

MINI-PS-100-240AC/24DC/1.3


Order No.: 2866446

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2866446>

DIN rail power supply unit 24 V DC/1.3 A, primary switched-mode



Commercial data

| | |
|--------------------------|--|
| GTIN (EAN) |  4 046356 073905 |
| sales group | H041 |
| Pack | 1 pcs. |
| Customs tariff | 85044082 |
| Catalog page information | Page 596 (IF-2011) |

Product notes

WEEE/RoHS-compliant since:
05/30/2006

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Product description

MINI POWER is the extremely slim power supply unit with constructional widths of 22.5 mm, 45 mm and 67.5 mm.

In addition to a 24 V version with output currents of 1.3 A, 2 A and 4 A, special voltages with 5 V/3 A and ± 15 V/1 A and 10 V...15 V/2 A and 8 A are also available.

A reliable starting of complex loads is ensured by a power reserve of up to 100% – the POWER BOOST.

The high operational reliability is thus dependably guaranteed in complex global networks as well. MINI POWER also functions in applications where static voltage dips, transient failures of the supply voltage or phase failure are to be expected.

Generously dimensioned capacitors guarantee a mains buffering of more than 20 ms under full load.

Worldwide use is realized by the consistent implementation of a wide-range input.

In this way, your whole system can be tested at any manufacturing location in the world and be delivered to global destinations without switching over the input voltage, often a source of faults. This saves storage costs and reduces the logistical work.

An international approval package including UL 60950 for information technology equipment and UL 508 for industrial regulating devices pave the way for worldwide applications.

Technical data

Input data

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|------------------------------|--|
| Nominal input voltage | 100 V AC ... 240 V AC |
| AC input voltage range | 85 V AC ... 264 V AC |
| DC input voltage range | 90 V DC ... 350 V DC |
| AC frequency range | 45 Hz ... 65 Hz |
| DC frequency range | 0 Hz |
| Current consumption | Approx. 0.65 A (120 V AC) 0.25 A (230 V AC) |
| Inrush surge current | < 15 A (< 0.6 A ² s) |
| Power failure bypass | > 20 ms (120 V AC) > 110 ms (230 V AC) |
| Input fuse | 1.25 A (slow-blow, internal) |
| Permissible backup fuse | B6 B10 B16 |
| Type of protection | Transient surge protection |
| Protective circuit/component | Varistor |

Output data

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| Nominal output voltage | 24 V DC ±1% |
| Setting range of the output voltage | 22.5 V DC ... 28.5 V DC (> 24 V constant capacity) |
| Output current | 1.3 A (-25 °C ... 60 °C) 1.6 A (with POWER BOOST, -25°C ... 40°C permanent) |
| Derating | 60 °C ... 70 °C (2.5%/K) |
| Connection in parallel | Yes, for redundancy and increased capacity |

| | |
|--------------------------------------|---|
| Connection in series | Yes |
| Starting delay with capacitive load | (Unrestricted) |
| Max. capacitive load | Unlimited |
| Current limitation | Approx. 5 A (for short-circuit) |
| Control deviation | < 1 % (change in load, static 10% ... 90%) |
| | < 3 % (change in load, dynamic 10% ... 90%) |
| | < 0.1 % (change in input voltage $\pm 10\%$) |
| Residual ripple | < 20 mV _{PP} (20 MHz) |
| Peak switching voltages nominal load | < 50 mV _{PP} (20 MHz) |
| Maximum power dissipation idling | 0.9 W |
| Power loss nominal load max. | 4.5 W |

General data

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| Width | 22.5 mm |
| Height | 99 mm |
| Depth | 107 mm |
| Net weight | 0.2 kg |
| Operating voltage display | Green LED |
| Efficiency | > 85 % (At 230 V AC and nominal values) |
| Insulation voltage input/output | 3 kV (routine test) |
| | 4 kV (type test) |
| Degree of protection | IP20 |
| Protection class | II (in an enclosed control cabinet) |
| MTBF (IEC 61709, SN 29500) | > 500000 h |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 60 °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 Directive 2004/108/EC |
| Noise immunity | EN 61000-6-2:2005 |
| Low Voltage Directive | Conformance with LV directive 2006/95/EC |
| Standard – Electrical equipment of machines | EN 60204 |
| Standard - Safety of transformers | EN 61558-2-17 |
| Standard - Electrical safety | EN 60950-1/VDE 0805 (SELV) |

| | |
|--|---|
| 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 60950-1 (SELV) |
| | EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| | DIN VDE 0106-1010 |
| 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 |
| | UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D |
| | NEC Class 2 as per UL 1310 |
| Surge voltage category | III |

Connection data, input

| | |
|--|----------------------------|
| Connection method | Pluggable screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |
| Stripping length | 7 mm |
| Screw thread | M3 |

Connection data, output

| | |
|--|----------------------------|
| Connection method | Pluggable screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |
| Stripping length | 7 mm |

Signaling

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|--|--|
| Output name | DC OK active |
| Output description | $U_{OUT} > 21.5 \text{ V}$: High signal |
| Maximum switching voltage | $\leq 24 \text{ V}$ |
| Output voltage | + 24 V DC (signal) |
| Continuous load current | $\leq 20 \text{ mA}$ |
| Status display | "DC OK" LED green |
| Note on status display | $U_{OUT} > 21.5 \text{ V}$: LED lights up |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |
| Tightening torque, min | 0.5 Nm |
| Tightening torque max | 0.6 Nm |
| Screw thread | M3 |

Certificates / Approvals



Certification

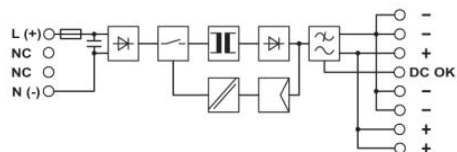
CUL, CUL Listed, GOST, UL, UL Listed

Certification Ex:

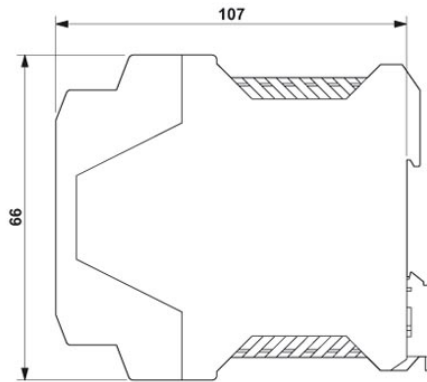
CUL-EX LIS, UL-EX LIS

Diagrams/Drawings

Block diagram



Dimensioned drawing



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