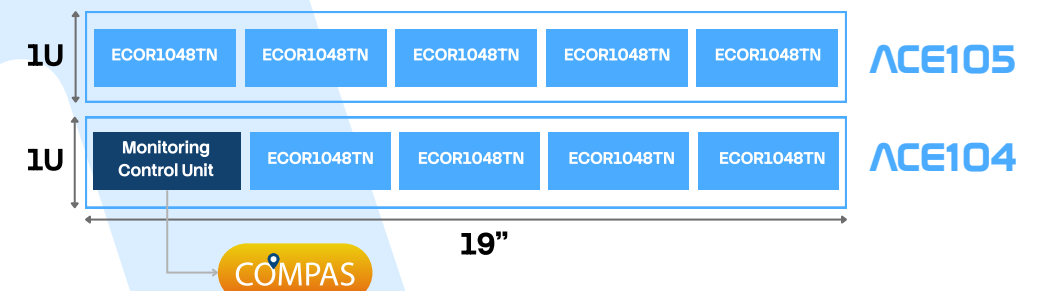
Mechanical dimensions



Dimensions (mm)	40.5H (1U) x 86W x 213.5D
Dimensions (inches)	1.6H x 3.4W x 8.4D
Weight (kg)	1.1

Related items

Modular & Configurable Power Racks

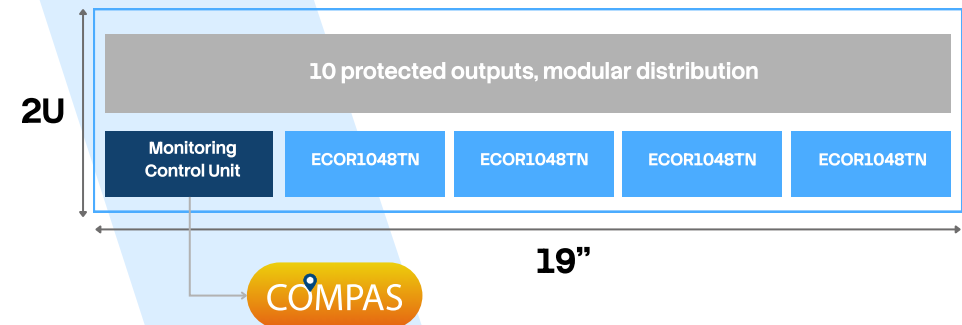


ACE Shelves Series

The **ACE Series** is a compact line of 19" power racks from Alpha Innovations, with full front access, hot-swappable rectifiers, advanced monitoring, and flexible battery management, ideal for space-constrained, high-reliability applications.

Related items

Combining power supplies and distribution



CAPTIN 1000BW

The **CAPTIN 1000BW** is an integrated 2U - 19" power rack from Alpha Innovations, designed for outdoor telecom cabinets. Delivering up to 4000 W, it integrates power conversion, distribution, and advanced monitoring



More info ?

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