

30 V Power Supplies, 3 phases

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8 A or 16 A

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"

Optimized for use in ASi-5 networks



(figure similar)



Figure	Power supply ⁽¹⁾	Operating voltage	Output voltage	Output current	Nominal power	Data decoupling ⁽²⁾	Protection rating	Article No.
	30 V power supply, optimized for ASi-5/ASi-3	400 ... 500 VAC, 3 phases	30 ... 31.2 VDC	8 A	240 W	integrated in the gateway	IP20	BW4220
	30 V power supply, optimized for ASi-5/ASi-3	400 ... 500 VAC, 3 phases	30 ... 31.2 VDC	16 A	480 W	integrated in the gateway	IP20	BW4222

(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:

Inexpensive standard power supplies, suitable as an alternative for use with ASi gateways and safety monitors with integrated data decoupling unit (version "1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies") and with all 24 Volt ASi gateways.

30 V power supply, optimized for ASi-5/ASi-3:

Inexpensive standard power supplies, optimized for use with ASi-5/ASi-3 gateways and safety monitors with integrated data decoupling unit (version "1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies") and with all 24 Volt 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 an 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.

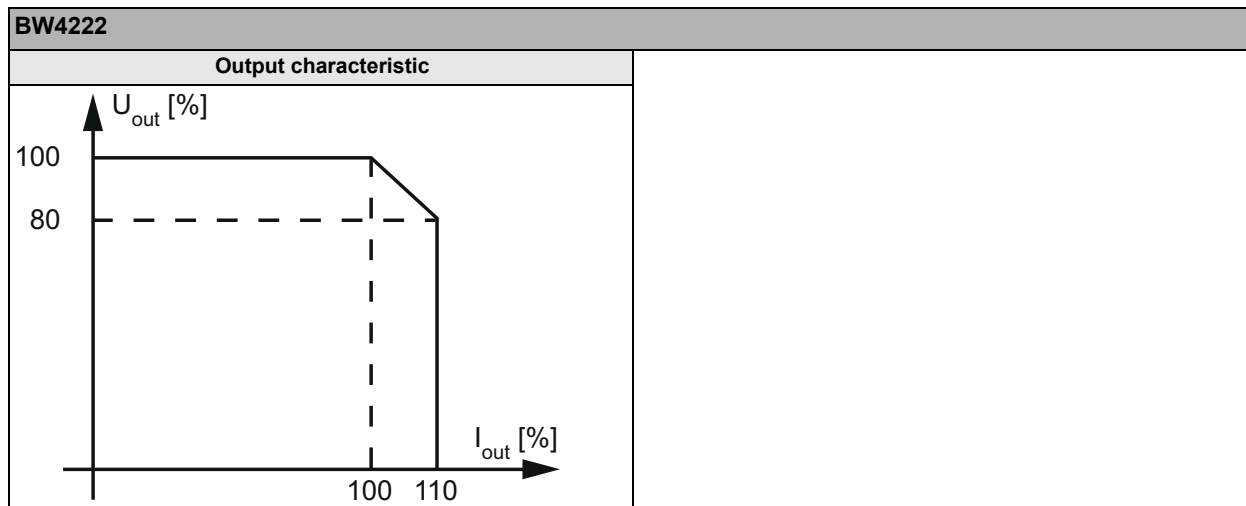
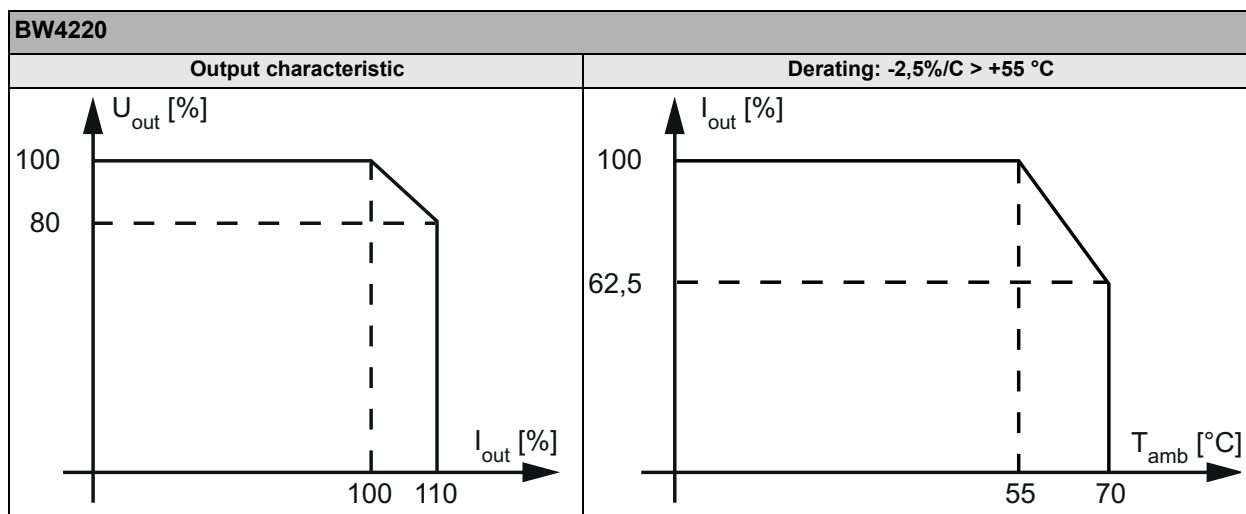
Integrated in the gateway:

