

## PRO ECO3 480W 24V 20A

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)



You are looking for a reliable power supply with basic functions.

With PROeco we can offer you low-cost switch-mode power supply units with

high efficiency and system capability. Let's connect.

In the series production of machines, in particular, switch-mode power supply units with

above-average performance values can deliver genuine competitive advantages.

The low-cost PROeco series offers all the basic functions and delivers impressively

high performance and flexibility.

Our PROeco switch-mode power supply units feature a compact design, high

efficiency and are extremely easy to maintain. Thanks to temperature protection,

short-circuit and overload resistance they can be universally used in all

applications.

Wide-ranging safety functions and compatibility with our diode and capacitance modules, together with UPS components for setting up a

redundant power supply, characterise solutions with PROeco.

### General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	<a href="#">1469550000</a>
Type	PRO ECO3 480W 24V 20A
GTIN (EAN)	4050118275742
Qty.	1 pc(s).

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## Technical data

### Dimensions and weights

Depth	120 mm	Depth (inches)	4.724 inch
Height	125 mm	Height (inches)	4.921 inch
Width	100 mm	Width (inches)	3.937 inch
Net weight	1,300 g		

### Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
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### Rated data UL

Certificate No. (cURus)	E255651
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### Input

AC input voltage range	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC		
Connection system	Screw connection		
Current consumption in relation to the input voltage	Voltage type	3-phase AC	
	Input voltage	400 V	
	Input current	1.5 A	
	Voltage type	3-phase AC	
	Input voltage	500 V	
	Input current	1.2 A	
	Voltage type	DC	
	Input voltage	800 V	
	Input current	0.7 A	
	Voltage type	DC	
Input voltage	450 V		
Input current	1.2 A		
DC input voltage range	450...800 V DC		
Frequency range AC	47...63 Hz		
Input frequency	47...63 Hz		
Input fuse (internal)	Yes		
Inrush current	max. 50 A		
Nominal power consumption	539.3 VA		
Rated input voltage	3x 400...3x 500 V AC (wide-range input)		
Recommended back-up fuse	4 A / DI, safety fuse 3...5 A, Char. C, circuit breaker		
Surge protection	Varistor		

### Output

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

Creation date July 10, 2024 9:30:03 AM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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## Technical data

### General data

AC failure bridging time @ $I_{nom}$	> 30 ms @ 3 x 500 V AC / > 20 ms @ 3 x 400 V AC	Degree of efficiency	89%
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
Indication	Green LED ( $U_{output} > 21.6$ V DC), Yellow LED ( $I_{output} > 90\% I_{Rated}$ typ. ), red LED (overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC)	Max. perm. air humidity (operational)	5 %...95 % RH
Mounting position, installation notice	on terminal rail TS 35	Power factor (approx.)	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC
Power loss, idling	8 W	Power loss, nominal load	48 W
Protection against over-heating	Yes	Protection against reverse voltages from the load	30...35 V DC
Protection degree	IP20	Short-circuit protection	Yes
Surge voltage category	II		

### EMC / shock / vibration

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)	Limiting of mains voltage harmonic currents	According to EN 61000-3-2
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	1 g according to EN 50178		

### Insulation coordination

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

### 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.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , min.	0.5 mm <sup>2</sup>	Conductor cross-section, rigid , max.	6 mm <sup>2</sup>
Conductor cross-section, rigid , min.	0.5 mm <sup>2</sup>	Connection system	Screw connection
Number of terminals	4 for L1/L2/L3/PE	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.5 Nm	Wire connection cross section, flexible (input), max.	2.5 mm <sup>2</sup>

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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.	2.5 mm <sup>2</sup>	Conductor cross-section, flexible , min.	0.5 mm <sup>2</sup>
Conductor cross-section, rigid , max.	6 mm <sup>2</sup>	Conductor cross-section, rigid , min.	0.5 mm <sup>2</sup>
Connection system	Screw connection	Number of terminals	7 (+,+,-,13,14)
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
Relay on/off	Output voltage >21.6 V DC/ <20.4 V DC, overload		

