**Extract from the online catalog**

# TRIO-PS/1AC/24DC/20

Order No.: 2866381

http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2866381

DIN rail power supply unit, primary-switched mode, 1-phase, output: 24 V DC / 20 A

| Commercial data | |
|---|---|
| EAN | 4046356046664 |
| Pack | 1 pcs. |
| Customs tariff | 85044081 |
| Weight/Piece | 2.3966 KG |
| Catalog page information | Page 571 (IF-2009) |

Product notes

WEEE/RoHS-compliant since: 09/27/2006

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## Product description

TRIO POWER is the DIN-rail-mountable power supply unit with basic functions. With an output voltage of 12 V DC, 24 V DC and 48 V DC and 1- and 3-phase versions with 60 W or 960 W, it is particularly suited for use in series production in mechanical engineering. The wide-range input and international certification package allows worldwide implementation.

The high MTBF of 500,000 h stands for high supply reliability. The devices can be connected in parallel to increase the capacity and redundancy.

The clear LED signaling and the device connection with double terminal block for plus and minus for fast potential distribution are further advantages of this device series. A third terminal block simplifies the grounding on the secondary side. All power supply units are idle proof and short circuit proof and provide a regulated and adjustable output voltage.

## Technical data

### Input data

| | |
|---|---|
| Nominal input voltage | 100 V AC ... 240 V AC |
| AC input voltage range | 85 V AC ... 264 V AC (derating < 90 V AC: 2.5% per Kelvin) |
| Short-term input voltage | 300 V AC |
| AC frequency range | 45 Hz ... 65 Hz |
| Current consumption | 4.6 A (120 V AC) |
| | 2.4 A (230 V AC) |
| Inrush surge current | < 15 A |
| Power failure bypass | > 13 ms (120 V AC) |
| | > 13 ms (230 V AC) |
| Input fuse | 10 A (slow-blow, internal) |
| Recommended backup fuse | 16 A (characteristic B) |
| Power factor (cos phi) | 0.99 |
| Name of protection | Transient surge protection |
| Protective circuit/component | Varistor |

### Output data

| | |
|---|---|
| Nominal output voltage | 24 V DC ±1% |
| Setting range of the output voltage | 22.5 V DC ... 29.5 V DC (> 24 V constant capacity) |
| Output current | 20 A (-25°C ... 55°C) |
| Derating | From +55°C to 70°C: 2.5% per Kelvin |
| Connection in parallel | Yes, for redundancy and increased capacity |
| Connection in series | Yes |
| Max. capacitive load | Unlimited |
| Current limitation | Approx. 25 A (for short circuit) |
| Control deviation | < 1 % (change in load, static 10% ... 90%) |
| | < 2 % (change in load, dynamic 10% ... 90%) |
| | < 0.1 % (change in input voltage ±10%) |
| Residual ripple | < 10 $mV_{PP}$ |
| Peak switching voltages nominal load | < 80 $mV_{PP}$ |
| Maximum power dissipation idling | 4 W |
| Power loss nominal load max. | 46 W |

**General data**

| | |
|---|---|
| Width | 115 mm |
| Height | 130 mm |
| Depth | 152.5 mm |
| Weight | 2.2 kg |
| Operating voltage display | LED green |
| Efficiency | > 91 % (At 230 V AC and nominal values) |
| Insulation voltage input/output | 4 kV AC (type test) |
| | 2 kV AC (routine test) |
| Degree of protection | IP20 |
| Class of protection | I, with PE connection |
| MTBF | > 500 000 h in acc. with IEC 61709 (SN 29500) |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 55° C derating) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | 95 % (at 25 °C, no condensation) |
| Mounting position | Horizontal DIN rail NS 35, EN 60715 |
| Assembly instructions | Can be aligned: Horizontal 0 cm, vertical 5 cm |
| Electromagnetic compatibility | Conformance with EMC guideline 2004/108/EC and for low-voltage guideline 2006/95/EC |
| Immunity to interference | EN 61000-6-2:2005 |
| Standard – Electrical equipment of machines | EN 60204 |
| Standard - Safety of transformers | EN 61558-2-17 |
| Standard - Electrical safety | EN 60950/VDE 0805 (SELV) |
| | EN 61558-2-17 |
| Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations | EN 50178/VDE 0160 (PELV) |
| Standard – Safety extra-low voltage | EN 60950 (SELV) |
| | EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| | DIN VDE 0106-1010 |
| Standard – Protection against electric shock | DIN 57100-410 |
| Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment | DIN VDE 0106-101 |
| Standard – Limitation of mains harmonic currents | EN 61000-3-2 |

| | |
|---|---|
| UL approvals | UL/C-UL listed UL 508 |
| | UL/C-UL Recognized UL 60950 |
| Surge voltage category | III |

**Connection data, input**

| | |
|---|---|
| Type of connection | Screw connection |
| Conductor cross section solid min. | 0.2 mm² |
| Conductor cross section solid max. | 2.5 mm² |
| Conductor cross section stranded min. | 0.2 mm² |
| Conductor cross section stranded max. | 2.5 mm² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 14 |
| Stripping length | 9 mm |
| Screw thread | M2,5 |

**Connection data, output**

| | |
|---|---|
| Type of connection | Screw connection |
| Conductor cross section solid min. | 0.5 mm² |
| Conductor cross section solid max. | 6 mm² |
| Conductor cross section stranded min. | 0.5 mm² |
| Conductor cross section stranded max. | 4 mm² |
| Conductor cross section AWG/kcmil min. | 20 |
| Conductor cross section AWG/kcmil max | 10 |
| Stripping length | 14 mm |

**Signaling**

| | |
|---|---|
| Status display | "DC OK" LED green |
| Note on status display | $U_{OUT}$ > 21.5 V: LED lights up |

## Certificates / Approvals

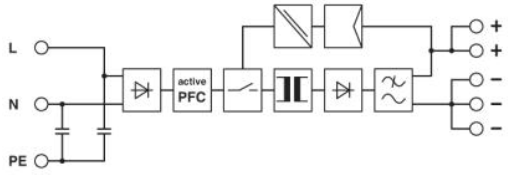
| | |
|---|---|
| Certification | CUL, CUL Listed, UL, UL Listed |

## Accessories

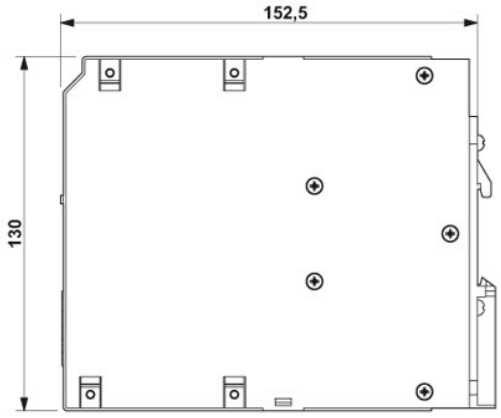
| Item | Designation | Description |
|---|---|---|
| **General** | | |
| 2938235 | UWA 182/52 | Universal wall adapter |

## Diagrams/Drawings

Block diagram




Dimensioned drawing



## Address

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- Подбор аналогов;
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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
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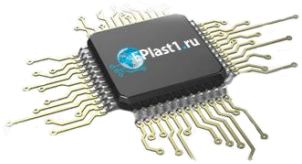


**Как с нами связаться**

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