Industrial Isolated DC-DC Buck Converter
DFR0929

Product Overview
01-23-2023
For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot Industrial Isolated DC-DC Buck Converter is a 50W high-power step-down module that offers a 9V to 18V input voltage range and a 5V/10A maximum output. This converter features high isolation withstand voltage of $1500V_{DC}$ or $800V_{AC}$, low radiation interference, ripple noise, short-circuit protection, and input under-voltage protection mechanisms.

The industrial isolated DC-DC converter also features 83% conversion efficiency, 50W maximum output power, 0A to 10A output current range, and operates within -40°C to 85°C temperature range. This converter is used in portable power supply systems on the chassis, railway locomotives, new energy, communications, electric power, industrial control, and occasions where input and output are isolated.

Features

- Up to 50W output power
- $1500V_{DC}$ or $800V_{AC}$ high isolation withstand voltage
- Low radiation interference and low ripple noise
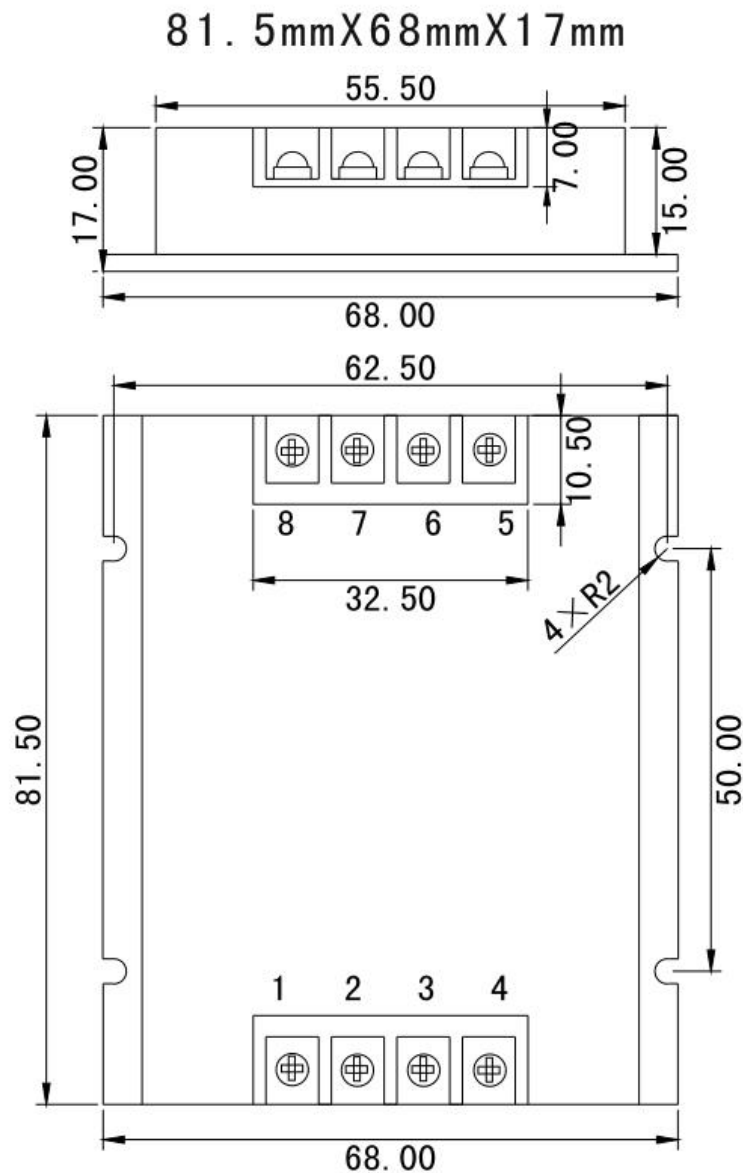- Environmental-friendly design
- RoHS compliant

Specifications

- 9V to 18V input voltage range
- 5V output voltage
- 0A to 10A output current
- 50W maximum output power
- 83% conversion efficiency
- 1500V insulation voltage (input-output, test time 1 minute, leakage current less than 1mA)
- 1000V input-shell (FG)
- 500V output-shell (FG)
- -40°C to 85°C working temperature range
- 5%RH to 95%RH storage humidity range
- Protection mechanism:
  - Short-circuit protection
  - Input under-voltage protection

Applications

- Portable power supply systems on the chassis
- Railway locomotives
- New energy
- Communications
- Electric power
- Industrial control
- Occasions where input and output are isolated

Dimensional Diagram

81. 5mmX68mmX17mm

Mouser Part Number

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-dc-dc-buck-converter/