

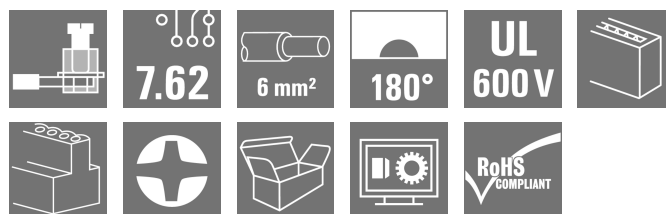
BVZ 7.62HP/05/180SH180C SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

High-performance female header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against faulty wiring, 4-point contact. Suitable for labelling.

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box |
| Order No. | 1933400000 |
| Type | BVZ 7.62HP/05/180SH180C SN BK BX |
| GTIN (EAN) | 4032248585731 |
| Qty. | 25 items |
| Product data | IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A / AWG 24 - AWG 8 |
| 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 | 84.6 mm | Depth (inches) | 3.3307 inch |
| Height | 25 mm | Height (inches) | 0.9842 inch |
| Width | 53.34 mm | Width (inches) | 2.1 inch |
| Net weight | 51.4 g | | |

Environmental Product Compliance

RoHS Compliance Status Compliant without exemption

REACH SVHC No SVHC above 0.1 wt%

System Parameters

| | | | |
|--|---|--|-------------------|
| Product family | OMNIMATE Power - series BV/SV 7.62HP | Type of connection | Field connection |
| Wire connection method | Clamping yoke connection | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 5 | L1 in mm | 30.48 mm |
| L1 in inches | 1.200 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 6 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 | Volume resistance | 4.50 mΩ |
| Can be coded | Yes | Stripping length | 12 mm |
| Tightening torque for screw flange, min. | 0.2 Nm | Tightening torque for screw flange, max. | 0.3 Nm |
| Tightening torque, min. | 0.5 Nm | Tightening torque, max. | 0.6 Nm |
| Clamping screw | M 3 | Screwdriver blade | 0.6 x 3.5 |
| Plugging cycles | 25 | Plugging force/pole, max. | 16.5 N |
| Pulling force/pole, max. | 11 N | | |

Material data

| | | | |
|---------------------------------------|--------------------|---------------------------------------|--------------|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | Moisture Level (MSL) | |
| UL 94 flammability rating | V-0 | Contact base material | Copper alloy |
| Contact material | Copper alloy | Contact surface | tinned |
| Layer structure of plug contact | 6...8 µm Sn glossy | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 125 °C | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 100 °C | | |

Conductors suitable for connection

| | |
|----------------------|---------------------|
| Clamping range, min. | 0.2 mm ² |
| Clamping range, max. | 10 mm ² |

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| Wire connection cross section AWG, min. | AWG 24 | | | |
| Wire connection cross section AWG, max. | AWG 8 | | | |
| Solid, min. H05(07) V-U | 0.2 mm ² | | | |
| Solid, max. H05(07) V-U | 6 mm ² | | | |
| Flexible, min. H05(07) V-K | 0.2 mm ² | | | |
| Flexible, max. H05(07) V-K | 10 mm ² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min. | | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 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. | 6 mm ² | | | |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.8 mm x 2.0 mm; 2.4 mm | | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.5 mm ² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H0.5/18 OR | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1 mm ² | |
| | wire end ferrule | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H1.0/18 GE | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1.5 mm ² | |
| | wire end ferrule | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H1.5/18D SW | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.5/12 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.75 mm ² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H0.75/18 W | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 2.5 mm ² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H2.5/19D BL | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H2.5/12 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 4 mm ² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H4.0/12 | |
| | | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H4.0/20D GR | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 6 mm ² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |

