Voltage converter from 10-44V DC to 24V DC, 30A, 720W, IP68

Product codes:

Reference: AM3423
EAN13: -
UPC: 85044090

Product features:

Input voltage: 10-44 V DC
Output voltage: 24 V DC
Output current: 25 A
Output power: 600 W
Waterproof grade: IP68
Lifetime: 100,000 hours

Product attributes:

Product description:

Power DC/DC converter for converting DC input voltage 10–44 V DC to stabilized 24 V DC. It is designed to power devices and systems with a requirement for high output current up to 30 A. The product is suitable for use in industrial applications, transportation technology, energy systems and other installations with DC power supply.

Technical specifications

- Device type: non-isolated DC/DC converter
- Input voltage: 10-44V DC
- Output voltage: 24 V DC
- Maximum output current: 30 A
- Maximum output power: 720 W
- Efficiency: up to 95.3%
- Dimensions: 140 × 120 × 42.5 mm
- Ambient operating temperature range: -40 to +55 °C
- Housing surface temperature range: -40 to +80 °C
- Storage temperature: -55 to +100 °C

- Operating humidity: 5-95% non-condensing
- Maximum input voltage: 45 V DC
- Input undervoltage shutdown: 8–10 V
- Undervoltage recovery: 10–11 V
- Maximum input current: 78 A at 10 V and full load
- No-load current: 150–180 mA at 12 V
- Output voltage accuracy: ±2%
- Voltage regulation: ±2%
- Regulation when changing load: ±2%
- Output overcurrent protection: 29–31 A
- Output ripple and noise: 201–400 mVpp
- Output voltage rise time: 515–600 ms
- Start delay: 1.2-3 ms
- Overheating protection: activation at housing temperature of 98 °C
- Short circuit protection: yes, hiccup mode
- Switching frequency: 130 ±10 kHz
- Protection class stated in the input: IP68
- Weight: up to 1.2 kg

Functions and features

- Synchronous rectification for increased efficiency.
- Non-isolated connection between input and output.
- Fully loadable output across the entire rated current range.
- Built-in protection against undervoltage, overload, short circuit and overheating.
- Automatic resumption of operation after the fault condition is eliminated.
- Natural cooling without a fan.
- Built-in 120 A input fuse.
- Optional remote on/off function via EN input.
- Design designed for operation in more demanding conditions.

Ideal for

- Powering 24V devices from 10–44 V DC on-board and battery systems.
- Industrial DC distribution systems.
- Transport equipment, vehicles, forklifts and golf carts.
- Ship and mobile installations.
- Telecommunications and energy applications.
- Power supply for electromotive and LED systems with appropriate parameters.

Package contents

- DC/DC converter 10–44 V DC to 24 V DC

Why choose this product?

- The wide input voltage range allows use in various DC systems.
- The 24 V DC output with a current of up to 30 A is suitable for powering more power-intensive devices.
- Integrated protection functions reduce the risk of damage in the event of a fault or incorrect operating condition.
- The non-insulated design is suitable where galvanic isolation is not required.
- Compact dimensions facilitate integration into technical assemblies and distribution boards.

Installation and operating instructions

- During installation, it is necessary to observe the correct polarity of the input and output.
- The recommended wire size is 4 AWG for the input connection and 12 AWG for the output connection.
- For longer cabling, it is necessary to take into account the voltage drop on the line and select the appropriate wire cross-section.
- The manufacturer recommends running longer wiring on the side with lower current, in this type on the input side.
- For reliable operation, it is necessary to ensure sufficient heat dissipation and free space for cooling.
- The temperature conditions of the installation must correspond to the operating limits of the device.

Safety notice

- The device is an electrical power converter and requires professional installation.
- The product is not galvanically isolated, the input and output are not isolated. This feature must be taken into account when designing the connection.
- Incorrect wiring may lead to short circuits, overheating, damage to the connected equipment, or damage to the inverter.
- When operating at high currents, it is necessary to use conductors with an appropriate cross-section and reliable mechanical terminal connections.
- Do not cover the surface of the inverter or install it in an area without heat dissipation.
- Always disconnect power before assembly, maintenance, or wiring changes.

Product gallery: