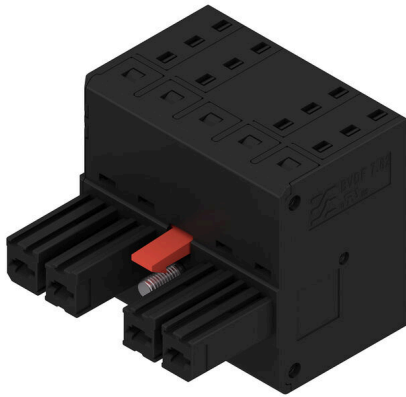


## BVDF 7.62HP/04/180MSF3 SN BK BX

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

www.weidmueller.com

### Product image



Bus connector with two connections per pole with the time-saving 6mm<sup>2</sup> PUSH IN connection system.

- The extremely short cross-connection allows you to safely loop through bus currents.
- PUSH IN connection: Solid wires and stranded wires with ferrules need only to be inserted and they are ready.
- The self-locking middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

### General ordering data

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with push button, Clamping range, max. : 10 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2720580000</a>   |
| Type         | BVDF 7.62HP/04/180MSF3 SN BK BX  |
| GTIN (EAN)   | 4050118816013  |
| Qty.         | 24 items   |
| Product data | IEC: 600 V / 46 A / 0.5 - 10 mm <sup>2</sup><br>UL: 600 V / 35 A / AWG 24 - AWG 8  |
| Packaging    | Box  |

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## Technical data

## Approvals

Approvals



|                         |                            |
|-------------------------|----------------------------|
| ROHS                    | Conform                    |
| UL File Number Search   | <a href="#">UL Website</a> |
| Certificate No. (cURus) | E60693                     |

## Dimensions and weights

|            |          |                 |             |
|------------|----------|-----------------|-------------|
| Depth      | 47.7 mm  | Depth (inches)  | 1.8779 inch |
| Height     | 35.05 mm | Height (inches) | 1.3799 inch |
| Width      | 46.72 mm | Width (inches)  | 1.8394 inch |
| Net weight | 40.33 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                       | PUSH IN with push button             |       |  |
| Pitch in mm (P)                              | 7.62 mm                              |       |  |
| Pitch in inches (P)                          | 0.300 "                              |       |  |
| Conductor outlet direction                   | 180°                                 |       |  |
| Number of poles                              | 4                                    |       |  |
| L1 in mm                                     | 22.86 mm                             |       |  |
| L1 in inches                                 | 0.900 "                              |       |  |
| Number of rows                               | 2                                    |       |  |
| Pin series quantity                          | 1                                    |       |  |
| 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                                |       |  |
| Stripping length tolerance                   | min.                                 | -1 mm |  |
|  | max.                                 | 1 mm  |  |
| Tightening torque for screw flange, min.     | 0.3 Nm                               |       |  |
| Tightening torque for screw flange, max.     | 0.5 Nm                               |       |  |
| Screwdriver blade                            | 0.6 x 3.5                            |       |  |
| Plugging cycles                              | 25                                   |       |  |
| Plugging force/pole, max.                    | 12 N                                 |       |  |
| Pulling force/pole, max.                     | 12 N                                 |       |  |

## Material data

|                                |       |                                  |          |
|--------------------------------|-------|----------------------------------|----------|
| Insulating material            | PA GF | Colour                           | black    |
| Colour of operational elements | white | Colour chart (similar)           | RAL 9011 |
| Insulating material group      | I     | Comparative Tracking Index (CTI) | ≥ 600    |
| Moisture Level (MSL)           |       | UL 94 flammability rating        | V-0      |

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### Technical data

|                                      |                            |                             |        |
|--------------------------------------|----------------------------|-----------------------------|--------|
| Contact material                     | Copper alloy               | Contact surface             | tinned |
| Layer structure of solder connection | 1...3 µm Ni / 4...10 µm Sn | Storage temperature, min.   | -40 °C |
| Storage temperature, max.            | 70 °C                      | Operating temperature, min. | -50 °C |
| Operating temperature, max.          | 120 °C                     |                             |        |

