PRO ECO3 480W 24V 20A

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

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.	1469550000
Type	PRO ECO3 480W 24V 20A
GTIN (EAN)	4050118275742
Qty.	1 pc(s).

PRO ECO3 480W 24V 20A

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

www.weidmueller.com

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

Rated data UL

Certificate No. (cURus)	E255651

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
Continous output current @ $U_{Nominal}$	20 A @ 55 °C, 15 A @ 70 °C	Nominal output current for U_{nom}	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_{PP} @ 24 V DC, I_N

PRO ECO3 480W 24V 20A

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

www.weidmueller.com

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	Conductor cross-section, AWG/kcmil , min.	26
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
Wire connection cross section, flexible (input), max.	2.5 mm²		

PRO ECO3 480W 24V 20A

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

www.weidmueller.com

Technical data

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	10	Conductor cross-section, AWG/kcmil , min.	26
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
Connection system	Screw connection	Number of terminals	7 (++,—,13,14)

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	27-04-90-02

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	UL508 CSA C22.2 Certificate.pdf Declaration of Conformity UK Conformity Assessed
Engineering Data	CAD data – STEP
User Documentation	Operating instructions
Catalogues	Catalogues in PDF-format

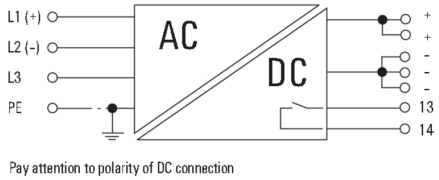
PRO ECO3 480W 24V 20A

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

www.weidmueller.com

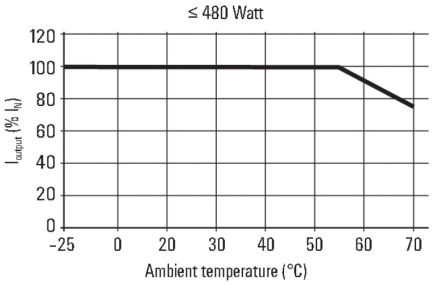
Drawings

Electric symbol

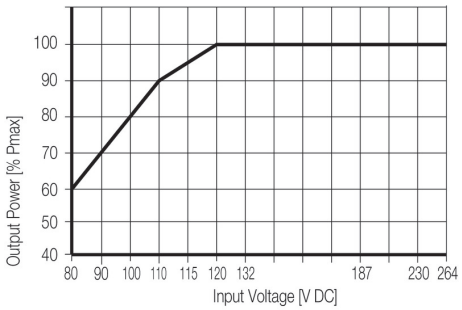


Pay attention to polarity of DC connection

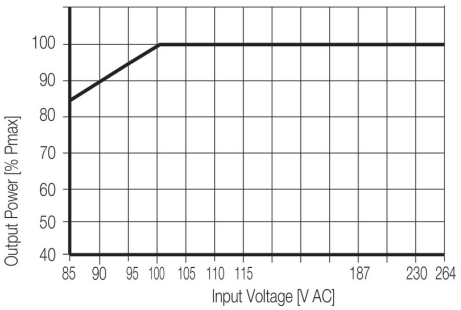
Derating curve



Derating curve



Derating curve



PRO ECO3 480W 24V 20A

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

www.weidmueller.com

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.

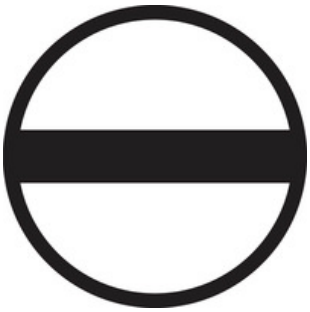
General ordering data

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

Type	WEW 35/1 SW	Version
Order No.	1162600000	W-Series, End bracket
GTIN (EAN)	4032248972630	
Qty.	50 pc(s).	

Type	WEW 35/1 V0 GF SW	Version
Order No.	1478990000	W-Series, End bracket
GTIN (EAN)	4050118286892	
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.	2749610000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118896350	thickness (A): 0.6 mm
Qty.	1 pc(s).	

PRO ECO3 480W 24V 20A

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

www.weidmueller.com

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).	