

# 30 V Power Supplies, 1 phase

30 V power supplies, 1 phase

3 A, 100 W

Suitable for UL class 2 circuits

LED operation indicator


Suitable for Safety and standard Masters/Gateways with the option  
"1 Gateway, 1 Power Supply for 2 ASi networks, inexpensive power supplies"



(figure similar)

optimized for use in ASi-5 networks



Figure	Power supply <sup>(1)</sup>	Input voltage	Output voltage	Output current	Nominal power	Data decoupling coils <sup>(2)</sup>	Protection rating	Article No.
	30 V power supply, NEC class 2, optimized for ASi-5/ASi-3	100 ... 240 VAC, 1 phase	30 ... 31.2 VDC	3 A	100 W	integrated in the gateway	IP20	<b>BW4223</b>

**(1) ASi power supply:**

Special power supplies with integrated data decoupling unit for use in ASi-3 only networks. Suitable for all Bihl+Wiedemann ASi-3 gateways and safety monitors.

**30 V power supply, NEC class 2, optimized for ASi-5/ASi-3:**

The 30 V/3 A power supply is **UL certified (according to UL 508)**, has power limitation <100 W and is designed for use in **NEC class 2** networks. It is suitable for applications with 1 power supply per ASi network. In the case of power intensive applications, Bihl+Wiedemann recommends the use of a 30 V power supply without 100 W power limitation in combination with a power limitation module (BWU4189) for each ASi network.

The power supply is optimized for use with ASi-5/ASi-3 gateways and safety monitors with integrated decoupling coils (version "1 power supplies, 1 gateway for 2 ASi networks, inexpensive power supplies") and with all 24 V ASi-5/ASi-3 gateways.

**In order to avoid interferences in ASi-5 communication, Bihl+Wiedemann recommends the use of power supplies optimized for ASi-5/ASi-3.**

**(2) Integrated in the power supply:**

Data decoupling is performed in the special ASi power supply with integrated data decoupling unit. ASi gateways and safety monitors missing their own, integrated data decoupling unit require a special ASi power supply for each ASi network.

**Integrated in the gateway:**

Bihl+Wiedemann ASi gateways and safety monitors with integrated data decoupling unit (version "1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies") can be operated with an inexpensive 30 V standard power supply.

<b>Article No.</b>	<b>BW4223</b>
<b>Input</b>	
Nominal voltage	100 ... 240 V <sub>AC</sub>
Voltage range	85 ... 264 V <sub>AC</sub>
Voltage derating	-2.5%/V <sub>AC</sub> < 95 V <sub>AC</sub>
Frequency range	47 ... 63 Hz
Nominal current (nominal load)	1.81 A at 100 V <sub>AC</sub> ; 0.91 A at 230 V <sub>AC</sub>
Inrush current limitation	< 20 A, NTC
Turn-on time	0.10 s at 100 V <sub>AC</sub> ; 0.32 s at 230 V <sub>AC</sub>
Mains buffer time	13 ms at 100 V <sub>AC</sub> ; 100 ms at 230 V <sub>AC</sub>
Recommended power circuit breaker (characteristics)	6 A, 10 A, 16 A (B, C)
Surge voltage protection (varistor)	yes
<b>Output</b>	
Nominal voltage	31 V <sub>DC</sub>
Voltage range	30 ... 31.2 V <sub>DC</sub>
Direct current	3 A
Nominal power	< 100 W
Current limitation (typical)	3.3 A, short-circuit and open-circuit proof
Parallel operation	no
Serial operation	yes (no class II)
Power losses (stand-by/nominal load)	2.3 W/14 W
Max. power losses	15 W at 264 V <sub>AC</sub> /30.5 V/3 A
Efficiency (typical)	88%
Ripple (typical)	< 20 mV <sub>ss</sub>
Resistance to reverse feed	max. 35 V <sub>DC</sub>
Protection against internal surge voltage	max. 40 V <sub>DC</sub>
<b>Display</b>	
LED POWER (green)	U <sub>out</sub> > 28,5 V <sub>DC</sub> , relay contact "DC OK" closed
<b>Connection</b>	
Input/output	push-in terminals
Nominal cross section input	0.2 ... 2.5 mm <sup>2</sup> (AWG 24 ... 12)
Nominal cross section output	0.2 ... 2.5 mm <sup>2</sup> (AWG 24 ... 12)
Nominal cross section DC OK	0.2 ... 2.5 mm <sup>2</sup> (AWG 24 ... 12)

<b>Article No.</b>	<b>BW4223</b>
<b>Environment</b>	
Applied standards	EN 61010-1, UL 61010-1 EN 61010-2-201, UL 61010-2-201 EN 60335-1 IEC 60364-4-41 (DIN VDE 0100-410) EMV acc. EN 61204-3 CE acc. 2014/30/EU
UL reference number	PM-0130-030-0
Operating altitude	max. 2000 m
Ambient temperature	-25 °C ... +70 °C (no condensation permitted)
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Required mounting distance (left/right)	–
Required mounting distance (over/under)	50 mm
Protection class acc. EN 61140	I
Overvoltage category	III
Pollution degree	2
Protection category acc. EN 60529	IP20
Weight	390 g
Dimensions (W / H / D in mm)	52 / 90 / 111

