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POWERBOX
ENI100



Encapsulated power supply - ready for industrial system integration!

There are a number of industrial applications where power sources are not centralized but placed in remote equipment. A good example of this is security doors where sensors and safety systems are located inside the door-chassis, but the main AC voltage is delivered via a secured line to local equipment, then converted to DC to power the final equipment.

In such applications industrial systems integrators require power supplies to be small, compact and able to operate in very specific environments such as in high electrical fields, in close proximity to mobile parts or sensitive sensors. They require power supplies that are simple to install, delivering a local safety voltage of 12V or 24VDC to electronic equipments. In such conditions, no exposed metal parts are allowed, resulting in a plastic case with crimped terminals without a physical connection between the internal components and the host equipment chassis. To optimize cooling Powerbox's ENI100 has been designed



to distribute heat equally all around, simultaneously maximizing the area of contact with the plastic case to minimize hot spots.

With safety in mind, the ENI100 has a leakage current of less than 100 μ A, which for an industrial product is very low and complies with a level of isolation Class I (double isolation between the input and output). The ENI100 fulfills safety standard 62368-1 for fixed installations.

Powerbox's ENI100 power supply has a nominal input of 100 to 240VAC although versatile, it can be operated with a small derating between 90 and 264VAC. The output voltage is factory adjusted to 12VDC or 24V depending on the version, delivering respective output currents of 8A or 4A.

The power supply's output is protected against over-current and short-circuit damage by a current limit circuit operating in 'Always On' mode, guaranteeing that the unit will always return to full operation after the output fault is removed. Powerbox's 'Always On' technology also adjusts the available output power while taking cognizance of the unit's internal temperature in order to keep it in a safe operating zone. So users always achieve the best of both worlds; maximized output combined with maximum safety and reliability.

Able to be installed outdoors or exposed to a humid atmosphere (5 to 95% non-condensing) the ENI100 is designed to meet the requirements of an ingress protection level of 54 (IP54). Input and output cables are fixed to the unit with crimped terminals for easy connection.

Features

- Isolated IP54 plastic case with crimped terminals
- Fulfill safety standard 62368-1 for fixed installations
- Very low leakage current <100 microampere
- High efficiency up to 90%
- High reliability due to low components counts
- Over current protection with auto recovery

Input

- Voltage range 90-264VAC
- Nominal 100-240VAC

Output

- Power up to 96W
- ENI 100 5135 – 12VDC / 8A
- ENI 100 5138 – 24VDC / 4A

Isolation

- Class I
- Double isolation Input to Output

Safety standard

- Fulfill safety standard 62368-1 for fixed installations

Environmental

- Operating temperature - 0° C to +40° C, +70° C with derating

General

- Dimensions - 142mm x 37.10mm x 54mm (5.60 x 1.45 x 2.12inches)
- Case – Plastic ingress protection IP54
- Fixation - Oblong mounting holes

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.

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