

Power supply unit - UNO-PS/1AC/24DC/150W - 2904376

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Primary-switched UNO power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/150 W

Product Description

UNO POWER power supplies - compact with basic functionality

Thanks to their high power density, compact UNO POWER power supplies offer the ideal solution for loads up to 150 W, particularly in compact control boxes. The power supply units are available in various performance classes and overall widths. Their high degree of efficiency and low idling losses ensure a high level of energy efficiency.

Why buy this product

- Flexible mounting by simply snapping onto the DIN rail
- More space in the control cabinet with up to 20 % higher power density
- Maximum energy efficiency, thanks to over 90 % efficiency and extremely low idling losses under 0.3 W
- Outdoor installation, thanks to the wide temperature range from -25°C to +70°C



Key Commercial Data

| | |
|--------------------------------------|---------------|
| Packing unit | 1 STK |
| GTIN | |
| GTIN | 4046356897099 |
| Weight per Piece (excluding packing) | 500.000 g |
| Custom tariff number | 85044030 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|--------|--------|
| Width | 37 mm |
| Height | 130 mm |
| Depth | 125 mm |

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

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Ambient conditions

| | |
|--|--|
| Ambient temperature (operation) | -25 °C ... 70 °C (> 55 °C Derating: 2,5 %/K) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |
| Noise immunity | EN 61000-6-2:2005 |

Input data

| | |
|-------------------------------------|---|
| Nominal input voltage range | 100 V AC ... 240 V AC |
| Input voltage range | 85 V AC ... 264 V AC |
| AC frequency range | 45 Hz ... 65 Hz |
| Current consumption | 1.4 A (120 V AC) |
| | 0.8 A (230 V AC) |
| Inrush surge current | < 50 A (typical) |
| Power failure bypass | > 20 ms (120 V AC) |
| | > 20 ms (230 V AC) |
| Input fuse | 2.5 A (slow-blow, internal) |
| Choice of suitable circuit breakers | 6 A ... 16 A (Characteristics B, C, D, K) |
| Type of protection | Transient surge protection |
| Protective circuit/component | Varistor |

Output data

| | |
|---|---|
| Nominal output voltage | 24 V DC ±1 % |
| Setting range of the output voltage (U_{Set}) | 24 V DC ... 28 V DC ±1 % |
| Nominal output current (I_N) | 6.25 A (-25°C ... 55°C) |
| Derating | 55 °C ... 70 °C (2.5%/K) |
| Connection in parallel | Yes, for redundancy and increased capacity |
| Connection in series | No |
| 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 | < 40 mV _{PP} (with nominal values) |
| Output power | 150 W |
| Typical response time | < 1 s |
| Maximum power dissipation in no-load condition | < 1.2 W |
| Power loss nominal load max. | < 9.7 W |

General

| | |
|---------------------------------|--|
| Net weight | 0.5 kg |
| Efficiency | > 94 % (for 230 V AC and nominal values) |
| Insulation voltage input/output | 4 kV AC (type test) |
| | 3 kV AC (routine test) |
| Protection class | II (in closed control cabinet) |
| MTBF (IEC 61709, SN 29500) | > 868000 h (40°C) |

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General

| | |
|-----------------------|--|
| Mounting position | horizontal DIN rail NS 35, EN 60715 |
| Assembly instructions | Alignable: 0 mm horizontally, 30 mm vertically |

Connection data, input

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 14 |
| Stripping length | 8 mm |
| Screw thread | M3 |

Connection data, output

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 14 |
| Stripping length | 8 mm |
| Screw thread | M3 |

Standards and Regulations

| | |
|--|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Shock | 18 ms, 30g, in each space direction (according to IEC 60068-2-27) |
| Noise immunity | EN 61000-6-2:2005 |
| Standards/regulations | EN 61000-4-2 |
| | EN 61000-4-3 |
| | EN 61000-4-4 |
| | EN 61000-4-5 |
| | EN 61000-4-6 |
| | EN 61000-4-11 |
| Standard - Safety of transformers | EN 61558-2-16 |
| 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) and EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| Standard - Limitation of mains harmonic currents | EN 61000-3-2 |
| UL approvals | UL Listed UL 508 |

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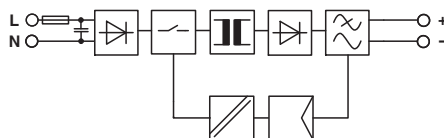
Technical data

Standards and Regulations

| | |
|--|---|
| | UL/C-UL Recognized UL 60950 |
| | UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D T4 (Hazardous Location) |
| Vibration (operation) | < 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6) |
| | 15 Hz ... 150 Hz, 2.3g, 90 min. |
| Low Voltage Directive | Conformance with LV directive 2006/95/EC |
| Approval - requirement of the semiconductor industry with regard to mains voltage dips | EN 61000-4-11 |
| Information technology equipment - safety (CB scheme) | CB Scheme |

Drawings

Block diagram



Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27040702 |
| eCl@ss 4.1 | 27040702 |
| eCl@ss 5.0 | 27049002 |
| eCl@ss 5.1 | 27049002 |
| eCl@ss 6.0 | 27049002 |
| eCl@ss 7.0 | 27049002 |
| eCl@ss 8.0 | 27049002 |
| eCl@ss 9.0 | 27040701 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC000599 |
| ETIM 5.0 | EC002540 |
| ETIM 6.0 | EC002540 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 13.2 | 39121004 |
|-------------|----------|

Approvals

Approvals

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Approvals

Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / EAC / IECEE CB Scheme / cULus Recognized / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

| | | | |
|------------------|--|---|---------------------|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 214596 |
| UL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 214596 |
| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
| EAC | | | 7500651.22.01.00242 |
| IECEE CB Scheme | | http://www.iecee.org/ | DK-42308-UL |
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | |
| cULus Listed | | | |

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Accessories

Accessories

Redundancy module

Redundancy module - UNO-DIODE/5-24DC/2X10/1X20 - 2905489



Redundancy module, 5 V - 24 V DC, 2 x 10 A, 1 x 20 A.