PROmax
PRO MAX 120W 24V 5A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
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

Type	PRO MAX 120W 24V 5A
Order No.	1478110000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118285956
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Width	40 mm	Width (inches)	1.575 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	859 g		

Temperatures

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Rated data UL

Certificate No. (cURus)	E255651	Altitude	3000m, 3000-6000m derating, @ 6000m 75% Load

Input

AC current consumption	1A @ 230 VAC / 2,5A @ 115 VAC	AC input voltage range	85...277 V AC
Connection system	Screw connection	DC current consumption	1,5A @ 370 VDC / 2,5A @ 120 VDC
DC input voltage range	80...370 V DC	Frequency range AC	45...65 Hz
Input fuse (internal)	Yes	Inrush current	max. 15 A
Rated input voltage	100...240 V AC (wide-range input)	Recommended back-up fuse	6 A, Char. B, circuit breaker, 6 A, char. C circuit breaker
Standby power consumption, max.	1 W	Surge protection	Varistor

Output

Connection system	Screw connection	Continous output current @ $U_{Nominal}$	6.0 A @ 45 °C, 3,75 A @ 70 °C
Current capacity (pulse) @ $U_{Nominal}$	15 A (2ms)	Nominal output current for U_{nom}	5 A @ 60 °C
Output power	120 W	Output voltage	24 V
Output voltage	22.5...29.5 V (adjustable via potentiometer)	Parallel connection option	yes, max. 5
Protection against inverse voltage	Yes	Rated output voltage	24 V DC ± 1 %
Reserve capacity @ $U_{Nominal}$	6 A (1 min), 7.5 A (4s)	Residual ripple, breaking spikes	< 50 mVss @ 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	89%	Derating	> 60°C / 75% @ 70°C
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
MTBF	>500.000h (25°C, IEC 61709 (SN29500))	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.
Operating temperature	-25 °C...70 °C	Power factor (approx.)	> 0.90 @ 230 V AC
Power loss, idling	1.2 W	Power loss, nominal load	14.8 W
Protection against reverse voltages from the load	30...35 V DC	Protection degree	IP20
Series switching capability	Yes	Short-circuit protection	Yes
Start-up	≥ -40 °C	Status indication	LED red/green and relay (≥21.6 V DC LED green, relay on/ ≤20.6 LED red, relay off)
Surge voltage category	III		

EMC / shock / vibration

Noise emission in accordance with EN55032	Class B	Vibration resistance IEC 60068-2-6	2.3 g
Interference immunity test acc. to	EN 55024, EN 55032, IEC61000-3-2,-3, IEC61000-4-2,-3,-4,-5,-6,-8,-11	Shock resistance IEC 60068-2-27	30 g in all directions

Insulation coordination

Humidity at operating temperature	5...95 %, no condensation	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 according to EN 60950, PELV according to EN 60204, IEC61204	Safety transformers for switch-mode power supplies	According to EN 61558-2-16

Connection data (input)

Conductor cross-section, AWG/kcmil , max.	10	Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , min.	0.22 mm²	Conductor cross-section, rigid , max.	6 mm²
Conductor cross-section, rigid , min.	0.18 mm²	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 mm²		

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Technical data

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	26
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
Connection system	Screw connection	Number of terminals	8 (++,—,11,13,14)
Screwdriver blade	0.6 x 3.5	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 LED red, relay off)		

Approvals

Institute (GERMLLOYD)		Certificate No. (GERMLLOYD)	TAA00000TT
Institute (cULus)	c UL US LISTED	Certificate no. (cULus)	E258476
Institute (cULusEX)	c UL US LISTED FOR HAZ.LOC. C1D2	Certificate no. (cULusEX)	E470829
Institute (cURus)	c US	Certificate No. (cURus)	E255651

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

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Technical data

Approvals

Approvals	
ROHS	Conform

Downloads

Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
User Documentation	Operating instructions

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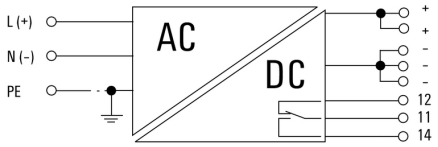
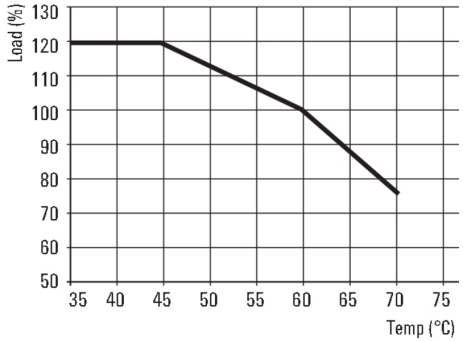
Drawings

Electric symbol



Pay attention to polarity of DC connection

Derating curve



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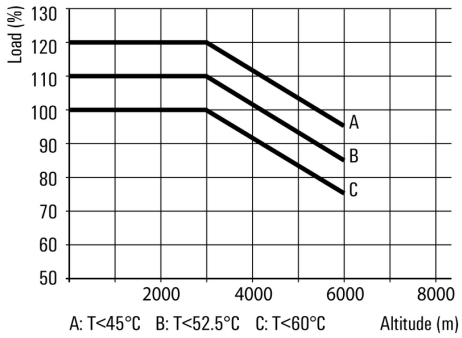

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Accessories

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 PZ1 SL	Version
Order No.	1274730000	Mounting tool, Blade length: 80 mm
GTIN (EAN)	4050118073225	
Qty.	1 pc(s).	

End brackets

Klippon® Connect with clamping yoke Technology
The high reliability and variety of designs of the terminal blocks with clamping yoke connections make planning easer and optimises operational safety. Klippon® Connect provides a proven response to a range of different requirements.

General ordering data

Type	WEW 35/2 V0 GF SW	Version
Order No.	1479000000	W-Series, End bracket
GTIN (EAN)	4050118286779	
Qty.	100 pc(s).	
Type	WEW 35/1 V0 GF SW	Version
Order No.	1478990000	W-Series, End bracket
GTIN (EAN)	4050118286892	
Qty.	50 pc(s).	

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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 SL 0.6X3.5X100	Version
Order No.	1274660000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118072631	thickness (A): 0.6 mm
Qty.	1 pc(s).	