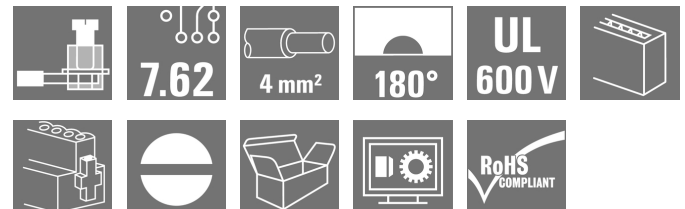


## OMNIMATE Power - series BL/SL 7.62HP BLZ 7.62HP/03/180F SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



Similar to illustration

#### Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range up to 12kVA.

- 29 A at 630 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm² / AWG 28 - 12

Assistance with device approval:

- meets the requirements for 600 V in accordance with UL508/UL840
- meets the more stringent touch-safety requirements of IEC6100-5-1

The slimming cure for multiple-stage device series: reduced size and cut costs in the high-volume lower performance range without compromising device approval!

#### General ordering data

|              |                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------|
| Type         | BLZ 7.62HP/03/180F SN BK BX                                                                                               |
| Order No.    | <a href="#">1095690000</a>                                                                                                |
| Version      | PCB plug-in connector, female plug, 7.62 mm, No. of poles: 3, Clamping yoke connection, Clamping range, max. : 4 mm², Box |
| GTIN (EAN)   | 4032248868827                                                                                                             |
| Qty.         | 45 pc(s).                                                                                                                 |
| Product data | IEC: 630 V / 29 A / 0.2 - 4 mm²<br>UL: 600 V / 20 A / AWG 28 - AWG 12                                                     |
| Packaging    | Box                                                                                                                       |

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**Technical data**
**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Height     | 18.3 mm | Height (inches) | 0.72 inch  |
| Depth      | 23.3 mm | Depth (inches)  | 0.917 inch |
| Net weight | 7.022 g |                 |            |

**system parameters**

|                                            |                                      |                                              |                        |
|--------------------------------------------|--------------------------------------|----------------------------------------------|------------------------|
| Product family                             | OMNIMATE Power - series BL/SL 7.62HP | Type of connection                           | Field connection       |
| Wire connection method                     | Clamping yoke connection             | Pitch in mm (P)                              | 7.62 mm                |
| Pitch in inches (P)                        | 0.3 inch                             | No. of poles                                 | 3                      |
| L1 in mm                                   | 15.24 mm                             | L1 in inches                                 | 0.6 inch               |
| Number of rows                             | 1                                    | Pin series quantity                          | 1                      |
| Rated cross-section                        | 2.5 mm <sup>2</sup>                  | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20                                | Volume resistance                            | 5.00 mΩ                |
| Can be coded                               | Yes                                  | Stripping length                             | 7 mm                   |
| Tightening torque for screw flange, min.   | 0.15 Nm                              | Tightening torque for screw flange, max.     | 0.25 Nm                |
| Tightening torque, min.                    | 0.4 Nm                               | Tightening torque, max.                      | 0.5 Nm                 |
| Clamping screw                             | M 2.5                                | Screwdriver blade                            | 0.6 x 3.5              |
| Screwdriver blade standard                 | DIN 5264                             | Plugging force/pole, max.                    | 9.5 N                  |
| Pulling force/pole, max.                   | 8.5 N                                |                                              |                        |

**Material data**

|                                       |                          |                                       |                     |
|---------------------------------------|--------------------------|---------------------------------------|---------------------|
| Insulating material                   | PBT                      | Colour                                | black               |
| Colour chart (similar)                | RAL 9011                 | Insulating material group             | IIIa                |
| CTI                                   | ≥ 200                    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0                      | GWFI                                  | 960 °C              |
| Contact material                      | Copper alloy             | Contact surface                       | tinned              |
| Layer structure of plug contact       | 4-8 μm Sn hot-dip tinned | Storage temperature, min.             | -25 °C              |
| Storage temperature, max.             | 55 °C                    | Max. relative humidity during storage | 80 %                |
| Operating temperature, min.           | -50 °C                   | Operating temperature, max.           | 100 °C              |
| Temperature range, installation, min. | -25 °C                   | Temperature range, installation, max. | 100 °C              |

