

Powerbox's high efficiency DC/DC converter for light-rail and industrial applications chosen as finalist in prestigious Elektra Awards

Press Release
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Powerbox, one of Europe's largest power supply companies and a leading force for four decades in optimizing power solutions for demanding applications, has announced that its new ENR500D light rail DC/DC converter has been selected by the Elektra Awards Jury as a finalist in the highly contested Power System Product of the Year category.

"The judges have deliberated, debated and discussed, and this year's extremely high caliber of entries has yielded a phenomenally strong list of finalists and we are delighted and excited to have reached the shortlist in this hard fought Power System Product of the Year category." said Patrick Le Fèvre, Chief Marketing and Communication Officer. "Powerbox's ENR500D light rail DC/DC converter being chosen as a finalist is testimony not only to its high level of innovation but particularly, it is a measure of the forward thinking of Powerbox in developing a power supply that satisfies the needs of light rail and industrial users on a truly world-wide, global basis."

Dependent upon their world-wide location and the technology available at the time of installation, a wide variety of electrically powered traction systems are used in rapid transit systems. Most metros operate from dc power either at 750VDC with a third rail, or 1.5kV with a third rail or from an overhead catenary. In fact, 750VDC is very common in light rail, powering both the rolling-stock equipment as well as trackside signaling systems. The same voltage is also used in industrial equipment and in applications such as mining.

Taking into account the large range of applications and environmental conditions, PRBX designers had to consider where a power converter would be installed and as such, the environmental conditions it has to withstand. It is in this area that things get difficult for the power supply designer as functional and safety requirements are often a complex blend of design opposites. For example, as specified in the European Standard EN 50124-1, Macro-environmental conditions (PD1 to PD4B), power converters can be part of a hermetically sealed equipment varying from no ventilation up to forced ventilation using clean filtered air from outdoors, and requiring a flexible, robust design able to meet such a large range of environmental conditions.

To meet these strict yet broad requirements, PRBX designers developed a high efficiency 750VDC input DC/DC converter for light-rail and industrial applications. The 500W rated ENR500D platform is built on a resonant topology combined with the latest MOSFET technology and the use of high performance magnetics.

Designed specifically for railway applications, the ENR500D fulfils the aforementioned stringent EN 50124-1 standard and delivers full performance across the temperature range of -40 to +70 degrees C. It is also meets the requirements of the so-called Pollution Degree 2 (PD2) such as control cabinets in the driver's cabin or passenger compartments.

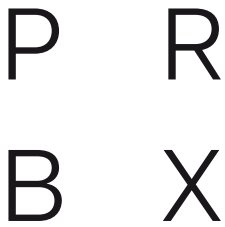


Powerbox ENR500D high efficiency 750V DC/DC converter for light-rail and industrial applications

Related links:

PRBX ENR500D

<https://www.prbx.com/product/enr500d/>



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About Powerbox

Founded in 1974, with headquarters in Sweden and operations in 15 countries across four continents, Powerbox serves customers all around the globe. The company focuses on four major markets - industrial, medical, transportation/railway and defense - for which it designs and markets premium quality power conversion systems for demanding applications. Powerbox's mission is to use its expertise to increase customers' competitiveness by meeting all of their power needs. Every aspect of the company's business is focused on that goal, from the design of advanced components that go into products, through to high levels of customer service. Powerbox is recognized for technical innovations that reduce energy consumption and its ability to manage full product lifecycles while minimizing environmental impact. Powerbox is a Cosel Group Company.

About the Elektra Awards

The Elektra European Electronics Industry Awards are the high point of the year for the European electronics industry. Established as the best promotional platform to celebrate the achievements of individuals and companies across Europe, they present best practice in key areas including, innovation, sales growth and employee motivation. Our industry will get together to showcase the finest new products, technology innovation and company performances of the year. An independent panel of judges will assess the quality of all entries and the winners will be announced at the Awards Ceremony that will take place on December 01, 2021 in London.

<https://www.elektraawards.co.uk/>

For more information

Visit www.prbx.com

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