

PRO TOP1 120W 24V 5A F**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Illustration similar

Production processes constantly need to be made more efficient. As well as performance, energy efficiency and sustainability are also playing an increasingly important role in cutting-edge industry. PROtop power supplies combine excellent performance data with exemplary sustainability, which has a positive impact on the productivity of the entire production facility.

PROtop offers a number of advantages that give you a real competitive edge. These include the permanent reduction of energy costs thanks to high efficiencies as well as the increase in plant availability due to long service life and high MTBF values. In addition, there is a high functional density due to the extremely spacesaving designs.

PROtop can achieve significant savings compared to conventional power supply units. Its increased efficiency saves an average of 50 kWh per day in a medium-sized production facility with approx. 100 PROtop power supplies working in three-shift operation. This adds up to over 15,000 kWh a year and also improves the facility's carbon footprint. The service life, which is twice as long as that of standard power supplies, also sustainably reduces the costs of repurchase and exchange.

General ordering data

| | |
|------------|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 2568980000 |
| Type | PRO TOP1 120W 24V 5A F |
| GTIN (EAN) | 4050118579703 |
| Qty. | 1 items |

PRO TOP1 120W 24V 5A F

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

www.weidmueller.com

Technical data

Approvals

Approvals



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

Dimensions and weights

| | | | |
|------------|--------|-----------------|-------------|
| Depth | 125 mm | Depth (inches) | 4.9212 inch |
| Height | 130 mm | Height (inches) | 5.1181 inch |
| Width | 35 mm | Width (inches) | 1.378 inch |
| Net weight | 850 g | | |

Temperatures

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

Environmental Product Compliance

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

Input

| | | |
|--|--|-------|
| Connection system | PUSH IN with actuator | |
| AC input voltage range | 85...277 V AC | |
| Recommended back-up fuse | 5 A, DI / 6 A, Char. B / 6 A, Char C | |
| Frequency range AC | 45...65 Hz | |
| Rated input voltage | 110...240 V AC / 120...340 V DC | |
| Surge protection | Varistor | |
| Input fuse (internal) | Yes | |
| DC input voltage range | 48...410 V DC (Derating 40% @ 48 V DC) | |
| Inrush current | max. 5 A | |
| Current consumption in relation to the input voltage | Voltage type | AC |
| | Input voltage | 100 V |
| | Input current | 2 A |
| | Voltage type | DC |
| | Input voltage | 120 V |
| | Input current | 2 A |
| Input electric strength, max. | AC/DC | |
| Nominal power consumption | 131.9 VA | |

Output

| | |
|--------------|-------|
| Output power | 120 W |
|--------------|-------|

PRO TOP1 120W 24V 5A F

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

| | | | |
|------------------------------------|--|-------|--|
| Mains failure bridge-over time | > 20 ms @ 115V AC/ 230 VAC | | |
| Connection system | PUSH IN with actuator | | |
| Rated output voltage | 24 V DC \pm 1 % | | |
| Residual ripple, breaking spikes | <50 mVss @ UNenn, Full Load | | |
| Parallel connection option | Yes, for redundancy and power increase (with ORing MOSFET) | | |
| Output voltage, max. | 28.8 V | | |
| Output voltage, min. | 22.5 V | | |
| Output current, max. | 5 A | | |
| Output voltage, note | adjustable with potentiometer or comunication module | | |
| Nominal output current for Unom | 5 A @ 60 °C | | |
| Protection against inverse voltage | Yes | | |
| DCL - peak load reserve | Boost duration | 5 s | |
| | Multiple of the rated current | 150 % | |
| | Boost duration | 15 ms | |
| | Multiple of the rated current | 600 % | |
| Ramp-up time | \leq 100 ms | | |

General data

| | | | |
|-----------------------------|----------------------------|--|--|
| Power factor (approx.) | > 0.85 | AC failure bridging time @ Inom | > 20 ms @ 230 V AC / > 20 ms @ 115 V AC |
| Degree of efficiency | 91% | Protection degree | IP20 |
| Surge voltage category | III, II | Mounting position, installation notice | Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring subassemblies. |
| Housing version | Metal, corrosion resistant | Derating | > 60°C (2.5% / 1°C) |
| Earth leakage current, max. | 3.5 mA | Conformal coating | No |
| Power loss, idling | 5 W | Short-circuit protection | Yes, internal |
| Power loss, nominal load | 11.8 W | | |

