

## 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.

### Your advantages

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



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 017918 906870 |
| GTIN                                 | 4017918906870   |
| Weight per Piece (excluding packing) | 327.400 g   |
| Custom tariff number                 | 85044030  |
| Country of origin                    | Poland  |

### Technical data

#### Dimensions

|                                  |             |
|----------------------------------|-------------|
| Width                            | 45 mm       |
| Height                           | 99 mm       |
| Depth                            | 107 mm      |
| Installation distance right/left | 0 mm / 0 mm |

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## Technical data

### Dimensions

|                                  |               |
|----------------------------------|---------------|
| Installation distance top/bottom | 50 mm / 50 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)            |
| Climatic class                                 | 3K3 (in acc. with EN 60721)                  |
| Degree of pollution                            | 2  |

### 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                           |
| Current consumption                      | 0.6 A (120 V AC)                          |
|  | 0.4 A (230 V AC)                          |
|  | 0.8 A (90 V DC)                           |
|  | 0.3 A (350 V DC)                          |
| Nominal power consumption                | 61 VA                                     |
| Inrush current                           | < 35 A (typical)                          |
| Mains buffering time                     | typ. 30 ms (120 V AC)                     |
|  | typ. 150 ms (230 V AC)                    |
| Input fuse                               | 2.5 A (slow-blow, internal)               |
| Recommended breaker for input protection | 6 A ... 16 A (Characteristics B, C, D, K) |

### Output data

|  |   |
|--|---|
| Nominal output voltage                   | ± 15 V DC ±1 %  |
| Nominal output current (I <sub>N</sub> ) | 2x 1 A (-25 °C ... 60 °C)                                       |
| POWER BOOST (I <sub>Boost</sub> )        | 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   |
| Feedback voltage resistance              | 17 V DC   |
| 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 ±10 %)                         |
| Residual ripple                          | < 30 mV <sub>PP</sub> (20 MHz)                                  |

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## Technical data

### Output data

|  |                                |
|--|--------------------------------|
| 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)       |
| MTBF (IEC 61709, SN 29500)      | > 500000 h (40 °C)                             |
| Insulation voltage input/output | 4 kV (type test)<br>3 kV (routine test)        |
| Degree of protection            | IP20   |
| Protection class                | II (in closed control cabinet)                 |
| Mounting position               | horizontal DIN rail NS 35, EN 60715            |
| Assembly instructions           | alignable: 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                         |

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## Technical data

### 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

|  |                            |
|--|----------------------------|
| EMC requirements for noise immunity  | EN 61000-6-2               |
| 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               |
| Rail applications  | EN 50121-4                 |

### Conformance/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) |
|              | NEC Class 2 as per UL 1310   |

### EMC data

|                               |   |
|-------------------------------|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU         |
| Low Voltage Directive         | Conformance with Low Voltage Directive 2014/35/EC |
| Electrostatic discharge       | EN 61000-4-2                                      |
| Electromagnetic HF field      | EN 61000-4-3                                      |
| Fast transients (burst)       | EN 61000-4-4                                      |
| Surge voltage load (surge)    | EN 61000-4-5                                      |
| Conducted interference        | EN 61000-4-6                                      |
| Voltage dips                  | EN 61000-4-11                                     |

### Environmental Product Compliance

|            |   |
|------------|---|
| REACH SVHC | Lead 7439-92-1                            |
| China RoHS | Environmentally Friendly Use Period = 25; |

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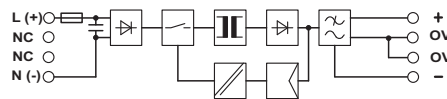
## Technical data

### Environmental Product Compliance

|  |   |
|--|---|
|  | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |
|--|---|

## Drawings

Block diagram



## Classifications

### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27040701 |
| eCl@ss 11.0   | 27040701 |
| eCl@ss 4.0    | 27040700 |
| eCl@ss 4.1    | 27040700 |
| eCl@ss 5.0    | 27049000 |
| eCl@ss 5.1    | 27049000 |
| eCl@ss 6.0    | 27049000 |
| eCl@ss 7.0    | 27049002 |
| eCl@ss 9.0    | 27040701 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001039 |
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC000599 |
| ETIM 6.0 | EC002540 |
| ETIM 7.0 | EC002540 |

### UNSPSC

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

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## Classifications

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 18.0 | 39121004 |
| UNSPSC 19.0 | 39121004 |
| UNSPSC 20.0 | 39121004 |
| UNSPSC 21.0 | 39121004 |

## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

|               |  |   |               |
|---------------|--|---|---------------|
| UL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 214596 |
|---------------|--|---|---------------|

|           |  |   |               |
|-----------|--|---|---------------|
| UL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 123528 |
|-----------|--|---|---------------|

|            |  |   |               |
|------------|--|---|---------------|
| cUL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 123528 |
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|                |   |   |                     |
|----------------|---|---|---------------------|
| UL Recognized  |    | <a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a> | FILE E 211944       |
| cUL Recognized |    | <a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a> | FILE E 211944       |
| cUL Listed     |    | <a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a> | FILE E 123528       |
| EAC            |    |   | EAC-Zulassung       |
| EAC            |  |   | RU*DE*08.B.01873/19 |