

MINI-PS-100-240AC/10-15DC/8 - Power supply unit



2866297

<https://www.phoenixcontact.com/us/products/2866297>

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Please use the following item in new systems: 2904607
Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 10 V DC ... 15 V DC/8 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.

Your advantages

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

Commercial data

Item number	2866297
Packing unit	1 pc
Sales key	CM11
Product key	CMPM12
Catalog page	Page 237 (C-4-2017)
GTIN	4017918975036
Weight per piece (including packing)	574.7 g
Weight per piece (excluding packing)	561 g
Customs tariff number	85044030
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)
Inrush current integral (I^2t)	2.1 A ² s
AC frequency range	45 Hz ... 65 Hz
Mains buffering time	> 20 ms (120 V AC)
	> 20 ms (230 V AC)
Current consumption	1.3 A (120 V AC)
	0.8 A (230 V AC)
	1.3 A (90 V DC)
	0.4 A (350 V DC)
Nominal power consumption	109.1 W
Typical response time	< 0.4 s
Input fuse	3.15 A (slow-blow, internal)
Permissible backup fuse	B6 B10 B16
Recommended breaker for input protection	6 A ... 16 A

Output data

Efficiency	> 88 % (for 230 V AC and nominal values)
Output characteristic	U/I
Nominal output voltage	12 V DC ± 1 %
	10 V DC ± 1 %
	15 V DC ± 1 %
Setting range of the output voltage (U_{Set})	10 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)
Nominal output current (I_N)	8 A (-25 °C ... 60 °C)
POWER BOOST (I_{Boost})	6.6 A (-25 °C ... 40 °C permanent)
Derating	60 °C ... 70 °C (2.5 %/K)
Residual ripple	< 40 mV _{PP} (20 MHz)
Output power	100 W
Peak switching voltages nominal load	< 100 mV _{PP} (20 MHz)
Maximum no-load power dissipation	< 2.5 W
Power loss nominal load max.	< 12 W
Connection in parallel	yes, for assembling redundant systems and increasing efficiency
Connection in series	yes

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Signal: DC OK active

Output description	$U_{OUT} > 9\text{ V}$: High signal
Maximum switching voltage	$\leq 12\text{ V}$
Output voltage	+ 12 V (Signal)
Continuous load current	$\leq 20\text{ mA}$

Connection data

Input

Connection method	Pluggable screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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
Stripping length	7 mm
Screw thread	M3

Output

Connection method	Pluggable screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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
Stripping length	7 mm
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Signal

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Signaling

Types of signaling	LED
	Active switching output
Operating voltage display	Green LED

Signal output: DC OK active

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Status display	"DC OK" LED green
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Electrical properties

Insulation voltage input/output	3 kV (type test)
	3 kV (routine test)

Product properties

Product type	Power supply
Product family	MINI POWER
MTBF (IEC 61709, SN 29500)	> 984000 h (40 °C)

Data management status

Article revision	05
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Insulation characteristics

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

Dimensions

Width	67.5 mm
Height	99 mm
Depth	107 mm

Installation dimensions

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

Mounting

Mounting type	DIN rail mounting
Assembly note	alignable: horizontally 0 mm, vertically 50 mm
Mounting position	horizontal DIN rail NS 35, 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)

Standards and regulations

Rail applications	EN 50121-4
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Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard – Safety extra-low voltage	EN 60950-1 (SELV)
	EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410

Approvals

UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)

Conformity/Approvals

SIL in accordance with IEC 61508	0
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EMC data

Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
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
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 55011 (EN 55022)

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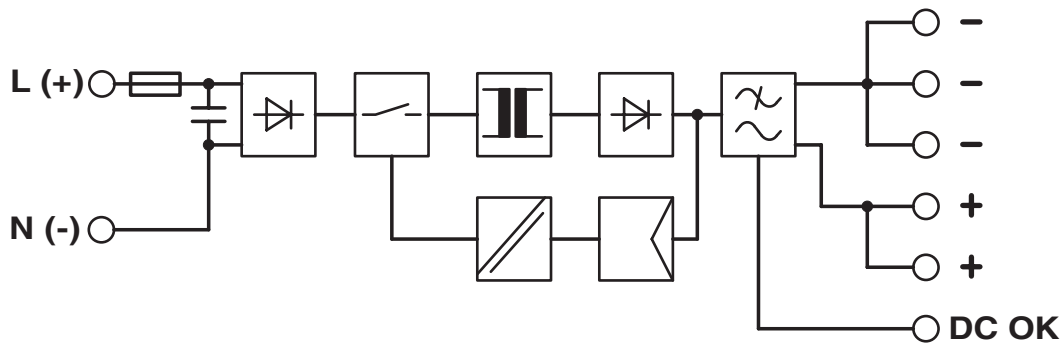


