

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 |
| Minimum order quantity | 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 |
| Screw thread | M3 |

Signal

| | |
|---------------------------------------|---------------------|
| 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 |
| Screw thread | M3 |

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 |
|----------------|-------------------|

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) |

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 instructions | 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 |
| 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 |

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| | |
|-------------------------------------|----------------------------|
| 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 |
|----------------------------------|---|

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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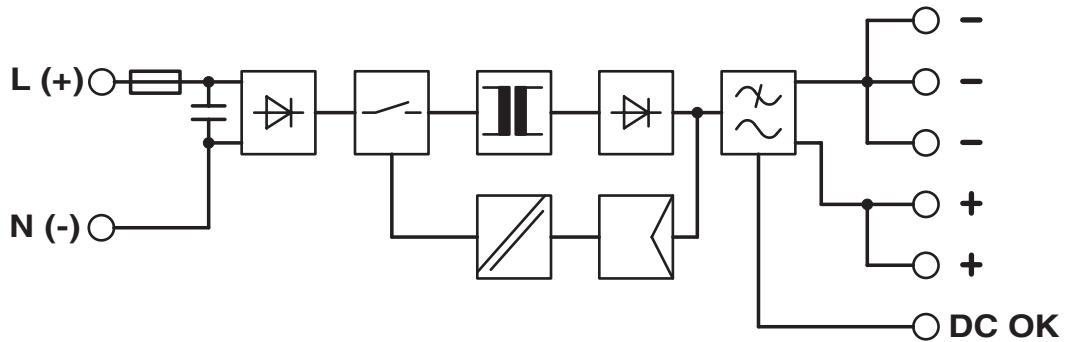


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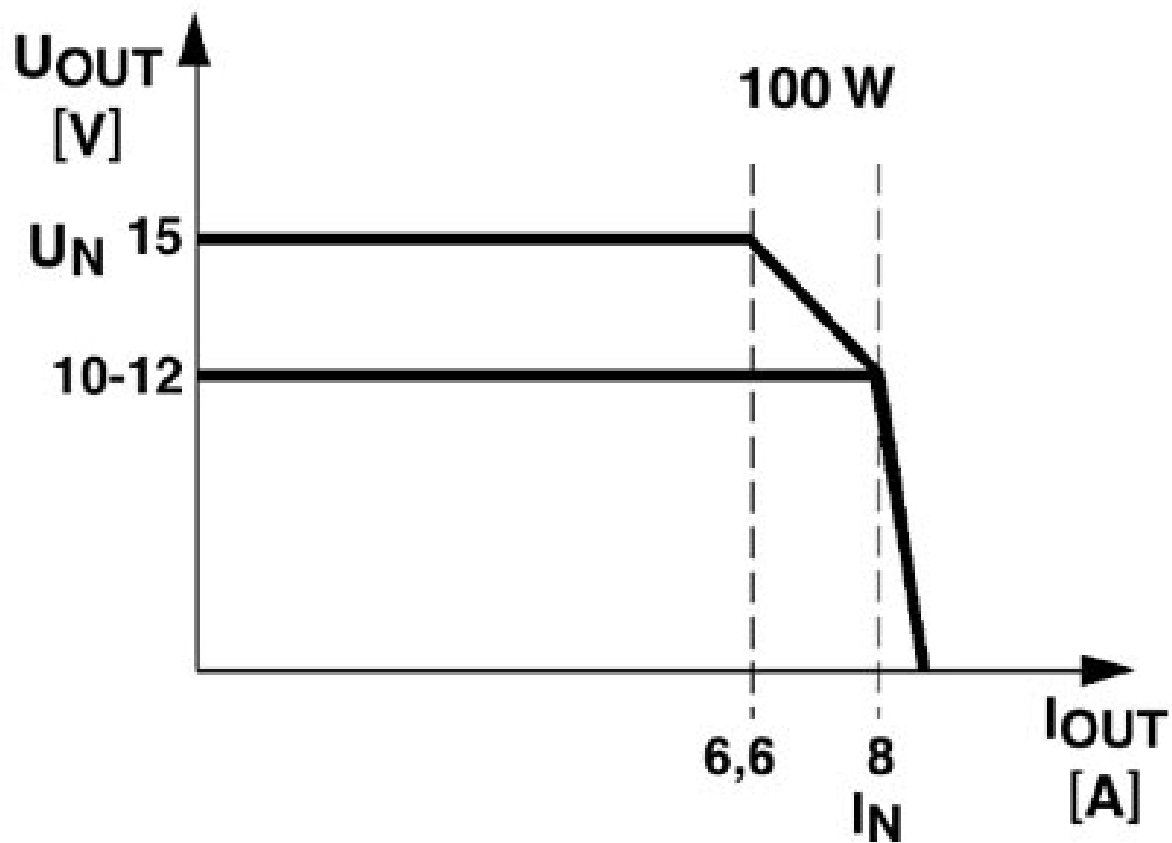
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Drawings

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: FILE E 211944



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 | - | - |



cUL 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 | - | - |



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



cUL Listed
Approval ID: FILE E 199827



UL Listed
Approval ID: FILE E 199827

cULus Recognized

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27040701 |
|-------------|----------|

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002540 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121000 |
|-------------|----------|

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Environmental product compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 25; |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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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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