

## Power module - MINI-PS- 10- 42AC/15-60DC/3 - 2320199

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To supply MINI-DC/DC converters, the AC voltage of a transformer is rectified and filtered.

### Product description

The AC/DC converter converts the AC voltage from 10 V DC ... 42 V AC into an adjustable, regulated, and electrically isolated 15 V DC ... 60 V DC output voltage. With a design width of 22.5 mm, the housing is particularly narrow.

### Why buy this product

- ✓ Support conversion to various voltage levels
- ✓ Constant voltage: output voltage regenerated even at the end of long cables
- ✓ Electrical isolation: for setting up independent supply systems



### Key commercial data

|                                      |           |
|--------------------------------------|-----------|
| Packing unit                         | 1 pc      |
| Weight per Piece (excluding packing) | 221.5 GRM |
| Country of origin                    | China     |

### Technical data

#### Dimensions

|        |         |
|--------|---------|
| Width  | 22.5 mm |
| Height | 99 mm   |
| Depth  | 107 mm  |

#### Ambient conditions

|                                                |                                     |
|------------------------------------------------|-------------------------------------|
| Degree of protection                           | IP20                                |
| Ambient temperature (operation)                | -25 °C ... 70 °C (> 60 °C derating) |
| Ambient temperature (storage/transport)        | -40 °C ... 85 °C                    |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing)   |
| Noise immunity                                 | EN 61000-6-2:2005                   |

#### Input data

|                     |                     |
|---------------------|---------------------|
| Input voltage range | 10 V AC ... 42 V AC |
| AC frequency range  | 45 Hz ... 65 Hz     |

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### Technical data

#### Input data

|                      |                  |
|----------------------|------------------|
| Current consumption  | 6.5 A            |
| Inrush surge current | < 45 A (typical) |

#### Output data

|                                   |                          |
|-----------------------------------|--------------------------|
| Nominal output voltage            | 24 V DC $\pm 1\%$        |
|                                   | 60 V DC                  |
| Output voltage range              | 15 V DC ... 60 V DC      |
| Output current                    | 3 A (-25 °C ... 60 °C)   |
| Derating                          | 60 °C ... 70 °C (2.5%/K) |
| Connection in series              | No                       |
| Residual ripple                   | < 3.6 V <sub>pp</sub>    |
| Maximum power dissipation NO-Load | < 0.04 W                 |
| Power loss nominal load max.      | < 6.9 W                  |

#### General

|                                                                                                                                  |                                                     |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Net weight                                                                                                                       | 0.16 kg                                             |
| Efficiency                                                                                                                       | > 95.7 % (For 42 V AC and nominal values)           |
| Insulation voltage input/output                                                                                                  | 1.5 kV (type test)                                  |
|                                                                                                                                  | 1 kV (routine test)                                 |
| Protection class                                                                                                                 | III                                                 |
| MTBF (IEC 61709, SN 29500)                                                                                                       | > 18175000 h (40°C)                                 |
| Mounting position                                                                                                                | horizontal DIN rail NS 35, EN 60715                 |
| Assembly instructions                                                                                                            | Can be aligned: Horizontally 0 mm, vertically 50 mm |
| Electromagnetic compatibility                                                                                                    | Conformance with EMC Directive 2004/108/EC          |
| Noise emission                                                                                                                   | EN 50081-2                                          |
| Low Voltage Directive                                                                                                            | Conformance with LV directive 2006/95/EC            |
| 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)                            |
| UL approvals                                                                                                                     | UL/C-UL listed UL 508                               |
|                                                                                                                                  | UL/C-UL Recognized UL 60950                         |

#### 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 stranded min.  | 0.2 mm <sup>2</sup>        |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>        |
| Conductor cross section AWG/kcmil min. | 24                         |
| Conductor cross section AWG/kcmil max  | 12                         |
| Stripping length                       | 7 mm                       |
| Screw thread                           | M3                         |

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### Technical data

#### 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 stranded min.  | 0.2 mm <sup>2</sup>        |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>        |
| Conductor cross section AWG/kcmil min. | 24                         |
| Conductor cross section AWG/kcmil max  | 12                         |
| Stripping length                       | 7 mm                       |

### 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 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC000599 |
| ETIM 5.0 | EC002046 |

#### UNSPSC

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

### Approvals

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UL Recognized / UL Listed / cUL Recognized / cUL Listed / IEC CB Scheme / cUL Listed / cULus Recognized / cULus Listed / cULus Listed / cULus Listed / null / null / null / null

#### Ex Approvals

## Power module - MINI-PS- 10- 42AC/15-60DC/3 - 2320199

### Approvals

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Approvals submitted

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#### Approval details

UL Recognized 

UL Listed 

cUL Recognized 

cUL Listed 

IECEE CB Scheme 

cUL Listed 

cULus Recognized 

cULus Listed 

cULus Listed 

cULus Listed

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### Approvals



### Drawings

Block diagram

