POWERBOX
Mastering Power

Powerbox's battery backup unit system reduces railway modernization times

Press Release
September 25, 2017

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 the launch of its second generation Battery Backup Unit System (BBU-S) to support the modernization of railway networks and industrial applications that require flexible power backup systems with extended monitoring and control. Responding to the needs of a large range of applications and designed for use in enclosed outdoor environments, Powerbox's BBU-S comprises an industry standard 19-inch rack unit with sub-modules. System-wise, the BBU-S includes an active power factor corrected input, micro controlled smart charging, automatic battery test, output distribution and several control and monitoring signals. Developed for fast deployment in heterogeneous railway and industrial applications, the versatile BBU-S is available with AC or DC input voltage and can charge and control multiple battery pack configurations. The BBU-S starts at 340W and is available up to 1200W. For remote monitoring and control, the BBU-S offers multiple options such as LAN interface, a radio communications module (GSM, 3G, LTE) and can be reconfigured to match specific demands as needed for different applications.

Combining a high efficiency switching topology with advanced control and monitoring, the new generation of PRBX BBU-S is the ideal solution to power railway trackside applications such as signaling, offering a significant cost and energy saving compared to conventional technology. The BBU-S includes a range of products that can be quickly modified to meet specific demands such as adaptive voltage and power to suit the length of the track, and to the number of systems installed in the signaling network.

The BBU-S power supplies are enclosed in metal cases with individual components being protected by conformal coating and delivering a regulated voltage to the signaling equipment. The BBU-S also incorporates a power supply backup system with monitoring and control, ensuring that batteries are always operational. To guarantee an 'always-on' condition, the BBU-S includes dual redundancy battery strings.

Railway and demanding industrial applications have mandatory requirements that any parts installed in a critical system must have the provision to be quickly and easily repaired or replaced. Based on a range of plug-and-play modules, the PRBX BBU-S can be installed, maintained, repaired and eventually decommissioned with the minimum possible downtime of service, often just minutes.

"Railway modernization programs are now integrating digital control and additional safety functionalities that require a new generation of equipment for signaling, one that includes monitoring and independent battery backup. Most,

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if not all modernization programs will require it necessary to maintain and upgrade existing systems without any traffic disruption. This demands a high degree of flexibility in the power solution deployed at the trackside." said Patrick Le Fèvre, Powerbox's Chief Marketing and Communication Officer." To achieve this goal, we developed the modular concept BBU-S, making it easy to adjust and adapt to different configurations. Existing power modules and monitoring units can be substituted by fitting the new generation ones into the existing chassis, and in the cases of expansion or high level upgrades that require a very short time to achieve operational status, the new modular racks can be customized to specific configurations to power new signaling equipment such as optical fiber transmission."

Designed for flexibility, the PRBX BBU-S provides a smart power solution to any system and can be configured to accommodate different bus-voltages, for example 24, 36 or 120VDC. The AC input system operates within the range of 185 to 253VAC, but due to the modular design concept and plug-and-play modules, the input is able to comply with any type of voltage, AC or DC, as well as voltage range. For example when the BBU-S is used in a micro-grid application and connected to a high voltage DC input, the front end modules comply with the micro-grid bus voltage.

The BBU-S is built in two 3U 19 inch racks containing the power supplies, charger and control unit on the top, and battery switches, inverter block and alarm switches in the bottom rack.

The BBU-S is designed to meet industrial standards and regulations including: EN60950, UL60950, EN61000-6-2, EN61000-6-4, EN61000-3-2, EN50125-3, EN50124-4, LVD and RoHS.

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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.

For more information
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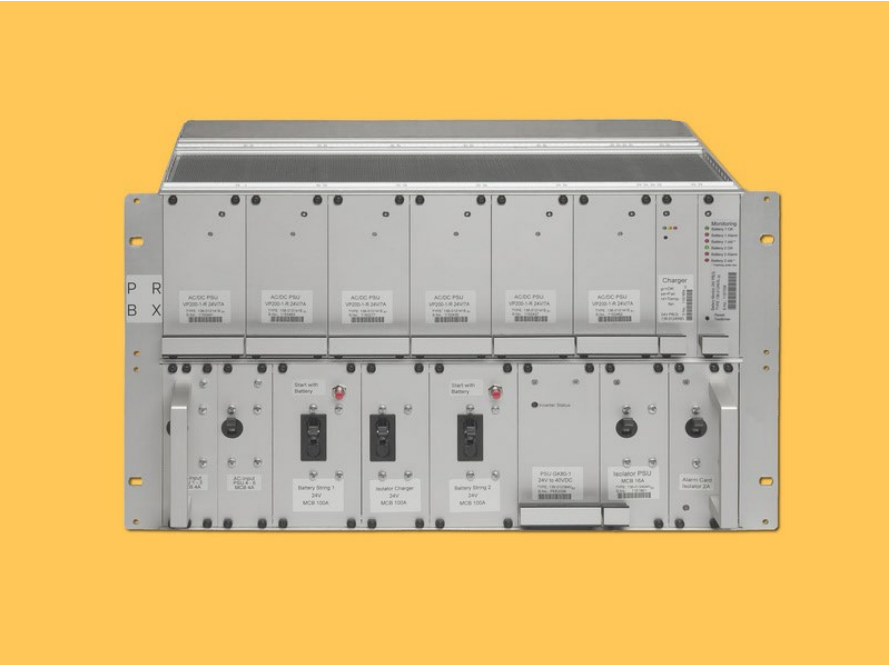

PRBX Battery Backup Unit System for railway track side signaling

Related link :
Battery Backup Unit System (BBU-S)
https://www.prbx.com/product/bbu1200-series/

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