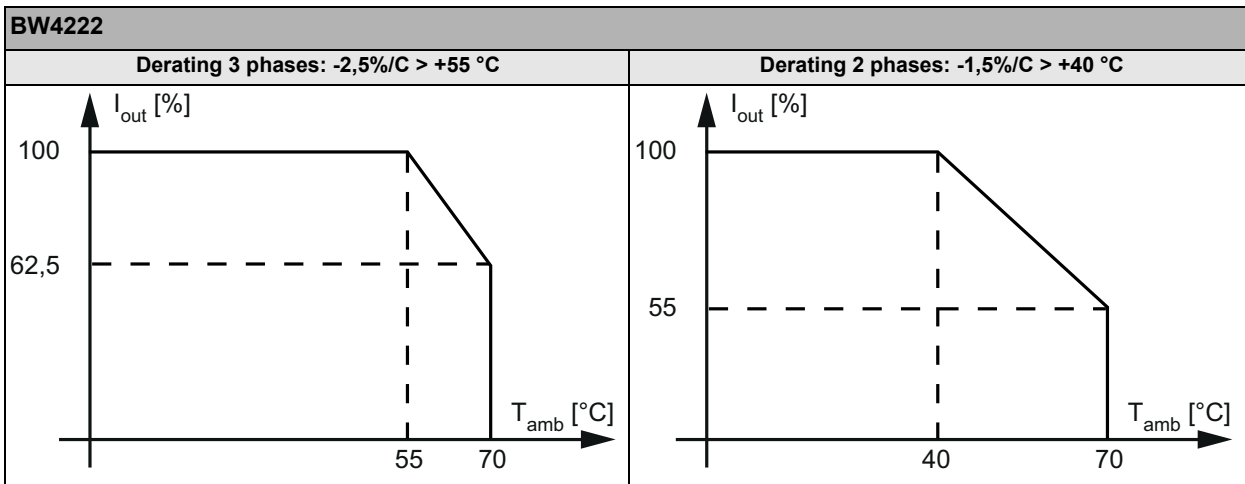
Bihl+Wiedemann ASi gateways and safety monitors with integrated data decoupling unit (version "1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies") can be operated with an inexpensive 30 V standard power supply.

30 V Power Supplies, 3 phases

Article No.	BW4220	BW4222
Input		
nominal voltage	400 ... 500 V _{AC}	
Voltage range	3 phases: 320 ... 575 V _{AC} 2 phases: 360 ... 575 V _{AC} direct current: 450 ... 800 V _{DC}	
Voltage derating	-2.5%/C > +55 °C	3 phases: -2.5%/C > +55 °C 2 phases: -1.5%/C > +40 °C
Frequency range	47 ... 63 Hz	
Nominal current (nominal load)	0.73 A at 400 V _{AC} ; 0.66 A at 500 V _{AC}	1.21 A at 400 V _{AC} ; 1.03 A at 500 V _{AC}
Inrush current limitation	< 20 A, NTC, active	< 30 A, NTC, active
Turn-on time	0.75 s at 400 V _{AC}	0.50 s at 400 V _{AC}
Mains buffer time	21 ms at 400 V _{AC} ; 50 ms at 500 V _{AC}	15 ms at 400 V _{AC} ; 25 ms at 500 V _{AC}
Recommended power circuit breaker (characteristics)	6 A, 10 A, 16 A (B, C)	
Surge voltage protection (varistor)	yes	
Output		
Nominal voltage	31 V _{DC}	
Voltage range	30 ... 31.2 V _{DC}	
Direct current	8 A	16 A
Nominal power	240 W	480 W
Current limitation (typical)	8.8 A, short-circuit and open-circuit proof	17.6 A, short-circuit and open-circuit proof
Power losses (stand-by/nominal load)	2.1 W/27.9 W at 400 V _{AC}	5.8 W/42.8 W at 400 V _{AC}
Max. power losses	28.3 W at 500 V _{AC} /30.5 V/8 A	47.6 W at 500 V _{AC} /30.5 V/16 A
Efficiency (typical)	90%	92%
Ripple (typical)	< 50 mV _{ss}	< 15 mV _{ss}
Resistance to reverse feed	max. 35 V _{DC}	
Protection against internal surge voltage	max. 41 V _{DC}	max. 40 V _{DC}
Display		
LED POWER (green)	U _{out} > 28,5 V _{DC} , relay contact "DC OK" closed	
Connection		
Input/output	push-in terminals	
Nominal cross section input	0.2 ... 2.5 mm ² (AWG 24 ... 12)	
Nominal cross section output	0.2 ... 2.5 mm ² (AWG 24 ... 12)	0.75 ... 8 mm ² (AWG 20 ... 8)
Nominal cross section DC OK	0.2 ... 2.5 mm ² (AWG 24 ... 12)	

Article No.	BW4220	BW4222
Environment		
Applied standards	EN 61010-1, UL 61010-1 EN 61010-2-201, UL 61010-2-201 IEC 60364-4-41 (DIN VDE 0100-410) EMV acc. EN 61204-3 CE acc. 2014/30/EU	
UL reference number	PC-0330-080-0	PC-0330-160-0
Operating altitude	max. 2000 m	
Ambient temperature	-25 °C ... +70 °C (no condensation permitted)	
Storage temperature	-25 °C ... +85 °C	
Housing	aluminum, cover 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	1000 g	1500 g
Dimensions (W / H / D in mm)	55 / 127 / 160	80 / 127 / 160





Dimensional drawings

