

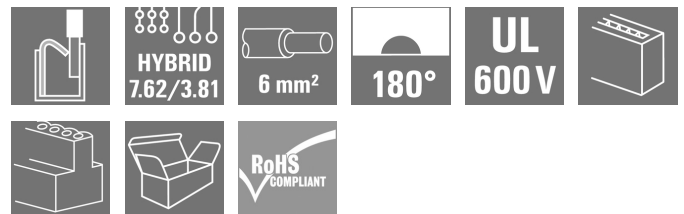
BVFL 7.62HP/04/180 BCF/06R SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

180° female plug with energy and signal contacts in PUSH IN wire connection in 7.62 pitch.
Fulfils the IEC 61800-5-1 requirement and for the energy contact UL 1059 ClassC 600 V. With adjustable, self-locking pusher for opening the contact point.

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with actuator, Clamping range, max. : 6 mm², Box |
| Order No. | 2549430000 |
| Type | BVFL 7.62HP/04/180 BCF/06R SN BK BX |
| GTIN (EAN) | 4050118558869 |
| Qty. | 42 pc(s). |
| Product data | IEC: 1000 V / 38 A / 0.5 - 6 mm² UL: 600 V / 35 A / AWG 24 - AWG 8 |
| Packaging | Box |

Creation date July 14, 2024 11:55:08 AM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

| | |
|------------|---------|
| Net weight | 0.042 g |
|------------|---------|

System Parameters

| | | | |
|---|---|---|------------------------|
| Product family | OMNIMATE Power - series BV/SV 7.62HP | Type of connection | Field connection |
| Wire connection method | PUSH IN with actuator | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.3 " | Conductor outlet direction | 180° |
| Number of poles | 4 | L1 in mm | 30.48 mm |
| L1 in inches | 1.2 " | L2 in mm | 7.62 mm |
| L2 in inch | 0.3 " | 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 | Volume resistance | 4.50 mΩ |
| Can be coded | Yes | Stripping length | 12 mm |
| Screwdriver blade | 0.6 x 3.5 | Plugging cycles | 25 |

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 | Cu-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. | 125 °C | | |

Conductors suitable for connection

| | |
|--|---------------------|
| Clamping range, min. | 0.5 mm ² |
| Clamping range, max. | 6 mm ² |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 6 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 6 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, 0.5 mm ² min. | |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm ² max. | |

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| | | | |
|--|--|------------------------------|-----------------------------|
| 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 |
| | | 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. | | |

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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) | 38 A |
| Rated current, max. number of poles (Tu=20°C) | 38 A | Rated current, min. number of poles (Tu=40°C) | 34 A |
| Rated current, max. number of poles (Tu=40°C) | 34 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 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) | 35 A |
| Rated current (Use group C / UL 1059) | 35 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 | 350 mm |
| VPE width | 136 mm | VPE height | 34 mm |

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Technical data**Technical data - hybrid**

| | | | |
|---|---------------------|---|------------------|
| Pitch in mm (Signal) | 3.81 mm | Pitch in inches (Signal) | 0.15 inch |
| Number of poles (Signal) | 6 | L2 in mm | 7.62 mm |
| L2 in inch | 0.3 " | Number of rows (Signal) | 2 |
| Contact material (Signal) | CuMg | Contact surface (Signal) | tinned |
| Layer structure of the plug contact (Signal) | 1-3 µ Ni / 4-8 µ Sn | Rated voltage for overvoltage class/pollution severity level II/2 (Signal) | 400 V |
| Rated voltage for overvoltage class/pollution severity level III/2 (Signal) | 320 V | Rated voltage for overvoltage class/pollution severity level III/3 (Signal) | 200 V |
| Rated impulse voltage for overvoltage class/pollution severity level II/2 (Signal) | 4 kV | Rated impulse voltage for overvoltage class/pollution severity level III/2 (Signal) | 4 kV |
| Rated impulse voltage for overvoltage class/pollution severity level III/3 (Signal) | 4 kV | Short-time withstand current resistance (Signal) | 3 x 1s with 80 A |
| Rated voltage (Use group B / CSA) (Signal) | 300 V | Rated voltage (Use group C / CSA) (Signal) | 50 V |
| Rated voltage (Use group D / CSA) (Signal) | 300 V | Rated current (Use group B / CSA) (Signal) | 9 A |
| Rated current (Use group C / CSA) (Signal) | 9 A | Rated current (Use group D / CSA) (Signal) | 9 A |
| Wire connection cross-section AWG (Signal) | AWG 24...AWG 16 | Rated voltage (Use group B / UL 1059] (Signal) | 300 V |
| Rated voltage (Use group C / UL 1059] (Signal) | 50 V | Rated voltage (Use group D / UL 1059] (Signal) | 300 V |
| Rated current (Use group B / UL 1059] (Signal) | 5 A | Rated current (Use group C / UL 1059] (Signal) | 5 A |
| Rated current (Use group D / UL 1059] (Signal) | 5 A | Connector cross-section (Signal) | AWG 26...AWG 16 |