EMC / shock / vibration

| | | | |
|------------------------------------|--|---|---|
| Shock resistance IEC 60068-2-27 | 30 g in all directions | Noise emission in accordance with EN55032 | Class B |
| Interference immunity test acc. to | EN 55032:2015, EN 55024:2010/A1:2015, EN 55035:2017, EN 61000-3-2:2014, EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3:2007/ A1:2011, EN 61000-6-4:2007/ A1:2011 | Vibration resistance IEC 60068-2-6 | 2.3 g (on DIN rail), 4 g (with direct mounting) |

Insulation coordination

| | | | |
|----------------------------------|-----------------------|-----------------------------------|--------|
| Surge voltage category | III, II | Pollution severity | 2 |
| Protection class | I, with PE connection | Insulation voltage, input/output | 3.5 kV |
| Insulation voltage input / earth | 3.2 kV | Insulation voltage output / earth | 0.5 kV |

Electrical safety (applied standards)

| | | | |
|--|----------------------------|--------------------------|--|
| Electrical machine equipment | Acc. to EN60204 | 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 | | |

PRO TOP1 120W 24V 5A F

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Connection data (input)

| | | | |
|---|-----------------------|---|---------------------|
| Connection system | PUSH IN with actuator | Number of terminals | 3 for L/N/PE |
| Screwdriver blade | 0.6 x 3.5 | Conductor cross-section, AWG/kcmil , max. | 12 AWG |
| Conductor cross-section, AWG/kcmil , min. | 20 AWG | Wire connection cross section, flexible (input), max. | 2.5 mm ² |
| Conductor cross-section, flexible , min. | 0.5 mm ² | Conductor cross-section, rigid , max. | 1.5 mm ² |
| Conductor cross-section, rigid , min. | 0.5 mm ² | | |

Connection data (output)

| | | | |
|---|-----------------------|---|---------------------|
| Connection system | PUSH IN with actuator | Number of terminals | 4 (++ / -) |
| Conductor cross-section, AWG/kcmil , max. | 12 AWG | Conductor cross-section, AWG/kcmil , min. | 26 AWG |
| Conductor cross-section, flexible , max. | 2.5 mm ² | Conductor cross-section, flexible , min. | 0.2 mm ² |
| Conductor cross-section, rigid , max. | 2.5 mm ² | Conductor cross-section, rigid , min. | 0.2 mm ² |
| Screwdriver blade | 0.6 x 3.5 | | |

Connection data (signal)

| | | | |
|--|---------------------|--|----------------------|
| Wire connection cross-section, flexible (signal), max. | 1.5 mm ² | Wire connection method | PUSH IN |
| Wire cross-section, AWG/kcmil , max. | 16 | Wire cross-section, solid , min. | 0.14 mm ² |
| Wire cross-section, solid , max. | 1.5 mm ² | Wire connection cross-section, flexible (signal), min. | 0.14 mm ² |
| Wire cross-section, AWG/kcmil , min. | 26 mm ² | | |

Signalling

| | | | |
|--------------------------|-----------------------------------|---------------|---|
| Floating contact | Yes | LED green/red | Green: Operation (failure-free), Flashing green: advance warning I>90%, Green/red flashing: output switched off (switch-off mode), Flashing red: overload/error |
| Status relay (max. load) | Output voltage OK (30 V DC / 1 A) | | |

Guarantee

| | |
|---------------|---------|
| Time interval | 3 years |
|---------------|---------|

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002540 | ETIM 7.0 | EC002540 |
| ETIM 8.0 | EC002540 | ETIM 9.0 | EC002540 |
| ETIM 10.0 | 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 |
| ECLASS 15.0 | 27-04-07-01 | | |

PRO TOP1 120W 24V 5A F

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Drawings

