

## 30 V Power Supplies, 3 phases



30 V power supplies, 3 phases

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 AS-i networks, inexpensive power supplies"

Optimized for use in ASi-5 networks



(figure similar)

| Figure                                                                              | Power supply <sup>(1)</sup>                  | Operating voltage         | Output voltage  | Output current | Nominal power | Data decoupling <sup>(2)</sup> | 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              | <b>BW4220</b> |
|  | 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              | <b>BW4222</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:**

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.

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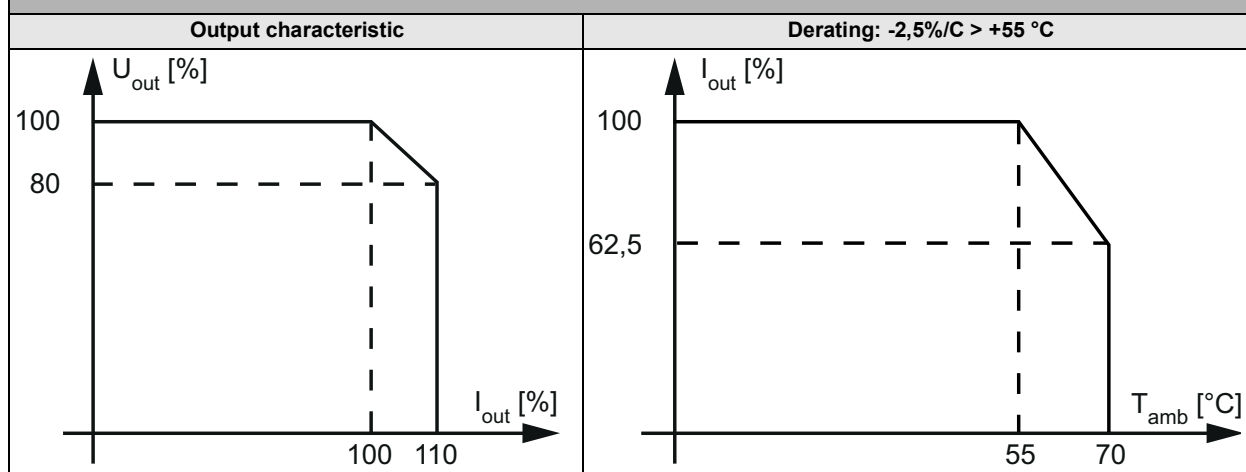
| Article No.                                         | BW4220                                                                                                                        | BW4222                                                           |
|-----------------------------------------------------|----------------------------------------------------------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

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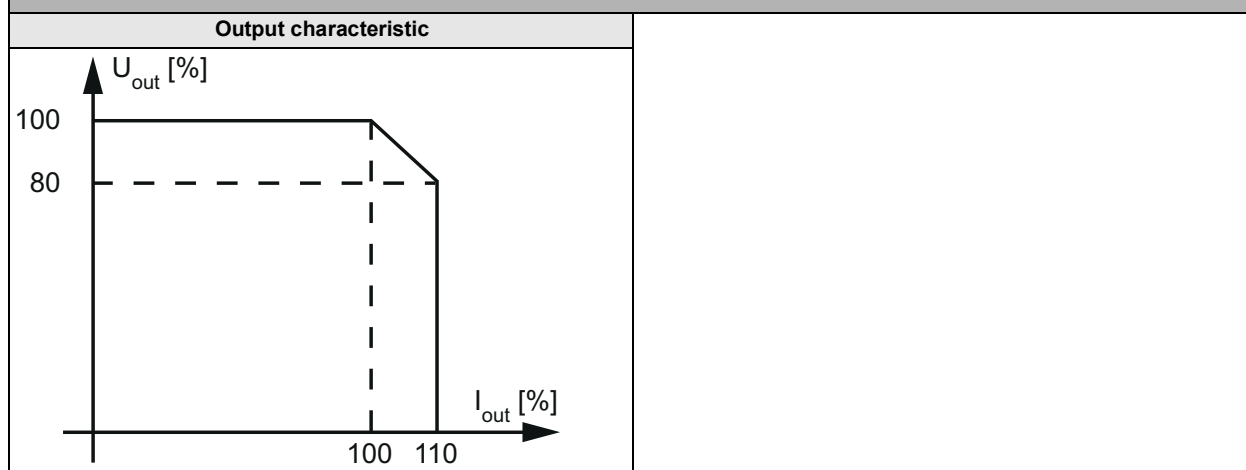


| Article No.                             | BW4220                                                                                                         | BW4222         |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|
| Environment                             |                                                                                                                |                |
| Applied standards                       | EN 61010-0<br>EN 61010-2-201<br>IEC 60364-4-41 (DIN VDE 0100-410)<br>EMV acc. EN 61204-3<br>CE acc. 2014/30/EU |                |
| 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 |

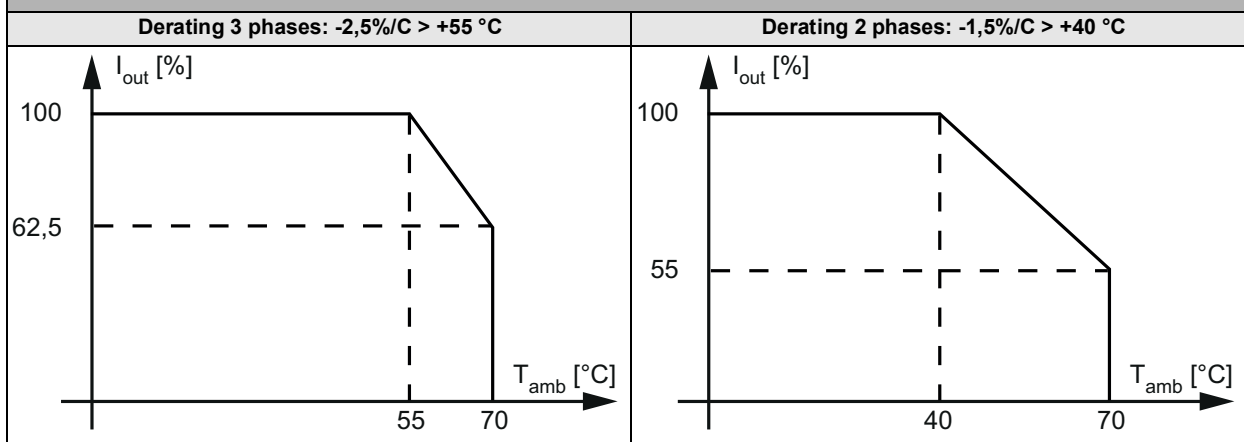
## BW4220



## BW4222



# 30 V Power Supplies, 3 phases


**BW4222**




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