





ACE104

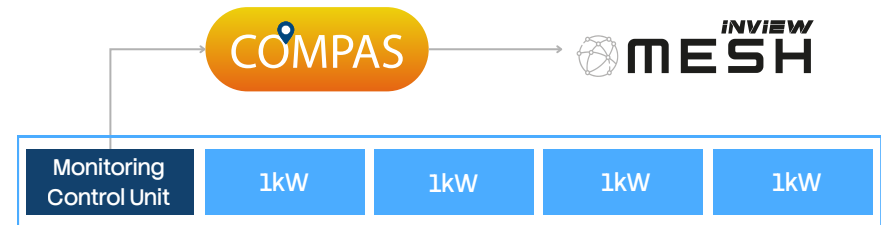
1U - 19" power racks with
advanced monitoring



DISCOVER →

Product Highlights

 Battery Management	 Modular, from 1 to 4kW
 Rackable	 Advanced Monitoring



Applications Areas

TELECOM NETWORK

Customer : Telecom integrator
Application : Power supply and battery management of their telecom access network.
Country : Worldwide
Expertise : Customized system 3kW

UTILITY NETWORK

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

ACE104

1U - 19" power racks with
advanced monitoring



Modular, Connected and Reliable

The **ACE104** is a robust 19" power rack solution designed for demanding **industrial applications**.

Built for flexibility, reliability, and control, it offers hot-swappable rectifiers, advanced battery management, and intelligent system supervision.

Equipped with **4 configurable power slots**, the ACE104 supports:

- Our DC/DC converters (48V – 1kW)
- Or our ECOR converters (AC/DC input, 48V – 1kW output)

One dedicated slot hosts our industrial-grade **monitoring unit**, enabling advanced system configuration: battery current limiting, derating curves, customized alarm thresholds, and more. Furthermore, a battery LVD protection is provided to safeguard your infrastructure.

With **COMPAS**, our embedded monitoring software, users gain secure access to system parameters, alarms, and event logs - remotely. Indeed, COMPAS supports XML, SNMP, FTP and web based services enabling a virtually infinite opportunity to put sites and networks under perfect control. Furthermore, Python scripting is supported for on-site automation, such as alarm logic, remote test routines, or access control functions.

The ACE104 is **scalable** and can be paired with the **ACE105** providing up to 5-slot power extension.

Specifications

Electrical

Input	
Input Standard Voltage AC	100 to 240 Vac
Input Frequency	50 / 60 Hz
Input Standard Voltage DC	100 to 340 Vdc
Input Voltage Maximum	300 Vac / 410 Vdc
Input Current	Refer to Converter Module (CDCWI1048 or ECOR1048)
Efficiency	Refer to Converter Module (CDCWI1048 or ECOR1048)
Output DC	
Output Voltage	-40.5 to -58 Vdc
Output Power (per module)	Refer to Converter Module (CDCWI1048 or ECOR1048)
Output Power Maximum	4 kW (4 x 1 kW per module)
Output Current	80 A max
Battery	
Max Battery Output (LVD)	80 A max

Standards

Safety	<ul style="list-style-type: none"> • CE marked • IEC 62368-1 (formerly IEC 60950-1) • CEBC and c-SGS-us markings
Environment	<ul style="list-style-type: none"> • RoHS compliant
EMC	<ul style="list-style-type: none"> • EN 61000-6-1 • ETSI EN300386 • EN 61000-6-3

Environmental

Operating Temperature	-20 to +55 °C
Extended (derated output power)	-40 to +70 °C
Storage Temperature	-40 to +85 °C
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	Forced air cooling (Front to rear) Min free space before and behind the sub-rack = 15mm

Features

Protection	<ul style="list-style-type: none"> • Automatic input status (Power limits, AC or DC mode) • Mains out of range (input fuse) • Output overvoltage and overload Short circuit current • Smart power derating • Thermal shutdown Hot swap
Indicators	<ul style="list-style-type: none"> • LED off : no power available • Green LED : no failure • Orange LED : Stand by (remote off) • Red LED : Low DC voltage (<37Vdc) • Blinking red LED : AC failure, thermal failure or short circuit
With our Monitoring Unit	<ul style="list-style-type: none"> • Specific configuration (alarm, function, ...) • Alarming on specific signals, events, alarms... • Real-time data visualization • Customization through Python scripting • Remote control and access •

