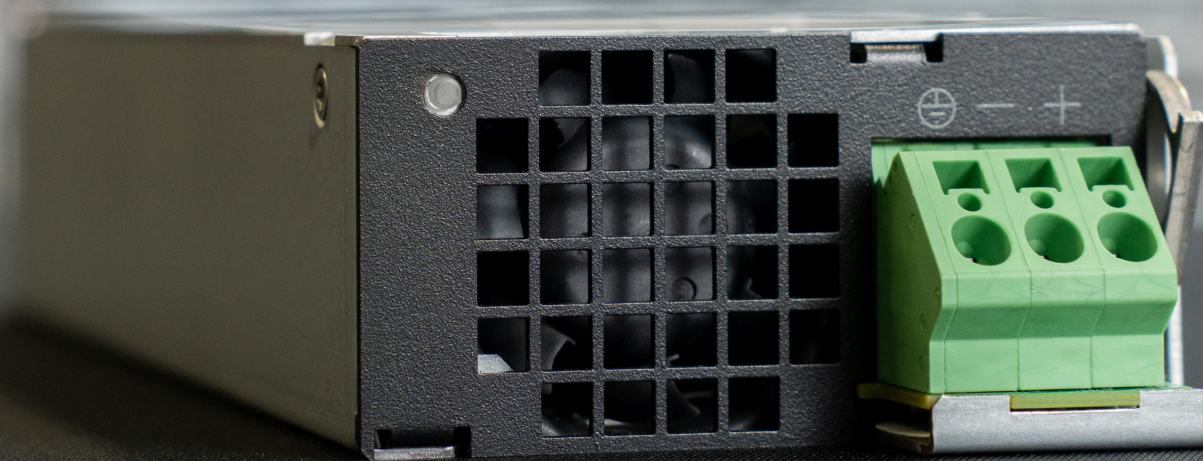


CDCWI1048

Wide input range 1kW converter with
monitoring and control features



DISCOVER →

CDCWI1048

1kW - 48 Vdc
Converter



Compact and reliable Power Converter

The **CDCWI1048** converter combines high performance and compact design. **Optimized for 300 mm (11.8") deep cabinets**, it frees up valuable space for your application while ensuring safe, efficient, and reliable power delivery.

Beyond advanced DC fault protection, the CDC-WI features **intelligent** thermal derating, automatically adjusting output power according to internal temperature to guarantee optimal performance under any condition. **Control and monitoring options**, output current readout, remote on/off, voltage programming, and active load sharing, simplify system integration and supervision.

Designed for **scalable** and **flexible** architectures, the converter can operate in parallel and even alongside 1000 W converters within the same shelf. The integrated redundancy diode allows hot-swap capability, minimizing downtime and ensuring continuous operation.

Built-in protections against input under-voltage, output overvoltage, reverse polarity, and over-temperature, combined with smart power limitation and high conversion efficiency, guarantee outstanding durability. With an MTBF of 300,000 hours (Bellcore RPP standard), the CDC-WI delivers exceptional system availability and long-term peace of mind.

Specifications

Electrical

Input DC	
Nominal High Range	48 Vdc
Nominal Low Range	24 Vdc
Max input	63 Vdc
Range Selection	Automatic
Input Current	<ul style="list-style-type: none"> < 30 A @40 Vdc < 32 A @18 Vdc 24 A @high and low nominal source voltage, nominal load
Output DC	
Output Voltage	40.5 to 58Vdc [54 Vdc nominal]
Output power	<ul style="list-style-type: none"> 1000W @high nominal source voltage 500W @low nominal source voltage
Output current	<ul style="list-style-type: none"> 0 A min 18.5 A @high input voltage range 9.3 A @low input voltage range
Output current limit	<ul style="list-style-type: none"> 22 A @ high nominal source voltage 17 A @ low nominal source voltage Short-circuit @30 Arms
Ripple & Noise	<ul style="list-style-type: none"> 500 mV p-p 50 mV True rms 2 mV rms psophometric wideband noise 20 mV rms flat/unweighted wideband noise
Efficiency	<ul style="list-style-type: none"> 90 % @high nominal source voltage 87 % @low nominal source voltage
MTBF	300 000 hours per Telcordia SR-332 (25°C)

