Data sheet

PRO BAS 120W 24V 5A

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

www.weidmueller.com



High performance, compact design and a good price-performance ratio are the main characteristics of the new PROBas power supplies. The product family comprises 12 variants with 5, 12, 24 or 48 V DC output voltage and a wide-range input. All units have comprehensive safety functions and are internationally approved. Due to compatibility with our electronic fuses, DC UPS and diode modules, they are also suitable for setting up power management systems.

General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	2838440000
Type	PRO BAS 120W 24V 5A
GTIN (EAN)	4064675444138
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	100 mm	Depth (inches)	3.937 inch
Height	130 mm	Height (inches)	5.118 inch
Width	40 mm	Width (inches)	1.575 inch
Net weight	490 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity	5...95 % rel. humidity, no condensation		

Input

AC input voltage range	85...264 V AC (derating at 100 V AC)	
Connection system	Screw connection	
Current consumption in relation to the input voltage	Voltage type	AC
	Input voltage	230 V
	Input current	1.13 A
	Voltage type	AC
	Input voltage	115 V
	Input current	2.02 A
	Voltage type	DC
	Input voltage	120 V
	Input current	1.11 A
DC input voltage range	110...370 V DC (derating at <120 V DC)	
Frequency range AC	45...65 Hz	
Input fuse (internal)	Yes	
Inrush current	40 A @ 230 V AC, 25 °C	
Rated input voltage	110...240 V AC / 120...340 V DC	
Recommended back-up fuse	4 A / DI, safety fuse, 6 A, Char. B, circuit breaker, 2...4 A, Char. C circuit breaker	
Wire connection method	Screw connection	

Output

Capacitive load	5.5mF	
Connection system	Screw connection	
Continous output current @ $U_{Nominal}$	5 A @ 55 °C, 3.125 A @ 70°C	
Mains failure bridge-over time	Mains failure bridge-over time, min.	20 ms
	Input voltage type	AC
	Input voltage	120 V
	Output current	5 A
	Output voltage	24 V
	Mains failure bridge-over time, min.	40 ms
	Input voltage type	AC
	Input voltage	230 V
	Output current	5 A
	Output voltage	24 V
Nominal output current for U_{nom}	5 A @ 55 °C	
Output power	120 W	
Output voltage, max.	28 V	
Output voltage, min.	22 V	
Overload protection	Yes	
Parallel connection option	yes, max. 3	
Protection against inverse voltage	Yes	

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Rated output voltage	24 V DC
Residual ripple, breaking spikes	≤ 50 mVpp @ full load
Wire connection method	Screw connection

General data

AC failure bridging time @ I_{nom}	> 80 ms @ 230 V AC / > 20 ms @ 115 V AC	Degree of efficiency	90% @ 230 V AC
Earth leakage current, max.	3.5 mA	Housing version	Plastic, protective insulation
Humidity	5...95 % rel. humidity, no condensation	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.)	0.5 @ 120 V AC, 0.51 @ 230 V AC
Power loss, idling	1.5 W	Power loss, nominal load	14.5 W
Protection against over-heating	Yes	Short-circuit protection	Yes
Start-up	≥ -40 °C	Status indication	Green LED

EMC / shock / vibration

Noise emission in accordance with EN55032	Class B	Shock resistance IEC 60068-2-27	30 g in all directions
Vibration resistance IEC 60068-2-6	0.7 g according to EN 50178		

Insulation coordination

Insulation voltage input / earth	3.5 kV	Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	3.5 kV	Pollution severity	2
Protection class	I, with PE connection		

Electrical safety (applied standards)

For use with electronic equipment	Acc. to EN50178	Safety extra-low voltage	IEC 61010-1, IEC 61010-2-201
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.	6 mm²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	26
Conductor cross-section, flexible , max.	6 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	4 (++ / –)

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Signalling

Contact load (NO contact)	max. 30 V DC / 1 A	Floating contact	Yes
LED green	Operating voltage OK	Status indication	Green LED

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
ETIM 8.0	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

Approvals

ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	UKCA Declaration of Conformity EU Declaration of Conformity
User Documentation	Operating Instructions

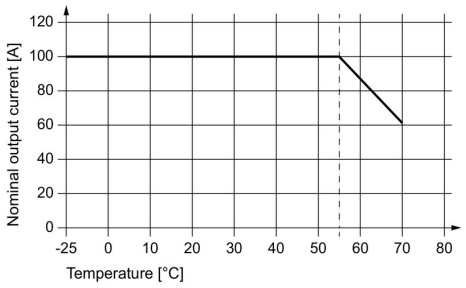
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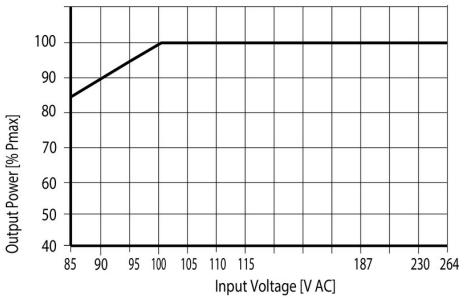
Drawings

Derating curve



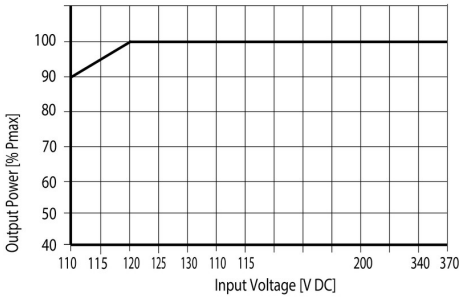
Temperature Derating

Derating curve



AC-Input Derating

Derating curve



DC-Input Derating