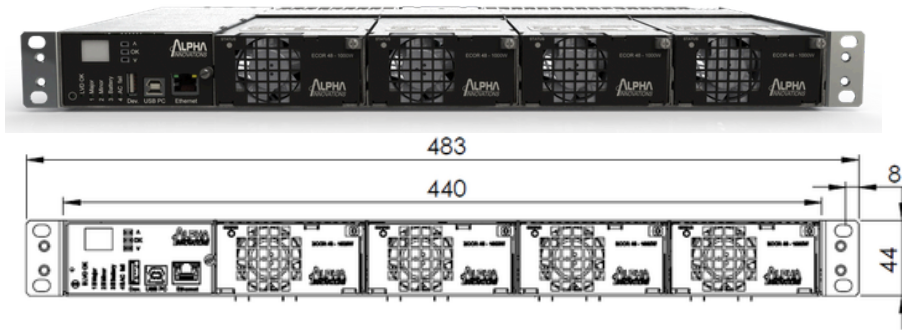


Part Number

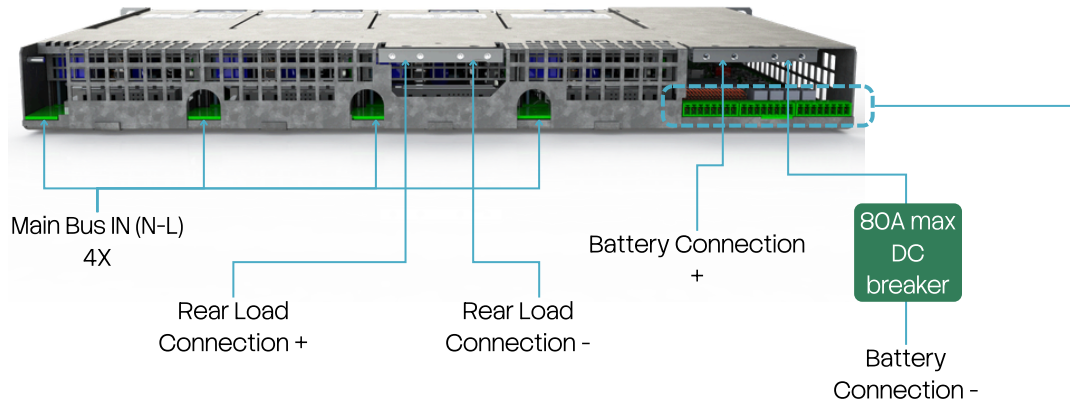
Family	9400 001 00000
Specific Configuration	9400 001 001xx

Mechanical dimensions

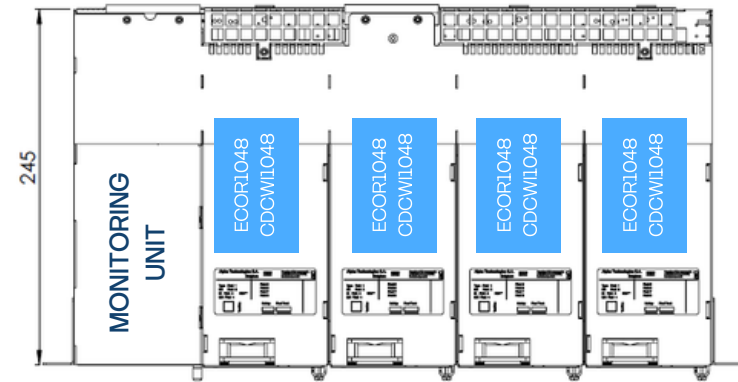
Front view



Rear view



Dimensions (mm)		44 H (1U) x 440 W x 259 D
Dimensions (inches)		1.75 H x 17.3 W x 10.2 D
Mounting		19" or ETSI
Weight (kg)	Shelf	2.5 (5.5 lb)
	Converter Module	1.16 (2.56 lb)
Connections	Load	M5 Stud
	Battery	M5 Stud
	Input	Spring cage terminal block (4 x 2 poles)
	Alarms (rear)	Female 3 x 8 poles connectors



