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Please use the following item in new systems: 2904605  
Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 10 V DC ... 15 V DC/2 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                          | 2938756                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | CM11                           |
| Product key                          | CMPM12                         |
| Catalog page                         | Page 236 (C-4-2017)            |
| GTIN                                 | 4017918925192                  |
| Weight per piece (including packing) | 250 g                          |
| Weight per piece (excluding packing) | 250 g                          |
| Customs tariff number                | 85044030                       |
| Country of origin                    | PL                             |

# MINI-PS-100-240AC/10-15DC/2 - Power supply unit



2938756

<https://www.phoenixcontact.com/us/products/2938756>

## 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 ( $I^2t$ )       | 1.7 A <sup>2</sup> s                      |
| AC frequency range                       | 45 Hz ... 65 Hz                           |
| Mains buffering time                     | > 20 ms (120 V AC)                        |
|                                          | > 120 ms (230 V AC)                       |
| Current consumption                      | 0.4 A (120 V AC)                          |
|                                          | 0.2 A (230 V AC)                          |
|                                          | 0.4 A (90 V DC)                           |
|                                          | 0.1 A (350 V DC)                          |
| Nominal power consumption                | 44 VA                                     |
| Typical response time                    | < 1 s                                     |
| Input fuse                               | 2 A (slow-blow, internal)                 |
| Recommended breaker for input protection | 6 A ... 16 A (Characteristics B, C, D, K) |

### Output data

|                                                   |                                                                 |
|---------------------------------------------------|-----------------------------------------------------------------|
| Efficiency                                        | > 86 % (for 230 V AC and nominal values)                        |
| Nominal output voltage                            | 12 V DC $\pm 1$ %                                               |
|                                                   | 10 V DC $\pm 1$ %                                               |
|                                                   | 15 V DC $\pm 1$ %                                               |
| Setting range of the output voltage ( $U_{Set}$ ) | 10 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)   |
| Nominal output current ( $I_N$ )                  | 2 A (-25 °C ... 60 °C)                                          |
| POWER BOOST ( $I_{Boost}$ )                       | 2.3 A (-25 °C ... 40 °C permanent)                              |
| Derating                                          | 60 °C ... 70 °C (2.5 %/K)                                       |
| Residual ripple                                   | < 20 mV <sub>PP</sub> (20 MHz)                                  |
| Output power                                      | 30 W                                                            |
| Peak switching voltages nominal load              | < 100 mV <sub>PP</sub> (20 MHz)                                 |
| Maximum no-load power dissipation                 | < 1 W                                                           |
| Power loss nominal load max.                      | < 7 W                                                           |
| Connection in parallel                            | yes, for assembling redundant systems and increasing efficiency |
| Connection in series                              | yes                                                             |

### Connection data

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## 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.      | 12                         |
| 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.      | 12                         |
| Stripping length                      | 7 mm                       |
| Screw thread                          | M3                         |

## Signal

|                                       |                     |
|---------------------------------------|---------------------|
| 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.      | 12                  |
| Screw thread                          | M3                  |

## Signaling

|                           |           |
|---------------------------|-----------|
| Types of signaling        | LED       |
| Operating voltage display | Green LED |

## Signal output: DC OK active

|                |                   |
|----------------|-------------------|
| Status display | "DC OK" LED green |
|----------------|-------------------|

## Electrical properties

|                                 |                     |
|---------------------------------|---------------------|
| Insulation voltage input/output | 4 kV (type test)    |
|                                 | 3 kV (routine test) |

## Product properties

|                |              |
|----------------|--------------|
| Product type   | Power supply |
| Product family | MINI POWER   |

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|                            |                    |
|----------------------------|--------------------|
| MTBF (IEC 61709, SN 29500) | > 507000 h (40 °C) |
|----------------------------|--------------------|

## Data management status

|                  |    |
|------------------|----|
| Article revision | 07 |
|------------------|----|

## Insulation characteristics

|                  |                                |
|------------------|--------------------------------|
| Protection class | II (in closed control cabinet) |
|------------------|--------------------------------|

## Dimensions

|        |        |
|--------|--------|
| Width  | 45 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

|                   |                                                |
|-------------------|------------------------------------------------|
| Assembly note     | alignable: horizontally 0 mm, vertically 50 mm |
| Mounting position | horizontal DIN rail NS 35, EN 60715            |

## Material specifications

|                 |                            |
|-----------------|----------------------------|
| 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               |
| 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) |

