

BVF 7.62HP/03/180SF SN BK BX
Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

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Product image


180° female header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1. Ideal touch-safe solution for the power output.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Variants: without flange, external flange, middle flange with detent fastening and optionally additional screw mount.

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max. : 10 mm ² , Box |
| Order No. | 1060510000 |
| Type | BVF 7.62HP/03/180SF SN BK BX |
| GTIN (EAN) | 4032248810024 |
| Qty. | 40 pc(s). |
| Product data | IEC: 1000 V / 57 A / 0.5 - 10 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8 |
| Packaging | Box |

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Depth | 44.7 mm | Depth (inches) | 1.76 inch |
| Height | 20 mm | Height (inches) | 0.787 inch |
| Net weight | 20.42 g | | |

Temperatures

| | | | |
|-----------------------------|--------|-----------------------------|--------|
| Operating temperature, min. | -50 °C | Operating temperature, max. | 125 °C |
|-----------------------------|--------|-----------------------------|--------|

System Parameters

| | | | |
|---|---|---|-------------------|
| Product family | OMNIMATE Power - series BV/SV 7.62HP | Type of connection | Field connection |
| Wire connection method | PUSH IN without actuator, Tension-clamp connection | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.3 inch | Conductor outlet direction | 180° |
| Number 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 | 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 |
| Screwdriver blade | 0.6 x 3.5 | Plugging cycles | 25 |
| Plugging force/pole, max. | 17 N | Pulling force/pole, max. | 15 N |

Material data

| | | | |
|---------------------------------------|--------------|---------------------------------------|-------------|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | UL 94 flammability rating | V-0 |
| Contact material | Copper alloy | Contact surface | tinned |
| Tinning type | glossy | Layer structure of plug contact | 6...8 μm Sn |
| 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. | 125 °C |

Conductors suitable for connection

| | |
|--|---------------------|
| Clamping range, min. | 0.5 mm ² |
| Clamping range, max. | 10 mm ² |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 10 mm ² |
| Stranded, max. H07V-R | 10 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 10 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 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. | 10 mm ² |

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Technical data

| | | | |
|---------------------|--|------------------------------|-----------------------------|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0,5/12 OR |
| wire end ferrule | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.75 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0,75/18 W |
| wire end ferrule | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1,0/18 GE |
| wire end ferrule | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1.5 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1,5/12 |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1,5/18D SW |
| | | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H2,5/12 |
| | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H2,5/19D BL |
| wire end ferrule | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 4 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H4,0/12 |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H4,0/20D GR |
| | | Type | fine-wired |
| | | nominal | 6 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H6,0/12 |
| | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H6,0/20 SW |
| wire end ferrule | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 10 mm ² |
| wire end ferrule | Cross-section for conductor connection | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H10,0/12 |
| 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. | | |

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Technical data

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) | 51 A | Rated current, min. number of poles (Tu=40°C) | 57 A |
| Rated current, max. number of poles (Tu=40°C) | 45 A | Rated voltage for surge voltage class / pollution degree II/2 | 1,000 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 1,000 V | Rated voltage for surge voltage class / pollution degree III/3 | 800 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 | 8 kV | Short-time withstand current resistance | 3 x 1s with 420 A |
| Clearance, min. | 10.4 mm | Creepage distance, min. | 12.7 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | | Certificate No. (CSA) | 200039-1121690 |
| 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) | 33 A |
| Rated current (Use group C / CSA) | 33 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) | | 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) | 39 A |
| Rated current (Use group C / UL 1059) | 39 A | Rated current (Use group D / UL 1059) | 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 | 352 mm |
| VPE width | 137 mm | VPE height | 61 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 |
| | Evaluation | available |
| | Test | durability |
| | Evaluation | passed |

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DIN EN 61984 section 6.3 and 6.9.1 / 09.02,
DIN EN 60912:13-5 / 1.08

