

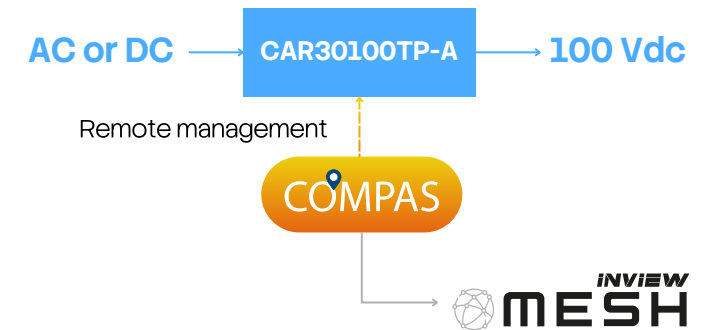
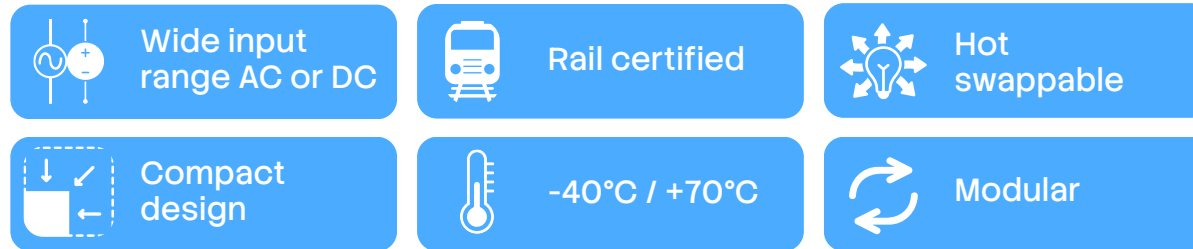
CAR30100TP-A

Reliable, scalable power for industry &
rail applications



DISCOVER →

Product Highlights



Applications Areas



Customer : Railway integrators
Application : Powering and supervising secure platform screen doors
Expertise : Customizing from 3 kW up to 4 kW peak (3→4 kW for 0.5 sec) to handle motor startup

CAR30100TP-A

3kW - 100 Vdc
Rectifier/Converter



Robust, scalable power for demanding environments

The **CAR30100TP-A** is a **3 kW** power converter designed for demanding **industrial** and **railway** applications, delivering reliable performance in extreme conditions from -40 °C to +70 °C. Its universal wide AC input and wide DC input up to 402 Vdc offer exceptional installation **flexibility**.

When integrated into the **ACE306** basic shelf, the CAR30100TP-A delivers up to **18 kW** output power in a compact 3U height, with an output voltage range from 80 V to 115 V. This modular approach enables efficient energy cost control, load management, and optimized site maintenance.

For **preventive maintenance**, the front-access fan blocks can be quickly replaced, ensuring minimal downtime and reduced service costs.

Built for high reliability, the CAR30100TP-A is a **scalable** solution for environments where performance and availability are critical.

Specifications

Electrical

Input AC	
Input Nominal Voltage	100 to 240 Vac (+/- 10%)
Max Input Voltage	300 Vac (without damages)
Input Frequency	47 to 63Hz
Power Factor	99 %
Input Current	14 A @ 230Vac 18.5 A @ 110Vac 22 A max (AC or DC input mode)
Input DC	
Input Voltage Nominal	100 to 330 Vdc
Max Input Voltage	410 Vdc (without damages)
Output DC	
Output Voltage	80 to 115 Vdc [Product option for 84 V and 96 V]
Output power	3000W from 180Vac to 265Vac input 1800W from 100Vac to 132Vac input 1575W to 3000W from 85Vdc to 180Vdc input (15W /DC slope) 3000W from 180Vdc to 402Vdc input
Output current	27.5A @ 109 Vdc High mains 16.5A @ 109Vdc Low mains - Load regulation :±0.5% - Line regulation :±0.2% - Wide band noise : 20mVrms
Efficiency	93 %
MTBF	485 000 hours per Telcordia SR-332 (25°C)

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 - Power derating above 55 °C : - Derating of 2% 0 W @ 70 °C - Fan Failure : power is derated - Thermal shutdown Hot swap
Indicators	- LED off : no power available - Green LED : normal conditions (Vout within the specs) - Orange LED : normal conditions in standby - Red LED : Low DC voltage (<75 Vdc) - 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

Standards

Safety	- CE marked - EN 62368-1 - EC 62368-1 (formerly IEC 60950-1) - EBEC
Environment	RoHS compliant
EMC	- EN 61000-6-2 - EN 61000-6-4 - EN 50121-4
Global Approvals	UL 62368 certified <i>DesignToMeet</i>

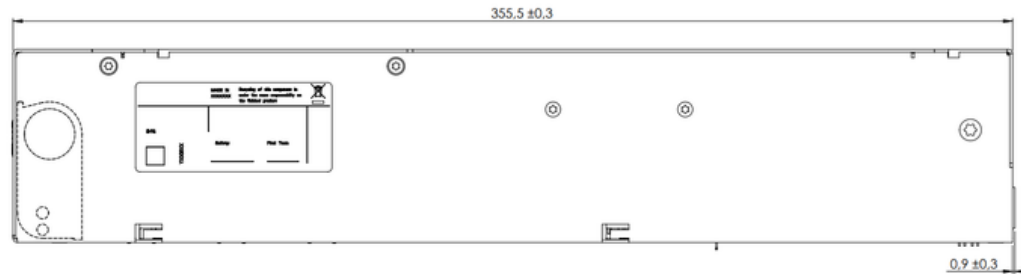
Environmental

Operating Temperature	-20 to +55 °C
Wide operating T° range	-40 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)

