

PRO ECO 72W 24V 3A II

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

www.weidmueller.com



The new PROeco 2nd generation power supplies maximise the availability of automation applications. The twelve-part series offers standard functions: with high performance, efficiency and suitability for many systems. The three-colour LED makes service activities and the integration of PROeco devices particularly easy. The series is compatible with DC UPS, electronic load monitoring and diode modules and is suitable for setting up power management systems. The compact design suits space-constrained applications, such as flat control cabinets in the field.

General ordering data

| | |
|------------|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 3025560000 |
| Type | PRO ECO 72W 24V 3A II |
| GTIN (EAN) | 4099986951938 |
| Qty. | 1 items |

PRO ECO 72W 24V 3A II

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. (cURus) | E255651 |
| Certificate no. (cULus) | E258476 |

Dimensions and weights

| | | | |
|------------|--------|-----------------|-------------|
| Depth | 100 mm | Depth (inches) | 3.937 inch |
| Height | 130 mm | Height (inches) | 5.1181 inch |
| Width | 32 mm | Width (inches) | 1.2598 inch |
| Net weight | 420 g | | |

Temperatures

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

Environmental Product Compliance

| | |
|--------------------------------------|---|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 6c, 7a, 7cl |
| REACH SVHC | Lead 7439-92-1, Lead monoxide 1317-36-8 |
| SCIP | d62541f7-8058-4336-b693-7303c8b40800 |

Rated data UL

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

Input

| | | |
|--|--|--------|
| Connection system | Screw connection | |
| AC input voltage range | 85...264 V AC (derating at 100 V AC) | |
| Recommended back-up fuse | 2 A / DI, safety fuse 6 A, Char. B, circuit breaker 2...4 A, Char. C circuit breaker | |
| Frequency range AC | 45...65 Hz | |
| Rated input voltage | 100...240 V AC / 120...340 V DC | |
| Surge protection | Varistor | |
| Input fuse | internal | |
| Wire connection method | Screw connection | |
| DC input voltage range | 110...370 V DC (derating at 120 V DC) | |
| Current consumption in relation to the input voltage | Voltage type | AC |
| | Input voltage | 100 V |
| | Input current | 1.33 A |
| | Voltage type | AC |
| | Input voltage | 240 V |
| | Input current | 0.69 A |
| | Voltage type | DC |
| | Input current | 0.73 A |

PRO ECO 72W 24V 3A II

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

www.weidmueller.com

Technical data

| | | |
|-------------------------------|---------------|--------|
| | Voltage type | DC |
| | Input voltage | 370 V |
| | Input current | 0.26 A |
| Line regulation (typ.) | 1 % | |
| Input electric strength, max. | 300 V AC 15 s | |
| Nominal power consumption | 82.8 VA | |
| Inrush current (typ.) | 35 A | |
| Load regulation (typ.) | 2 % | |
| Start-up time, max. | 1 s | |

Output

| | | | |
|--------------------------------------|--|-----------------|--|
| Output power | 72 W | | |
| Max. residual ripple | <50 mVPP / bandwidth 20 MHz | | |
| Connection system | Screw connection | | |
| Rated output voltage | 24 V DC | | |
| Parallel connection option | yes, max. 3 | | |
| Overload protection | Yes | | |
| Output voltage, max. | 28 V | | |
| Output voltage, min. | 22 V | | |
| Wire connection method | Screw connection | | |
| Output voltage, note | (adjustable via potentiometer) | | |
| Nominal output current for I_{nom} | 3 A at 55 °C | | |
| Line regulation (typ.) | 1 % | | |
| Capacitive load | unrestricted | | |
| Mains failure bridge-over time | Mains failure bridge-over time, min. | 124 ms | |
| | Input voltage type | AC | |
| | Input voltage | 230 V | |
| | Output current | 3 A | |
| | Output voltage | 24 V | |
| | Mains failure bridge-over time, min. | 27 ms | |
| | Input voltage type | AC | |
| | Input voltage | 120 V | |
| | Output current | 3 A | |
| | Output voltage | 24 V | |
| | Protection against inverse voltage | Yes | |
| | Continuous output current @ $I_{Nnominal}$ | 1.875 A @ 70 °C | |
| Load regulation (typ.) | 2 % | | |
| Ramp-up time | ≤ 100 ms | | |

