

## Power supply unit - MINI-PS-100-240AC/2X15DC/1 - 2938743

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Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 2x 15 V DC/1 A

### 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

- Easy-maintenance connection technology thanks to keyed COMBICON connectors
- Remote monitoring of output voltage via switching output



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	327.4 g
Custom tariff number	85044030
Country of origin	Germany

### Technical data

#### Dimensions

Width	45 mm
Height	99 mm
Depth	107 mm

#### 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)

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## Technical data

### Ambient conditions

Noise immunity	EN 61000-6-2:2005
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### Input data

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
AC frequency range	45 Hz ... 65 Hz
Inrush surge current	< 35 A (typical)
Power failure bypass	> 30 ms (120 V AC)
	> 150 ms (230 V AC)
Input fuse	2.5 A (slow-blow, internal)
Choice of suitable circuit breakers	6 A ... 16 A (Characteristics B, C, D, K)

### Output data

Nominal output voltage	$\pm 15$ V DC $\pm 1$ %
Nominal output current ( $I_N$ )	2x 1 A (-25 °C ... 60 °C)
POWER BOOST ( $I_{Boost}$ )	2x 1.5 A (-25°C ... 40°C permanent )
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for assembling redundant systems and increasing efficiency
Connection in series	Yes
Active current limitation	Approx 4.4 A (in the event of a short circuit)
Control deviation	< 2 % (change in load, static 10 % ... 90 %)
	< 3 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage $\pm 10$ %)
Residual ripple	< 30 mV <sub>PP</sub> (20 MHz)
Output power	15 W
Typical response time	< 1 s
Peak switching voltages nominal load	< 20 mV <sub>PP</sub> (20 MHz)
Maximum power dissipation in no-load condition	2 W
Power loss nominal load max.	8 W

### General

Net weight	0.25 kg
Operating voltage display	Green LED
Efficiency	> 80 % (for 230 V AC and nominal values)
Insulation voltage input/output	4 kV (type test)
	3 kV (Routine test)
Protection class	II (in closed control cabinet)
MTTF/ MTBF (IEC 61709, SN 29500)	> 500000 h (40°C)

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## Technical data

### General

Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: 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
Stripping length	7 mm
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
Stripping length	7 mm
Screw thread	M3

### Connection data for signaling

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

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Shock	30g in each direction, according to IEC 60068-2-27
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-2:2005

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### Standards and Regulations

Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-6
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)
	EN 60204 (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
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
	NEC Class 2 as per UL 1310
Vibration (operation)	< 15 Hz, amplitude $\pm 2.5$ mm (according to IEC 60068-2-6)
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Rail applications	EN 50121-4

## 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

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## Classifications

### UNSPSC

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

## Approvals

### Approvals

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#### Approvals

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

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#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

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#### Approvals submitted

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## Approval details

UL Listed 

cUL Listed 

UL Recognized 

cUL Recognized 

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## Approvals

UL Recognized

cUL Recognized

EAC

EAC

UL Listed

cUL Listed

cULus Recognized

cULus Listed

## Drawings

Block diagram

