

PRO INSTA 90W 24V 3.8A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

The single-phase INSTA-POWER switching power supplies are characterised by a wide power spectrum, compact design and good value for money. They are suitable for temperature ranges from -25°C to +70°C, have international approvals and a wide voltage input range. This makes them suitable for a wide range of applications. This also includes signal and telecommunications systems as well as automation systems with a low power requirement up to 96 Watt.

General ordering data

| | |
|------------|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 2580250000 |
| Type | PRO INSTA 90W 24V 3.8A |
| GTIN (EAN) | 4050118590982 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|-------|-----------------|------------|
| Depth | 60 mm | Depth (inches) | 2.362 inch |
| Height | 90 mm | Height (inches) | 3.543 inch |
| Width | 90 mm | Width (inches) | 3.543 inch |
| Net weight | 352 g | | |

Temperatures

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

Input

| | | | |
|---------------------------|--|------------------------|--------------------------------------|
| AC current consumption | 1.2 A @ 230 V AC / 2.4 A @ 100 V AC | AC input voltage range | 85...264 V AC (derating at 100 V AC) |
| Connection system | PUSH IN with actuator | DC current consumption | 0.4 A @ 370 V DC / 1.3 A @ 120 V DC |
| DC input voltage range | 95...370 V DC | Frequency range AC | 45...65 Hz |
| Input fuse (internal) | Yes | Inrush current | max. 40 A |
| Nominal power consumption | 103.4 VA | Rated input voltage | 110...240 V AC / 120...340 V DC |
| Recommended back-up fuse | 2 A / DI, safety fuse 6 A, Char. B, circuit breaker 2...4 A, Char. C circuit breaker | Wire connection method | PUSH IN with actuator |

Output

| | | | |
|--|---|---|---|
| Capacitive load | unrestricted | Connection system | PUSH IN |
| Continuous output current @ U_{Nominal} | 3.8 A @ 55 °C, 2.38 A @ 70 °C | Nominal output current for U_{nom} | 3.8 A @ 55 °C |
| Output current, max. | 3.8 A | Output power | 90 W |
| Output voltage, max. | 25 V | Output voltage, min. | 22 V |
| Output voltage, note | (adjustable via potentiometer on front) | Ramp-up time | ≤ 100 ms |
| Rated output voltage | 24 V DC ± 1 % | Residual ripple, breaking spikes | < 50 mVss @ U_{Nenn} , Full Load |
| Wire connection method | PUSH IN with actuator | | |

General data

| | | | |
|--|---|---|--------------------------------|
| Degree of efficiency | 87 % | Housing version | Plastic, protective insulation |
| 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 active sub-assemblies with full load, 5 mm with passive neighbouring subassemblies, direct row mounting with 90% rated load | Power loss, idling | 0.45 W |
| Power loss, nominal load | 11.7 W | Protection against reverse voltages from the load | 30...35 V DC |
| Protection degree | IP20 | Short-circuit protection | Yes, internal |
| Start-up | ≥ -40 °C | | |

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EMC / shock / vibration

| | | | |
|--|---|--|---|
| Interference immunity test acc. to | EN 61000-4-2 (ESD) EN 61000-4-3 and EN 61000-4-8 (fields) EN 61000-4-4 (burst) EN 61000-4-5 (surge) EN 61000-4-6 (conduct- ed) EN 61000-4-11 (dips), EN 61000-4-11 (Dips) | Limiting of mains voltage harmonic cur- rents | EN 61000-4-2 (ESD) EN 61000-4-3 and EN 61000-4-8 (fields) EN 61000-4-4 (burst) EN 61000-4-5 (surge) EN 61000-4-6 (conduct- ed) EN 61000-4-11 (dips), EN 61000-4-11 (Dips) |
| 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 | 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 | II | | |

Electrical safety (applied standards)

| | | | |
|--|--|--|---------------------------------------|
| Electrical machine equipment | Acc. to EN60204 | For use with electronic equipment | Acc. to EN50178 / VDE0160 |
| Protection against dangerous shock cur- rents | 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. | 24 |
| Conductor cross-section, flexible , min. | 0.25 mm ² | Conductor cross-section, rigid , max. | 2.5 mm ² |
| Conductor cross-section, rigid , min. | 0.25 mm ² | Connection system | PUSH IN with actuator |
| Number of terminals | 2 (L,N) | Wire connection cross section, flexible (input), max. | 2.5 mm ² |

Connection data (output)

| | | | |
|--|---------------------|--|----------------------|
| Conductor cross-section, AWG/kcmil , max. | 12 | Conductor cross-section, AWG/kcmil , min. | 24 |
| Conductor cross-section, flexible , max. | 2.5 mm ² | Conductor cross-section, flexible , min. | 0.25 mm ² |
| Conductor cross-section, rigid , max. | 2.5 mm ² | Conductor cross-section, rigid , min. | 0.25 mm ² |
| Connection system | PUSH IN | Number of terminals | 4 (++ / -) |

Signalling

| | |
|-----------|----------------------|
| LED green | Operating voltage OK |
|-----------|----------------------|

Approbations

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

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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 Lead monoxide 1317-36-8 |
| SCIP | d62541f7-8058-4336-b693-7303c8b40800 |

Approvals

Approvals



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

Downloads

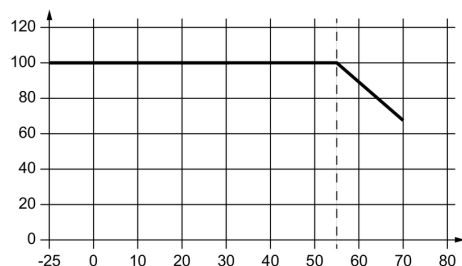
| | |
|---|--|
| Approval/Certificate/Document of Conformity | PRO INSTA 96W_90W EN 62368-1.pdf CSA UL508 UL 121201 Certificate.pdf UL 61010 Certificate.pdf Declaration of Conformity UK Conformity Assessed |
| Engineering Data | CAD data – STEP |
| User Documentation | Operating instruction |
| Catalogues | Catalogues in PDF-format |

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Drawings



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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 SL 0.6X3.5X100 | Version |
| Order No. | 1274660000 | Screwdriver, Mounting tool |
| GTIN (EAN) | 4050118072631 | |
| 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, 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). | |