Data sheet

PRO BAS 30W 24V 1.3A

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.	2838500000
Type	PRO BAS 30W 24V 1.3A
GTIN (EAN)	4064675444190
Qty.	1 ST

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476

Dimensions and weights

Depth	85 mm	Depth (inches)	3.3464 inch
Height	90 mm	Height (inches)	3.5433 inch
Width	23 mm	Width (inches)	0.9055 inch
Net weight	163 g		

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c, 7a, 7cI
REACH SVHC	Lead 7439-92-1, Lead monoxide 1317-36-8
SCIP	d62541f7-8058-4336-b693-7303c8b40800

Input

Connection system	Screw connection	
AC input voltage range	85...264 V AC (derating at 100 V AC)	
Recommended back-up fuse	2 A / DI, safety fuse 6 A, Char. B, circuit breaker 2...4 A, Char. C circuit breaker	
Frequency range AC	45...65 Hz	
Rated input voltage	110...240 V AC / 120...340 V DC	
Wire connection method	Screw connection	
Input fuse (internal)	Yes	
DC input voltage range	110...370 V DC (derating at <120 V DC)	
Inrush current	40 A @ 230 V AC, 25 °C	
Current consumption in relation to the input voltage	Voltage type	AC
	Input voltage	230 V
	Input current	0.33 A
	Voltage type	AC
	Input voltage	115 V
	Input current	0.55 A
	Voltage type	DC
	Input voltage	120 V
	Input current	0.29 A
Nominal power consumption	33.71 VA	

Output

Output power	30 W

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Connection system	Screw connection	
Rated output voltage	24 V DC	
Residual ripple, breaking spikes	≤ 50 mVpp @ full load	
Parallel connection option	yes, max. 3	
Overload protection	Yes	
Output voltage, max.	28 V	
Output voltage, min.	22 V	
Output current, max.	1.3 A	
Wire connection method	Screw connection	
Output voltage, note	adjustable via potentiometer	
Nominal output current for Unom	1.3 A @ 55 °C	
Capacitive load	5.5mF	
Mains failure bridge-over time	Mains failure bridge-over time, min.	20 ms
	Input voltage type	AC
	Input voltage	120 V
	Output current	1.3 A
	Output voltage	24 V
	Mains failure bridge-over time, min.	80 ms
	Input voltage type	AC
	Input voltage	230 V
	Output current	1.3 A
	Output voltage	24 V
Protection against inverse voltage	Yes	
Continuous output current @ UNominal	1.3 A @ 55 °C, 0.8 A @ 70 °C	

General data

Power factor (approx.)	0.45 @ 120 V AC, 0.47 @ 230 V AC	AC failure bridging time @ Inom	> 80 ms @ 230 V AC / > 20 ms @ 115 V AC
Degree of efficiency	89% @ 230 V AC	Humidity	5...95 % rel. humidity, no condensation
Protection degree	IP20	Building Width	23 mm
Building height	90 mm	Status indication	Green LED
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., Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring subassemblies., 50 mm clearance at top and bottom for free air circulation, mountable side by side without clearance, On TS 35 mounting rail, 50 mm clearance above and below for free air supply.	Housing version	Plastic, protective insulation
Power loss, idling	0.5 W	Short-circuit protection	Yes
Power loss, nominal load	3.3 W	Protection against over-heating	Yes

EMC / shock / vibration

Shock resistance IEC 60068-2-27	30 g in all directions	Noise emission in accordance with EN55032	Class B
Interference immunity test acc. to	EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN	Vibration resistance IEC 60068-2-6	0.7 g according to EN 50178

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Technical data

	61000-4-4 (burst), EN 61000-4-5 (surge), EN 61000-4-6 (conducted), EN61000-4-8 (Fields), EN 61000-4-11 (Dips), IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4

Insulation coordination

Pollution severity	2	Protection class	II
Insulation voltage, input/output	3.5 kV		

Electrical safety (applied standards)

For use with electronic equipment	Acc. to EN50178	Safety extra-low voltage	SELV acc. to IEC 61010-1, PELV acc. to IEC 61010-2-201
Safety transformers for switch-mode power supplies	According to EN 61558-2-16		

Connection data (input)

Connection system	Screw connection	Number of terminals	2 (L,N)
Screwdriver blade	0.6 x 3.5	Conductor cross-section, AWG/kcmil , max.	12 AWG
Conductor cross-section, AWG/kcmil , min.	26 AWG	Wire connection cross section, flexible (input), 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	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm		

Connection data (output)

Connection system	Screw connection	Number of terminals	4 (++ / –)
Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
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
Tightening torque, min.	0.5 Nm	Screwdriver blade	0.6 x 3.5
Tightening torque, max.	0.6 Nm		

Signalling

Status indication	Green LED	Floating contact	No
LED green	Operating voltage OK	Trigger voltage, LED	Uout > 0.9 x Unominal min

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
ETIM 8.0	EC002540	ETIM 9.0	EC002540
ETIM 10.0	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
ECLASS 15.0	27-04-07-01		

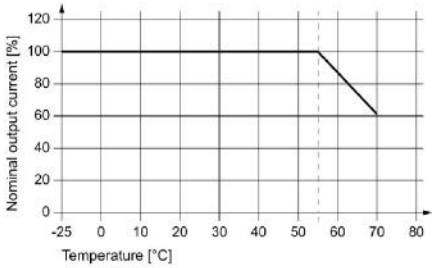
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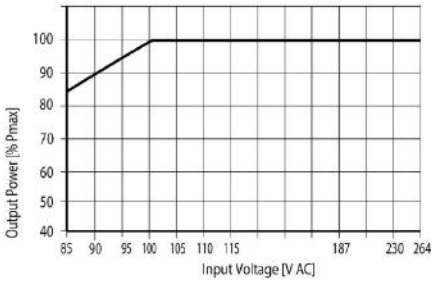
Drawings

Derating curve



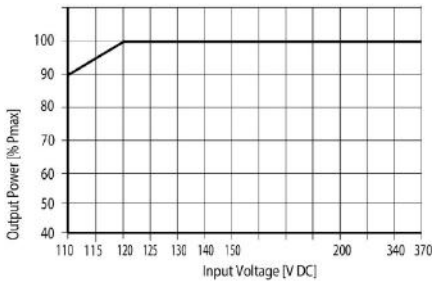
Temperature Derating

Derating curve



AC-Input Derating

Derating curve



DC-Input Derating