

Premium PSU

Revolutionising Railways with Cutting-Edge AC/AC Railway Variable Frequency Drive (VFD)

Introducing AC Master Series

In the railway sector, electric motors are widely used in various applications, such as compressors, fans and pumps. These devices require electrical energy to operate and deliver the necessary speed to the equipment they drive. By using VFDs (variable frequency drives), we can ensure that the AC motors run at the right speed according to the specific demands. This not only saves energy but also reduces maintenance costs and noise emissions.

Premium PSU's engineering team has been working on a standardised solution to meet the increasing demand for AC/AC VFDs in trains. In a significant stride towards modernising railway systems, Premium PSU, a leading innovator in power electronics, proudly unveils its latest breakthrough product – the AC/AC Railway Variable Frequency Drive.

The new AC Master Series, comprising the TDX-3300, TDS-3300 and VDX-10K, represents a remarkable advancement in power electronics technology, offering unparalleled control and efficiency in powering railway systems. While these devices share similarities, their

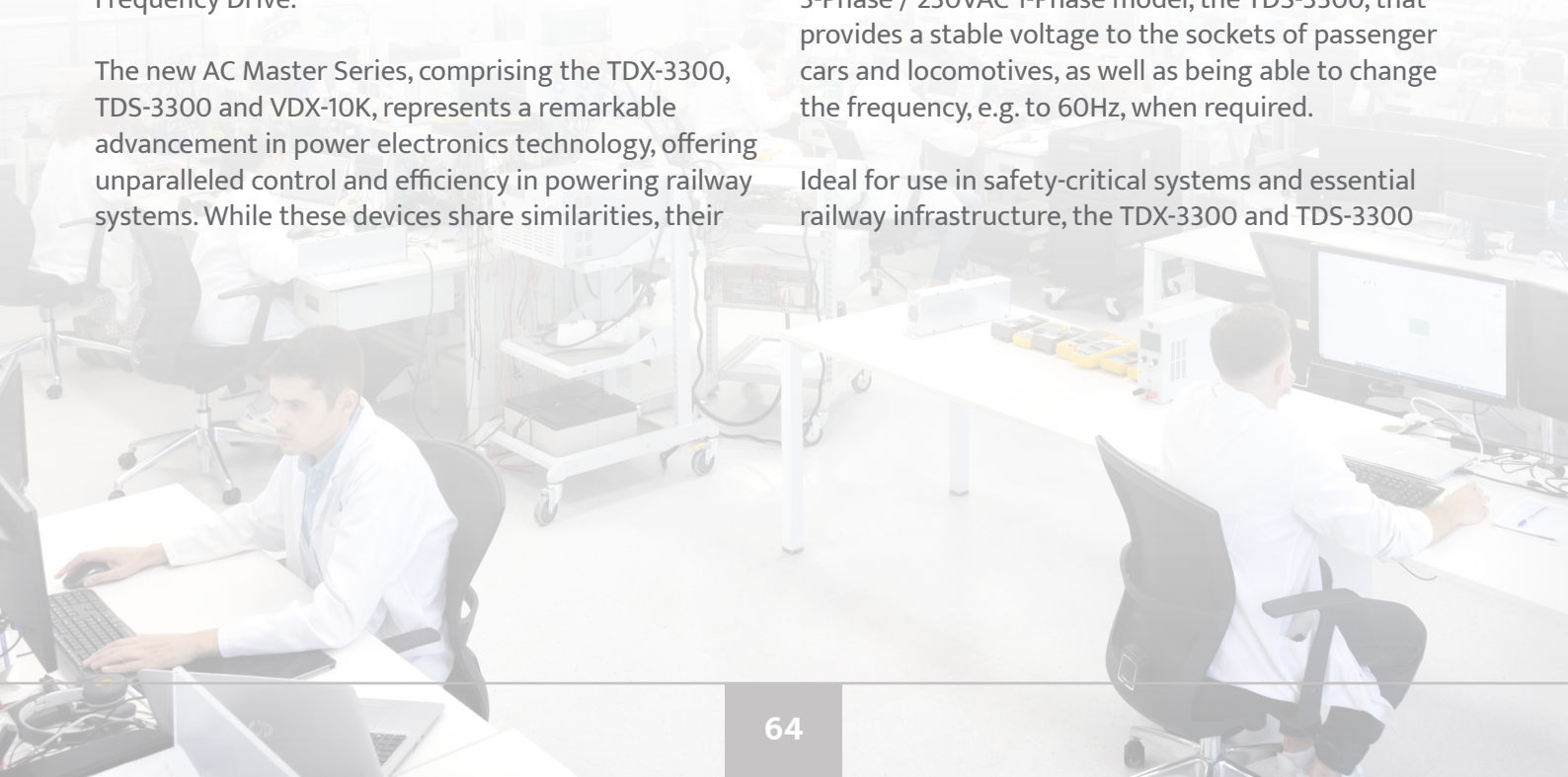
distinctive capabilities set them apart, delivering cutting-edge solutions for diverse railway applications and ensuring reliable and efficient power delivery in the most demanding environments.