General data

| | | |
|---|--|-------|
| AC failure bridging time @ I_{nom} | > 120 ms at 230 V AC / > 25 ms at 120 V AC | |
| Degree of efficiency | Typ.: 83,5% @ 120 V AC, Typ.: 87,5% @ 230 V AC | |
| Humidity | 5...95 % rel. humidity, no condensation | |
| Protection degree | IP20 | |
| Surge voltage category | II | |
| Mounting position, installation notice | on terminal rail TS 35 | |
| Housing version | Metal, corrosion resistant | |
| Protection against reverse voltages from the load | 30...35 V DC | |
| Power factor | Power factor typical | 0.5 |
| | Input voltage | 120 V |
| | Ambient temperature | 25 °C |
| | Output power | 72 W |
| | Power factor typical | 0.45 |
| | Input voltage | 230 V |
| | Ambient temperature | 25 °C |

PRO ECO 72W 24V 3A II

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

www.weidmueller.com

Technical data

| | | |
|---------------------------------|---------------------------------------|------|
| | Output power | 72 W |
| Earth leakage current, max. | 3.5 mA | |
| Power loss, idling | 3 W | |
| Short-circuit protection | Yes | |
| Power loss, nominal load | 12 W | |
| Operating altitude | ≤ 5000 m (> 2000 m, observe derating) | |
| Protection against over-heating | Yes | |

EMC / shock / vibration

| | | | |
|---|---------------------------|------------------------------------|---|
| Limiting of mains voltage harmonic currents | According to EN 61000-3-2 | 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 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), EN 61000-4-11 (Dips), IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4 |
| Vibration resistance IEC 60068-2-6 | 0.7 g | | |

Insulation coordination

| | | | |
|----------------------------------|-----------------------|-----------------------------------|--------|
| Surge voltage category | II | Pollution severity | 2 |
| Protection class | I, with PE connection | Insulation voltage, input/output | 4 kV |
| Insulation voltage input / earth | 3 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 61010-1, PELV acc. to IEC 61010-2-201 |
| Safety transformers for switch-mode power supplies | According to EN 61558-2-16 | | |

Connection data (input)

| | | | |
|---|---------------------|---|-------------------|
| Connection system | Screw connection | 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. | 26 AWG | Wire connection cross section, flexible (input), 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 | Tightening torque, min. | 0.5 Nm |
| Stripping length (input) | 6 mm | Tightening torque, max. | 0.6 Nm |

Connection data (output)

| | | | |
|---|-------------------|---|---------------------|
| Connection system | Screw connection | 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. | 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 |
| Stripping length (output) | 6 mm | Tightening torque, min. | 0.5 Nm |
| Screwdriver blade | 0.6 x 3.5 | Tightening torque, max. | 0.6 Nm |

PRO ECO 72W 24V 3A II

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

www.weidmueller.com

Technical data

Connection data (signal)

| | | | |
|--|---------------------|--------------------------------------|---------------------|
| Wire connection cross-section, flexible (signal), max. | 1.5 mm ² | Wire connection method | PUSH IN |
| Stripping length (Signal) | 8 mm | Wire cross-section, AWG/kcmil , max. | 14 |
| Wire cross-section, solid , min. | 0.2 mm ² | Wire cross-section, solid , max. | 1.5 mm ² |
| Wire connection cross-section, flexible (signal), min. | 0.2 mm ² | Number of terminals | 2 |
| Wire cross-section, AWG/kcmil , min. | 28 mm ² | | |

Signalling

| | | | |
|---------------------------|--------------------|-----------|----------------------|
| Floating contact | Yes | LED green | Operating voltage OK |
| Contact load (NO contact) | max. 30 V DC / 1 A | | |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002540 | ETIM 9.0 | EC002540 |
| ETIM 10.0 | EC002540 | ECLASS 14.0 | 27-04-07-01 |
| ECLASS 15.0 | 27-04-07-01 | | |

PRO ECO 72W 24V 3A II

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

Drawings

www.weidmueller.com



Pay attention to polarity of DC connection

Status indicator and status relay

| Operational status | Status LED | Relay contact (NO) |
|--|------------|--------------------|
| Fault-free operation: $U_{OUT} > 90\%$ of the set voltage | green | closed |
| Fault: $U_{OUT} \leq 85\%$ of the set voltage | red | opened |
| Overload pre-warning: $I_{OUT} > 90\%$ I_N (tolerance: $\pm 5\%$) and $U_{OUT} > 90\%$ of the set voltage | yellow | closed |



PRO ECO 72W 24V 3A II

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

www.weidmueller.com

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 thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118896350 | | |
| Qty. | 1 ST | | |

End bracket



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 ST | | |
| 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 ST | | |

Installation



Mounting accessory for Weidmüller Power Supplies.

PRO ECO 72W 24V 3A II

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

www.weidmueller.com

Accessories

General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | MTA 30 BK | Version | |
| Order No. | 1168970000 | Electronics housings, Mounting flange, Accessories | |
| GTIN (EAN) | 4032248960965 | | |
| Qty. | 45 ST | | |