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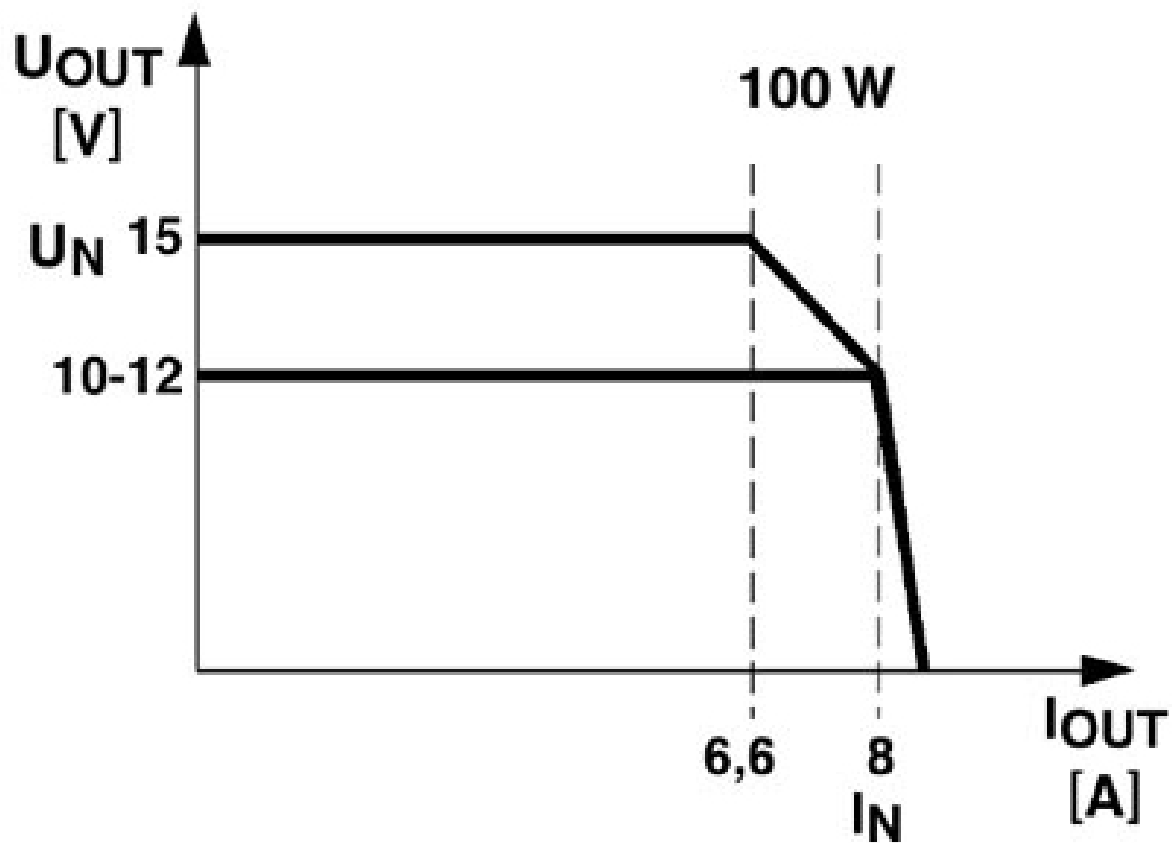
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Drawings

Block diagram



Diagram



Output characteristic curve

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2866297>



cUL Recognized
Approval ID: FILE E 211944



UL Recognized
Approval ID: E211944



EAC
Approval ID: EAC-Zulassung



EAC
Approval ID: RU S-DE.BL08.W.00764

	UL Listed Approval ID: FILE E 123528			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Field wiring	125 V	1 A	-	-

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EAC
Approval ID: RU S-DE.BL08.W.00764

CoC / Compliance Statement
Approval ID: 17-114-00



cUL Listed
Approval ID: E199827



UL Listed
Approval ID: E199827

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Classifications

ECLASS

ECLASS-11.0	27040701
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ETIM

ETIM 8.0	EC002540
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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	5ed778d8-7afe-488c-bb03-ed259f2a54e0

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Accessories

PLT-SEC-T3-230-FM-UT - Type 3 surge protection device

2907919

<https://www.phoenixcontact.com/us/products/2907919>



Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC

PLT-SEC-T3-24-FM-UT - Type 3 surge protection device

2907916

<https://www.phoenixcontact.com/us/products/2907916>



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage: 24 V AC/DC

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