

Powerbox announces 700W power supply optimized for conduction cooling applications

**Press Release
December 01, 2021**

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 a new 700W power supply for industrial applications, the OFI700A. Optimized for conduction cooling, the OFI700A delivers high performance levels across a baseplate temperature range of -40 to +95 degrees C, without the use of a fan. The power supply operates with a wide universal input range from 85 to 264VAC with power factor correction (PFC) and is available with DC outputs of 12V, 28V (adjustable to 24V) or 48VDC. A 12V auxiliary is also provided.

In many industrial applications cooling of the dissipating elements relies on the use of fans and blowers. But there are applications where it is not possible or even allowed to use active ventilation. In harsh environments or in applications where the required reliability level imposes the need to remove all possible risk of failure, fans and blowers are not allowed. A sealed box such as is required for laser-cutting is but one example, but there is also a growing demand for equipment installed in supervisory rooms or even offices that for the comfort and health of the employees, generated noise is simply not allowed or needs to be very much limited.

Conduction cooling requires very specific building practices and the PRBX OFI700A has been designed to guarantee optimal heat transfer from the dissipating components to the baseplate, delivering a high level of performances within an operating temperature of -40 to +95 degree centigrade at baseplate. Depending on the assembly method and the overall cooling conditions, a derating may apply as specified in the technical documentation.

To cover a wide range of applications, the OFI700A operates with a wide universal input range from 85 to 264VAC. The unit includes a PFC with a coefficient of 0.95/0.92 (110VAC/230VAC). For applications powered by a DC bus e.g., mining equipment, the OFI700A operates from 120 to 350VDC.

The OFI700A is available in three versions of single output DC voltage, 12V/58.4A ; 28V/25A and 48V/14.6A. The output voltage can be adjusted using the provided onboard potentiometer. For example, the 28V output can be adjusted from 22.4V to 33.6V, covering the 24V applications. An additional voltage of 12V/0.1A is provided for auxiliary functions.

P R B X

POWERBOX
A Cosel Group Company

For applications requiring 1+1 redundancy it is possible to connect two units in parallel, adding an external diode to protect the unit. Using a diode for this purpose is a simple solution but it increases power losses which depending on the output current could be as high as 30W. So, to maintain the highest level of efficiency when operated in redundancy-mode, an 'option O' OFI700A version is available with active ORing circuitry deploying high performance FET technology. In this version the power losses are minimized to an excellent less than 1.5W.

For safety, the OFI700A has an IN/OUT isolation of 3,000VAC and IN/FG of 2,000VAC. Output isolation to FG is 500VAC. The power supply includes over current protection with auto recovery, over voltage and over temperature protection.

The OFI700A board includes easy access to auxiliary functions via on board connectors, namely: Remote Control, Output Voltage Sensing, DC-OK, Inverter Operation Mode (IOG) and auxiliary 12V.

The OFI700A has endured shock and vibration testing as specified in MIL-STD-810H. In that respect the products have been tested to levels far above normal operating conditions and are specified to sustain a high 20G vibration level during transportation.

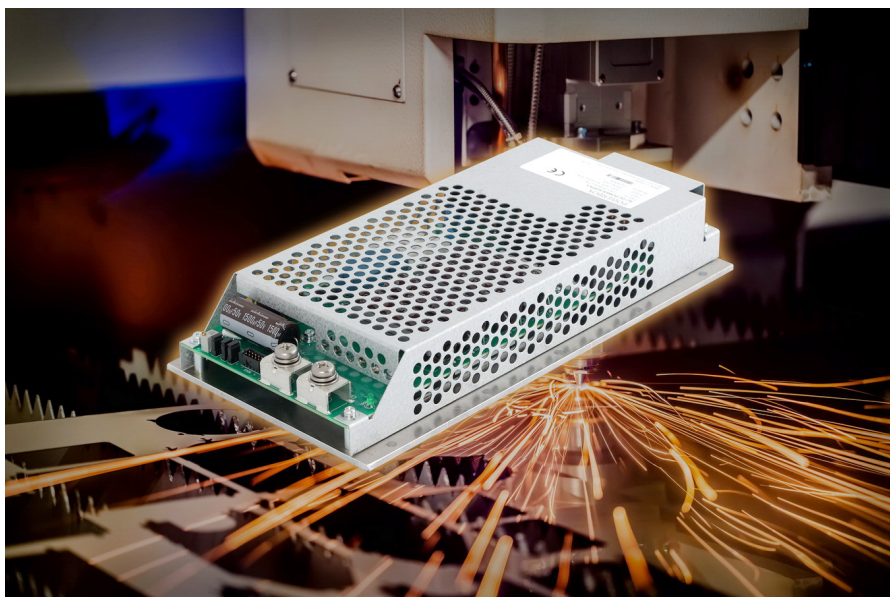
In its open frame format, the OFI700A measures 126 x 38 x 250mm (4.96 x 1.5 x 9.84 inches) and weighs 0.95kg max. An optional metal cover is available, adding just 2mm to the height and 150 grams to the weight (Option N).

The OFI700A is certified in accordance with UL62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), EN62368-1.

The OFI700A series has a full three-year warranty and conforms to the European RoHS, REACH and Low Voltage Directives. The product carries the UL, CE and UKCA marks.

P R
B X

POWERBOX
A Cosel Group Company

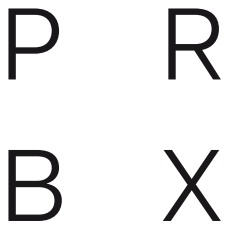


Powerbox's new 700W OFI700A power supply is optimized for conduction cooling as required by demanding industrial applications

Related links:

PRBX OFI700A

<https://www.prbx.com/product/ofi700a/>



POWERBOX
A Cosel Group Company

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

Visit www.prbx.com

Please contact Patrick Le Fèvre, Chief Marketing and Communications Officer

+46 (0) 158 703 00

marcom@prbx.com

Reference:

PRBX-PR-2108-EN