# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Primary-switched UNO POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/60 W

## Product Description

UNO POWER power supplies with basic functionality
Thanks to their high power density, compact UNO POWER power supplies are the ideal solution for loads up to 240 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.

## Your advantages

- 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

RoHS




## Key Commercial Data

| | |
|---|---|
| Packing unit | 1 pc |
| GTIN | 4 046356 729208 |
| GTIN | 4046356729208 |
| Weight per Piece (excluding packing) | 240.000 g |
| Custom tariff number | 85044030 |
| Country of origin | Vietnam |

## Technical data

### Dimensions

| | |
|---|---|
| Width | 35 mm |

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Technical data

### Dimensions

| | |
|---|---|
| Height | 90 mm |
| Depth | 84 mm |
| Installation distance right/left | 0 mm / 0 mm |
| Installation distance top/bottom | 30 mm / 30 mm |

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Inflammability class in acc. with UL 94 (housing / terminal blocks) | V0 |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 55 °C Derating: 2.5 %/K) |
| Ambient temperature (start-up type tested) | -40 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |
| Climatic class | 3K3 (in acc. with EN 60721) |
| Degree of pollution | 2 |

### Input data

| | |
|---|---|
| Nominal input voltage range | 100 V AC ... 240 V AC |
| Input voltage range | 85 V AC ... 264 V AC |
| AC frequency range | 50 Hz ... 60 Hz |
| Frequency range ($f_N$) | 50 Hz ... 60 Hz #10 % |
| Current consumption | 1.3 A (100 V AC) |
| | 0.6 A (240 V AC) |
| Nominal power consumption | 135.5 VA |
| Inrush current | < 30 A (typical) |
| Mains buffering time | > 20 ms (120 V AC) |
| | > 85 ms (230 V AC) |
| Input fuse | 2.5 A (slow-blow, internal) |
| Recommended breaker for input protection | 6 A ... 16 A (Characteristics B, C, D, K) |
| Power factor (cos phi) | 0.49 |
| Type of protection | Transient surge protection |
| Protective circuit/component | Varistor |

### Output data

| | |
|---|---|
| Nominal output voltage | 24 V DC ±1 % |
| Nominal output current ($I_N$) | 2.5 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 |
| Feedback voltage resistance | < 35 V DC |

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Technical data

### Output data

| | |
|---|---|
| Protection against overvoltage at the output (OVP) | ≤ 35 V DC |
| Control deviation | < 1 % (change in load, static 10 % ... 90 %) |
| | < 2 % (Dynamic load change 10 % ... 90 %, 10 Hz) |
| | < 0.1 % (change in input voltage ±10 %) |
| Residual ripple | < 30 $mV_{PP}$ (with nominal values) |
| Output power | 60 W |
| Typical response time | < 1 s |
| Maximum power dissipation in no-load condition | < 0.3 W |
| Power loss nominal load max. | < 7 W |

### General

| | |
|---|---|
| Net weight | 0.2 kg |
| Efficiency | typ. 88 % (120 V AC) |
| | typ. 90 % (230 V AC) |
| MTBF (IEC 61709, SN 29500) | > 785000 h (40 °C) |
| Insulation voltage input/output | 4 kV AC (type test) |
| | 3 kV AC (routine test) |
| Degree of protection | IP20 |
| Protection class | II (in closed control cabinet) |
| Inflammability class in acc. with UL 94 (housing / terminal blocks) | V0 |
| Housing material | Polycarbonate |
| Foot latch material | POM (Polyoxymethylen) |
| 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 mm² |
| Conductor cross section solid max. | 2.5 mm² |
| Conductor cross section flexible min. | 0.2 mm² |
| Conductor cross section flexible max. | 2.5 mm² |
| 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 mm² |

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Technical data

### Connection data, output

| | |
|---|---|
| Conductor cross section solid max. | 2.5 mm² |
| Conductor cross section flexible min. | 0.2 mm² |
| Conductor cross section flexible max. | 2.5 mm² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 14 |
| Stripping length | 8 mm |
| Screw thread | M3 |

### Standards

| | |
|---|---|
| EMC requirements for noise immunity | EN 61000-6-1 |
| | EN 61000-6-2 |
| EMC requirements for noise emission | EN 61000-6-3 |
| | EN 61000-6-4 |
| Standard - Safety of transformers | EN 61558-2-16 |
| Standard - Electrical safety | IEC 62368-1/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 62368-1 (SELV) und EN 60204-1 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| Standard – Limitation of mains harmonic currents | EN 61000-3-2 |
| Mains variation/undervoltage | EN 61000-4-11 |

