

PRO BAS 90W 24V 3.8A

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

www.weidmueller.com



High performance, compact design and a good price-performance ratio are the main characteristics of the new PRObas power supplies. The product family comprises 12 variants with 5, 12, 24 or 48 V DC output voltage and a wide-range input. All units have comprehensive safety functions and are internationally approved. Due to compatibility with our electronic fuses, DC UPS and diode modules, they are also suitable for setting up power management systems.

General ordering data

| | |
|------------|---|
| Version | Power supply, switch-mode power supply unit, 24 V |
| Order No. | 2838430000 |
| Type | PRO BAS 90W 24V 3.8A |
| GTIN (EAN) | 4064675444121 |
| Qty. | 1 items |

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Technical data

Approvals

Approvals



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

Dimensions and weights

| | | | |
|------------|-------|-----------------|-------------|
| Depth | 85 mm | Depth (inches) | 3.3464 inch |
| Height | 90 mm | Height (inches) | 3.5433 inch |
| Width | 47 mm | Width (inches) | 1.8504 inch |
| Net weight | 376 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 |

Input

| | | |
|--|--|--------|
| Connection system | Screw connection | |
| AC input voltage range | 85...264 V AC (derating at 100 V AC) | |
| Recommended back-up fuse | 4 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 | 110...240 V AC / 120...340 V DC | |
| Wire connection method | Screw connection | |
| Input fuse (internal) | Yes | |
| DC input voltage range | 110...370 V DC (derating at <120 V DC) | |
| Inrush current | 40 A @ 230 V AC, 25 °C | |
| Current consumption in relation to the input voltage | Voltage type | AC |
| | Input voltage | 230 V |
| | Input current | 0.89 A |
| | Voltage type | AC |
| | Input voltage | 115 V |
| | Input current | 1.54 A |
| | Voltage type | DC |
| | Input voltage | 120 V |
| Input current | 0.83 A | |
| Nominal power consumption | 100.67 VA | |

Output

| | |
|----------------------|------------------|
| Output power | 90 W |
| Connection system | Screw connection |
| Rated output voltage | 24 V DC |

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| Residual ripple, breaking spikes | ≤ 50 mVpp @ full load | |
| Parallel connection option | yes, max. 3 | |
| Overload protection | Yes | |
| Output voltage, max. | 25 V | |
| Output voltage, min. | 22 V | |
| Output current, max. | 3.8 A | |
| Wire connection method | Screw connection | |
| Output voltage, note | adjustable via potentiometer | |
| Nominal output current for Unom | 3.8 A @ 55 °C | |
| Capacitive load | 5.5mF | |
| Mains failure bridge-over time | Mains failure bridge-over time, min. | 20 ms |
| | Input voltage type | AC |
| | Input voltage | 120 V |
| | Output current | 3.8 A |
| | Output voltage | 24 V |
| | Mains failure bridge-over time, min. | 80 ms |
| | Input voltage type | AC |
| | Input voltage | 230 V |
| | Output current | 3.8 A |
| | Output voltage | 24 V |
| Protection against inverse voltage | Yes | |
| Continuous output current @ UNominal | 3.8 A @ 55 °C, 2.375 A @ 70°C | |

General data

| | | | |
|--|---|---------------------------------|---|
| Power factor (approx.) | 0.45 @ 120 V AC, 0.47 @ 230 V AC | AC failure bridging time @ Inom | > 80 ms @ 230 V AC / > 20 ms @ 115 V AC |
| Degree of efficiency | 89,4% @ 230 V AC | Humidity | 5...95 % rel. humidity, no condensation |
| Protection degree | IP20 | Building Width | 47 mm |
| Building height | 90 mm | Status indication | Green LED |
| 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., Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring subassemblies., 50 mm clearance at top and bottom for free air circulation, mountable side by side without clearance, On TS 35 mounting rail, 50 mm clearance above and below for free air supply. | Housing version | Plastic, protective insulation |
| Power loss, idling | 0.5 W | Short-circuit protection | Yes |
| Power loss, nominal load | 9.5 W | Protection against over-heating | Yes |