### Conductors suitable for connection

|   |                     |
|---|---------------------|
| Clamping range, min.                            | 0.5 mm <sup>2</sup> |
| Clamping range, max.                            | 10 mm <sup>2</sup>  |
| Wire connection cross section AWG, min.         | AWG 24              |
| Wire connection cross section AWG, max.         | AWG 8               |
| Solid, min. H05(07) V-U                         | 0.5 mm <sup>2</sup> |
| Solid, max. H05(07) V-U                         | 10 mm <sup>2</sup>  |
| Stranded, min. H07V-R                           | 1.5 mm <sup>2</sup> |
| Stranded, max. H07V-R                           | 6 mm <sup>2</sup>   |
| Flexible, min. H05(07) V-K                      | 0.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K                      | 10 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.5 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.5 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, max.       | 6 mm <sup>2</sup>   |

| Clampable conductor                    | Cross-section for conductor connection |                              |
|--|--|------------------------------|
|  | nominal                                | 0.5 mm <sup>2</sup>          |
| wire end ferrule                       | Stripping length                       | nominal 14 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H0.5/12 OR</a>   |
|  |  |                              |
| Cross-section for conductor connection |  | nominal 0.75 mm <sup>2</sup> |
| wire end ferrule                       | Stripping length                       | nominal 14 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H0.75/18 W</a>   |
|  |  |                              |
| Cross-section for conductor connection |  | nominal 1 mm <sup>2</sup>    |
| wire end ferrule                       | Stripping length                       | nominal 15 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H1.0/18 GE</a>   |
|  |  |                              |
| Cross-section for conductor connection |  | nominal 1.5 mm <sup>2</sup>  |
| wire end ferrule                       | Stripping length                       | nominal 12 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H1.5/12</a>      |
|  | Stripping length                       | nominal 15 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H1.5/18D SW</a>  |
| Cross-section for conductor connection |  | nominal 2.5 mm <sup>2</sup>  |
| wire end ferrule                       | Stripping length                       | nominal 12 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H2.5/12</a>      |
|  | Stripping length                       | nominal 14 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H2.5/19D BL</a>  |
| Cross-section for conductor connection |  | nominal 4 mm <sup>2</sup>    |
| wire end ferrule                       | Stripping length                       | nominal 12 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H4.0/12</a>      |
|  | Stripping length                       | nominal 14 mm                |
|  | Recommended wire-end ferrule           | <a href="#">H4.0/20D GR</a>  |
| Cross-section for conductor connection |  | nominal 6 mm <sup>2</sup>    |
| wire end ferrule                       | Stripping length                       | nominal 12 mm                |

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**Technical data**

|                |  |                              |                            |
|----------------|--|------------------------------|----------------------------|
|                |  | Recommended wire-end ferrule | <a href="#">H6,0/12</a>    |
|                |  | Stripping length             | nominal 14 mm              |
|                |  | Recommended wire-end ferrule | <a href="#">H6,0/20 SW</a> |
|                | Cross-section for conductor connection   | nominal                      | 10 mm <sup>2</sup>         |
| 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)                         | 46 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 41 A                   | Rated current, min. number of poles (Tu=40°C)                         | 38 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 37.5 A                 | Rated voltage for surge voltage class / pollution degree II/2         | 600 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 600 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 600 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4000 V                 | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 6 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   | Short-time withstand current resistance                               | 3 x 1s with 400 A |
| Creepage distance, min.   | 11.03 mm               | Clearance, min.   | 10.36 mm          |

**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) | 35 A   |
| Rated current (Use group C / UL 1059) | 35 A   | Rated current (Use group D / UL 1059) | 35 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 | 356.00 mm |
| VPE width | 140.00 mm | VPE height | 62.00 mm  |

**Type tests**

|                               |                |  |           |
|-------------------------------|----------------|--|-----------|
| Test: Durability of markings  | Standard       | IEC 61984 section 7.3.2 / 10.08 Taking pattern from IEC 60068-2-70 / 12.95         |           |
|                               | Test           | mark of origin, type identification, pitch, durability                             |           |
|                               | Evaluation     | available  |           |
| 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                                      | H05V-U0.5 |
|                               |                | Type of conductor and conductor cross-section                                      | H05V-K0.5 |
|                               |                | Type of conductor and conductor cross-section                                      | H07V-K6   |