### Conformance/approvals

| | |
|---|---|
| UL approvals | UL/C-UL listed UL 508 |
| | NEC Class 2 as per UL 1310 |
| | UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D T4A (Hazardous Location) |
| | UL/C-UL Recognized UL 60950-1 |
| CSA | CAN/CSA-C22.2 No. 60950-1-07 |
| | CSA-C22.2 No. 107.1-01 |
| | CAN/CSA-C22.2 No. 213 Class I, Division 2, Groups A, B, C, D T4A (Hazardous Location) |

### EMC data

| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Low Voltage Directive | Conformance with Low Voltage Directive 2014/35/EC |
| Electrostatic discharge | EN 61000-4-2 |
| Contact discharge | 6 kV (Test Level 3) |
| Discharge in air | 8 kV (Test Level 3) |
| Electromagnetic HF field | EN 61000-4-3 |

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Technical data

### EMC data

| | |
|---|---|
| Frequency range | 80 MHz ... 1 GHz |
| Test field strength | 10 V/m |
| Frequency range | 1 GHz ... 2 GHz |
| Test field strength | 10 V/m |
| Frequency range | 2 GHz ... 3 GHz |
| Test field strength | 10 V/m |
| Comments | Criterion A |
| Fast transients (burst) | EN 61000-4-4 |
| Input | 4 kV (Test Level 4 - asymmetrical) |
| Output | 2 kV (Test Level 3 - asymmetrical) |
| Comments | Criterion A |
| Surge voltage load (surge) | EN 61000-4-5 |
| Input | 2 kV (Test Level 3 - symmetrical) |
| | 4 kV (Test Level 4 - asymmetrical) |
| Output | 1 kV (Test Level 2 - symmetrical) |
| | 2 kV (Test Level 3 - asymmetrical) |
| Comments | Criterion A |
| Conducted interference | EN 61000-4-6 |
| Frequency range | 150 kHz ... 80 MHz |
| Voltage | 10 V (Test Level 3) |
| Comments | Criterion A |
| Voltage dips | EN 61000-4-11 |
| Criterion A | Normal operating behavior within the specified limits. |
| Criterion B | Temporary impairment to operational behavior that is corrected by the device itself. |

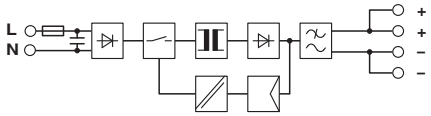
### Environmental Product Compliance

| | |
|---|---|
| REACh SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 25; |
| | For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration” |

## Drawings

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

Block diagram




## Classifications

### eCl@ss

| | |
|---|---|
| eCl@ss 10.0.1 | 27040701 |
| eCl@ss 11.0 | 27040701 |
| eCl@ss 4.0 | 27040700 |
| eCl@ss 4.1 | 27040700 |
| eCl@ss 5.0 | 27049000 |
| eCl@ss 5.1 | 27049000 |
| eCl@ss 6.0 | 27049000 |
| eCl@ss 7.0 | 27049002 |
| eCl@ss 8.0 | 27049002 |
| eCl@ss 9.0 | 27040701 |

### ETIM

| | |
|---|---|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC000599 |
| ETIM 5.0 | EC002540 |
| ETIM 6.0 | EC002540 |
| ETIM 7.0 | EC002540 |

### UNSPSC

| | |
|---|---|
| UNSPSC 6.01 | 30211502 |
| UNSPSC 7.0901 | 39121004 |
| UNSPSC 11 | 39121004 |
| UNSPSC 12.01 | 39121004 |
| UNSPSC 13.2 | 39121004 |
| UNSPSC 18.0 | 39121004 |
| UNSPSC 19.0 | 39121004 |
| UNSPSC 20.0 | 39121004 |
| UNSPSC 21.0 | 39121004 |

## Approvals

### Approvals

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Approvals

Approvals

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

Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

| | | |
|---|---|---|
| UL Listed | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
| UL Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 214596 |
| cUL Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 214596 |
| IECEE CB Scheme | http://www.iecee.org/ | DK-29076-A2-UL |
| cUL Listed | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
| EAC | | EAC-Zulassung |
| EAC | | RU*DE*08.B.01873/19 |

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Approvals

cULus Recognized

cULus Listed

## Accessories

### Accessories

### Device circuit breakers

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO - 2906031



Multi-channel electronic device circuit breaker for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

Electronic device circuit breaker - CBMC E4 24DC/1-10A NO - 2906032



Multi-channel electronic device circuit breaker for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

### Device protection

Type 3 surge protection device - PLT-SEC-T3-230-FM-UT - 2907919



Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage 230 V AC/DC.

# Power supply unit - UNO-PS/1AC/24DC/ 60W - 2902992

## Accessories

Type 3 surge protection device - PLT-SEC-T3-24-FM-UT - 2907916



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage 24 V AC/DC.

## 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.

Phoenix Contact 2020 © - all rights reserved
http://www.phoenixcontact.com