Connectors details

X1251	-48V sense	X126.1	DIG IN 3	X127.1	DIG OUT3 COM
X125.2	OV sense	X126.2	DIG IN 4	X127.2	DIG OUT3 NO
X125.3	OV signal	X126.3	DIG OUT 1 COM	X127.3	DIG OUT3 NC
X125.4	TH sensor	X126.4	DIG OUT1 NO	X127.4	DIG OUT4 COM
X125.5	DIG IN 1	X126.5	DIG OUT1 NC	X127.5	DIG OUT4 NO
X125.6	DIG IN 2	X126.6	DIG OUT2 COM	X127.6	DIG OUT4 NC
X125.7	CAN H	X126.7	DIG OUT2 NO	X127.7	TH sensor 2
X125.8	CAN L	X126.8	DIG OUT2 NC	X127.8	Sharing

or ACE105 connector to add 5 power slot over 1 U [↗](#)

Product overview



COMPAS

Slot block related to our embedded software.

Slot block for converters.



Accessories :
Temperature sensor
for alarming

MCU Oled

- Screen display
- LED indicators
- LVD function for battery
- USB Connector for device extension
- COMPAS integration

ECCOR1048

- **AC in** : 90 to 265 Vac
- **DC in** : 85 to 408 Vdc
- **DC out** : 40.5 to 58 Vdc
- **Efficiency** : 96 %
- **Power** : 1000 W



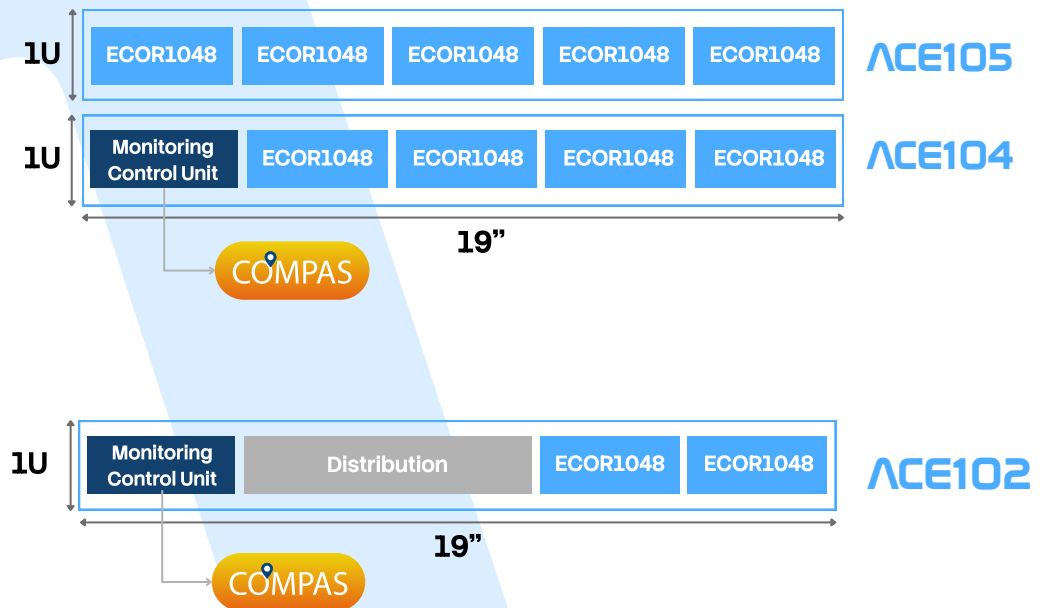
CDCWI1048

- **DC in** : 20 to 72 Vdc
- **DC out** : 40.5 to 58 Vdc
- **Efficiency** : 90 %
- **Power** : 1000 W



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.

More info ?

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