

PRO INSTA 96W 48V 2A

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 $+70^{\circ}\text{C}$, 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, 48 V
Order No.	2580270000
Type	PRO INSTA 96W 48V 2A
GTIN (EAN)	4050118591002
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	361 g		

Temperatures

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

AC current consumption	1.2 A @ 230 V AC / 2.5 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 / 1.35 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	107.9 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 @ $U_{Nominal}$	2 A @ 55 °C, 1.25 A @ 70 °C	Nominal output current for U_{nom}	2 A @ 55 °C
Output current, max.	2 A	Output power	96 W
Output voltage, max.	56 V	Output voltage, min.	35 V
Output voltage, note	(adjustable via potentiometer on front)	Ramp-up time	≤ 100 ms
Rated output voltage	48 V DC ± 1 %	Residual ripple, breaking spikes	< 50 mV _{ss} @ U_{Nenn} , Full Load
Wire connection method	PUSH IN with actuator		

General data

Degree of efficiency	89%	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	10.56 W	Protection against reverse voltages from the load	58...62 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
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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
ECLASS 14.0	27-04-07-01		

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Environmental Product Compliance

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

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

Data sheet

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Drawings

