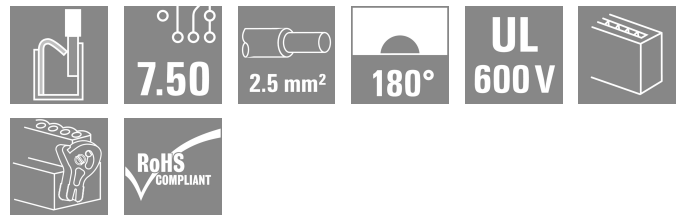
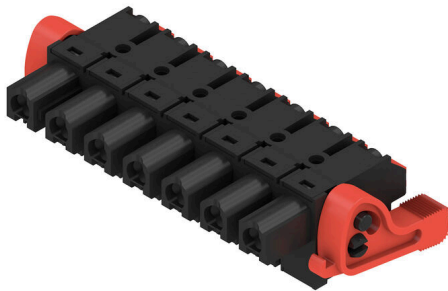


## BLF 7.50HP/07/180LR SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

### Product image



180° female header with PUSH-IN connection technology for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1

Variants: without flange, external flange, release latch.

### General ordering data

|              |   |
|--------------|---|
| Version      | PCB plug-in connector, female plug, Pitch in mm (P): 7.50 mm, Number of poles: 7, Box |
| Order No.    | <a href="#">1420760000</a>  |
| Type         | BLF 7.50HP/07/180LR SN BK BX  |
| GTIN (EAN)   | 4050118224443   |
| Qty.         | 30 items  |
| Product data | IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup><br>UL: 600 V / 20 A / AWG 20 - AWG 12  |
| Packaging    | Box   |

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## Technical data

## Approvals

Approvals



ROHS Conform  
UL File Number Search [UL Website](#)  
Certificate No. (cURus) E60693

## Dimensions and weights

|            |          |                 |             |
|------------|----------|-----------------|-------------|
| Depth      | 28.08 mm | Depth (inches)  | 1.1055 inch |
| Height     | 15.05 mm | Height (inches) | 0.5925 inch |
| Width      | 61.43 mm | Width (inches)  | 2.4185 inch |
| Net weight | 11.67 g  |                 |             |

## Environmental Product Compliance

|                          |                             |                  |  |
|--------------------------|-----------------------------|------------------|--|
| RoHS Compliance Status   | Compliant without exemption |                  |  |
| REACH SVHC               | No SVHC above 0.1 wt%       |                  |  |
| Product Carbon Footprint | Cradle to gate              | 1,103 kg CO2 eq. |  |

## System Parameters

|  |   |  |                     |
|--|---|--|---------------------|
| Product family                               | OMNIMATE Power - series BL/SL 7.62HP            | Type of connection                         | Field connection    |
| Wire connection method                       | PUSH IN with actuator, Tension-clamp connection | Pitch in mm (P)                            | 7.50 mm             |
| Pitch in inches (P)                          | 0.295 "   | Conductor outlet direction                 | 180°                |
| Number of poles                              | 7   | L1 in mm                                   | 45.00 mm            |
| L1 in inches                                 | 1.772 "   | 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               |
| Can be coded                                 | Yes   | Stripping length                           | 10 mm               |
| Screwdriver blade                            | 0.6 x 3.5                                       | Screwdriver blade standard                 | DIN 5264            |
| Plugging cycles                              | 25  | Pulling force/pole, max.                   | 2 N                 |

## Material data

|                                       |          |                                       |          |
|---------------------------------------|----------|---------------------------------------|----------|
| Insulating material                   | PBT      | Colour                                | black    |
| Colour of operational elements        | orange   | Colour chart (similar)                | RAL 9011 |
| Insulating material group             | IIIa     | Comparative Tracking Index (CTI)      | ≥ 200    |
| Moisture Level (MSL)                  |          | UL 94 flammability rating             | V-0      |
| Contact material                      | Cu-alloy | Contact surface                       | tinned   |
| Storage temperature, min.             | -40 °C   | Storage temperature, max.             | 70 °C    |
| 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.                    | 2.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min. | AWG 20               | Wire connection cross section AWG, max. | AWG 14              |
| Solid, min. H05(07) V-U                 | 0.5 mm <sup>2</sup>  | Solid, max. H05(07) V-U                 | 1.5 mm <sup>2</sup> |
| Flexible, min. H05(07) V-K              | 0.5 mm <sup>2</sup>  | Flexible, max. H05(07) V-K              | 2.5 mm <sup>2</sup> |

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### Technical data

|   |                 |   |  |
|---|-----------------|---|--|
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 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, 0.5 mm <sup>2</sup> min.       |                 | 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 2.0 mm | Reference text  | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage. |

#### Rated data acc. to IEC

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 24 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 24 A                   | Rated current, min. number of poles (Tu=40°C)                         | 23.8 A            |
| Rated current, max. number of poles (Tu=40°C)                             | 21 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 1000 V            |
| Rated voltage for surge voltage class / pollution degree III/2            | 1000 V                 | Rated voltage for surge voltage class / pollution degree III/3        | 630 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 6 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 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 |

#### 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) | 21 A   |
| Rated current (Use group C / CSA) | 21 A   | Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 20 | Wire cross-section, AWG, max.     | AWG 12 |

#### Rated data acc. to UL 1059

|                                       |  |                                       |        |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus)                     | CURUS  | Certificate No. (cURus)               | E60693 |
| Rated voltage (Use group B / UL 1059) | 600 V  | Rated voltage (Use group C / UL 1059) | 600 V  |
| Rated voltage (Use group D / UL 1059) | 600 V  | Rated current (Use group B / UL 1059) | 20 A   |
| Rated current (Use group C / UL 1059) | 20 A   | Rated current (Use group D / UL 1059) | 5 A    |
| Wire cross-section, AWG, min.         | AWG 20   | Wire cross-section, AWG, max.         | AWG 12 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |                                       |        |

#### Packing

|           |           |            |           |
|-----------|-----------|------------|-----------|
| Packaging | Box       | VPE length | 338.00 mm |
| VPE width | 130.00 mm | VPE height | 33.00 mm  |

#### Important note

|                |   |
|----------------|---|
| 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.  |
| Notes          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> </ul> |

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## Technical data

- 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ETIM 10.0   | EC002638    | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 |             |             |

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**Drawings**

**Product image**

