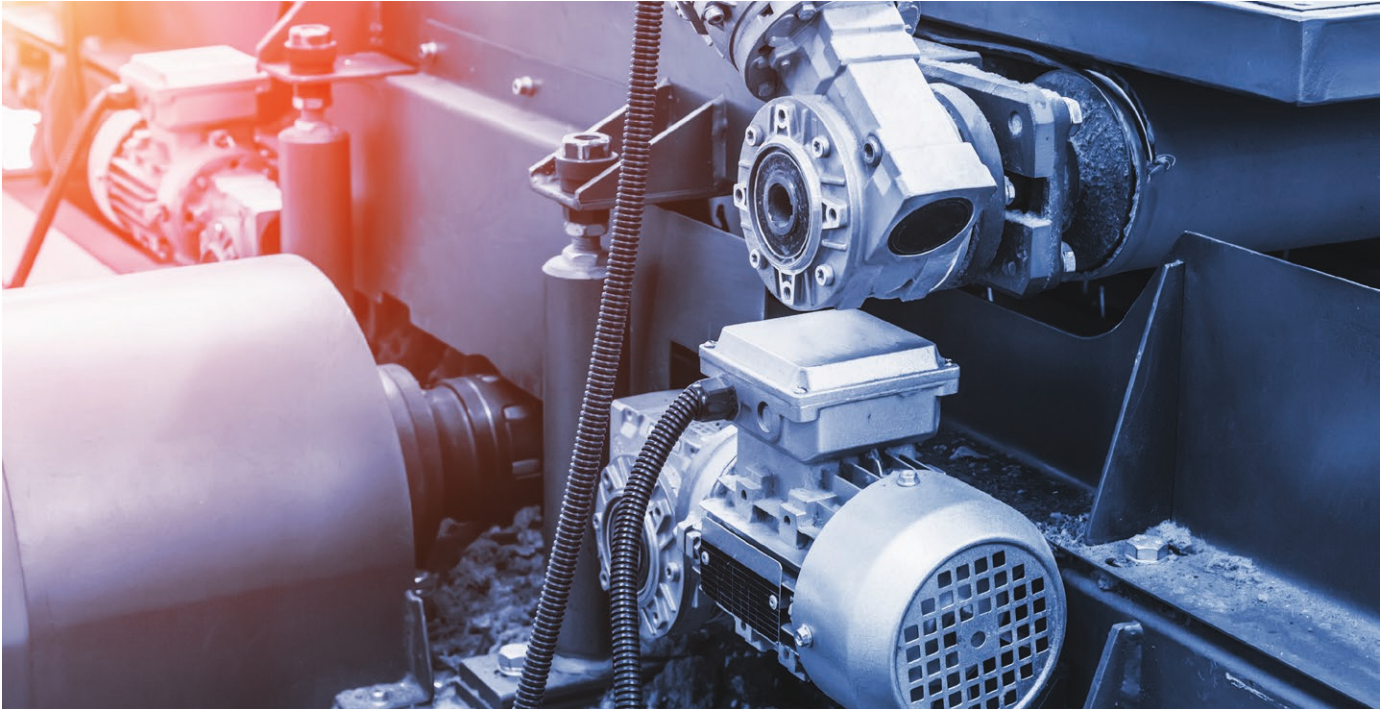


P R
B X

POWERBOX
SMA2500D24-D



Power distribution and filter unit for automotive and industrial applications

Heavy Industrial machinery such as cranes, mining equipment and heavy-load carriers require power to be distributed from the main source e.g. batteries or generators to different equipments. The nature of such machinery often comprises a combination of different tools, monitoring and safety apparatus that all need to be plugged and unplugged as and when required by those equipments.

As a result of harsh environments and the potential for high levels of electromagnetic disturbance, it is important to guarantee a low level of electromagnetic interference (EMI) from the power source to the load, and also from the load to the source. In the hostile environments in which industrial machinery is operated, and considering the number of sensors and decentralized processors used to secure proper operation, it is easy to see that EMI immunity is a must.



When designing industrial machinery that requires plug and unplug accessories, engineering designers include one or many power distribution boxes. Their purpose is to isolate the different parts of the system from each other while also simplifying wiring. Although from the outside they may look like a box with connectors, switches and a minimum of signaling, inside the box resides a plethora of electronics and EMI filtering that can vary from simple filtering and power distribution, to including active filtering and even digital interfaces monitoring outputs or controlling them.

In developing power solutions for demanding applications, PRBX has designed many power distribution solutions for the industrial, transportation and defense industries. Its latest power distribution and filter unit type SMA2500D24-D features high attenuation output filters, individual fuse protection, all housed in a robust metal case to IP54 protection with lockable connectors and operation status LEDs. The unit includes two inputs for redundancy operation and eight individual outputs.

The SMA2500D24-D is a very robust and able platform for a power distribution box that can be customized with optional features, thus reducing time to market when engineering designers are developing new machinery.

Input

- Standard vehicle voltages, 24VDC (16-32VDC)
- Bolt for ground connection

Outputs

- Configurable number of outputs
- Outputs are individually fused 5-50A

Filter

- Attenuation >65dB, 0,5 - 100MHz

Mechanical and environmental

- Dimensions: 500(W) X 150(H) X 400(D)
- Operating temperature -40°C to + 70°C
- Surface treatment: passivation and paint for high corrosion resistance
- Conformal coating on PCB
- Ingress protection index IP54
- Assembly and workmanship according to IPC-A-610, IPC-A-620 class 3

Applications

- Utility vehicles
- Mining trucks
- Mobile cranes
- Adapted truck body solutions
- Government and defense vehicles
- Small utility vessels

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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