

PRO ECO 960W 24V 40A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

You are looking for a reliable power supply with basic functions.

With PROeco we can offer you low-cost switch-mode power supply units with

high efficiency and system capability. Let's connect.

In the series production of machines, in particular, switch-mode power supply units with

above-average performance values can deliver genuine competitive advantages.

The low-cost PROeco series offers all the basic functions and delivers impressively

high performance and flexibility.

Our PROeco switch-mode power supply units feature a compact design, high

efficiency and are extremely easy to maintain. Thanks to temperature protection,

short-circuit and overload resistance they can be universally used in all

applications.

Wide-ranging safety functions and compatibility with our diode and capacitance modules, together with UPS components for setting up a

redundant power supply, characterise solutions with PROeco.

General ordering data

| | |
|------------|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 1469520000 |
| Type | PRO ECO 960W 24V 40A |
| GTIN (EAN) | 4050118275704 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 120 mm | Depth (inches) | 4.724 inch |
| Height | 125 mm | Height (inches) | 4.921 inch |
| Width | 160 mm | Width (inches) | 6.299 inch |
| Net weight | 3,190 g | | |

Temperatures

| | | | |
|---------------------|----------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C | Operating temperature | -25 °C...70 °C |
|---------------------|----------------|-----------------------|----------------|

Input

| | | | |
|------------------------|-------------------------------------|---------------------------|--|
| AC current consumption | 4,6 A @ 230 V AC / 9,9 A @ 110 V AC | AC input voltage range | 85...264 V AC (derating at 100 V AC) |
| Connection system | Screw connection | DC current consumption | 2,9 A @ 370 V DC / 9 A @ 120 V DC |
| DC input voltage range | 80...370 V DC (Derating @ 120 V DC) | Frequency range AC | 47...63 Hz |
| Input frequency | 47...63 Hz | Input fuse (internal) | Yes |
| Inrush current | max. 5 A | Nominal power consumption | 1,032.3 VA |
| Rated input voltage | | Recommended back-up fuse | 16 A / DI, safety fuse 20 A, Char. B, circuit breaker 16 A, Char. C, circuit breaker |
| | 100...240 V AC | | |
| Surge protection | Varistor | | |

Output

| | | | |
|---|----------------------------|--------------------------------------|--|
| Capacitive load | unrestricted | Connection system | Screw connection |
| Continuous output current @ $U_{Nominal}$ | 40 A @ 50 °C, 24 A @ 70 °C | Nominal output current for U_{nom} | 40 A @ 50 °C |
| Output power | 960 W | Output voltage, max. | 28 V |
| Output voltage, min. | 22 V | Output voltage, note | (adjustable via potentiometer) |
| Overload protection | Yes | Parallel connection option | yes, max. 3 |
| Protection against inverse voltage | Yes | Ramp-up time | ≤ 100 ms |
| Rated output voltage | 24 V DC ± 1 % | Residual ripple, breaking spikes | < 50 mV _{pp} @ 24 V DC, I_N |

General data

| | | | |
|--|---|---|---------------------------------------|
| AC failure bridging time @ I_{nom} | > 20 ms @ 230 V AC / > 20 ms @ 115 V AC | Degree of efficiency | 93% |
| Earth leakage current, max. | 3.5 mA | Housing version | Metal, corrosion resistant |
| Indication | Green LED ($U_{output} > 21.6$ V DC), Yellow LED ($I_{output} > 90 \% I_{Rated}$ typ.), red LED (overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC) | Max. perm. air humidity (operational) | 5 %...95 % RH |
| Mounting position, installation notice | on terminal rail TS 35 | Power factor (approx.) | > 0.98...230 V AC / > 0.98...115 V AC |
| Power loss, idling | 8 W | Power loss, nominal load | 85 W |
| Protection against over-heating | Yes | Protection against reverse voltages from the load | 30...35 V DC |
| Protection degree | IP20 | Short-circuit protection | Yes |
| Surge voltage category | II | | |

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Technical data

EMC / shock / vibration

| | | | |
|--|--|---|------------------------------|
| Interference immunity test acc. to | EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (burst), EN 61000-4-5 (surge), EN 61000-4-6 (conducted), EN61000-4-8 (Fields), EN61000-4-11 (Dips) | Limiting of mains voltage harmonic currents | According to EN 61000-3-2 |
| Noise emission in accordance with EN55032 | Class B | Shock resistance IEC 60068-2-27 | 15 g In all directions |
| Vibration resistance IEC 60068-2-6 | 1 g according to EN 50178 | | |

Insulation coordination

| | | | |
|----------------------------------|-----------------------|-----------------------------------|--------|
| Insulation voltage input / earth | 2 kV | Insulation voltage output / earth | 0.5 kV |
| Insulation voltage, input/output | 3 kV | Pollution severity | 2 |
| Protection class | I, with PE connection | Surge voltage category | II |