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**Technical data**

|   |   |   |           |
|---|---|---|-----------|
| Test for damage to and accidental loosening of conductors |   | Type of conductor and conductor cross-section | H07V-K10  |
|   |   | 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 8/19  |
|   | Evaluation                                    | passed  |           |
|   | Standard                                      | IEC 60999-1 section 9.4 / 11.99               |           |
|   | 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 | H05V-U0.5 |
| Type of conductor and conductor cross-section             |   | H05V-K0.5                                     |           |
| Evaluation  | passed  |   |           |
| Requirement   | 1.4 kg  |   |           |
| Conductor type  | Type of conductor and conductor cross-section | H07V-K6                                       |           |
|   | Evaluation                                    |   | passed    |
| Requirement   | 2.0 kg  |   |           |
| Conductor type  | Type of conductor and conductor cross-section | H07V-U10                                      |           |
|   | Type of conductor and conductor cross-section | AWG 8/19                                      |           |
| Evaluation  | passed  |   |           |
| Pull-out test   | Standard                                      | IEC 60999-1 section 9.5 / 11.99               |           |
|   | 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 | H05V-U0.5 |
|   |   | Type of conductor and conductor cross-section | H05V-K0.5 |
|   | Evaluation                                    | passed  |           |
|   | Requirement                                   | ≥80 N   |           |

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**Technical data**

|                |   |          |
|----------------|---|----------|
| Conductor type | Type of conductor and conductor cross-section | H07V-K6  |
| Evaluation     | passed  |          |
| Requirement    | ≥ 90N   |          |
| Conductor type | Type of conductor and conductor cross-section | H07V-K10 |
|                | Type of conductor and conductor cross-section | AWG 8/19 |
| 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          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

**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 |             |             |

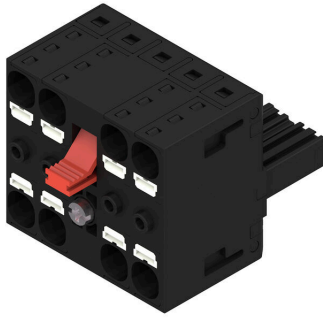
**BVDF 7.62HP/04/180MSF3 SN BK BX**

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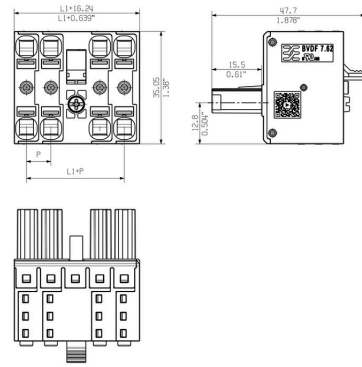
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Drawings

