

# MINI-PS-100-240AC/24DC/1 - Power supply



2938840

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Please use the following items in new systems: 2904597 or 2909575  
DIN rail power supply, 24 V DC/1 A, primary-switched, narrow design

## Commercial data

Item number	2938840
Packing unit	1 pc
Sales key	CM11
Product key	CMPM13
GTIN	4017918927097
Weight per piece (including packing)	247.5 g
Weight per piece (excluding packing)	200 g
Customs tariff number	85044095
Country of origin	CN

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## Technical data

### Input data

#### AC operation

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	85 V AC ... 264 V AC 90 V DC ... 350 V DC
Input voltage range AC	85 V AC ... 264 V AC
Input voltage range DC	90 V DC ... 350 V DC
Voltage type of supply voltage	AC/DC
Inrush current	< 15 A (typical)
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Mains buffering time	> 20 ms (120 V AC) > 110 ms (230 V AC)
Current consumption	0.5 A (85 V AC) 0.2 A (264 V AC) approx. 0.4 A (90 V DC) approx. 0.1 A (350 V DC)
Nominal power consumption	45 VA
Typical response time	< 0.2 s
Input fuse	1.25 A (slow-blow, internal)

### Output data

Efficiency	> 80 % (for 230 V AC and nominal values)
Output characteristic	U/I
Nominal output voltage	24 V DC $\pm$ 1 %
Setting range of the output voltage ( $U_{Set}$ )	22.5 V DC ... 28.5 V DC (> 24 V DC, constant capacity restricted)
Nominal output current ( $I_N$ )	1 A (up to 60 °C)
POWER BOOST ( $I_{Boost}$ )	1.3 A
Residual ripple	< 100 mV <sub>PP</sub>
Output power	24 W
Peak switching voltages nominal load	< 100 mV <sub>PP</sub> (20 MHz)
Maximum no-load power dissipation	< 1.4 W
Power loss nominal load max.	< 4.5 W
Connection in parallel	yes, for assembling redundant systems and increasing efficiency
Connection in series	yes

#### Signal: Active

Output description	$U_{OUT} > 21.5$ V: High signal
Output voltage	+ 24 V (Signal)
Continuous load current	max. 20 mA

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## Connection data

### Input

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid 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.	14
Stripping length	7 mm
Screw thread	M3

### Output

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid 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.	14
Stripping length	7 mm

## Signaling

Operating voltage display	Green LED
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### Signal output: Active

Status display	Green LED ( $U_{out} > 21,5$ V DC: LED permanently lit)
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## Electrical properties

Number of phases	1
Insulation voltage input/output	3 kV (routine test)
	3 kV (type test)

## Product properties

Product type	Power supply
Product family	MINI POWER
MTBF (IEC 61709, SN 29500)	> 500000 h

### Insulation characteristics

Protection class	II (in closed control cabinet)
Overvoltage category	III

## Dimensions

Width	22.5 mm
Height	99 mm

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Depth	114.5 mm
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## Installation dimensions

Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

## Mounting

Assembly note	alignable: vertical with spacing = 5 cm, horizontal with zero spacing
Mounting position	on horizontal DIN rail NS 35 in acc. with EN 60715
With protective coating	no

## Material specifications

Housing material	Plastic
Type of housing	Polyamide PA, color: green

## Environmental and real-life conditions

### 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)	95 % (at 25 °C, non-condensing)
Temp code	T3A ≤ 60 °C

## Standards and regulations

Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard - Safe isolation	DIN VDE 0100-410

## Approvals

UL approvals	UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D
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### Conformity/Approvals

SIL in accordance with IEC 61508	0
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## EMC data

