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# Power supply unit - UNO-PS/1AC/15DC/100W - 2903002

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Primary-switched UNO POWER power supply for DIN rail mounting, input: 1-phase, output: 15 V DC/100 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.

### 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	 4 046356 808712
GTIN	4046356808712

## 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 : 2.5%/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)

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## Technical data

### Ambient conditions

Noise immunity	EN 61000-6-2:2005
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### 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	1.7 A (120 V AC)
	1 A (230 V AC)
Nominal power consumption	111.4 W
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 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	15 V DC $\pm 1$ %
Nominal output current ( $I_N$ )	6.67 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 %)
	< 4 % (Dynamic load change 10 % ... 90 %, 10 Hz)
	< 0.1 % (change in input voltage $\pm 10$ %)
Residual ripple	< 75 mV <sub>PP</sub> (with nominal values)
Output power	100 W
Typical response time	< 1 s
Maximum power dissipation in no-load condition	< 0.4 W
Power loss nominal load max.	< 12 W

### General

Net weight	0.34 kg
Efficiency	> 89 % (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)	> 727000 h (40 °C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Alignable: 0 mm horizontally, 30 mm vertically

### Connection data, input



# Power supply unit - UNO-PS/1AC/15DC/100W - 2903002

## Technical data

### 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 flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
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 <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	8 mm

### 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
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
	EN 61000-6-3
	EN 61000-4-6
Frequency range	10 kHz ... 80 MHz
Voltage	10 V (Test Level 3)
Standards/regulations	EN 61000-4-11
Standard - Safety of transformers	EN 61558-2-16
Standard - Electrical safety	IEC 60950-1/VDE 0805 (SELV)

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## Technical data

### Standards and Regulations

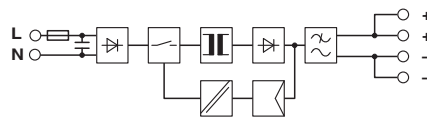
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Safety extra-low voltage	IEC 60950-1 (SELV) and EN 60204-1 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
	UL 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

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Block diagram



## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

# Power supply unit - UNO-PS/1AC/15DC/100W - 2903002

## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DK-39228-A1-UL
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 214596
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 214596
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