TDX-3300 / TDS-3300 – The Ultimate Power Supply

The TDX-3300 stands as a true marvel of engineering, boasting an additional converter stage – the step-up converter. This ground-breaking feature ensures exceptional stability in power output, even amidst fluctuations in the input voltage. By elevating the input voltage, the step-up converter guarantees a consistent and independent output voltage, safeguarding critical railway equipment from power loss.

In addition, the team also developed a 400–480VAC 3-Phase / 230VAC 1-Phase model, the TDS-3300, that provides a stable voltage to the sockets of passenger cars and locomotives, as well as being able to change the frequency, e.g. to 60Hz, when required.

Ideal for use in safety-critical systems and essential railway infrastructure, the TDX-3300 and TDS-3300



offer an array of advantages, making it an indispensable solution for powering various applications.

Key Features TDX & TDS-3300

- Unmatched output stability: the step-up converter enables a constant output voltage, regardless of input voltage fluctuations, ensuring the reliability of onboard electronics and systems
- Enhanced safety: with steadfast power supply regulation, critical railway equipment remains operational, even during power disturbances or fluctuations
- Versatile application: the TDX-3300 finds its place in a variety of railway applications, from powering electric motors to essential water pumps and fans while the TDS-3300 is suitable for powering sockets in trains

VDX-10K – Empowering Engine Power Supply

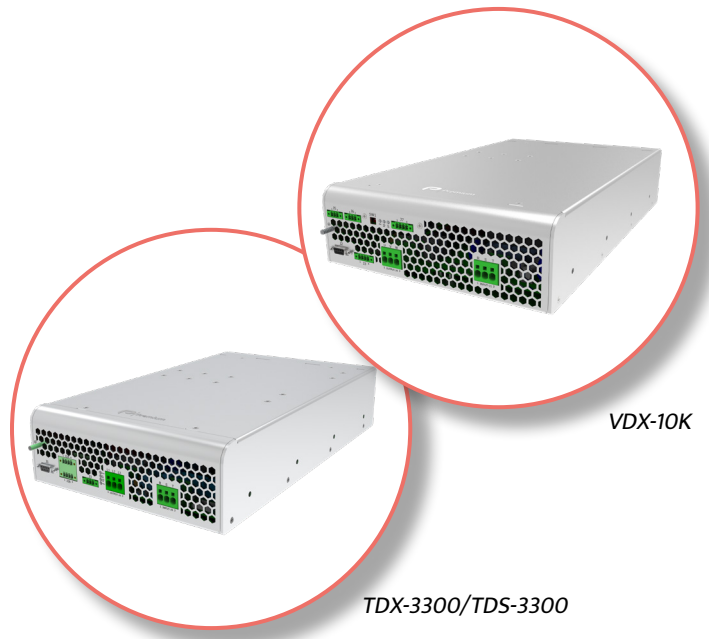
The VDX-10K is a powerful and cost-effective solution designed for diesel-electric trains. It efficiently powers essential components, like cooling fans for diesel engines, without requiring a step-up converter, resulting in lower costs.

The advantages of the VDX-10K are extensive. Its state-of-the-art technology enhances operational efficiency, reduces wear and tear on motors and extends the lifespan of critical railway components. With unmatched control and protection, it ensures safe and reliable railway operations.

Its robust design optimises power delivery to various pieces of equipment within the railway environment, making it reliable and efficient for engine-driven systems.

Key Features of VDX-10K

- Advanced three-phase sine-wave AC/AC variable frequency drive
- Customisable soft start mechanism for smooth motor start-up
- Gradual output voltage increases with linear frequency transition
- Precise control over motor acceleration through configurable start-up ramp slope
- RS-232 and CAN Bus interfaces for seamless configuration



Transforming Railway Power Management

The introduction of the TDX-3300, TDS-3300 and VDX-10K marks a significant milestone in the railway sector's pursuit of efficient and reliable power solutions. These new series empower railway operators with cutting-edge devices, always fulfilling the highest railway standards and requirements that promise enhanced safety, efficiency and performance across their systems.

As the railway industry continues to evolve, the AC Master Series stands as a beacon of progress, offering tailored power solutions to meet the ever-expanding demands of modern rail transportation. The devices exemplify a commitment to innovation and engineering excellence, making them indispensable tools in shaping the future of railway power management.

Premium PSU's relentless commitment to innovation and dedication to engineering excellence has culminated in the creation of this transformative product, compliant with rigorous railway standards.

For further information, please visit the official website: www.premiumpsu.com.



Premium
Powering Your Challenge

Meet the challenge of the railway future

- Voltage & Frequency Independent (VFI)
- 3ph AC input and 1ph or 3ph AC output
- Designed according to railway standards
- Input/output isolated
- Output short circuit protection
- CAN Bus Communication
- 94% efficiency



3.3kW AC/AC Isolated and Variable Frequency Drive AC Master Series



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