

## 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.

### 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



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 147989
GTIN	4046356147989
Weight per Piece (excluding packing)	250.000 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)
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 $\pm$ 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
Feedback voltage resistance	35 V DC
Residual ripple	< 40 mV <sub>PP</sub> (with nominal values)
Output power	36 W
Typical response time	< 0.5 s
Peak switching voltages nominal load	< 20 mV <sub>PP</sub> (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)
Insulation voltage input / PE	4 kV AC (type test) 3 kV AC (routine test)
Protection class	II (in closed control cabinet)

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

## Technical data

### General

Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 2789000 h (40 °C)
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 <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.	12
Screw thread	M3

### Connection data, output

Connection method	Pluggable 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.	12
Screw thread	M3

### Connection data for signaling

Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 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.	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)

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

## Technical data

### 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

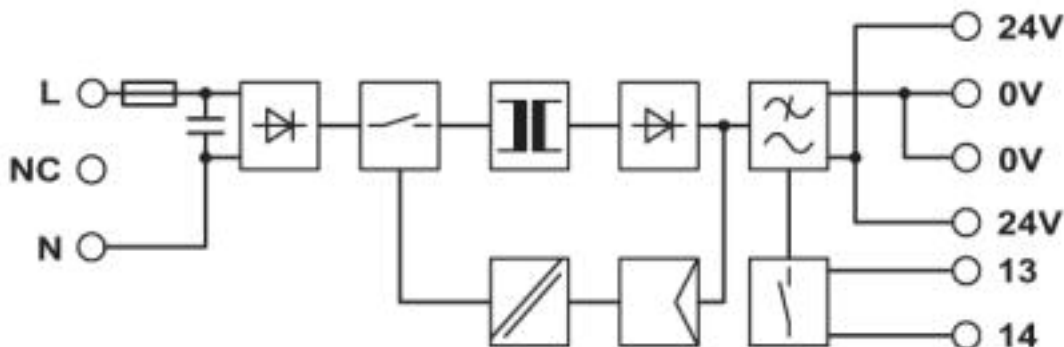
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
-------------------------------	-------------------------------------------

### 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 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

<https://www.phoenixcontact.com/gb/products/2866653>



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

### 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

### Approvals

#### Approvals




#### Approvals

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

#### Ex Approvals

#### ATEX


### Approval details

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
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 211944
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 211944


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

## Approvals

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
------------	-----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------

EAC		EAC-Zulassung
-----	-----------------------------------------------------------------------------------	---------------

EAC		RU C- DE.A*30.B.01082
-----	-----------------------------------------------------------------------------------	--------------------------

cULus Recognized	
------------------	-----------------------------------------------------------------------------------

cULus Listed	
--------------	-------------------------------------------------------------------------------------



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)