# PRO MAX3 120W 24V 5A

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

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

| | |
|---|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 1478170000 |
| Type | PRO MAX3 120W 24V 5A |
| GTIN (EAN) | 4050118285963 |
| Qty. | 1 pc(s). |

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## Technical data

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 125 mm | Depth (inches) | 4.921 inch |
| Height | 130 mm | Height (inches) | 5.118 inch |
| Width | 40 mm | Width (inches) | 1.575 inch |
| Net weight | 783 g | | |

### Temperatures

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

### Rated data UL

| | |
|---|---|
| Certificate No. (cURus) | E255651 |

### Input

| | | |
|---|---|---|
| AC input voltage range | 3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC | |
| Connection system | Screw connection | |
| Current consumption in relation to the input voltage | Voltage type | 3-phase AC |
| | Input voltage | 400 V |
| | Input current | 0.3 A |
| | Voltage type | 3-phase AC |
| | Input voltage | 500 V |
| | Input current | 0.28 A |
| | Voltage type | DC |
| | Input voltage | 800 V |
| | Input current | 0.18 A |
| | Voltage type | DC |
| | Input voltage | 450 V |
| | Input current | 0.3 A |
| DC input voltage range | 450...800 V DC | |
| Frequency range AC | 45...65 Hz | |
| Input fuse (internal) | Yes | |
| Inrush current | max. 15 A | |
| Nominal power consumption | 133.3 VA | |
| Power factor | Power factor typical | 0.5 |
| | Input voltage | 400 V |
| | Ambient temperature | 25 °C |
| | Output power | 120 W |
| Rated input voltage | 3x 400...3x 500 V AC (wide-range input) | |
| Recommended back-up fuse | 2...3 A, char. C circuit breaker | |
| Surge protection | Varistor | |

### Output

| | | | |
|---|---|---|---|
| Connection system | Screw connection | Continuous output current @ $U_{Nominal}$ | 6.0 A @ 45 °C, 3,75 A @ 70 °C |
| Nominal output current for $U_{nom}$ | 5 A @ 60 °C | Output power | 120 W |
| Output voltage, max. | 29.5 V | Output voltage, min. | 22.5 V |
| Output voltage, note | (adjustable via potentiometer) | Parallel connection option | yes, max. 5 |
| Protection against inverse voltage | Yes | Rated output voltage | 24 V DC ± 1 % |
| Residual ripple, breaking spikes | <50 mVss @ $U_{Nenn}$, 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 | 90% | Derating | > 60°C / 75% @ 70°C |
| Earth leakage current, max. | 3.5 mA | Housing version | Metal, corrosion resistant |
| 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. | Power loss, idling | 1.2 W |
| Power loss, nominal load | 13.3 W | Protection against reverse voltages from the load | 30...35 V DC |
| Protection degree | IP20 | Short-circuit protection | Yes |
| Start-up | ≥ -40 °C | Status indication | LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 LED red, relay off) |
| Surge voltage category | III | | |

### EMC / shock / vibration

| | | | |
|---|---|---|---|
| Interference immunity test acc. to | EN 55024, EN 55032, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11 | Noise emission in accordance with EN55032 | Class B |
| Shock resistance IEC 60068-2-27 | 30 g in all directions | Vibration resistance IEC 60068-2-6 | 2.3 g |

### Insulation coordination

| | | | |
|---|---|---|---|
| Insulation voltage input / earth | 3.5 kV | Insulation voltage output / earth | 0.5 kV |
| Insulation voltage, input/output | 4 kV | Pollution severity | 2 |
| Protection class | I, with PE connection | 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 IEC 60950-1, PELV according to EN 60204-1 | Safety transformers for switch-mode power supplies | According to EN 61558-2-16 |

### Connection data (input)

| | | | |
|---|---|---|---|
| Conductor cross-section, AWG/kcmil , max. | 10 AWG | Conductor cross-section, AWG/kcmil , min. | 26 AWG |
| Conductor cross-section, flexible , min. | 0.22 mm² | Conductor cross-section, rigid , max. | 6 mm² |
| Conductor cross-section, rigid , min. | 0.18 mm² | Connection system | Screw connection |
| Number of terminals | 4 for L1/L2/L3/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 mm² | | |

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## Technical data

### Connection data (output)

| | | | |
|---|---|---|---|
| Conductor cross-section, AWG/kcmil , max. | 12 AWG | Conductor cross-section, AWG/kcmil , min. | 26 AWG |
| Conductor cross-section, flexible , max. | 4 mm² | Conductor cross-section, flexible , min. | 0.5 mm² |
| Conductor cross-section, rigid , max. | 6 mm² | Conductor cross-section, rigid , min. | 0.5 mm² |
| Connection system | Screw connection | Number of terminals | 8 (++,—,11,13,14) |
| Screwdriver blade | 0.6 x 3.5 | 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 LED red, relay off) | | |

