

 Directory
 < Rolling Stock

Premium

Shaping the Future of Rolling Stock Power Solutions

Railway product and systems development is constantly evolving. When it comes to the end customer's expectations, many different but technically competing aspects converge: comfort, efficiency, environment, and safety amongst others.



Electrical and mechanical components for the railway industry need to provide reliable and safe operations while running under wide temperature fluctuations, condensation, electromagnetic interference, and shock and vibrations. Under these circumstances, nothing can be left to chance.

Premium PSU has been providing reliable power supply solutions for over four decades and currently carries the largest DC/AC inverter portfolio in the market along with a wide range of DC/DC converters. Solutions that go from 60W to 50kW and comply with the most relevant standards (EN45545-2, EN50155, EN61373, ISO, DIN, IEEE, etc.), which are developed and manufactured in Barcelona.

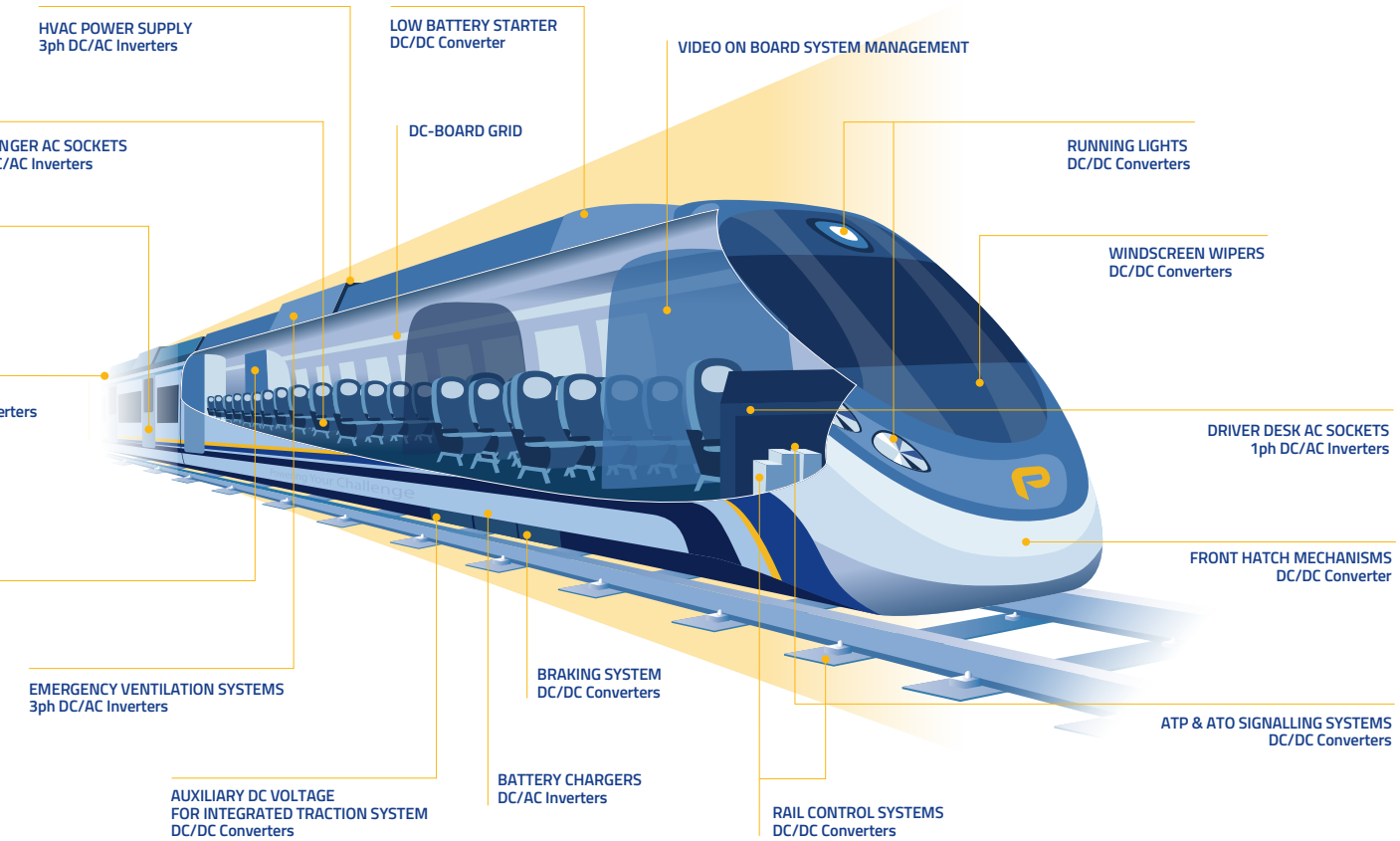
Innovation and state-of-the-art technology set Premium PSU apart. Working with the largest train and locomotive manufacturers and

PASSE
1ph DC

DOOR SYSTEMS
DC/DC Converters

BISTRO BAR WAGON SERVICES
DC/DC Converters and DC/AC Inverters

INTEGRATED TOILET MODULES
DC/DC Converters



being involved in projects all around the world has given Premium PSU a comprehensive experience in the field of rolling stock and extensive industrial know-how. Solutions can be found in and out of the convoy, where a multitude of Premium PSU's devices work to guarantee performance, safety, and comfort.

Designed to Work under Demanding Conditions

Premium's DC/DC converters and DC/AC inverters, make possible the operation of elements and services that are essential for passengers. Systems such as those located in the doors, the bistro bar wagon services or the integrated toiled modules are made of equipment that must work reliably during the trip. Providing power to the traction system and all other systems on the train, including heating and ventilation, lighting, public information displays, on-

board video system management or activating running lights and windscreen wipers are a few of the many applications of Premium's power supplies in rolling stock.

New Challenges: Higher Power Density

With the aim to continue shaping the future of power electronics and following the strategic plan to provide higher-power density solutions for rolling stock applications, one the latest projects carried out at Premium PSU has turned into a 40kW three phase DC/AC inverter to feed and HVAC system from the 750V catenary line and designed according to EN50163.

This new development has become the biggest milestone in terms railway market solutions for the company. Over 2,000 hours of product development and a committed team have made it

possible. This new custom-made solution includes a catenary filter, two independent output three-phase lines with VVF control, and CAN Open communication. All of it in a less than 60kg device, which will start to be mass produced at the end of 2021.

Along with custom-made solutions, Premium PSU has been working on high-power energy conversion solutions to include in its standard line card. A 6.4kW 750V light rail vehicle catenary inverter; and a 10kW 110V battery to 500Vdc link booster will be launched in 2022. Increasing the range of high power with innovative solutions to cover all needs for the railway sector is key to keep giving shape to power the future.



Premium
Powering Your Challenge

THE PERFECT FIT FOR BATTERY VOLTAGES BETWEEN 14,4Vdc AND 154Vdc

Wondering where to find a DC/DC converter able to work with both a 24Vdc and a 110Vdc source?

CLS-120: New 120W wide input range DC/DC converter

- High input-output isolation
- Wide input voltage range: 14,4 ... 154Vdc
- Output voltage: 12V, 24V and 48Vdc
- Available options: embedded Oring & remote sensing
- Operating temperature up to 85°C (OT6 with derating)
- Class S2: hold-up time 10ms
- Fanless - convection cooled
- Conformal coating
- Easy install: wall mount, DIN rail, rack mount



Premium
Powering Your Challenge

Learn more at www.premiumpsu.com

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