Conductors that can be connected - Hybrid

| | | | |
|---|--------------------------|--|----------------------------|
| Clamping range, rated connection (Power) | 0.5...10 mm ² | Clamping range, rated connection (Signal) | 0.2...1.5 mm ² |
| Connector cross-section (Power) | AWG 24...AWG 8 | Connector cross-section AWG (Signal) | AWG 26...AWG 16 |
| solid, H05(07) V-U (Power) | 0.5...10 mm ² | solid, H05(07) V-U (Signal) | 0.14...1.5 mm ² |
| flexible, H05(07) V-K (Power) | 0.5...6 mm ² | flexible, H05(07) V-K (Signal) | 0.14...1.5 mm ² |
| with wire-end ferrule with collar (Power) | 0.5...6 mm ² | with wire-end ferrule with collar, DIN 46 228/4 (Signal) | 0.25...1.5 mm ² |
| with wire-end ferrule according to DIN 46 228/1 (Power) | 0.5...6 mm ² | with wire-end ferrule according to DIN 46 228/1 (Signal) | 0.25...1.5 mm ² |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | 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 | 27-46-03-02 | ECLASS 13.0 | 27-46-03-02 |

Environmental Product Compliance

REACH SVHC

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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"> • Technical specifications refer to the power contacts • Technical data of signal contacts: 50V / 5A, stripping length 8mm • 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 • 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. • Additional pole combinations on request • 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 |

Approvals

Approvals



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

Downloads

| | |
|-----------------------------|--|
| Engineering Data | CAD data – STEP |
| Product Change Notification | EN - Change of isolation material DE - Werkstoffänderung Pusher 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder |
| User Documentation | Operating Instruction BVFL hybrid QR-Code product handling video |
| Catalogues | Catalogues in PDF-format |

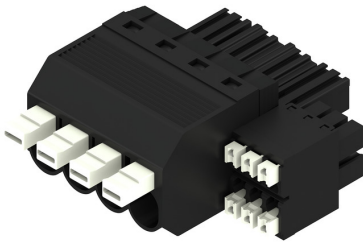
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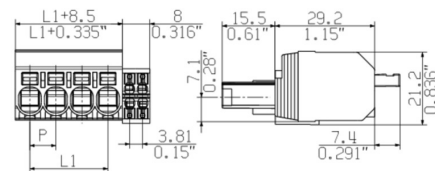
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Drawings

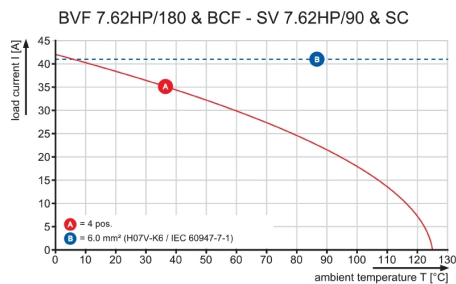
Product image



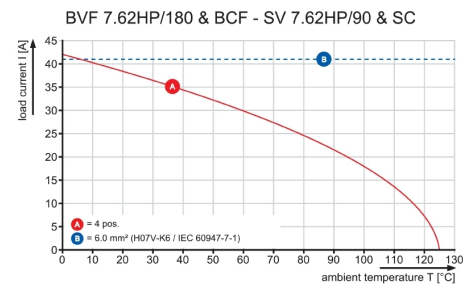
Dimensional drawing



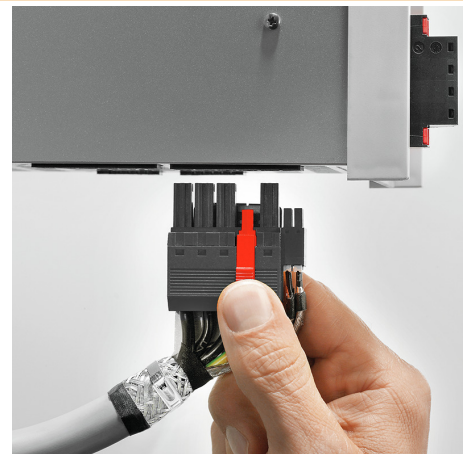
Graph



Graph



Product benefits



Single-handed operation
Automatic latching