

P R
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POWERBOX
OFI1200A



When conduction cooling is a must!

A number of industrial applications require power supplies to operate with limited or no ventilation cooling. Amongst them we could particularly mention: industrial applications operating in harsh environments where electronic equipment is installed in a sealed box, radio communication systems subject to adverse weather conditions, outdoor displays and traffic signaling, and indoor equipment with very strict noise restrictions. In addition to environmental requirements, reliability and cost of maintenance are motivating systems' designers to not use fans and blowers.

In all those applications, the cooling of the power supply is performed by conducting heat away from dissipating components to a robust baseplate that is attached to the chassis of the cabinet or to a cold-wall, evacuating calories from the equipment to the outside of the box or a heat-exchanger. This requires power designers to apply specific cautions to guarantee best performance, and to carefully select components.



Industrial applications such as professional lighting or even low-power electrolyzers require the power supply to deliver constant current, and this must be easily adjustable. Often such equipments are operated in environments requiring the electronics to be enclosed and protected from hazards. This implies the power supply to offer external communication with the system manager.

Based on PRBX's long expertise in designing power solutions for demanding applications, and the outstanding TUNS power modules from COSEL, our designers have developed a 1200W AC/DC power supply optimized for conduction cooling, the OFI1200A. The OFI1200A works from -40 to +95 degrees centigrade baseplate temperature. It has an international input voltage of 85 to 305VAC, nominal 100-277VAC and is available in three output voltages, +12, +28, and +48VDC. Paralleling for both increased power and redundancy is possible, up to nine units.

For constant current applications, the current can be tightly controlled by an external signal, and the output voltage can be adjusted from nominal to zero volts with tight accuracy. This makes the OFI1200A eminently suitable for battery charging.

The standard version of OFI1200A is open frame, thus reducing its size for system integration into a harsh environments style cabinet. An optional metal case is available for mechanical and safety protection and precautions.

Features

- Conduction cooling
- Redundancy operation
- Paralleling up to nine units
- Active ORing for 28V & 48V (optional)
- Low EMI
- Power Good, Remote On/Off
- OCP, OVP, OTP, SCP
- VTRM, ITRM
- High efficiency

Input

- AC input voltage range 85-305VAC (Nominal 100-277VAC)

Output

- OFI1200A12
12 VDC / 84A
Vout trim : ~0 - 14.4VDC
Iout trim : ~0 - to 84A
- OFI1200A28
28VDC / 43A
Vout trim : ~0 - 33.6VDC
Iout trim : ~0 - to 43A
- OFI1200A48
48VDC / 25A
Vout trim : ~0 - 57.6VDC
Iout trim : ~0 - to 25A

Mechanical

- With cover 142x40x260mm
- Without cover 142x39x260mm
- Weight 1.2kg (1.4kg with cover)

Environmental

- Operating baseplate temperature -40°C to +95°C
- Shock and vibration acc MIL-STD-810H

Safety standards

- UL62368-1
- CE
- UKCA

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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