## Approbations

Certificate No. (cURus)	E255651	Certificate no. (cULus)	E258476
Institute (cULus)	CULUS	Institute (cURus)	CURUS

## 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

## Environmental Product Compliance

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

## Downloads

Approval/Certificate/Document of Conformity	<a href="#">UL508 CSA C22.2 Certificate.pdf</a> <a href="#">Declaration of Conformity</a> <a href="#">UK Conformity Assessed</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Operating instructions</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

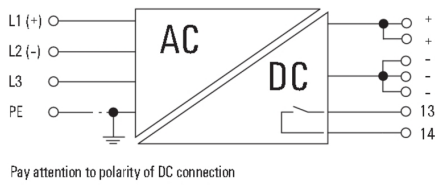
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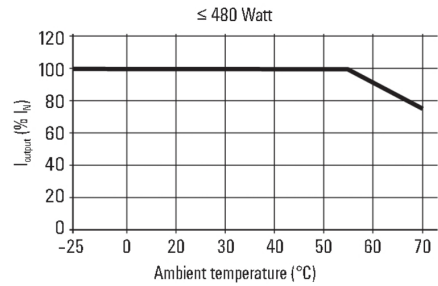
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**Drawings**

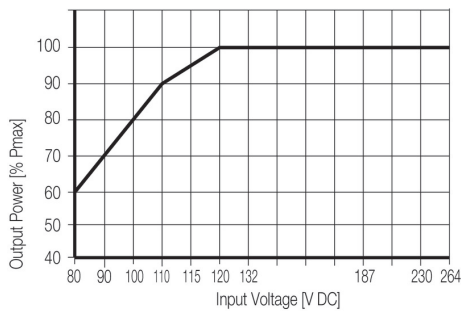
**Electric symbol**



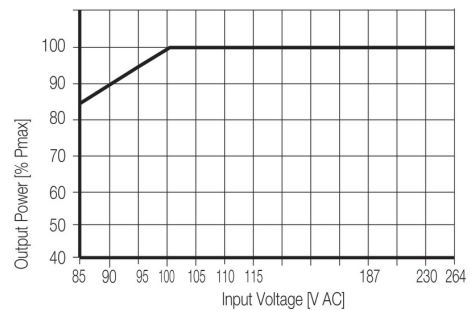
**Derating curve**



**Derating curve**



**Derating curve**



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## Accessories

## W-Series

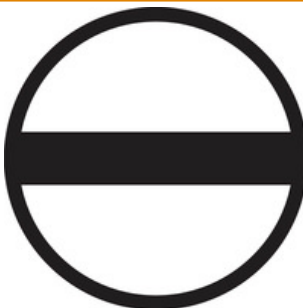


Weidmüller's range of products includes end brackets that guarantee a permanent, reliable mounting on the terminal rail and prevent sliding. Versions with and without screws are available. The end brackets include marking options, also for group markers, and also a test plug holder.

## General ordering data

Type	WEW 35/1 SW	Version
Order No.	<a href="#">1162600000</a>	End bracket, Wemid, black, Rail: TS 35, when screwed in
GTIN (EAN)	4032248972630	
Qty.	50 pc(s).	
Type	WEW 35/1 VO GF SW	Version
Order No.	<a href="#">1478990000</a>	End bracket, Wemid, black, Rail: TS 35, when screwed in
GTIN (EAN)	4050118286892	
Qty.	50 pc(s).	
Type	WEW 35/2 VO GF SW	Version
Order No.	<a href="#">1479000000</a>	End bracket, Wemid, black, Rail: TS 35, when screwed in
GTIN (EAN)	4050118286779	
Qty.	50 pc(s).	

## 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.	<a href="#">2749610000</a>	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).	

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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.	<a href="#">2749670000</a>	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118896411	
Qty.	1 pc(s).	