

Powerbox announces industry's first power supply for immersed computing applications

**Press Release
November 13, 2019**

Powerbox, one of Europe's largest power supply companies, and for more than four decades a leading force in optimizing power solutions for demanding applications, has announced the release of its 'industry first' power supply solution for immersed applications such as hyper loaded computing machines. The OFI600A12 is the first commercial power supply designed to meet immersed applications specifications and guarantee the highest level of safety for system and operators. With its built-in digital supervising functions, in just a few minutes the OFI600A12 can be factory reconfigured to meet specific tasks and demands.

The PRBX OFI600A12 is the result of two years of research and development and has been validated by Powerbox's R&D and quality teams as a certified platform for a new generation of power supplies for immersed applications. The OFI600A12 is based on an interleaved transition mode power factor correction (PFC) design with an LLC converter as second stage. It is designed to have the lowest possible inrush current, less than 10A at 264VAC. The product has an input voltage of 187 to 265VAC, dual outputs comprising a master 12V/600W and an independent auxiliary of 5V/10W, and its efficiency is up to 93%.

The OFI600A12 includes remote On/Off, remote reset, over-current and over-voltage protection and complies with safety and EMC regulations. Depending on the application, output protection may be required to be one of a number of different configurations (Switch off, Hiccup mode or Constant current), meeting this requirement, the OFI600A12 is able to be reconfigured as appropriate. Based on firmware defined profiles and the output protection configuration, the mode of operation can be factory selected in a few minutes to meet the requirements of specific applications. The unit is protected by a conformal coating and complies with the RoHS and REACH directives.

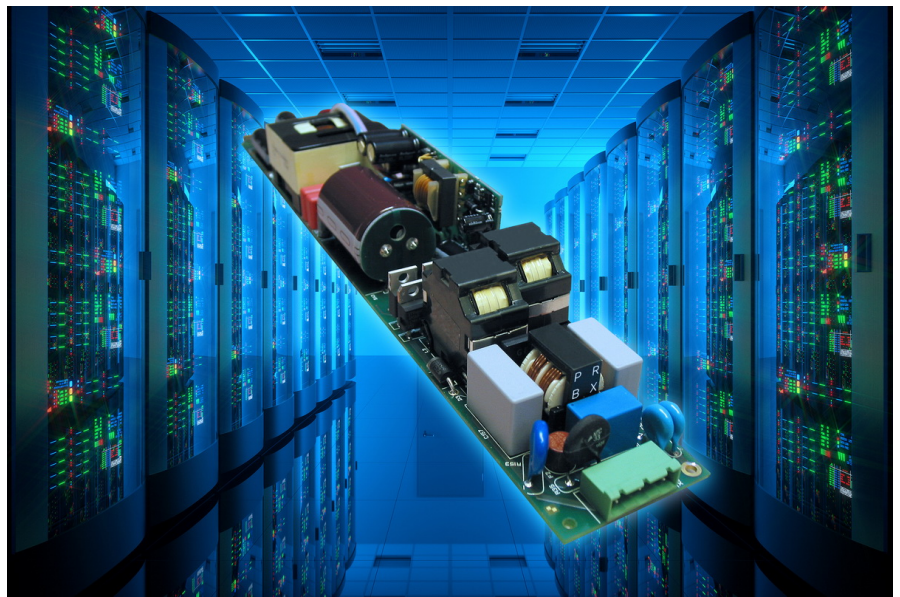
The concept of immersed data-centers emerged in 2005, and following a number of successful trials and experiments it has now become a market reality. The technology requires special caution when selecting switching power components, although manufacturing practices are very similar to those required by the marine industry in terms of robustness and the ability to endure operation in high levels of humidity or salty environments.

"With increased concerns for the environment and energy optimization, immersed data centers are becoming widespread and a number of industrial embedded applications have adopted immersed computers requiring compliant power supplies that are designed, tested and certified to work safely when immersed in a cooling fluid." Said Patrick Le Fèvre, Powerbox's Chief Marketing and Communication Officer. "

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Calling on years of experience and expertise in developing power supplies for the marine industry, Powerbox designers have transposed best practice for ruggedized design over to immersed electronics. Besides requiring a new mechanical approach to facilitate fluid circulation through and around the power supply, designers had to investigate every single component for compatibility with cooling fluids to guarantee they will maintain their mechanical and electrical performances when immersed, e.g. risk of corrosion. The development process also included a thorough risk analysis to verify that when immersed the final product operates with the highest level of safety for users and equipment.

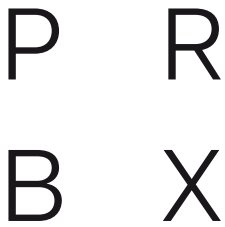


Picture source: PRBX / Oleksandr Delyk / Shutterstock

Related links:

OFI600A12

<https://www.prbx.com/product/ofi600a-12/>



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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.

For more information

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Reference:

PRBX-PR-19006-EN