



## Industrial DIN-Rail Mount Power Supply Unit (PSU) 480 W

Single Output, 480 W, 48 VDC at 10 A, Complete Protection Functions, Universal AC Input, Metal Housing, Blue/Silver

Part No.: **509091**

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### DIN-Rail Mountable 480 W PSU for Industrial Environments - power up with reliability and efficiency in a small form factor

The DIN rail power supply plays an integral part in industrial applications such as automotive, mechanical engineering, logistics and even some ambitious home applications in outdoor lighting controls, amateur radio and many more.

#### A PSU with USPs

To meet high application demands, this PSU from Intellinet Network Solutions comes with high-energy efficiency, maximum safety, a space-saving design, wide temperature tolerance and a long lifetime. Its DIN rail mounting (also known as top-hat rail) lets it fit right at home in industrial applications, where the DIN rail is a fixed component of many cabinets, machines and distribution boxes.

#### Creates less heat to save you money

The metal housing of this PSU enhances the unit's power dissipation to work

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even in extreme temperature conditions of -20 - 70°C (-4 - 158°F). The unit's high-quality components help contribute to high efficiency, which leads to lower no-load losses and therefore less heat generation in the entire system. Its smart construction saves you on outright energy costs during operation and helps you save additional money in cooling the entire application.

## **More power in less space**

The PSU's ability to generate less heat in the power supply means it also can be made more compact. With a width of only 86 mm (3.4 in.), the compact shape of this PSU saves a lot of the valuable space. It can easily be installed in confined systems or small on-site control boxes.

This PSU is convection-cooled, which means that the electronics are cooled only by natural airflow. Since fans aren't required, there are fewer moving mechanical elements, which decreases the probability of failure and device maintenance requirements.

## **Full-scale protection and safety**

To fully protect your mission-critical equipment, this DIN-rail mount power supply features over-voltage, over-temperature and overload protection with constant current limiting. TÜV, UL and EMC compliance guarantee safe use in industrial applications.

### **Features:**

- Highly reliable, energy efficient PSU for industrial applications and more
- Single output with 480 W and 48.0 VDC at 10 A
- Slim, space-saving metal housing designed for mounting on a TS 35/7.5 or TS 35/15 DIN rail
- Over-temperature, overload, and over-voltage protection
- Efficient heat dissipation for a wide operating temperature of -20 - 70°C (-4 - 158°F)
- Universal AC input with 90 - 264 VAC
- Minimized inrush current surge
- UL listed
- Three-year warranty

### **Specifications:**

#### **Standards and Certifications**

- UL
- TÜV
- CE

- CB
- EMC
- RoHS

## Electrical

- Output
  - DC voltage: 48.0 V
  - Rated current: 10.0 A
  - Rated power: 480.0 W
  - Suitable systems: 1-phase
  - Current range: 0 - 10.0 A
  - Voltage adjustment range: 48.0 - 55.0 V
  - Ripple and noise: 150.0 mV pp
  - Voltage tolerance:  $\pm 1.0\%$
  - Line regulation:  $\pm 0.5\%$
  - Load regulation:  $\pm 1.0\%$
  - Setup/rise/hold up time at : 3000/100/16 ms @ 115.0 VAC; 1500/100/16 ms @ 230.0 VAC
- Input
  - Voltage range: 90.0 - 264.0 VAC; 127.0 - 370.0 VDC [DC input possible by connecting AC/L(+), AC/N(-)]
  - Frequency range: 47 - 63 Hz
  - Power Factor: PF > 0.98 @ 115.0 VAC, PF > 0.94 @ 230 VAC
  - Efficiency (typical): 92.5%
  - AC current (typical): 4.8 A @ 115.0 VAC; 2.4 A @ 230.0 VAC
  - Inrush current (typical): 20.0 A @ 115.0 VAC; 35.0 A @ 230.0 VAC
  - Leakage current: <2.0 mA @ 240.0 VAC
- Protection
  - Overload: 105 - 130% rated output power; protection type: constant current limiting, unit will shut down after 3 seconds, recovers automatically after fault condition is removed
  - Over-voltage: 29.0 - 33.0 V; protection type: shut down output voltage, re-power on to recover
  - Over-temperature protection type: shut down output voltage, recovers automatically after temperature goes down
- Safety
  - Standards: UL 508, TÜV BS EN/EN 62368-1, EAC TP TC 004, BSMI CNS14336-1 approved (meets BS EN/EN60204-1)
  - Withstand voltage: input-output: 3K VAC; input-FG: 2K VAC; output-FG: 0.5K VAC
  - Isolation resistance: input-output, input-FG; output-FG: > 100M Ohms / 500 VDC / 25°C (77°F) / 70% RH
  - EMC emission: compliant with BS EN/EN 55032 (CISPR32), BS EN/EN 61204-3 Class B, BS EN/EN 61000-3-2,-3, EAC TP TC 020, CNS 13438 Class B
  - EMC immunity: BS EN/EN 61000-4-2,3,4,5,6,8,11, BS EN/EN 55024, BS EN/EN 61000-6-2 (BS EN/EN 50082-2), BS EN/EN 61204-3, heavy industry level, criteria A,

## EAC TP TC 020

### Physical

- DIN-rail: In accordance with IEC/EN 60715 (top hat)
- Dimensions (L x W x H): 129 x 86 x 125 mm (5.08 x 3.39 x 4.92 in.)
- Net weight: 1.46 kg (3.22 lbs.)
- Gross weight: 1.59 kg (3.51 lbs.)
- Housing: metal
- DIN rail mounting: TS 35/7.5 or TS 35/15 rail
- Vibration: mounting compliant with IEC 60068-2-6

### Operating Environment

- Operation temperature: -20 - 70°C (-4 - 158°F)
- Storage temperature: -40 - 85°C (-40 - 185°F)
- Operation humidity (noncondensing): 20 - 90% RH
- Storage humidity (noncondensing): 10 - 90% RH

### Package Contents

- Industrial DIN-Rail Mount Power Supply Unit (PSU) 480 W
- DIN-rail mount bracket
- Instructions