# MINI-PS-100-240AC/10-15DC/2 - Power supply unit



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Conformity/Approvals

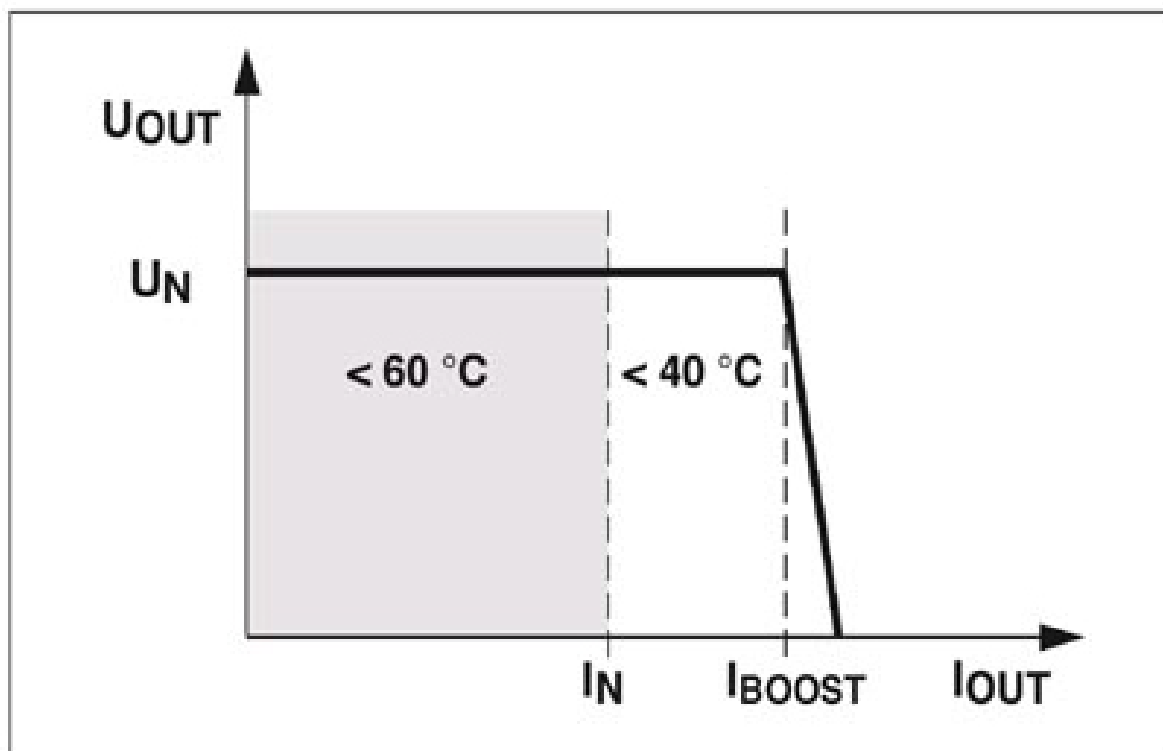
|                                  |   |
|----------------------------------|---|
| SIL in accordance with IEC 61508 | 0 |
|----------------------------------|---|

EMC data

|                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| Low Voltage Directive               | Conformance with Low Voltage Directive 2014/35/EC |
| EMC requirements for noise immunity | EN 61000-6-2                                      |
| Electromagnetic compatibility       | Conformance with EMC Directive 2014/30/EU         |
| Noise emission                      | EN 55011 (EN 55022)                               |

## Drawings

### Diagram



### POWER BOOST

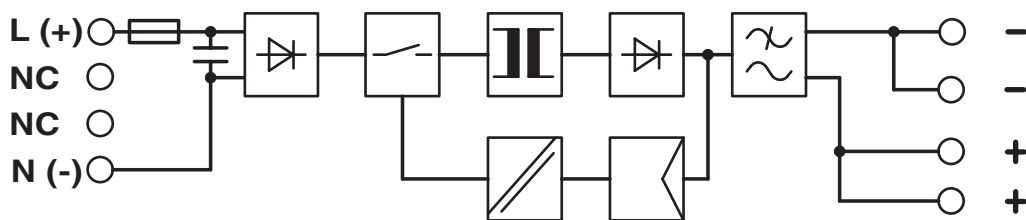
# MINI-PS-100-240AC/10-15DC/2 - Power supply unit



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Block diagram



# MINI-PS-100-240AC/10-15DC/2 - Power supply unit



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2938756>



**cUL Recognized**  
Approval ID: FILE E 214596



**UL Recognized**  
Approval ID: FILE E 214596



**EAC**  
Approval ID: EAC-Zulassung



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



**UL Listed**  
Approval ID: E123528



**cUL Listed**  
Approval ID: E123528



**cUL Listed**  
Approval ID: FILE E 199827



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Approval ID: E199827

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# MINI-PS-100-240AC/10-15DC/2 - Power supply unit



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## Classifications

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121004 |
|-------------|----------|

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)                                                                                                                                                                                                              |

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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

### TTC-6P-T3-24DC-PT-I - Type 3 surge protection device

1027586

<https://www.phoenixcontact.com/us/products/1027586>



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator for 24 V DC power supplies

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