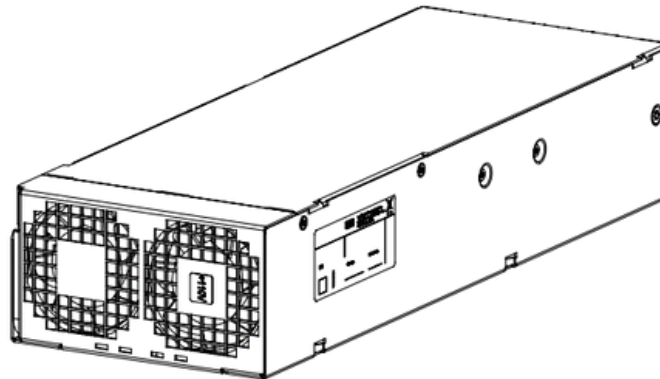
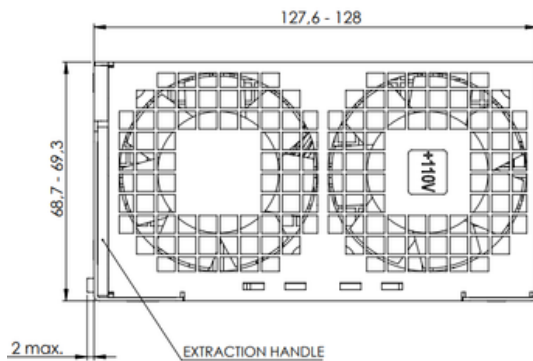
Part Number

9411 013 08001	CAR30100TP-A 3kW Rectifier
----------------	----------------------------

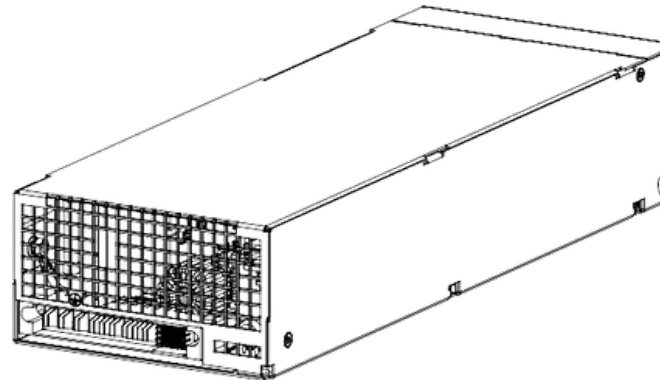
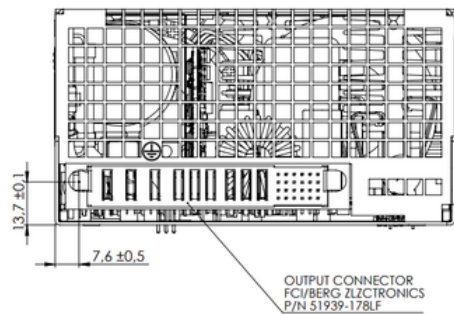
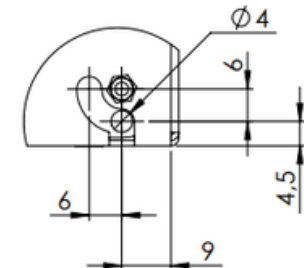
Mechanical dimensions



Dimensions (mm)	128H (3U) x 69W x 355D
Dimensions (inches)	5H x 2.7W x 14D
Weight (kg)	3.5

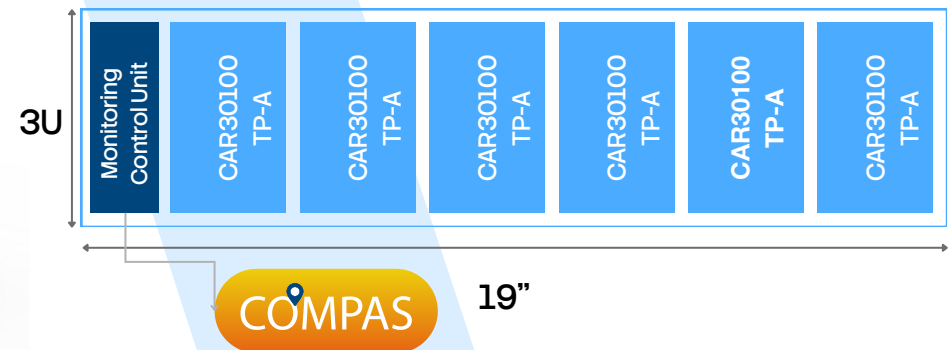


LATCH MAX TRAVEL.



Related items

Modular & Configurable Power Racks



ACE 306

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 ?

Address

Avenue Alexander
Fleming, 1
1348 Louvain-la-Neuve
Belgium

Email

rfq@alphainnovations.eu

Phone

+32 10 438 211

Website

www.alphainnovations.eu