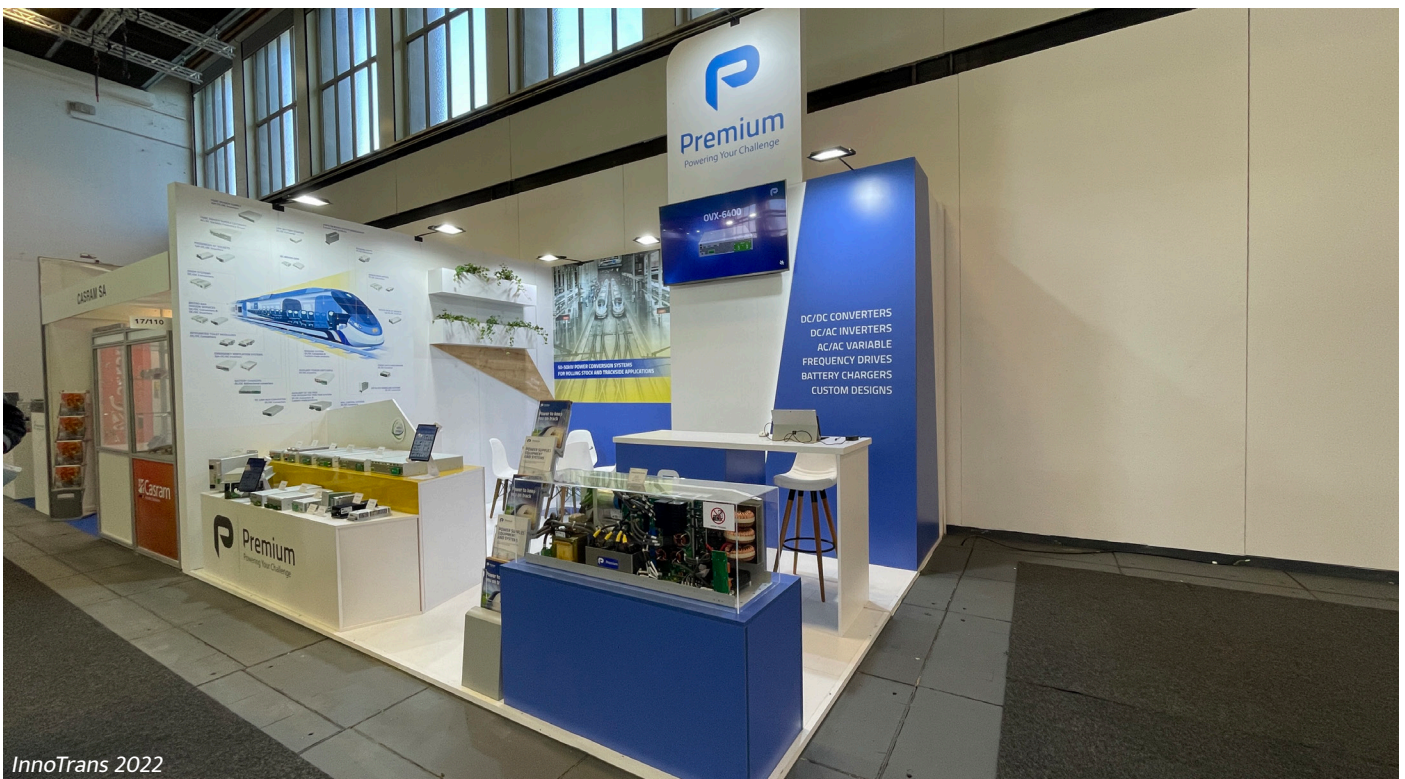


Premium PSU

Focusing on Innovative Rail Solutions to Meet the Challenges of the Future



InnoTrans 2022

Premium PSU was present at the latest edition of InnoTrans 2022.

After four years without being able to attend due to the pandemic, Premium PSU took the opportunity to present innovative solutions in power electronics for the railway industry.

The company has been focusing on providing solutions of higher

power to the industry and new alternatives for efficient power supplies. A clear example is a new 40kW DC/AC inverter, which stands out for having two outputs, one of 35kW and the other of 5kW, where two loads can be controlled independently.

On rail trams, this inverter manages the HVAC system of the train and the HVAC system of the passenger cars. Its CANBUS communication port controls all the parameters of

the unit, although it is interesting to note that the frequency and output voltage are controlled independently. Despite being very robust and powerful, the unit weighs only 60kg and is presented in a compact design. The inverter also includes an innovative active catenary filter that protects itself against surges on the catenary.

During European Mobility Week (17 September), GTT Group in collaboration with Hitachi Rail,



presented a new electric motor tram in Turin, which will be in operation in winter 2022. All cars include Premium PSU's 40kW three-phase inverter in the ventilation system, which was custom-designed and manufactured according to the needs of the project.

For 2023, Premium PSU is planning to expand its standard product range with new designs: a bidirectional converter and two models of variable frequency drives, being the first power engineering company to offer VFDs specifically designed for the railway market in their portfolio. The BDS-10K series is

a bidirectional three-phase battery charger-inverter that can supply a DC load and / or charge a battery from a 400V three-phase line, as well as generate a 400V three-phase line from a battery. The new BDS-10K is scalable in power: up to four units can be connected in parallel obtaining a power of up to 40kW.

Premium PSU is currently in the industrialisation process of its AC/AC frequency inverter series. These drives have been designed to control and regulate the speed and torque of the AC rotary motor by varying the frequency and input voltage of the motor. Some of the advantages of using a VFD

are energy savings and improved efficiency of the network, system and HVAC equipment; easy control of motor speed, flow and pressure; soft start and reduced temperature of connected devices.

Premium PSU is committed to excellence and aims to promote the development of its activity in a safe, efficient and sustainable way. It has a quality management system based on the ISO 9001 standard, as well as an environmental management system based on the ISO 14001 standard. Its facilities are equipped with the latest instrumentation technology: a semi-anechoic chamber to carry out EMCs and a climatic chamber among others, which allow the team of more than 100 people to test and develop innovative power electronics solutions.



Railway AC/AC variable frequency drives



Bi-directional battery charger-rectifier

Premium PSU

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Meet the challenge of the railway future

- Bi-directional operation: Battery charger / Inverter
- Parallel operation: up to 40kW
- Remote signals: 7 logic inputs + 4 alarms + 1 programmable logic output
- BMS included: voltage, current and temperature
- Higher power density
- Compact design

BDS-10K Series



**Bi-directional 3ph 10kW
battery charger-rectifier**

EN45545
fire & smoke

EN50155

SiC Technology

5 YEAR
WARRANTY
RAILWAY

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Powering Your Challenge