

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

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 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.

Product Features

- 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



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	293.6 g
Custom tariff number	85044030
Country of origin	China

Technical data

Dimensions

Width	35 mm
Height	99 mm
Depth	95 mm

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

Technical data

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)

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
Inrush surge current	< 15 A (typical)
Power failure bypass	> 35 ms (120 V AC) > 150 ms (230 V AC)
Input fuse	3.15 A (slow-blow, internal)
Choice of suitable circuit breakers	6 A ... 16 A (AC: Characteristics B, C, D, K)

Output data

Nominal output voltage	24 V DC \pm 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
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)
Insulation voltage input/output	4 kV AC (type test) 3 kV AC (routine test)
Protection class	II (in closed control cabinet)
MTTF/ MTBF (IEC 61709, SN 29500)	> 2789000 h (40 °C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontally 0 mm, vertically 50 mm

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

Technical data

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 and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Standards/regulations	EN 60079-0
Shock	30g in each direction, according to IEC 60068-2-27
Connection in acc. with standard	CUL
Standard – Electrical equipment of machines	EN 60204-1
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)
Standard - Safe isolation	DIN VDE 0100-410

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

Technical data

Standards and Regulations

Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
Rail applications	EN 50121-4
ATEX	# II 3 G Ex nA nC IIC T4 Gc X

Classifications

eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040702
eCl@ss 5.0	27049002
eCl@ss 5.1	27049002
eCl@ss 6.0	27049002
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC002540

UNSPSC

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

Approvals

Approvals

Approvals

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

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

Approvals

Ex Approvals

ATEX

Approvals submitted

Approval details

UL Recognized 


UL Listed 

cUL Recognized 

cUL Listed 

EAC

EAC

cULus Recognized 

cULus Listed 

Drawings

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

Block diagram