**Conductors suitable for connection**

|                                                                     |                      |
|---------------------------------------------------------------------|----------------------|
| Clamping range, min.                                                | 0.08 mm <sup>2</sup> |
| Clamping range, max.                                                | 4 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.                             | AWG 28               |
| Wire connection cross section AWG, max.                             | AWG 12               |
| Solid, min. H05(07) V-U                                             | 0.2 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U                                             | 4 mm <sup>2</sup>    |
| Flexible, min. H05(07) V-K                                          | 0.2 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K                                          | 4 mm <sup>2</sup>    |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min. |                      |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max. |                      |
| w. wire end ferrule, DIN 46228 pt 1, min 0.2 mm <sup>2</sup>        |                      |
| w. wire end ferrule, DIN 46228 pt 1, 2.5 mm <sup>2</sup> max.       |                      |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.4 mm      |

Creation date May 13, 2019 5:42:51 PM CEST

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**Technical data**

|                     |                                        |                  |                      |       |
|---------------------|----------------------------------------|------------------|----------------------|-------|
| Clampable conductor | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 0.25 mm <sup>2</sup> |       |
|                     | AEH                                    | Stripping length | nominal              | 10 mm |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 0.34 mm <sup>2</sup> |       |
|                     | AEH                                    | Stripping length | nominal              | 10 mm |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 0.5 mm <sup>2</sup>  |       |
|                     | AEH                                    | Stripping length | nominal              | 6 mm  |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 0.75 mm <sup>2</sup> |       |
|                     | AEH                                    | Stripping length | nominal              | 6 mm  |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 1 mm <sup>2</sup>    |       |
|                     | AEH                                    | Stripping length | nominal              | 6 mm  |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 1.5 mm <sup>2</sup>  |       |
|                     | AEH                                    | Stripping length | nominal              | 7 mm  |
|                     | Cross-section for conductor connection | Type             | fine-wired           |       |
|                     |                                        | nominal          | 2.5 mm <sup>2</sup>  |       |
|                     | AEH                                    | Stripping length | nominal              | 7 mm  |
| Max. clamping range | 4 mm <sup>2</sup>                      |                  |                      |       |

**Rated data acc. to IEC**

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Tu=20°C)                            | 29 A              |
| Rated current, max. no. of poles (Tu=20°C)                                | 26.5 A                 | Rated current, min. no. of poles (Tu=40°C)                            | 25 A              |
| Rated current, max. no. of poles (Tu=40°C)                                | 23 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 630 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 500 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 400 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 6 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   | Short-time withstand current resistance                               | 3 x 1s with 180 A |
| Clearance, min.                                                           | 9.8 mm                 | Creepage distance, min.                                               | 11.3 mm           |

**Rated data acc. to CSA**

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 600 V  | Rated voltage (Use group C / CSA) | 600 V  |
| Rated voltage (Use group D / CSA) | 600 V  | Rated current (Use group B / CSA) | 18.5 A |
| Rated current (Use group C / CSA) | 18.5 A | Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 28 | Wire cross-section, AWG, max.     | AWG 12 |

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**Technical data**
**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 600 V

Rated voltage (Use group D / UL 1059) 600 V

Rated current (Use group C / UL 1059) 20 A

Wire cross-section, AWG, min. AWG 28

Reference to approval values  
 Specifications are  
 maximum values, details -  
 see approval certificate.

Rated voltage (Use group C / UL 1059) 600 V

Rated current (Use group B / UL 1059) 20 A

Rated current (Use group D / UL 1059) 5 A

Wire cross-section, AWG, max. AWG 12

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 30 mm  |
| VPE width | 135 mm | VPE height | 350 mm |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 4.0   | EC002637    | ETIM 5.0   | EC002637    |
| ETIM 6.0   | EC002638    | eClass 6.2 | 27-26-07-04 |
| eClass 7.1 | 27-44-04-02 | eClass 8.1 | 27-44-04-02 |
| eClass 9.0 | 27-44-03-09 | eClass 9.1 | 27-44-03-09 |

**Notes**

Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- P on drawing = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