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| | | Recommended wire-end ferrule | H6,0/20 SW |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H6,0/12 |
| 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) | 57 A |
| Rated current, max. number of poles (Tu=20°C) | 54 A | Rated current, min. number of poles (Tu=40°C) | 51 A |
| Rated current, max. number of poles (Tu=40°C) | 41 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 | 800 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 6000 V | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV | Short-time withstand current resistance | 3 x 1s with 420 A |
| Creepage distance, min. | 13 mm | Clearance, min. | 10.2 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1534443 |
| 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) | 40.5 A |
| Rated current (Use group C / CSA) | 40.5 A | Rated current (Use group D / CSA) | 5 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 8 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

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 voltage (Use group F / UL 1059) | 1000 V |
| Rated current (Use group B / UL 1059) | 40.5 A | Rated current (Use group C / UL 1059) | 40.5 A |
| Rated current (Use group D / UL 1059) | 5 A | Rated current (Use group F / UL 1059) | 40.5 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 8 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 260.00 mm |
| VPE width | 157.00 mm | VPE height | 77.00 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 |
| | Evaluation | available |
| | Test | durability |

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| Test: Misengagement (Non-interchangeability) | Evaluation | passed | |
| | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 512 part 7 section 5 / 05.94 | |
| | Test | 180° turned with coding elements | |
| | Evaluation | passed | |
| | Test | 180° turned without coding elements | |
| Test: Clampable cross section | Evaluation | passed | |
| | Standard | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 | |
| | 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 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | | Type of conductor and conductor cross-section | AWG 10/1 |
| | | Type of conductor and conductor cross-section | AWG 10/19 |
| | Evaluation | passed | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | |
| | Requirement | 0.2 kg | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | 0.3 kg | |
| | 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 |
| | Evaluation | passed | |
| | Requirement | 1.4 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | Type of conductor and conductor cross-section | AWG 10/1 |

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|---------------|----------------|---|------------------------------|
| Pull-out test | | Type of conductor and conductor cross-section | AWG 10/19 |
| | Evaluation | passed | |
| | Standard | DIN EN 60999-1 section 9.5 / 12.00 | |
| | Requirement | ≥10 N | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | ≥20 N | |
| | 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 |
| | Evaluation | passed | |
| | Requirement | ≥80 N | |
| | Conductor type | Type of conductor and conductor cross-section | solid 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | Type of conductor and conductor cross-section | AWG 10/1 |
| | | Type of conductor and conductor cross-section | AWG 10/19 |
| | 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

- Additional variants on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule with plastic collar to DIN 46228/4
- Wire end ferrule without plastic collar to DIN 46228/1
- 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.
- 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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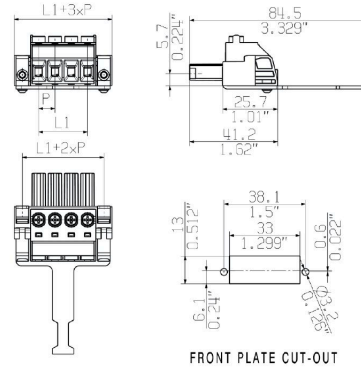
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Drawings

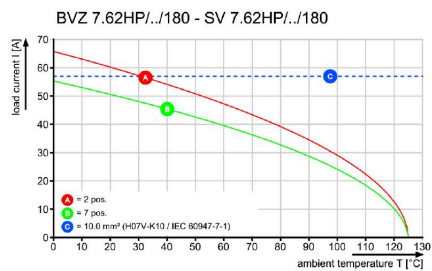
Product image



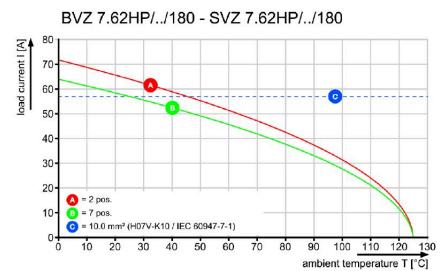
Dimensional drawing



Graph



Graph



Product benefits



Safe shielding Reliable and space-saving