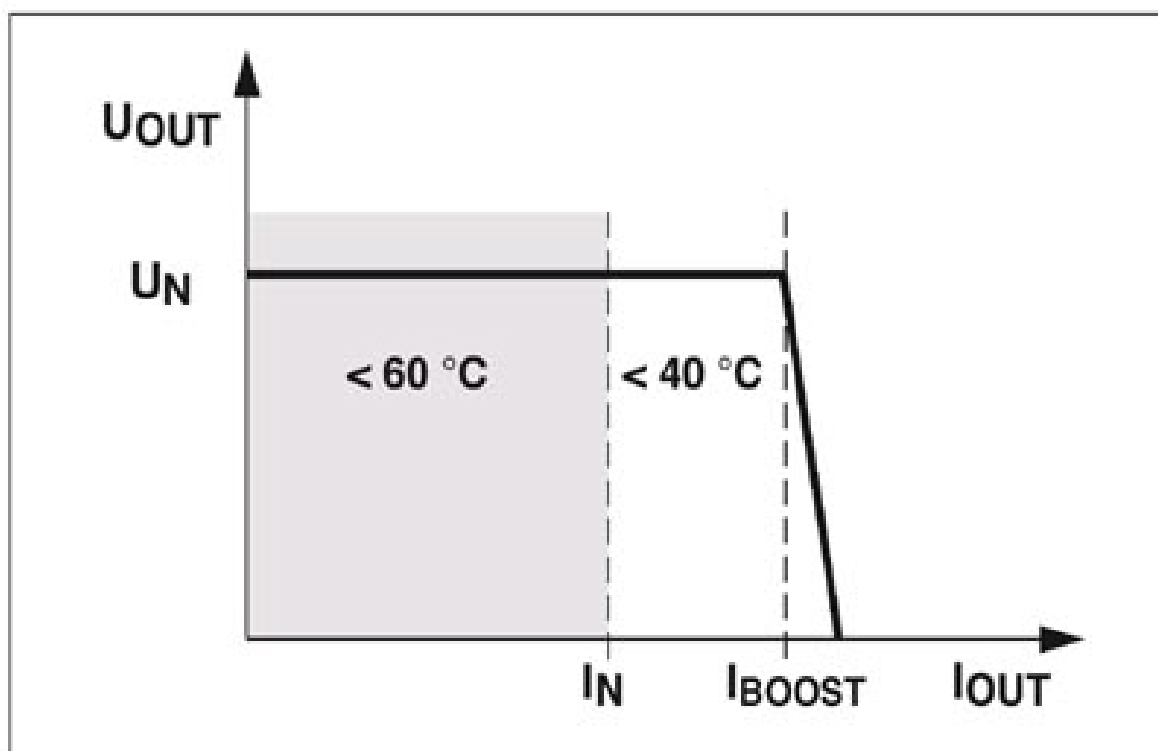
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2

### Noise emission

Standards/regulations	EN 55011 (EN 55022)
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Drawings

Diagram



POWER BOOST

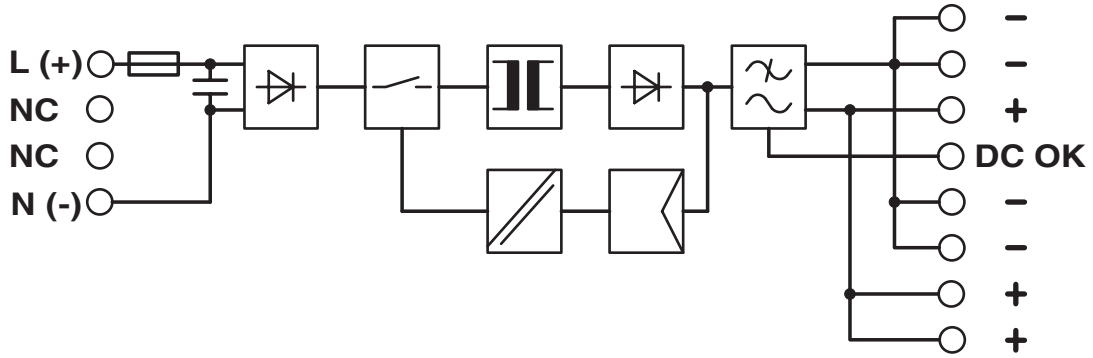
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Block diagram



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## Classifications

### UNSPSC

UNSPSC 21.0	39121000
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	7d38469f-1fcf-41dd-9821-03d6a666da89

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