Data sheet

PRO ECO 480W 24V 20A

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-contrained applications, such as flat control cabinets in the field.

General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	1469510000
Type	PRO ECO 480W 24V 20A
GTIN (EAN)	4050118275483
Qty.	1 items
Delivery status	This article will no longer be available in the future.
Available until	2026-12-30T00:00:00+01:00
Alternative product	PRO ECO 480W 24V 20A II

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Technical data

Approvals

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

Dimensions and weights

Depth	120 mm	Depth (inches)	4.7244 inch
Height	125 mm	Height (inches)	4.9212 inch
Width	100 mm	Width (inches)	3.937 inch
Net weight	1557 g		

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	6d8cdf22-8230-4af8-86c8-3558c716666d

Input

Connection system	Screw connection	AC input voltage range	85...264 V AC (derating at 100 V AC)
Recommended back-up fuse	6 A / DI, safety fuse 16 A, Char. B, circuit breaker 6...8 A, Char. C, circuit breaker	Frequency range AC	47...63 Hz
Rated input voltage	100...240 V AC	Surge protection	Varistor
Input fuse (internal)	Yes	AC current consumption	2,37 A @ 230 V AC / 5,2 A @ 110 V AC
DC current consumption	1,55 A @ 370 V DC / 4,65 A @ 120 V DC	DC input voltage range	80...370 V DC (Derating @ 120 V DC)
Inrush current	max. 5 A	Nominal power consumption	527.5 VA

Output

Output power	480 W	Connection system	Screw connection
Rated output voltage	24 V DC ± 1 %	Residual ripple, breaking spikes	<50 mVPP @ 24 V DC, IN
Parallel connection option	yes, max. 3	Overload protection	Yes
Output voltage, max.	28 V	Output voltage, min.	22 V
Output voltage, note	(adjustable via potentiometer)	Nominal output current for Unom	20 A @ 55 °C
Capacitive load	unrestricted	Protection against inverse voltage	Yes
Continuous output current @ UNominal	20 A @ 55 °C, 15 A @ 70 °C	Ramp-up time	≤ 100 ms

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Power factor (approx.)	> 0.98...230 V AC / > 0.98...115 V AC	AC failure bridging time @ Inom	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC
Degree of efficiency	91%	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
Indication	Green LED (Uoutput > 21.6 V DC), Yellow LED (Ioutput > 90 % IRated typ.), red LED (overload, overtemperature, short-circuit, Uoutput <20.4 V DC)	Earth leakage current, max.	3.5 mA
Max. perm. air humidity (operational)	5 %...95 % RH	Power loss, idling	5 W
Short-circuit protection	Yes	Power loss, nominal load	43 W
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	15 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), EN61000-4-11 (Dips)
Vibration resistance IEC 60068-2-6	1 g according to EN 50178		

Insulation coordination

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

Electrical safety (applied standards)

For use with electronic equipment	Acc. to EN50178 / VDE0160	Electrical machine equipment	Acc. to EN60204
Protection against dangerous shock currents	Acc. to VDE0106-101	Safety extra-low voltage	SELV acc. to IEC 60950-1, PELV according to EN 60204-1
Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410	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
Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Wire connection cross section, flexible (input), max.	2.5 mm²	Conductor cross-section, flexible , min.	0.5 mm²
Conductor cross-section, rigid , max.	6 mm²	Conductor cross-section, rigid , min.	0.5 mm²
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.6 Nm

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Connection data (output)

Connection system	Screw connection	Number of terminals	7 (++,—,13,14)
Conductor cross-section, AWG/kcmil , max.	10 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , max.	2.5 mm²	Conductor cross-section, flexible , min.	0.5 mm²
Conductor cross-section, rigid , max.	6 mm²	Conductor cross-section, rigid , min.	0.5 mm²
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.6 Nm

Signalling

Floating contact	Yes	Contact load (NO contact)	max. 30 V DC / 1 A
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload		

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
ETIM 8.0	EC002540	ETIM 9.0	EC002540
ETIM 10.0	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
ECLASS 15.0	27-04-07-01		

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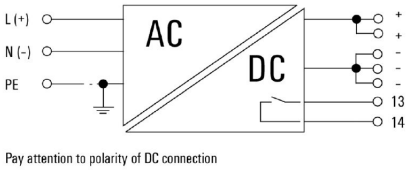
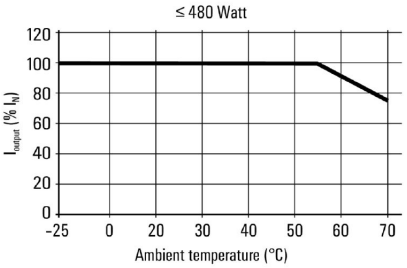
Drawings

Electric symbol

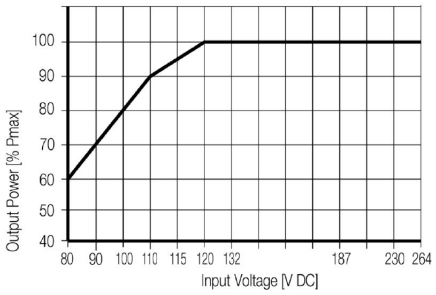


Pay attention to polarity of DC connection

Derating curve



Derating curve



Derating curve