

Power supply unit - MINI-PS-100-240AC/24DC/1.5/EX - 2866653

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Primary-switched power supply MINI POWER for DIN rail mounting, input: 1-phase, output: 24 V DC/1,5 A, for the potentially explosive area

Product Description

MINI POWER power supplies for MCR technology

In measurement and control technology (MCR), modular electronics housing has become the industry standard. MINI POWER is the power supply unit to go with it. The devices are flexible, thanks to special voltages and special versions.

Your advantages

- ✓ Easy-maintenance connection technology thanks to keyed COMBICON connectors
- ✓ For supplying the supply voltage via the foot element (DIN rail connector) where AC voltages are available
- ✓ 100 ... 240 V AC nominal input voltage range
- ✓ 24 V DC output voltage
- ✓ For up to 60 MINI Analog modules
- ✓ For up to 1.5 A, secondary
- ✓ Status and error indication via diagnostic LEDs

RoHS



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 147989
GTIN	4046356147989

Technical data

Dimensions

Width	35 mm
Height	99 mm
Depth	95 mm
Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

Ambient conditions

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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	100 % (condensation permitted)
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	45 Hz ... 65 Hz
Current consumption	0.75 A (120 V AC)
	0.45 A (230 V AC)
Nominal power consumption	88 VA
Inrush current	< 15 A (typical)
Mains buffering time	typ. 35 ms (120 V AC)
	typ. 150 ms (230 V AC)
Input fuse	3.15 A (slow-blow, internal)
Recommended breaker for input protection	6 A ... 16 A (AC: Characteristics B, C, D, K)

Output data

Nominal output voltage	24 V DC ± 1 %
Nominal output current (I_N)	1.5 A (-25 °C ... 60 °C)
POWER BOOST (I_{Boost})	2 A (-25 °C ... 40 °C)
Derating	60 °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
Residual ripple	< 40 mV _{PP} (with nominal values)
Output power	36 W
Typical response time	< 0.5 s
Peak switching voltages nominal load	< 20 mV _{PP} (20 MHz)
Maximum power dissipation in no-load condition	1.5 W
Power loss nominal load max.	6.5 W

General

Net weight	0.25 kg
Efficiency	> 84 % (for 230 V AC and nominal values)
MTBF (IEC 61709, SN 29500)	> 2789000 h (40 °C)
Insulation voltage input/output	4 kV AC (type test)
	3 kV AC (routine test)
Insulation voltage input / PE	4 kV AC (type test)
	3 kV AC (routine test)

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General

Degree of protection	IP20
Protection class	II (in closed control cabinet)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

Connection data, input

Connection method	Pluggable 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.	12
Screw thread	M3

Connection data, output

Connection method	Pluggable 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.	12
Screw thread	M3

Connection data for signaling

Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Screw thread	M4

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 - Electrical safety	EN 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	EN 60950-1 (SELV) and EN 60204-1 (PELV)

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Standards

Standard - Safe isolation	DIN VDE 0100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Rail applications	EN 50121-4
Standards/regulations	EN 60079-0

Conformance/approvals

UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1

EMC data

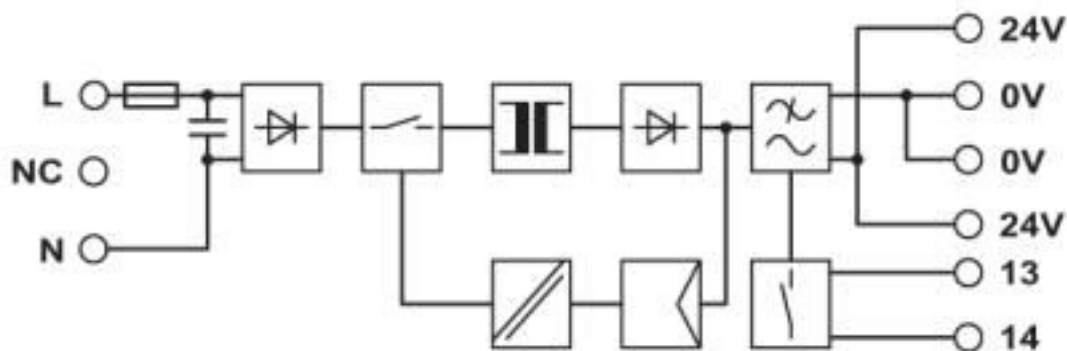
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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Environmental Product Compliance

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

Block diagram



Classifications

eCl@ss

eCl@ss 10.0.1	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

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Classifications

ETIM

ETIM 2.0	EC001039
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

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Approvals

UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

ATEX

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 211944

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Approvals

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 211944

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

cULus Recognized



cULus Listed



Accessories

Accessories

Device protection

Type 3 surge protection device - TTC-6P-T3-24DC-PT-I - 1027586



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator for 24 V DC power supplies.

DIN rail connector

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Accessories

DIN rail bus connectors - ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

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