

PRO MAX 120W 24V 5A

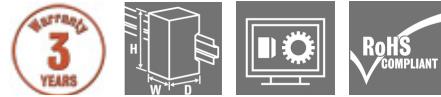
Weidmüller Interface GmbH & Co. KG

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. | 1478110000 |
| Type | PRO MAX 120W 24V 5A |
| GTIN (EAN) | 4050118285956 |
| 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 | 858 g | | |

Temperatures

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

Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Rated data UL

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

Input

| | | | |
|---------------------------|-------------------------------|--------------------------|---|
| AC current consumption | 1A @ 230 VAC / 2,5A @ 115 VAC | AC input voltage range | 85...277 V AC |
| Connection system | Screw connection | DC current consumption | 1,5A @ 370 VDC / 2,5A @ 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 |
| Nominal power consumption | 134.8 VA | Recommended back-up fuse | 6 A, Char. B, circuit breaker, 6 A, char. C circuit breaker |
| Surge protection | Varistor | | |

Output

| | | | |
|----------------------------|-------------------|--------------------------------------|--|
| Connection system | Screw connection | 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 \pm 1 % | Residual ripple, breaking spikes | < 50 mV _{ss} @ 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 | 89% | 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. | Operating temperature | -25 °C...70 °C |
| Power factor (approx.) | > 0.90 @ 230 V AC | Power loss, idling | 1.2 W |
| Protection against reverse voltages from the load | 30...35 V DC | Short-circuit protection | Yes |
| Status indication | LED red/green and relay (≥ 21.6 V DC LED green, relay on/ ≤ 20.6 V DC 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

| | | | |
|-----------------------------------|---------------------------|----------------------------------|-----------------------|
| Humidity at operating temperature | 5...95 %, no condensation | 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 | Conductor cross-section, AWG/kcmil, min. | 26 |
| Conductor cross-section, flexible, min. | 0.22 mm ² | Conductor cross-section, rigid, max. | 6 mm ² |
| Conductor cross-section, rigid, min. | 0.18 mm ² | Connection system | Screw connection |
| Wire connection cross section, flexible (input), max. | 4 mm ² | | |

Connection data (output)

| | | | |
|--|-------------------|--|-----------------------|
| Conductor cross-section, AWG/kcmil, max. | 12 | Conductor cross-section, AWG/kcmil, min. | 26 |
| Conductor cross-section, flexible, max. | 4 mm ² | Conductor cross-section, flexible, min. | 0.5 mm ² |
| Conductor cross-section, rigid, max. | 6 mm ² | Conductor cross-section, rigid, min. | 0.5 mm ² |
| Connection system | Screw connection | Number of terminals | 8 (++, -, 11, 13, 14) |

Creation date December 30, 2021 5:20:37 AM CET

Catalogue status 17.12.2021 / We reserve the right to make technical changes.

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Technical data

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) | | |

Approvals

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

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002540 | ETIM 7.0 | EC002540 |
| ETIM 8.0 | 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 | | |

Approvals

Approvals



| | |
|-----------------------|---------|
| ROHS | Conform |
| UL File Number Search | E258476 |

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of Conformity |
| Engineering Data | CAD data – STEP |
| Engineering Data | EPLAN, WSCAD, Zuken E3.S |
| User Documentation | Operating instructions |
| Catalogues | Catalogues in PDF-format |

Data sheet

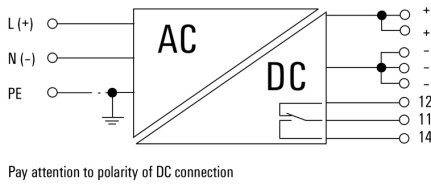
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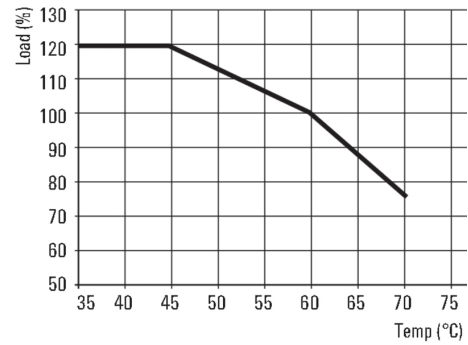
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Drawings

Electric symbol



Derating curve



Derating curve

