

## Power supply unit - UNO-PS/1AC/12DC/100W - 2902997

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Primary-switched UNO power supply for DIN rail mounting, input: single-phase, output: 12 V DC/100 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 100 W, particularly in compact control boxes. The power supply units with 5 V DC, 12 V DC, and 24 V DC output voltage are available in various performance classes and design widths. Their high degree of efficiency and low idling losses ensure a high level of energy efficiency.

### Product Features

- ✓ 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



### Key commercial data

|                      |          |
|----------------------|----------|
| Packing unit         | 1 pc     |
| Custom tariff number | 85044030 |
| Country of origin    | Germany  |

### Technical data

#### Dimensions

|        |       |
|--------|-------|
| Width  | 55 mm |
| Height | 90 mm |
| Depth  | 84 mm |

#### Ambient conditions

|   |                                     |
|---|-------------------------------------|
| Degree of protection                    | IP20                                |
| Ambient temperature (operation)         | -25 °C ... 70 °C (> 55° C derating) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C                    |

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### Ambient conditions

|  |                                   |
|--|-----------------------------------|
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |
| Noise immunity                                 | EN 61000-6-2:2005                 |

### Input data

|                              |   |
|------------------------------|---|
| Input voltage range          | 85 V AC ... 264 V AC                      |
| AC frequency range           | 45 Hz ... 65 Hz                           |
| Current consumption          | 1.7 A (120 V AC)                          |
|                              | 1 A (230 V AC)                            |
| Inrush surge current         | < 30 A (typical)                          |
| Power failure bypass         | > 20 ms (120 V AC)                        |
|                              | > 85 ms (230 V AC)                        |
| Input fuse                   | 4 A (slow-blow, internal)                 |
| Choice of suitable fuses     | 6 A ... 16 A (Characteristics B, C, D, K) |
| Type of protection           | Transient surge protection                |
| Protective circuit/component | Varistor                                  |

### Output data

|                                   |  |
|-----------------------------------|--|
| Nominal output voltage            | 12 V DC ±1%                                      |
| Output current                    | 8.3 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              | Yes  |
| Control deviation                 | < 1 % (change in load, static 10 % ... 90 %)     |
|                                   | < 3 % (Dynamic load change 10 % ... 90 %, 10 Hz) |
|                                   | < 0.1 % (change in input voltage ±10 %)          |
| Residual ripple                   | < 75 mV <sub>PP</sub> (with nominal values)      |
| Maximum power dissipation NO-Load | < 0.4 W  |
| Power loss nominal load max.      | < 12 W   |

### General

|                                 |  |
|---------------------------------|--|
| Net weight                      | 0.34 kg  |
| Efficiency                      | > 89.5 %                                       |
| 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)      | > 500000 h (According to EN 29500)             |
| Mounting position               | horizontal DIN rail NS 35, EN 60715            |
| Assembly instructions           | Alignable: 0 mm horizontally, 30 mm vertically |
| Electromagnetic compatibility   | Conformance with EMC Directive 2004/108/EC     |

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## Technical data

### General

|  |  |
|--|--|
| Low Voltage Directive  | Conformance with LV directive 2006/95/EC |
| Standard – Electrical equipment of machines  | EN 60204-1                               |
| Standard - Electrical safety   | IEC 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  | IEC 60950-1 (SELV) and EN 60204 (PELV)   |
| Standard - Safe isolation  | DIN VDE 0100-410                         |
| Standard – Protection against electric shock   | DIN 57100-410                            |
| Standard – Limitation of mains harmonic currents   | EN 61000-3-2                             |
| Approval - requirement of the semiconductor industry with regard to mains voltage dips   | EN 61000-4-11                            |
| Information technology equipment - safety (CB scheme)  | CB Scheme                                |
| UL approvals   | UL/C-UL listed UL 508                    |
|  | UL/C-UL Recognized UL 60950              |

### Connection data, input

|  |                     |
|--|---------------------|
| Connection method                      | Screw connection    |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 14                  |
| Stripping length                       | 8 mm                |
| Screw thread                           | M3                  |

### Connection data, output

|  |                     |
|--|---------------------|
| Connection method                      | Screw connection    |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 14                  |
| Stripping length                       | 8 mm                |

### Signaling

|             |                      |
|-------------|----------------------|
| Output name | LED status indicator |
|-------------|----------------------|

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## 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 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC000599 |
| ETIM 5.0 | EC002540 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211502 |
| UNSPSC 7.0901 | 39121004 |
| UNSPSC 11     | 39121004 |
| UNSPSC 12.01  | 39121004 |
| UNSPSC 13.2   | 39121004 |

## Approvals

### Approvals

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#### Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / IECEx CB Scheme / cULus Recognized / cULus Listed

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

|   |
|---|
| UL Recognized  |
|---|

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## Approvals

UL Listed

cUL Recognized

cUL Listed

IECEE CB Scheme

cULus Recognized

cULus Listed

## Drawings

Block diagram

