

Power supply unit - STEP-PS-100-240AC/12DC/3 - 2938921


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DIN rail power supply unit 12 V DC/3 A, primary-switched mode, low-profile design



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 892388
GTIN	4017918892388
Custom tariff number	85044081
Note	Made to Order (non-returnable)

Technical data

Dimensions

Width	71 mm
Height	90 mm
Depth	55 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, non-condensing)

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
Frequency range DC	0 Hz
Current consumption	0.8 A (120 V AC)
	0.4 A (230 V AC)

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Input data

Nominal power consumption	36 W
Inrush current	< 25 A (typical)
Mains buffering time	> 20 ms (120 V AC)
	> 100 ms (230 V AC)
Input fuse	1.25 A (Normal blow, internal)
Recommended breaker for input protection	16 A (Characteristic C)

Output data

Nominal output voltage	12 V DC ± 1 %
Nominal output current (I_N)	3 A (up to 55°C)
Output current I_{max}	approx. 9 A
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	No
Feedback voltage resistance	16 V DC
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 3 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage ± 10 %)
Residual ripple	< 40 mV _{PP}
Output power	36 W
Typical response time	< 1 s
Peak switching voltages nominal load	< 50 mV _{PP} (20 MHz)
Maximum power dissipation in no-load condition	< 2 W
Power loss nominal load max.	< 8 W

General

Net weight	0.2 kg
Efficiency	> 80 %
Insulation voltage input/output	3 kV (routine test)
	4 kV (type test)
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 500000 h
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

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Connection data, input

Stripping length	6.5 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
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Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	6.5 mm
Screw thread	M3

Signaling

Output name	POWER
Status display	Green LED
Output name	OVERLOAD
Status display	LED red

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Standard designation	Electrical safety (of IT equipment)
Standards/regulations	EN 60950
Standard designation	Electrical safety (of IT equipment)
Standards/regulations	VDE 805
Standard designation	Electrical safety (of IT equipment)
Standards/regulations	UL/C-UL recognized UL 60950-1
Standard designation	Safety transformers for switched-mode power supplies
Standards/regulations	EN 61558-2-17
Standard designation	Protection against dangerous shock currents, basic requirements for safe isolation in electrical equipment
Standards/regulations	DIN VDE 0106-101
Standard designation	Industrial control equipment
	Industrial control equipment
Standards/regulations	EN 50178
	EN 50178
Standard designation	Safety extra-low voltage
Standards/regulations	EN 50178
Standard designation	Safety extra-low voltage
Standards/regulations	EN 60950
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)

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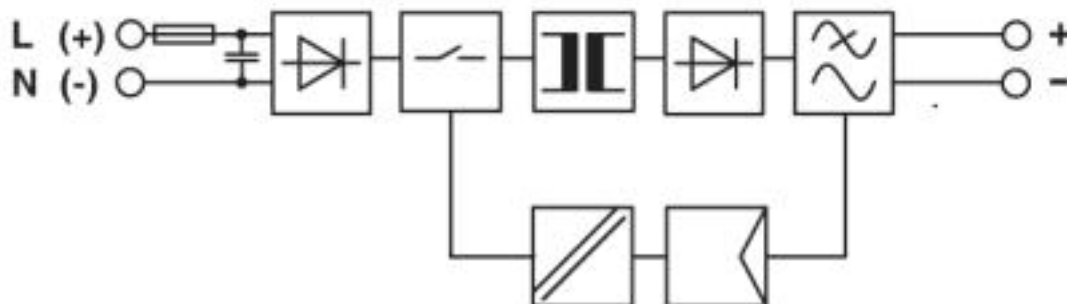
Technical data

Standards and Regulations

	EN 61558-2-17
	EN 50178 (PELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (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 60950-1

Drawings

Block diagram



Classifications

eCl@ss

eCl@ss 4.0	27250202
eCl@ss 4.1	27250202
eCl@ss 5.0	27143114
eCl@ss 5.1	27143114
eCl@ss 6.0	27143114

ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599

UNSPSC

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

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