180° turned with coding elements

passed www.weidmueller.com

180° turned without coding elements

passed

Technical data

Test: Misengagement (Non-interchangeability)

| | |
|------------|---|
| Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60912:13-5 / 1.08 |
| Test | 180° turned with coding elements |
| Evaluation | passed www.weidmueller.com |
| Test | 180° turned without coding elements |
| Evaluation | passed |

Test: Clampable cross section

| | | |
|----------------|--|------------------------------|
| 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 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 14/1 |
| | Type of conductor and conductor cross-section | AWG 14/19 |
| 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 | 1.4 kg | |
| Conductor type | Type of conductor and conductor cross-section | H07V-U6 |
| | Type of conductor and conductor cross-section | H07V-K6 |
| | Type of conductor and conductor cross-section | AWG 10/1 |
| | Type of conductor and conductor cross-section | AWG 10/19 |
| Evaluation | passed | |

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| | | | |
|---|----------------|---|----------------------------|
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 | |
| | Requirement | ≥20 N info@weidmueller.com | |
| | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 and H05V-K0.5 |
| | | 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 | ≥80 N | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-U6 |
| | | Type of conductor and conductor cross-section | H07V-K6 |
| Type of conductor and conductor cross-section | | AWG 10/1 | |
| Type of conductor and conductor cross-section | | AWG 10/19 | |
| Evaluation | passed | | |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ECLASS 9.0 | 27-44-03-09 |
| ECLASS 9.1 | 27-44-03-09 | ECLASS 10.0 | 27-44-03-09 |
| ECLASS 11.0 | 27-46-02-02 | ECLASS 12.0 | 27-46-02-02 |

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"> • Additional variants on request • 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. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months |

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Technical data

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Engineering Data | WSCAD |
| Product Change Notification | 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder 20220208 Visual change Temporarily different color for connectors and accessories 20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör |
| User Documentation | Operating Instruction BVF QR-Code product handling video |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL HEATING ELECTR EN FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN |

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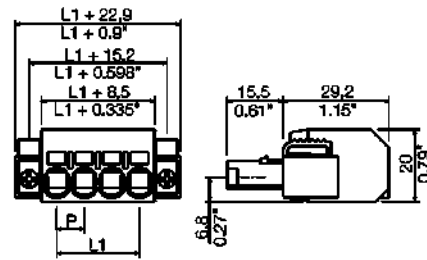
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Drawings

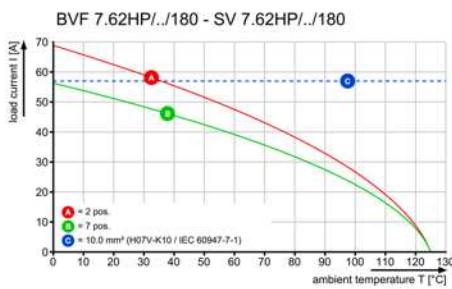
Product image



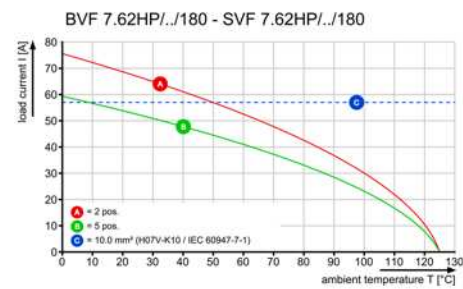
Dimensional drawing info@weidmueller.com



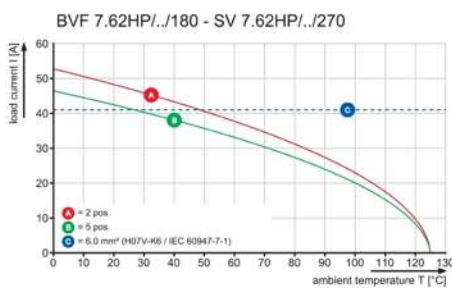
Graph



Graph



Graph



Product benefits



Installation without tools
Outlet direction: 90° und 180°