

**PROmax**  
**PRO MAX 240W 48V 5A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

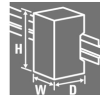
D-32758 Detmold

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PROmax offers diverse solutions for demanding automation.

Our high performance and durable PROmax switch-mode power supply units are designed for especially demanding requirements. PROmax reliably copes with continuous overload of up to 20% or short-term peak loads of 300% occurring with high control cabinet temperatures.

High boost capability and full power are also made possible in a wide temperature range. Our switch-mode power supply units can be used around the world and are also suitable for confined spaces thanks to their low width.

Together with our uninterruptible DC USPs, the diode modules or CAP modules, you can create a power supply solution that is tailored to your requirements.

**General ordering data**

|            |                                                   |
|------------|---------------------------------------------------|
| Type       | PRO MAX 240W 48V 5A                               |
| Order No.  | <a href="#">1478240000</a>                        |
| Version    | Power supply, switch-mode power supply unit, 48 V |
| GTIN (EAN) | 4050118285994                                     |
| Qty.       | 1 pc(s).                                          |

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**Technical data**
**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 60 mm   | Width (inches)  | 2.362 inch |
| Height     | 130 mm  | Height (inches) | 5.118 inch |
| Depth      | 125 mm  | Depth (inches)  | 4.921 inch |
| Net weight | 1,050 g |                 |            |

**Temperatures**

|                                   |                           |                             |                |
|-----------------------------------|---------------------------|-----------------------------|----------------|
| Humidity at operating temperature | 5...95 %, no condensation | Operating temperature, max. | 70 °C          |
| Operating temperature, min.       | -25 °C                    | Storage temperature, max.   | 85 °C          |
| Storage temperature, min.         | -40 °C                    | Operating temperature       | -25 °C...70 °C |
| Storage temperature               | -40 °C...85 °C            |                             |                |

**Input**

|                                 |                                   |                          |                                                                 |
|---------------------------------|-----------------------------------|--------------------------|-----------------------------------------------------------------|
| AC current consumption          | 1.5 A @ 230 V AC / 3 A @ 115 V AC | AC input voltage range   | 85...277 V AC                                                   |
| Connection system               | Screw connection                  | DC current consumption   | 1.5A @ 370 VDC / 3A @ 120 VDC                                   |
| DC input voltage range          | 80...370 V DC                     | Frequency range AC       | 45...65 Hz                                                      |
| Input fuse (internal)           | Yes                               | Inrush current           | max. 15 A                                                       |
| Rated input voltage             | 100...240 V AC (wide-range input) | Recommended back-up fuse | 10 A, char. B circuit breaker, 6...8 A, char. C circuit breaker |
| Standby power consumption, max. | 1 W                               | Surge protection         | Varistor                                                        |

**output**

|                                       |                                          |                                            |                                   |
|---------------------------------------|------------------------------------------|--------------------------------------------|-----------------------------------|
| Connection system                     | Screw connection                         | Continuous output current @ $U_{Rated}$    | 6.0 A @ 45 °C, 3.75 A @ 70 °C     |
| Output power                          | 240 W                                    | Output voltage                             | 48 V                              |
| Output voltage                        | 30...56 V (adjustable via potentiometer) | Parallel connection option                 | yes, max. 5                       |
| Power reserve at nom. voltage         | 5 A (1 min), 7.5 A (4s)                  | Protection against inverse voltage         | Yes                               |
| Pulsed current capacity @ $U_{Rated}$ | 15 A (2ms)                               | Rated (nominal) output current @ $U_{Nom}$ | 5 A @ 60 °C                       |
| Rated output voltage                  | 48 V DC $\pm$ 1 %                        | Residual ripple, breaking spikes           | < 50 mVss @ $U_{Nennv}$ Full Load |

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## Technical data

### General data

|                                                   |                             |                                        |                                                                                                                                     |
|---------------------------------------------------|-----------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| AC failure bridging time @ $I_{Nom}$              | min. 20 ms                  | Current limiting                       | > 120 % $I_N$                                                                                                                       |
| Degree of efficiency                              | 92.5%                       | Derating                               | > 60°C / 75% @ 70°C                                                                                                                 |
| Earth leakage current, max.                       | 3.5 mA                      | Housing version                        | Metal, corrosion resistant                                                                                                          |
| MTBF                                              |                             | Mounting position, installation notice | Horizontal on TS35 mounting rail. 50 mm of clearance at top & bottom for air circ. Can mount side by side with no space in between. |
|                                                   | >500.000h (25°C, IEC 61709) | Power factor (approx.)                 | > 0.95 @ 230 V AC                                                                                                                   |
| Operating temperature                             | -25 °C...70 °C              | Power loss, nominal load               | 19.5 W                                                                                                                              |
| Protection against reverse voltages from the load | 58 ... 65 V DC              | Protection degree                      | IP20                                                                                                                                |
| Series switching capability                       | No                          | Short-circuit protection               | Yes                                                                                                                                 |
| Start-up                                          |                             | Status indication                      | LED red/green and relay (≥1.6 V DC LED green, relay on/ ≤20.6 LED red, relay off)                                                   |
|                                                   | ≥ -40 °C                    |                                        |                                                                                                                                     |
| Surge voltage category                            | III                         |                                        |                                                                                                                                     |

### EMC / shock / vibration

|                                    |                        |                                    |                                                                      |
|------------------------------------|------------------------|------------------------------------|----------------------------------------------------------------------|
| Vibration resistance IEC 60068-2-6 | 2.3 g                  | Interference immunity test acc. to | EN 55024, EN 55022, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11 |
| Shock resistance IEC 60068-2-27    | 30 g in all directions |                                    |                                                                      |

