

PRO MAX 480W 24V 20A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Similar to illustration

PROmax offers diverse solutions for demanding automation.

Our high performance and durable PROmax switch-mode power supply units are designed for especially demanding requirements. PROmax reliably copes with continuous overload of up to 20% or short-term peak loads of 300% occurring with high control cabinet temperatures.

High boost capability and full power are also made possible in a wide temperature range. Our switch-mode power supply units can be used around the world and are also suitable for confined spaces thanks to their low width.

Together with our uninterruptible DC USPs, the diode modules or CAP modules, you can create a power supply solution that is tailored to your requirements.



General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	1478140000
Type	PRO MAX 480W 24V 20A
GTIN (EAN)	4050118286137
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	150 mm	Depth (inches)	5.905 inch
Height	130 mm	Height (inches)	5.118 inch
Width	90 mm	Width (inches)	3.543 inch
Net weight	2,000 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity at operating temperature	5...95 %, no condensation		

Rated data UL

Certificate No. (cURus)	E255651
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Input

AC input voltage range	85...277 V AC		
Connection system	Screw connection		
Current consumption in relation to the input voltage	Voltage type	AC	
	Input voltage	230 V	
	Input current	2.3 A	
	Voltage type	DC	
	Input voltage	120 V	
	Input current	4.8 A	
DC input voltage range	80...370 V DC		
Frequency range AC	45...65 Hz		
Input fuse (internal)	Yes		
Inrush current	max. 15 A		
Nominal power consumption	521.7 VA		
Power factor	Power factor typical	0.95	
	Input voltage	230 V	
	Ambient temperature	25 °C	
	Output power	480 W	
Rated input voltage	100...240 V AC		
Recommended back-up fuse	16 A, char. B circuit breaker, 10 A, Char. C circuit breaker		
Surge protection	Varistor		

Output

Connection system	Screw connection	Continuous output current @ $U_{Nominal}$	24 A @ 45°C, 15 A @ 70°C
Nominal output current for U_{nom}	20 A @ 60 °C	Output power	480 W
Output voltage, max.	29.5 V	Output voltage, min.	22.5 V
Output voltage, note	(adjustable via potentiometer)	Parallel connection option	yes, max. 3
Protection against inverse voltage	Yes	Rated output voltage	24 V DC \pm 1 %
Residual ripple, breaking spikes	<50 mV _{ss} @ U_{Nenn} , Full Load		

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General data

AC failure bridging time @ I_{nom}	min. 20 ms	Current limiting	> 120% I_N
Degree of efficiency	92 %	Derating	> 60°C / 75% @ 70°C
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
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.	Power loss, idling	4.8 W
Power loss, nominal load	41.7 W	Protection against reverse voltages from the load	30...35 V DC
Protection degree	IP20	Short-circuit protection	Yes
Start-up		Status indication	LED red/green and relay (≥ 21.6 V DC LED green, relay on/ ≤ 20.6 V DC LED red, relay off)
	≥ -40 °C		
Surge voltage category	III		

EMC / shock / vibration

Interference immunity test acc. to	EN 55024, EN 55032, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11	Noise emission in accordance with EN55032	Class B
Shock resistance IEC 60068-2-27	30 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	I, with PE connection	Surge voltage category	III

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	For use with electronic equipment	Acc. to EN50178 / VDE0160
Protection against dangerous shock currents	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.	10 AWG	Conductor cross-section, AWG/kcmil, min.	26 AWG
Conductor cross-section, flexible, min.	0.22 mm ²	Conductor cross-section, rigid, max.	6 mm ²
Conductor cross-section, rigid, min.	0.18 mm ²	Connection system	Screw connection
Number of terminals	3 for L/N/PE	Screwdriver blade	0.8 x 4.0, PZ 1
Tightening torque, max.	0.6 Nm	Tightening torque, min.	0.5 Nm
Wire connection cross section, flexible (input), max.	4 mm ²		

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Technical data

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	10 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , max.	4 mm ²	Conductor cross-section, flexible , min.	0.22 mm ²
Conductor cross-section, rigid , max.	6 mm ²	Conductor cross-section, rigid , min.	0.18 mm ²
Connection system	Screw connection	Number of terminals	8 (+,+,-,11,13,14)
Screwdriver blade	0.8 x 4.0, PZ 1	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.5 Nm		

Signalling

Contact load (NO contact)	max. 30 V DC / 1 A	Floating contact	Yes
Status indication	LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 V DC LED red, relay off)		

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		

Environmental Product Compliance

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

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E255651
Certificate no. (cULus)	E258476
Certificate no. (cULusEX)	E470829

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Technical data**Downloads**

Approval/Certificate/Document of Conformity	UL 508 Certificate UL 60950-1 Certificate.pdf UL CL1 DIV2 Certificate.pdf DNV Certificate.pdf DoP EN54.4 Declaration of Conformity UK Conformity Assessed
Engineering Data	CAD data – STEP
User Documentation	Operating instructions
Catalogues	Catalogues in PDF-format

Data sheet

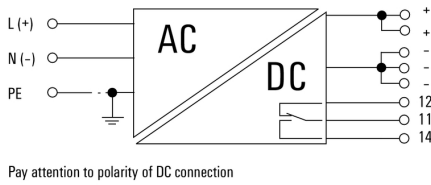
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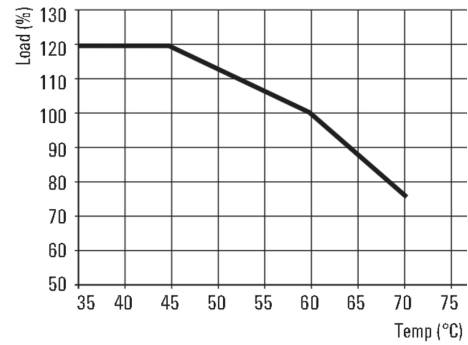
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Drawings

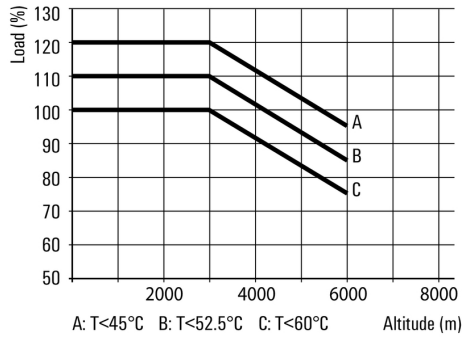
Electric symbol



Derating curve



Derating curve



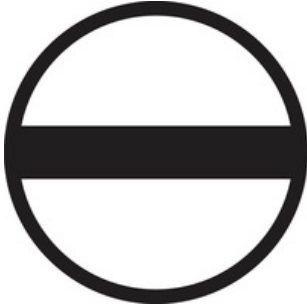
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Accessories

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 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 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, black, TS 35, V-0, Wemid, Width: 12 mm, 130 °C
GTIN (EAN)	4050118286892	
Qty.	50 pc(s).	
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 pc(s).	

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Accessories**Crosshead screwdriver, Pozidrive**

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	SDIK SLIM PZ1 X 80	Version
Order No.	2749670000	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118896411	
Qty.	1 pc(s).	