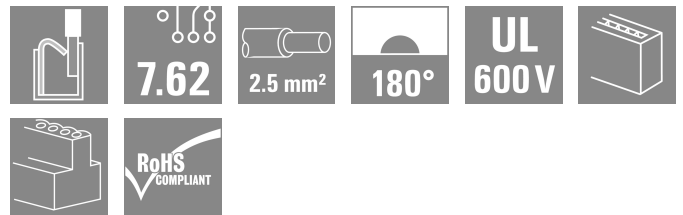
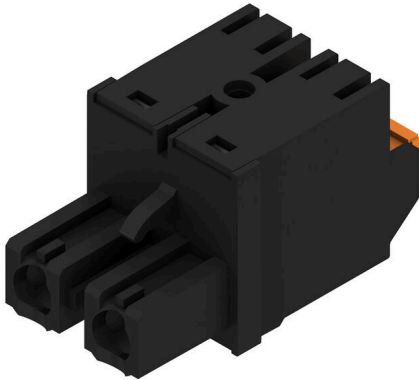


BLF 7.62HP/02/180 SN BK BX SO

Weidmüller Interface GmbH & Co. KG
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Product image



Similar to illustration

180° female header with PUSH-IN connection technology for field wiring in 2.5 mm² 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, 7.62 mm, Number of poles: 2, 180°, PUSH IN without actuator, Clamping range, max. : 2.5 mm ² , Box |
| Order No. | 1350900000 |
| Type | BLF 7.62HP/02/180 SN BK BX SO |
| GTIN (EAN) | 4050118155242 |
| Qty. | 120 items |
| Product data | IEC: 1000 V / 29 A / 0.5 - 2.5 mm ² 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 | 28.1 mm | Depth (inches) | 1.1063 inch |
| Height | 15.1 mm | Height (inches) | 0.5945 inch |
| Width | 14.52 mm | Width (inches) | 0.5717 inch |
| Net weight | 4.44 g | | |

Environmental Product Compliance

| | | | |
|--------------------------|-----------------------------|-----------------|--|
| RoHS Compliance Status | Compliant without exemption | | |
| REACH SVHC | No SVHC above 0.1 wt% | | |
| Product Carbon Footprint | Cradle to gate | 0,74 kg CO2 eq. | |

System Parameters

| | | | |
|--|--------------------------------------|--|---------------------|
| Product family | OMNIMATE Power - series BL/SL 7.62HP | Type of connection | Field connection |
| Wire connection method | PUSH IN without actuator | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 2 | L1 in mm | 7.62 mm |
| L1 in inches | 0.300 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 2.5 mm ² |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Protection degree | IP20 | Can be coded | Yes |
| Stripping length | 10 mm | Screwdriver blade | 0.6 x 3.5 |
| Plugging cycles | 25 | Plugging force/pole, max. | 8.5 N |
| Pulling force/pole, max. | 6 N | | |

Material data

| | | | |
|---------------------------------------|----------------------------|---------------------------------------|---------|
| Insulating material | PBT | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | IIIa |
| Comparative Tracking Index (CTI) | ≥ 200 | Insulation resistance | ≥ 108 Ω |
| Moisture Level (MSL) | | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | tinned |
| Layer structure of plug contact | 4...8 µm Sn hot-dip 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 ² |
| Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 20 |
| Wire connection cross section AWG, max. | AWG 12 |

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| | |
|---|---------------------|
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 1.5 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 2.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.8 mm x 2.0 mm |

| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
|--|--|------------------------------|----------------------------|
| | | nominal | 0.5 mm ² |
| wire end ferrule | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 0.75 mm ² | |
| wire end ferrule | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1 mm ² | |
| wire end ferrule | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1.5 mm ² | |
| wire end ferrule | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 2.5 mm ² | |
| wire end ferrule | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |

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) | 29 A |
| Rated current, max. number of poles (Tu=20°C) | 24 A | Rated current, min. number of poles (Tu=40°C) | 23.8 A |

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| | | | |
|---|---------|---|-------------------|
| Rated current, max. number of poles (Tu=40°C) | 23 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 |
| Creepage distance, min. | 11.4 mm | Clearance, min. | 11.4 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) | 20 A |
| Rated current (Use group C / CSA) | 20 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 | 351.00 mm |
| VPE width | 138.00 mm | VPE height | 38.00 mm |