IPC conformity

Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

**Approvals**

Approvals



ROHS

Conform

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## Technical data

### Downloads

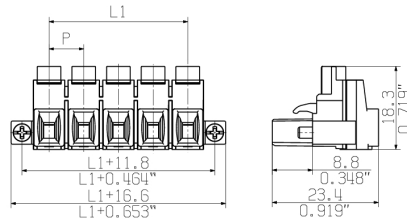
|                                             |                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                            |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">WSCAD</a>                                                                                                                                                                                                                                                                                                                                                      |
| Engineering Data                            | <a href="#">STEP</a>                                                                                                                                                                                                                                                                                                                                                       |
| Motion controllers white paper              | <a href="#">Download Whitepaper</a>                                                                                                                                                                                                                                                                                                                                        |
| User Documentation                          | <a href="#">QR-Code product handling video</a>                                                                                                                                                                                                                                                                                                                             |
| White Paper UL 600 V                        | <a href="#">Download Whitepaper</a>                                                                                                                                                                                                                                                                                                                                        |

## OMNIMATE Power - series BL/SL 7.62HP BLZ 7.62HP/03/180F SN BK BX

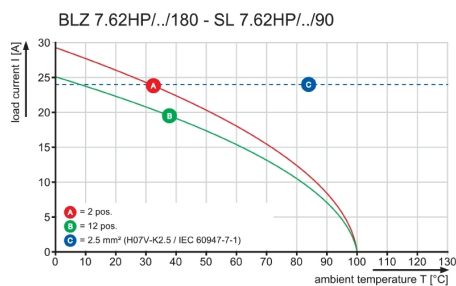
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## Drawings

