

PRO ECO 120W 24V 5A

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.	1469480000
Type	PRO ECO 120W 24V 5A
GTIN (EAN)	4050118275476
Qty.	1 pc(s).

PRO ECO 120W 24V 5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Dimensions and weights

Depth	100 mm	Depth (inches)	3.937 inch
Height	125 mm	Height (inches)	4.921 inch
Width	40 mm	Width (inches)	1.575 inch
Net weight	675 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
---------------------	----------------	-----------------------	----------------

Input

AC current consumption	1,26 A @ 230 V AC / 2,24 A @ 110 V AC	AC input voltage range	85...264 V AC (derating at 100 V AC)
Connection system	Screw connection	DC current consumption	0,39 A @ 370 V DC / 1,16 A @ 120 V DC
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	Frequency range AC	47...63 Hz
Input frequency	47...63 Hz	Input fuse (internal)	Yes
Inrush current	max. 40 A	Nominal power consumption	137.9 VA
Rated input voltage	100...240 V AC	Recommended back-up fuse	4 A / DI, safety fuse 6 A, Char. B, circuit breaker 3...5 A, Char. C, circuit breaker
Surge protection	Varistor		

Output

Capacitive load	unrestricted	Connection system	Screw connection
Continuous output current @ $U_{Nominal}$	5 A @ 55 °C, 3,75 A @ 70 °C	Nominal output current for U_{nom}	5 A at 55 °C
Output power	120 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. 5
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

General data

AC failure bridging time @ I_{nom}	> 80 ms @ 230 V AC / > 20 ms @ 115 V AC	Degree of efficiency	87 %
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.)	> 0.5...230 V AC / > 0.53...115 V AC
Power loss, idling	4 W	Power loss, nominal load	15 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		

Creation date 03 September 2024 08:18:07 CEST

Catalogue status 31.08.2024 / We reserve the right to make technical changes.

2

PRO ECO 120W 24V 5A

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

www.weidmueller.com

Technical data

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 ²	Conductor cross-section, rigid , max.	6 mm ²
Conductor cross-section, rigid , min.	0.5 mm ²	Connection system	Screw connection
Number of terminals	3 for L/N/PE	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.5 Nm	Wire connection cross section, flexible (input), max.	2.5 mm ²

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , max.	2.5 mm ²	Conductor cross-section, flexible , min.	0.5 mm ²
Conductor cross-section, rigid , max.	6 mm ²	Conductor cross-section, rigid , min.	0.5 mm ²
Connection system	Screw connection	Number of terminals	6 (++,-, 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		

PRO ECO 120W 24V 5A

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

www.weidmueller.com

Technical data

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

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

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
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

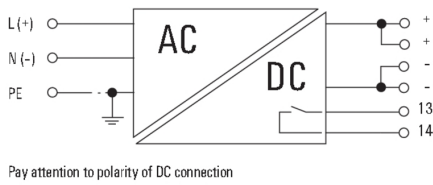
PRO ECO 120W 24V 5A

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

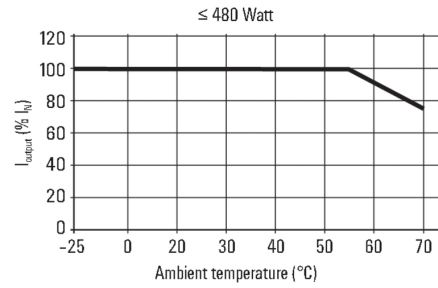
www.weidmueller.com

Drawings

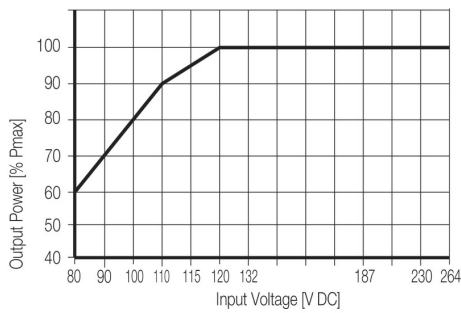
Electric symbol



Derating curve



Derating curve



Derating curve