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 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (burst), EN 61000-4-5 (surge), EN | Vibration resistance IEC 60068-2-6 | 0.7 g according to EN 50178 |

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Technical data

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

Insulation coordination

| | | | |
|----------------------------------|--------|------------------|----|
| Pollution severity | 2 | Protection class | II |
| Insulation voltage, input/output | 3.5 kV | | |

Electrical safety (applied standards)

| | | | |
|--------------------------|--|---|-------------------------------|
| 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 | 2 (L,N) |
| 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. | 6 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 |
| 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. | 6 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 | Screwdriver blade | 0.6 x 3.5 |
| Tightening torque, max. | 0.6 Nm | | |

Signalling

| | | | |
|-------------------|----------------------|----------------------|---|
| Status indication | Green LED | Floating contact | No |
| LED green | Operating voltage OK | Trigger voltage, LED | U _{out} > 0.9 x U _{nominal} min |

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 | | |

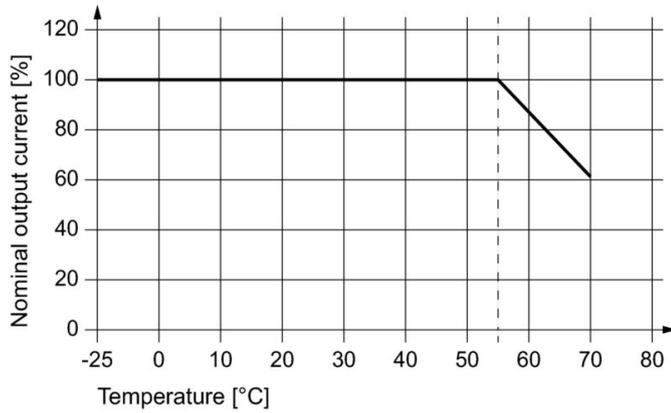
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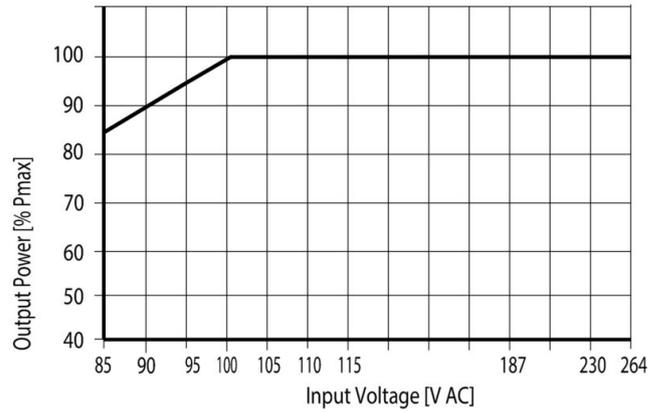
Drawings

Derating curve



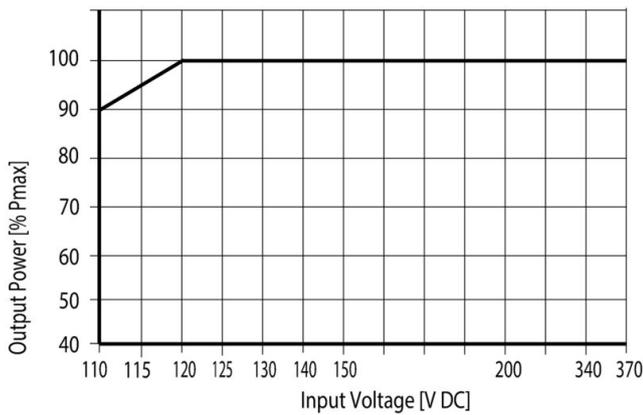
Temperature Derating

Derating curve



AC-Input Derating

Derating curve



DC-Input Derating