### Insulation coordination

|                                  |                       |                                   |                           |
|----------------------------------|-----------------------|-----------------------------------|---------------------------|
| Class of protection              | I, with PE connection | Humidity at operating temperature | 5...95 %, no condensation |
| Insulation voltage input / earth | 3.5 kV                | Insulation voltage output / earth | 0.5 kV                    |
| Insulation voltage, input/output | 4 kV                  | Pollution severity                | 2                         |
| Surge voltage category           | III                   |                                   |                           |

### Electrical safety (applied standards)

|                                             |                                                      |                                                             |                                    |
|---------------------------------------------|------------------------------------------------------|-------------------------------------------------------------|------------------------------------|
| Electrical machine equipment                | Acc. to EN60204                                      | For use with electronic equipment                           | Acc. to EN50178 / VDE0160          |
| Protection against dangerous shock currents | Acc. to VDE0106-101                                  | Protective separation / protection against electrical shock | VDE0100-410 / acc. to DIN57100-410 |
| Safety extra-low voltage                    | SELV acc. to EN60950, PELV acc. to EN60204, IEC61204 | Safety transformers for switch-mode power supplies          | nach EN61558-2-16                  |

### Connection data (input)

|                                                       |                      |                                          |                   |
|-------------------------------------------------------|----------------------|------------------------------------------|-------------------|
| Conductor cross-section, AWG/kcmil, max.              | 10                   | Conductor cross-section, AWG/kcmil, min. | 26                |
| Conductor cross-section, flexible, min.               | 0.22 mm <sup>2</sup> | Conductor cross-section, rigid, max.     | 6 mm <sup>2</sup> |
| Conductor cross-section, rigid, min.                  | 0.18 mm <sup>2</sup> | Connection system                        | Screw connection  |
| Number of terminals                                   | 3 for L/N/PE         | Screwdriver blade                        | 0.8 x 4.0, PZ 1   |
| Tightening torque, max.                               | 0.6 Nm               | Tightening torque, min.                  | 0.5 Nm            |
| Wire connection cross section, flexible (input), max. | 4 mm <sup>2</sup>    |                                          |                   |

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**Technical data**
**Connection data (output)**

|                                           |                   |                                           |                      |
|-------------------------------------------|-------------------|-------------------------------------------|----------------------|
| Conductor cross-section, AWG/kcmil , max. | 10                | Conductor cross-section, AWG/kcmil , min. | 26                   |
| Conductor cross-section, flexible , max.  | 4 mm <sup>2</sup> | Conductor cross-section, flexible , min.  | 0.22 mm <sup>2</sup> |
| Conductor cross-section, rigid , max.     | 6 mm <sup>2</sup> | Conductor cross-section, rigid , min.     | 0.18 mm <sup>2</sup> |
| Connection system                         | Screw connection  | Number of terminals                       | 8 (+, -, 11, 13, 14) |
| Screwdriver blade                         | 0.8 x 4.0, PZ 1   | Tightening torque, max.                   | 0.6 Nm               |
| Tightening torque, min.                   | 0.5 Nm            |                                           |                      |

**Signalling**

|                           |                                                                                         |                  |     |
|---------------------------|-----------------------------------------------------------------------------------------|------------------|-----|
| Contact load (NO contact) | max. 30 V DC / 1 A                                                                      | Floating contact | Yes |
| Status indication         | LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 V DC LED red, relay off) |                  |     |

**Approvals**

|                       |                                                                                     |                             |            |
|-----------------------|-------------------------------------------------------------------------------------|-----------------------------|------------|
| Institute (GERMLLOYD) |   | Certificate No. (GERMLLOYD) |            |
|                       |                                                                                     |                             | TAA00000TT |
| Institute (cULus)     |  | Certificate no. (cULus)     |            |
|                       |                                                                                     |                             | E258476    |
| Institute (cULusEX)   |  | Certificate no. (cULusEX)   |            |
|                       |                                                                                     |                             | E470829    |
| Institute (cURus)     |  | Certificate No. (cURus)     |            |
|                       |                                                                                     |                             | E255651    |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 5.0   | EC002541    | ETIM 6.0   | EC002540    |
| eClass 6.2 | 27-04-90-04 | eClass 7.1 | 27-04-90-04 |
| eClass 8.1 | 27-04-90-04 | eClass 9.0 | 27-04-07-03 |
| eClass 9.1 | 27-04-07-01 |            |             |

**Product information**

|                                |                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Descriptive text ordering data | The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system. |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|

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# Technical data

## Approvals

Approvals



ROHS

Conform

## Downloads

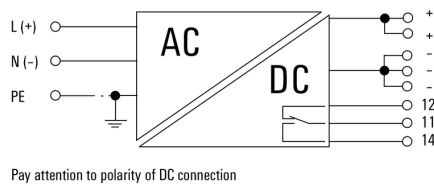
|                                             |                                          |
|---------------------------------------------|------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DE_PA5200_160310_001.pdf</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.3 ELECTR 15/16 EN</a>  |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>             |
| User Documentation                          | <a href="#">Operating instructions</a>   |

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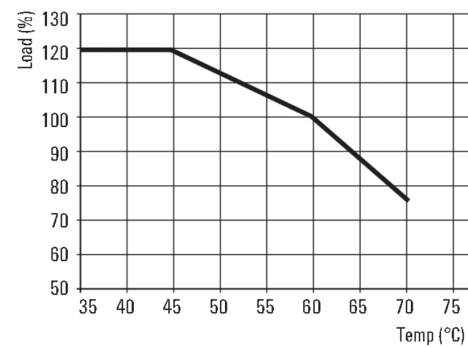
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# Drawings

## Electric symbol



## Derating curve



## Derating curve