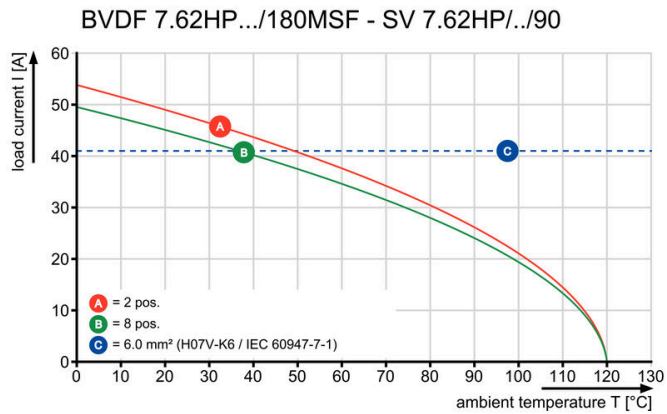
Product image



Dimensional drawing



Derating curve



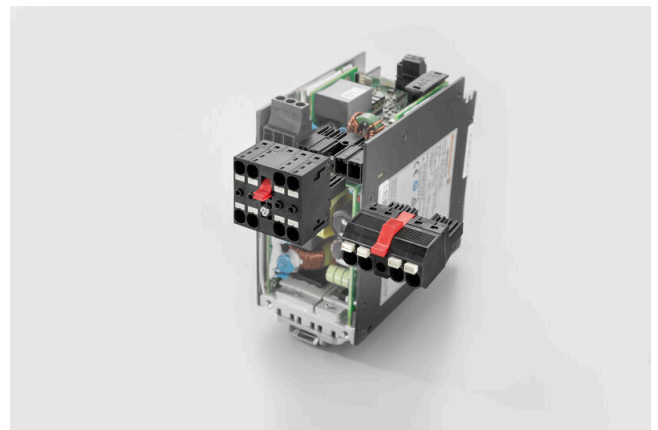
Product benefits



Product benefits



Product benefits



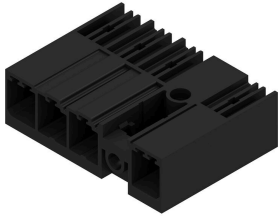
## BVDF 7.62HP/04/180MSF3 SN BK BX

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## Counterpart

## SV 7.62HP 90MSF SN

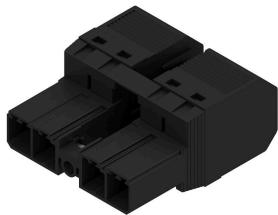


Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional fastening in the flange.

## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | SV 7.62HP/04/90MSF3 3.5... | Version   |
| Order No.  | <a href="#">1048580000</a> | PCB plug-in connector, male header, closed side, Middle screw flange, |
| GTIN (EAN) | 4032248786442              | THT solder connection, 7.62 mm, Number of poles: 4, 90°, Solder pin   |
| Qty.       | 48 ST                      | length (l): 3.5 mm, tinned, black, Box                                |

## SVF 7.62HP/180MSF

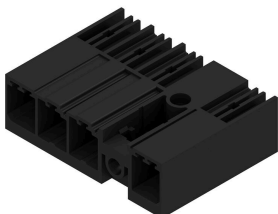


180° inverted inverse voltage-safe male header with PUSH IN connection technology for field wiring. With automatically locking middle flange for field wiring in 6 mm<sup>2</sup> with 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL 1059 600 V class C and IEC 61800-5-1. On request, also available without middle flange.

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | SVF 7.62HP/04/180MSF3 S... | Version  |
| Order No.  | <a href="#">1061140000</a> | PCB plug-in connector, male plug, 7.62 mm, Number of poles:  |
| GTIN (EAN) | 4032248810628              | 4, 180°, PUSH IN without actuator, Tension-clamp connection, |
| Qty.       | 40 ST                      | Clamping range, max. : 10 mm <sup>2</sup> , Box              |

## SV-SMT 7.62IT 90MSF SN BX



OMNIMATE Power for IT networks – scalable to 50 kVA  
Tailor-made solutions for special requirements  
More standard-compliance means fewer compromises: OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation. Results for the application and advantages for the user: unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process. In conclusion: You need no additional device covering. The application-oriented design means that no compromises are necessary during the approval process.

**BVDF 7.62HP/04/180MSF3 SN BK BX**

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 Germany

**Counterpart**

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**General ordering data**

|            |                            |  |
|------------|----------------------------|--|
| Type       | SV-SMT 7.62IT/04/90MSF3... | Version  |
| Order No.  | <a href="#">2499840000</a> | PCB plug-in connector, male header, Middle screw flange, THT/THR |
| GTIN (EAN) | 4050118513264              | solder connection, 7.62 mm, Number of poles: 4, 90°, Solder pin  |
| Qty.       | 48 ST                      | length (l): 2.6 mm, tinned, black, Box                           |
| Type       | SV-SMT 7.62IT/04/90MSF3... | Version  |
| Order No.  | <a href="#">2498720000</a> | PCB plug-in connector, male header, Middle screw flange, THT/THR |
| GTIN (EAN) | 4050118511925              | solder connection, 7.62 mm, Number of poles: 4, 90°, Solder pin  |
| Qty.       | 50 ST                      | length (l): 3.5 mm, tinned, black, Box                           |