### Classifications

| | | | |
|---|---|---|---|
| ETIM 6.0 | EC002540 | ETIM 7.0 | EC002540 |
| ETIM 8.0 | EC002540 | ETIM 9.0 | EC002540 |
| ECLASS 9.0 | 27-04-07-01 | ECLASS 9.1 | 27-04-07-01 |
| ECLASS 10.0 | 27-04-07-01 | ECLASS 11.0 | 27-04-07-01 |
| ECLASS 12.0 | 27-04-07-01 | ECLASS 13.0 | 27-04-07-01 |
| ECLASS 14.0 | 27-04-07-01 | | |

### Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7cI |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 6d8cdf22-8230-4af8-86c8-3558c716666d |

### Approvals

Approvals

| | |
|---|---|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E255651 |
| Certificate no. (cULus) | E258476 |
| Certificate no. (cULusEX) | E470829 |

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## Technical data

### Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | UL 508 Certificate.pdf<br>UL 60950-1 Certificate.pdf<br>UL CL1 DIV2 Certificate.pdf<br>DNV Certificate.pdf<br>Declaration of Conformity<br>UK Conformity Assessed |
| Engineering Data | CAD data – STEP |
| User Documentation | Operating instructions |
| Catalogues | Catalogues in PDF-format |

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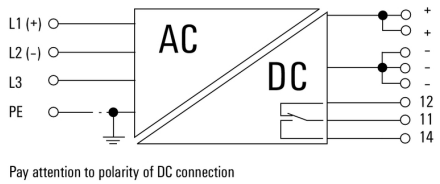
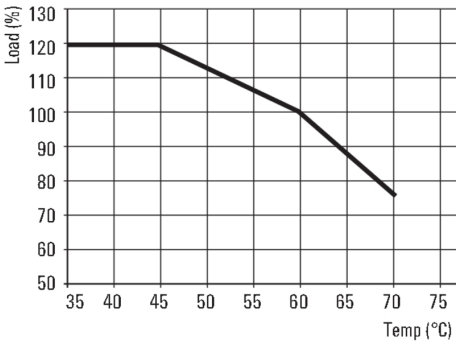
## Drawings

### Electric symbol

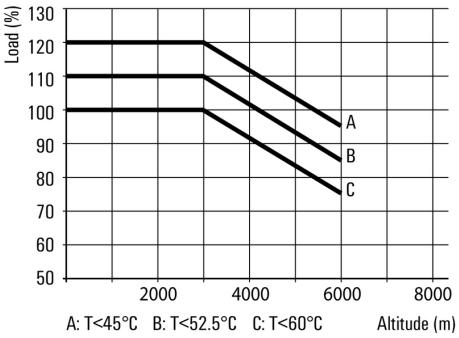



Pay attention to polarity of DC connection

### Derating curve




### Derating curve



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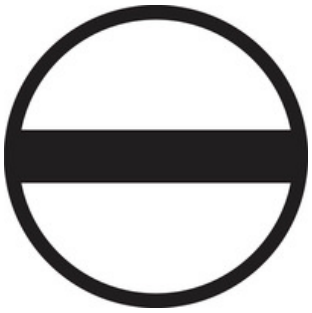
## Accessories

### Slotted screwdriver



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

#### General ordering data

| | | |
|---|---|---|
| Type | SDIS SLIM 0.6X3.5X100 | Version |
| Order No. | 2749610000 | Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118896350 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

### W-Series

Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

#### General ordering data

| | | |
|---|---|---|
| Type | WEW 35/1 V0 GF SW | Version |
| Order No. | 1478990000 | End bracket, black, TS 35, V-0, Wemid, Width: 12 mm, 130 °C |
| GTIN (EAN) | 4050118286892 | |
| Qty. | 50 pc(s). | |
| Type | WEW 35/2 V0 GF SW | Version |
| Order No. | 1479000000 | End bracket, black, TS 35, V-0, Wemid, Width: 8 mm, 130 °C |
| GTIN (EAN) | 4050118286779 | |
| Qty. | 50 pc(s). | |

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## Accessories

### Crosshead screwdriver, Pozidrive

VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

### General ordering data

| | | |
|---|---|---|
| Type | SDIK SLIM PZ1 X 80 | Version |
| Order No. | 2749670000 | Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1 |
| GTIN (EAN) | 4050118896411 | |
| Qty. | 1 pc(s). | |