Environmental

Operating Temperature	-20 to +55 °C
Full nominal output power T*	-20 to +70 °C
Storage Temperature	-40 to 85 °C
Humidity Operating	20 to 80% RH non-condensing
Humidity Storage	10 to 95% RH non-condensing
Elevation	Up to 3000 m
Cooling	Fan cooled (Front to rear)

Features

Protection	<ul style="list-style-type: none"> Overvoltage protection up to 63 Vdc Undervoltage protection at 17 Vdc Output overv-and-under voltage protection Output thermal protection between 55 and 70°C : <ul style="list-style-type: none"> Derating of 2% @high nominal voltage range Derating of 1.5% @low nominal source voltage Fan Failure protection
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 green LED : output power is derated Blinking orange LED : Standby requested via VAN bus command Blinking red LED : AC failure, thermal failure or short circuit
Turn on/off delay	<ul style="list-style-type: none"> 2500 ms [mains on delay time over the full input range] 500ms [remote on delay time] 300 ms [remote off delay time]

Standards

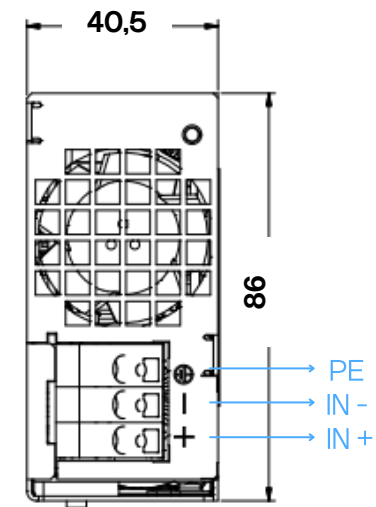
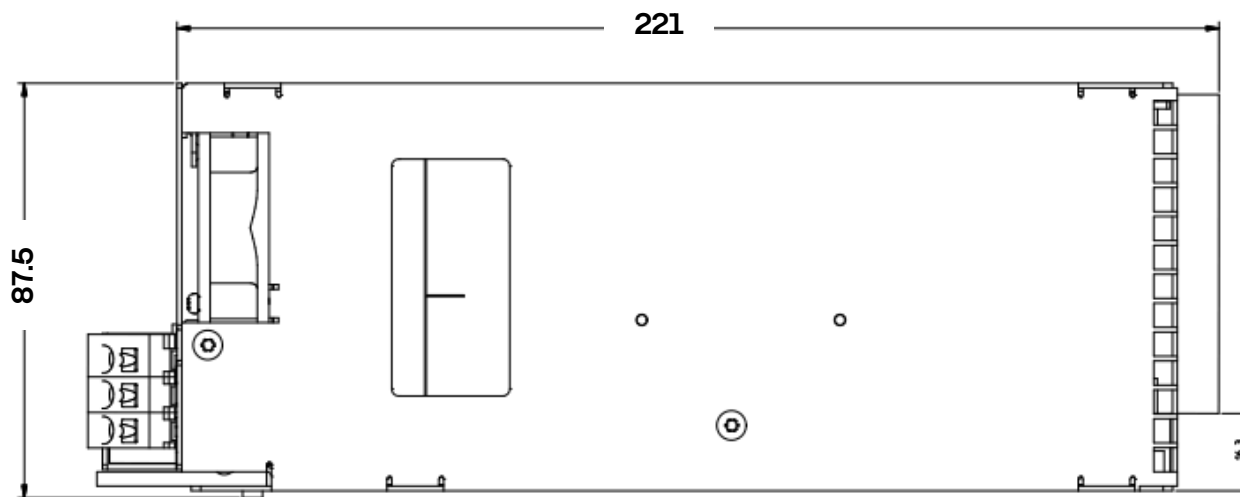
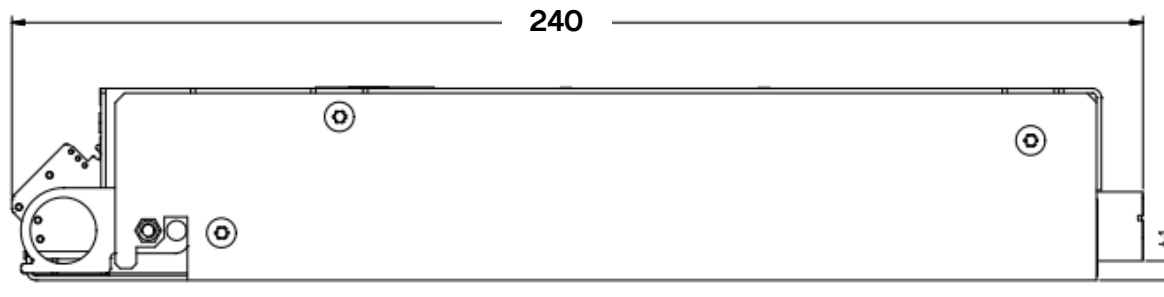
Safety	<ul style="list-style-type: none"> CE marked SGS-EN60950 CSA 60950-1
Environment	<ul style="list-style-type: none"> RoHS compliant
EMC	<ul style="list-style-type: none"> EN 61000-6-1 ETSI EN300386 EN 61000-6-3
Global Approvals	<ul style="list-style-type: none"> UL 62368 certified c-SGS-us