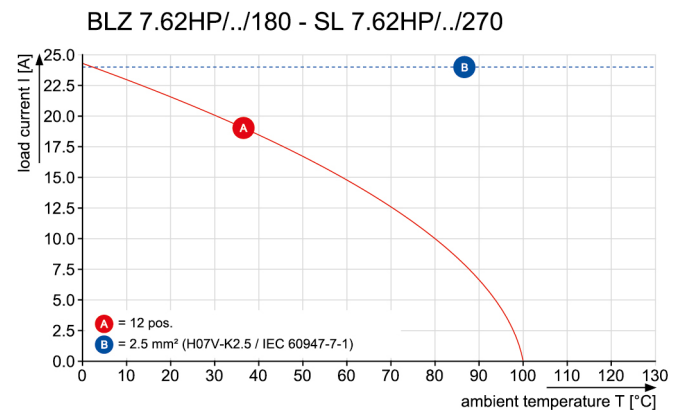
### Dimensional drawing



### Graph



### Graph

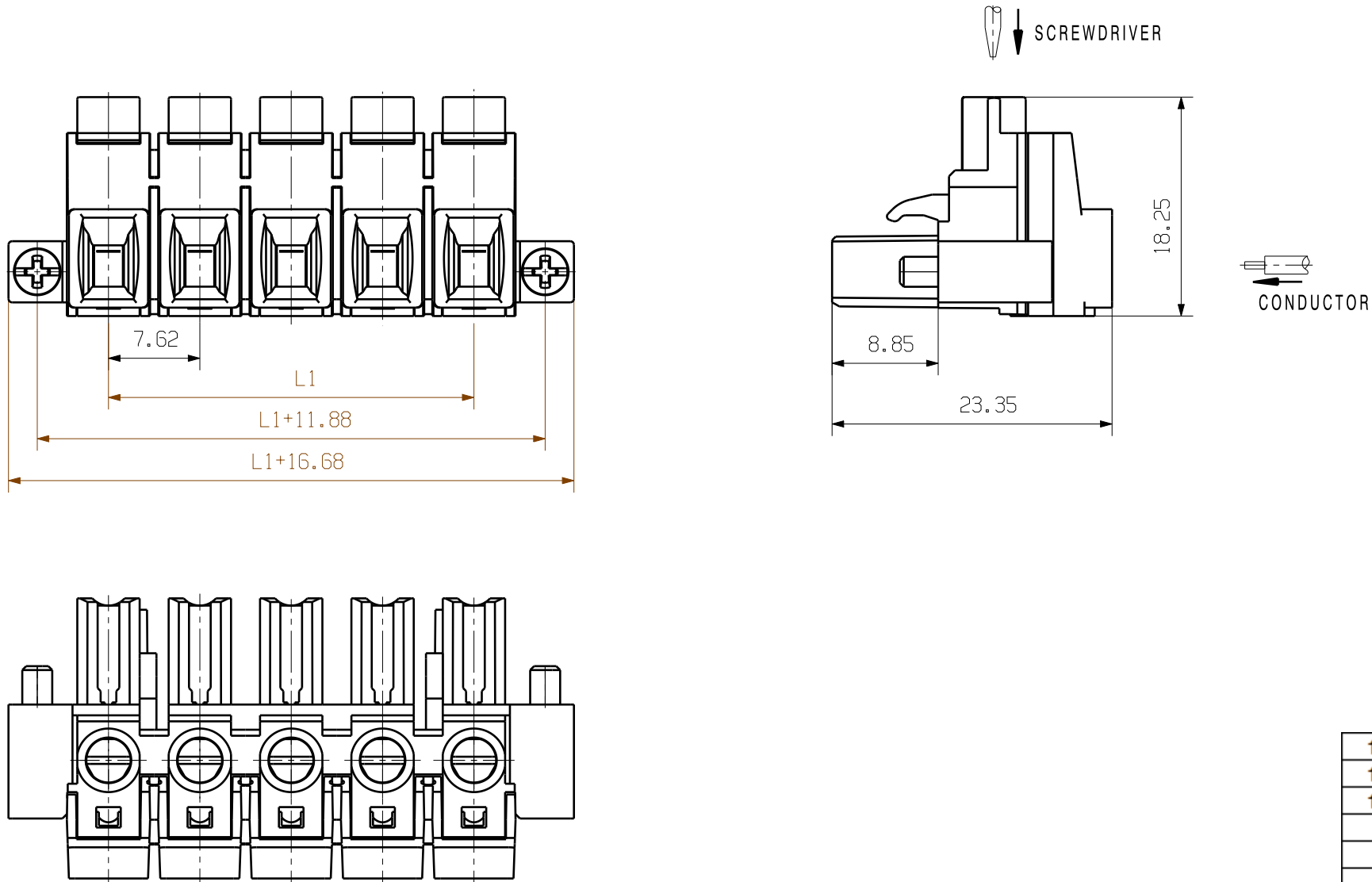


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Dimensions without tolerances are no check dimensions

The English version is binding



|    |         |           |
|----|---------|-----------|
| 12 | 83,82   | 3,300     |
| 11 | 76,20   | 3,000     |
| 10 | 68,58   | 2,700     |
| 9  | 60,96   | 2,400     |
| 8  | 53,34   | 2,100     |
| 7  | 45,72   | 1,800     |
| 6  | 38,10   | 1,500     |
| 5  | 30,48   | 1,200     |
| 4  | 22,86   | 0,900     |
| 3  | 15,24   | 0,600     |
| 2  | 7,62    | 0,300     |
| n  | L1 [mm] | L1 [Inch] |

P=Raster/pitch  
shown: BLZ 7.62HP/05/180F

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmueller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

|                                                                                       |  |                              |            |          |                                                                                                         |  |
|---------------------------------------------------------------------------------------|--|------------------------------|------------|----------|---------------------------------------------------------------------------------------------------------|--|
| General tolerance:<br>DIN ISO 2768-mK                                                 |  | 93941/5<br>24.04.17 HELIS_MA |            | 01       | Cat.no.: .                                                                                              |  |
|  |  | Modification                 |            |          | <b>Weidmüller</b>  |  |
|  |  | Date                         | Name       |          | <b>BLZ 7.62HP/./180LH/LR</b><br>BUCHSENLEISTE<br>SOCKET BLOCK                                           |  |
| Scale: 2:1                                                                            |  | Drawn                        | 24.04.2017 | HELIS_MA |                                                                                                         |  |
| Supersedes: .                                                                         |  | Responsible                  |            | KRUG_M   |                                                                                                         |  |
|                                                                                       |  | Checked                      | 11.05.2017 | HELIS_MA | Product file: BLZ/SL7.62HP                                                                              |  |
|                                                                                       |  | Approved                     |            | LANG_T   | 7375                                                                                                    |  |