Power supply unit - UNO-PS/1AC/12DC/ 55W/H - 1088850

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Primary-switched UNO POWER power supply for DIN rail mounting, input: 1-phase, output: 12 V DC/55 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 055626 890654
GTIN	4055626890654
Weight per Piece (excluding packing)	240.000 g
Custom tariff number	85044030
Country of origin	Germany

Technical data

Dimensions

Width	35 mm

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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 (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
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	127 VA
Inrush current	< 30 A (typical)
Mains buffering time	> 20 ms (120 V AC)
	> 90 ms (230 V AC)
Input fuse	2 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	12 V DC ±1 %
Nominal output current (I_N)	4.6 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	< 25 V DC
Protection against overvoltage at the output (OVP)	≤ 25 V DC
Control deviation	< 1 % (change in load, static 10 % ... 90 %)

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Output data

	< 3 % (Dynamic load change 10 % ... 90 %, 10 Hz)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 30 mV_{PP} (with nominal values)
Output power	55 W
Typical response time	< 1 s
Maximum no-load power dissipation	< 0.3 W
Power loss nominal load max.	< 8 W

General

Net weight	0.2 kg
Efficiency	typ. 87 % (120 V AC)
	typ. 88 % (230 V AC)
MTBF (IEC 61709, SN 29500)	> 865000 h (40 °C)
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 (Polyoxymethylene)
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
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

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Technical data

Connection data, output

Conductor cross section AWG max.	14
Stripping length	8 mm
Screw thread	M3

Standards

EMC requirements for noise immunity	EN 61000-6-2
Standard - Safety of transformers	EN 61558-2-16
Standard - Electrical safety	IEC 62368-1 (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
	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
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
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
Conducted interference	EN 61000-4-6

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EMC data

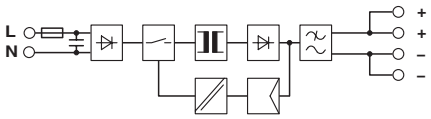
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

Drawings

Block diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27040701
eCl@ss 11.0	27040701
eCl@ss 9.0	27040701

ETIM

ETIM 7.0	EC002540

UNSPSC

UNSPSC 18.0	39121004
UNSPSC 19.0	39121004
UNSPSC 20.0	39121004
UNSPSC 21.0	39121004

Approvals

Approvals

Approvals

cULus Listed / cULus Listed / IECEE CB Scheme / EAC / EAC / EAC

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Approvals

Ex Approvals

cULus Listed

Approval details

cULus Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
cULus Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 214596
IECEE CB Scheme		http://www.iecee.org/	SI-7106
EAC			RU S-DE.BL08.W.00764
EAC			RU S-DE.BL08.W.00764
EAC			RU S-DE.BL08.W.00764

Accessories

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Device circuit breakers

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

Multi-channel electronic 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 circuit breaker - CBMC E4 24DC/1-10A NO - 2906032

Multi-channel electronic 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

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.

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