Part Number

9411 071 05011	CDCWI1048 1kW Rectifier
9411 071 05021	CDCWI1048 1kW Rectifier 72Vin

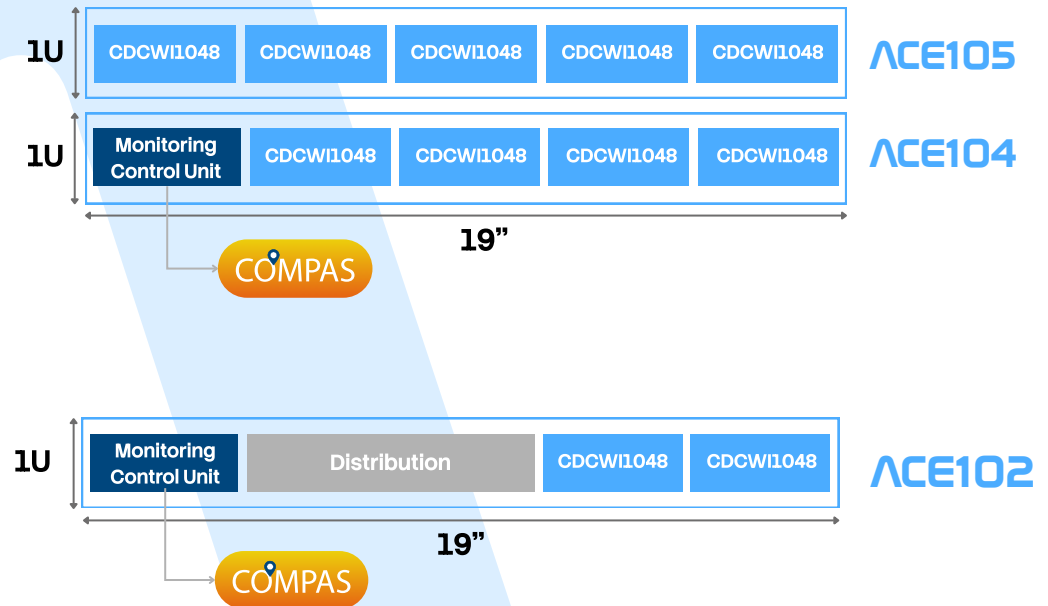
Mechanical dimensions

Dimensions (mm)	40.5H (1U) x 86W x 210D
Dimensions (inches)	1.6H x 3.4W x 8.3D
Weight (kg)	1.2



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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