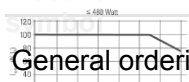
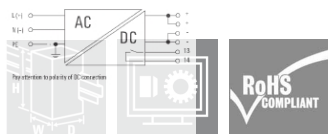


# PRO ECO 120W 24V 5A

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## General ordering data

Type	PRO ECO 120W 24V 5A
Order No.	1469480000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118275476
Qty.	1 pc(s).

## Dimensions and weights

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

## Temperatures

Operating temperature	-25 °C...70 °C
Storage temperature	-40 °C...85 °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 @ 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
Rated input voltage	100...240 V AC (wide-range input)
	4 A / DI, safety fuse
Recommended back-up fuse	6 A, Char. B, circuit breaker 3...5 A, Char. C, circuit breaker

## output

Capacitive load	unrestricted
Connection system	Screw connection
Continuous output current @ $U_{Rated}$	5 A @ 55 °C, 3,75 A @ 70 °C
Output power	120 W
Output voltage	24 V
Output voltage	22...28 V (adjustable via potentiometer)
Overload protection	Yes
Parallel connection option	yes, max. 5
Protection against inverse voltage	Yes
Ramp-up time	≤ 100 ms
Rated (nominal) output current @ $U_{Nom}$	5 A at 55 °C
Rated output voltage	24 V DC ± 1 %
Residual ripple, breaking spikes	< 50 mV <sub>SS</sub> @ 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	LED green ( $U_{output} > 21.6$ V DC), LED yellow ( $I_{output} > 90\%$ $I_{Rated}$ typ. ), LED red (overload, overtemperature, short-circuit, $U_{output} < 20.4$ V DC)
MTBF	> 500,000 h acc. to IEC 1709 (SN29500)
Max. perm. air humidity (operational)	5 %...95 % RH

Mounting position, installation notice	on terminal rail TS 35
Operating temperature	-25 °C...70 °C
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

#### EMC / shock / vibration

Limiting of mains voltage harmonic currents	in accordance with EN 61000-3-2
Noise emission acc. to EN55022	Class A
Vibration resistance IEC 60068-2-6	1 g according to EN50178
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)
Shock resistance IEC 60068-2-27	15 g In all directions

#### Insulation coordination

Class of protection	I, with PE connection
Insulation voltage input / earth	2 kV
Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	3 kV
Pollution severity	2

#### 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 EN60950, PELV acc. to EN60204
Safety transformers for switch-mode power supplies	nach EN61558-2-16

## Connection data (input)

Conductor cross-section, AWG/kcmil , max.	12
Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , min.	0.5 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	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 <sup>2</sup>


## Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12
Conductor cross-section, AWG/kcmil , min.	26
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	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

## Approvals

Institute (cULus)	
Certificate no. (cULus)	E258476

## Product information

Descriptive text ordering data	The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.
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## Downloads

Approval/Certificate/Document of Conformity	<a href="#"><u>DE_PA5200_160202_001.pdf</u></a>
Engineering Data	<a href="#"><u>EPLAN, WSCAD, Zuken E3.S</u></a>
User Documentation	<a href="#"><u>Operating instructions</u></a>

## Classifications

ETIM 5.0	EC002541
ETIM 6.0	EC002540
eClass 6.2	27-04-90-04
eClass 7.1	27-04-90-04
eClass 8.1	27-04-90-04
eClass 9.0	27-04-07-03
eClass 9.1	27-04-07-01

## Approvals

Approvals



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## Related products:



Type: PRO ECO 72W 24V 3A  
Order No.: 1469470000

Version:  
Power supply,  
switch-mode power  
supply unit, 24 V

[PDF data sheet](#)  
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Type: PRO ECO 240W 24V 10A  
Order No.: 1469490000

Version:  
Power supply,  
switch-mode power  
supply unit, 24 V

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