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. | 12 | Conductor cross-section, AWG/kcmil , min. | 26 |
| 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 | 3 for L/N/PE | Tightening torque, max. | 0.6 Nm |
| Tightening torque, min. | 0.5 Nm | Wire connection cross section, flexible (input), max. | 2.5 mm ² |

Connection data (output)

| | | | |
|--|--------------------|--|---------------------|
| Conductor cross-section, AWG/kcmil , max. | 8 | Conductor cross-section, AWG/kcmil , min. | 22 |
| Conductor cross-section, flexible , max. | 10 mm ² | Conductor cross-section, flexible , min. | 2.5 mm ² |
| Conductor cross-section, rigid , max. | 16 mm ² | Conductor cross-section, rigid , min. | 0.5 mm ² |
| Connection system | Screw connection | Number of terminals | 7 (++,-,13,14) |
| 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 |
| Relay on/off | Output voltage >21.6 V DC/ <20.4 V DC, overload | | |

Approbations

| | | | |
|-------------------------|---------|-------------------|-------|
| Certificate no. (cULus) | E258476 | Institute (cULus) | CULUS |
|-------------------------|---------|-------------------|-------|

Creation date June 4, 2024 8:54:19 AM CEST

Catalogue status 01.06.2024 / We reserve the right to make technical changes.

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www.weidmueller.com**Technical data****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 |

Environmental Product Compliance

| | |
|------------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 6d8cdf22-8230-4af8-86c8-3558c716666d |

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E258476 |

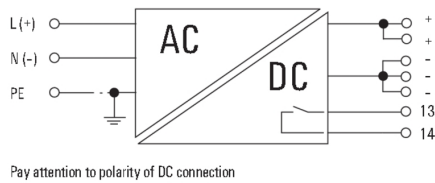
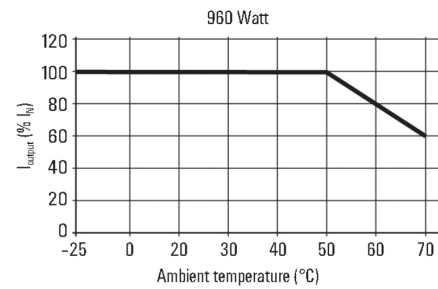
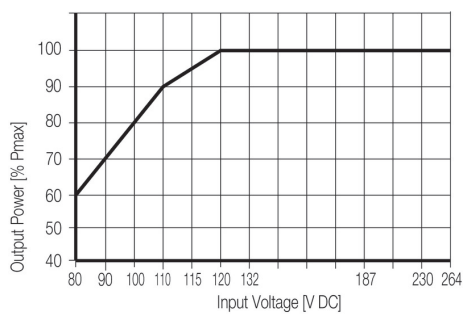
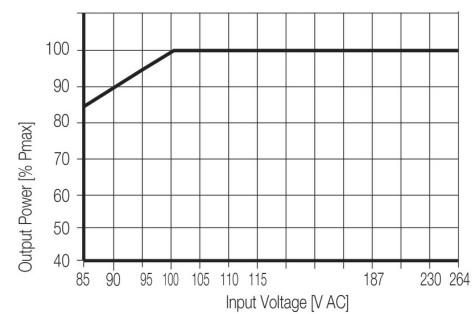
Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | UL508 CSA C22.2 Certificate.pdf Declaration of Conformity UK Conformity Assessed |
| Engineering Data | CAD data – STEP |
| User Documentation | Operating instructions |
| Catalogues | Catalogues in PDF-format |

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Drawings
Electric symbol

Derating curve

Derating curve

Derating curve


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Accessories

W-Series

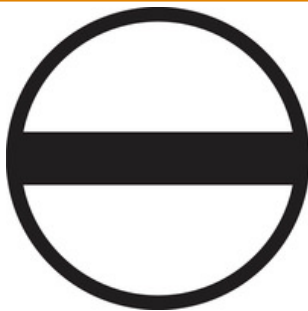


Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | WEW 35/1 V0 GF SW | Version |
| Order No. | 1478990000 | End bracket, Wemid, black, Rail: TS 35, when screwed in |
| GTIN (EAN) | 4050118286892 | |
| Qty. | 50 pc(s). | |
| Type | WEW 35/2 V0 GF SW | Version |
| Order No. | 1479000000 | End bracket, Wemid, black, Rail: TS 35, when screwed in |
| GTIN (EAN) | 4050118286779 | |
| Qty. | 50 pc(s). | |
| Type | WEW 35/1 SW | Version |
| Order No. | 1162600000 | End bracket, Wemid, black, Rail: TS 35, when screwed in |
| GTIN (EAN) | 4032248972630 | |
| Qty. | 50 pc(s). | |

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). | |

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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). | |