Data sheet

PRO MAX 120W 24V 5A

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

www.weidmueller.com



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.	1478110000
Type	PRO MAX 120W 24V 5A
GTIN (EAN)	4050118285956
Qty.	1 items

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Technical data

Approvals

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

Dimensions and weights

Depth	125 mm	Depth (inches)	4.9212 inch
Height	130 mm	Height (inches)	5.1181 inch
Width	40 mm	Width (inches)	1.5748 inch
Net weight	858 g		

Temperatures

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

Rated data UL

Certificate No. (cURus)	E255651

Input

Connection system	Screw connection	
AC input voltage range	85...277 V AC	
Recommended back-up fuse	6 A, Char. B, circuit breaker, 6 A, char. C circuit breaker	
Frequency range AC	45...65 Hz	
Rated input voltage	100...240 V AC	
Surge protection	Varistor	
Input fuse (internal)	Yes	
DC input voltage range	80...370 V DC	
Inrush current	max. 15 A	
Current consumption in relation to the input voltage	Voltage type	AC
	Input voltage	230 V
	Input current	1 A
	Voltage type	DC
	Input voltage	120 V
	Input current	2.5 A
Nominal power consumption	134.8 VA	

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Output

Output power	120 W	Connection system	Screw connection
Rated output voltage	24 V DC ± 1 %	Residual ripple, breaking spikes	<50 mVss @ UNenn, Full Load
Parallel connection option	yes, max. 5	Output voltage, max.	29.5 V
Output voltage, min.	22.5 V	Output voltage, note	(adjustable via potentiometer)
Nominal output current for Unom	5 A @ 60 °C	Protection against inverse voltage	Yes
Continuous output current @ UNominal	6.0 A @ 45 °C, 3,75 A @ 70 °C		

General data

AC failure bridging time @ Inom	min. 20 ms	
Degree of efficiency	89%	
Protection degree	IP20	
Surge voltage category	III	
Status indication	LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 LED red, relay off)	
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.	
Housing version	Metal, corrosion resistant	
Protection against reverse voltages from the load	30...35 V DC	
Current limiting	> 120% IN	
Derating	> 60°C / 75% @ 70°C	
Power factor	Power factor typical	0.9
	Input voltage	230 V
	Ambient temperature	25 °C
	Output power	120 W
Earth leakage current, max.	3.5 mA	
Power loss, idling	1.2 W	
Short-circuit protection	Yes	
Power loss, nominal load	14.8 W	
Operating altitude	3000m, 3000-6000m derating, @ 6000m 75% Load	

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 55024, EN 55032, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11	Vibration resistance IEC 60068-2-6	2.3 g

Insulation coordination

Surge voltage category	III	Pollution severity	2
Protection class	I, with PE connection	Insulation voltage, input/output	4 kV
Insulation voltage input / earth	3.5 kV	Insulation voltage output / earth	0.5 kV

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	Safety extra-low voltage	SELV acc. to IEC 60950-1, PELV according to EN 60204-1, SELV according to EN 62368-1
Safety transformers for switch-mode power supplies	According to EN 61558-2-16		

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Technical data

Connection data (input)

Connection system	Screw connection	Number of terminals	3 for L/N/PE
Screwdriver blade	0.8 x 4.0, PZ 1	Conductor cross-section, AWG/kcmil , max.	10 AWG
Conductor cross-section, AWG/kcmil , min.	26 AWG	Wire connection cross section, flexible (input), max.	4 mm²
Conductor cross-section, flexible , min.	0.22 mm²	Conductor cross-section, rigid , max.	6 mm²
Conductor cross-section, rigid , min.	0.18 mm²	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm		

Connection data (output)

Connection system	Screw connection	Number of terminals	8 (++,—,11,13,14)
Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , max.	4 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	Screwdriver blade	0.6 x 3.5
Tightening torque, max.	0.6 Nm		

Signalling

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

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		

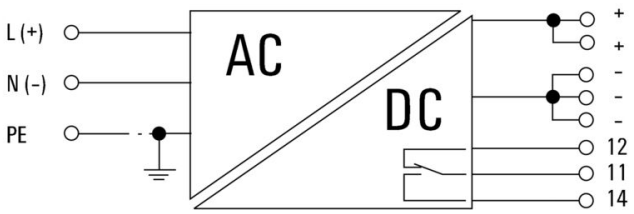
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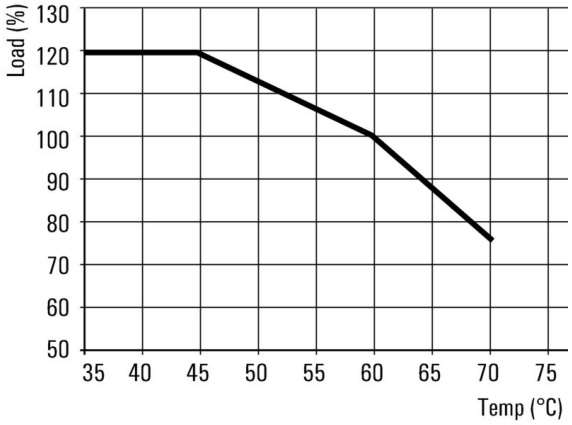
Drawings

Electric symbol

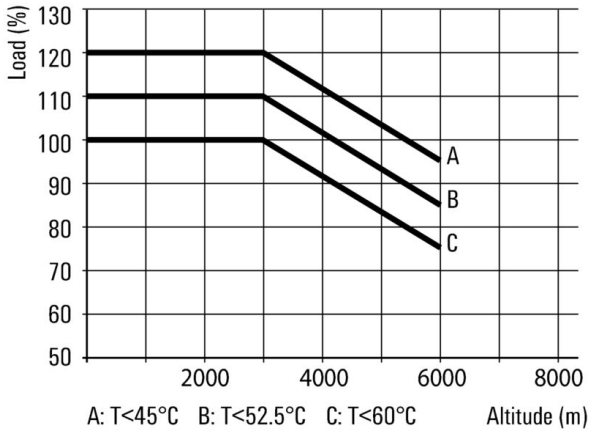


Pay attention to polarity of DC connection

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
GTIN (EAN)	4050118896350	thickness (A): 0.6 mm
Qty.	1 ST	

Crosshead screwdriver, Pozidrive

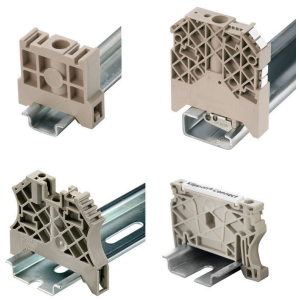


VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

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 ST	

End bracket



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 ST	

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Accessories

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 ST	