Type tests

| | | | | |
|---|----------------|--|------------------------------|--|
| Test: Durability of markings | Standard | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 | | |
| | Test | mark of origin, type identification, pitch, type of material, date clock | | |
| | Evaluation | available | | |
| | Test | durability | | |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed | | |
| | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08 | | |
| | Test | 180° turned with coding elements | | |
| | Evaluation | passed | | |
| Test: Clampable cross section | Test | 180° turned without coding elements | | |
| | Evaluation | passed | | |
| | Standard | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 04.08 | | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² | |
| Type of conductor and conductor cross-section | | solid 2.5 mm ² | | |

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| | | | | |
|---|---|---|------------------------------|--|
| | | Type of conductor and conductor cross-section | stranded 2.5 mm ² | |
| | | Type of conductor and conductor cross-section | AWG 20/1 | |
| | | Type of conductor and conductor cross-section | AWG 20/19 | |
| | | Type of conductor and conductor cross-section | AWG 14/1 | |
| | | Type of conductor and conductor cross-section | AWG 12/19 | |
| | Evaluation | passed | | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | | |
| | Requirement | 0.3 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | | Type of conductor and conductor cross-section | H05V-K0.5 | |
| | | Type of conductor and conductor cross-section | AWG 20/1 | |
| | | Type of conductor and conductor cross-section | AWG 20/19 | |
| | Evaluation | passed | | |
| | Requirement | 0.7 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 | |
| | | Type of conductor and conductor cross-section | H07V-K2.5 | |
| Type of conductor and conductor cross-section | | AWG 14/1 | | |
| Evaluation | passed | | | |
| Requirement | 0.9 kg | | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 12/19 | | |
| Pull-out test | Evaluation | passed | | |
| | Standard | DIN EN 60999-1 section 9.5 / 12.00 | | |
| | Requirement | ≥20 N | | |
| | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | | Type of conductor and conductor cross-section | H05V-K0.5 | |
| | | Type of conductor and conductor cross-section | AWG 20/1 | |
| | | Type of conductor and conductor cross-section | AWG 20/19 | |
| | Evaluation | passed | | |
| | Requirement | ≥50 N | | |

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| | | |
|----------------|---|-----------|
| Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 |
| | Type of conductor and conductor cross-section | H07V-K2.5 |
| | Type of conductor and conductor cross-section | AWG 14/1 |
| Evaluation | passed | |
| Requirement | ≥60 N | |
| Conductor type | Type of conductor and conductor cross-section | AWG 12/19 |
| | Evaluation | passed |

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**
- Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
 - 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 | | |

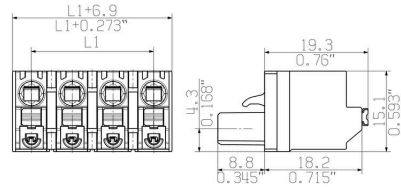
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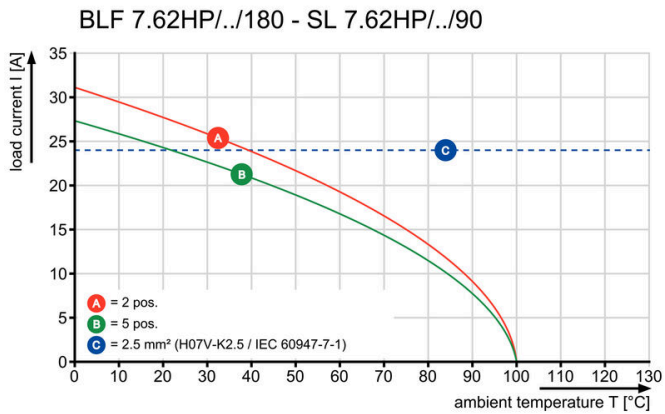
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Drawings

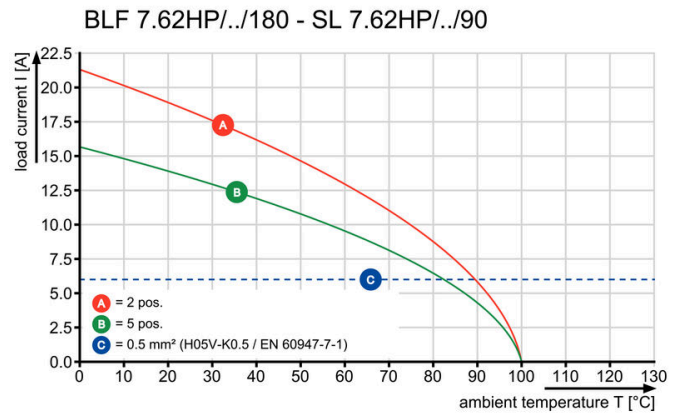
Dimensional drawing



Graph



Graph



Product benefits



Vibration-proof connection