

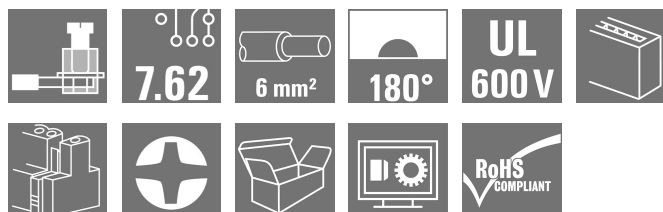
**BVZ 7.62IT/03/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

180° female plug with a 7.62 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SV 7.62 IT.. with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

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

On request also available without middle flange interlock.

**General ordering data**

|              |                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box |
| Order No.    | <a href="#">1156730000</a>                                                                                                          |
| Type         | BVZ 7.62IT/03/180MF3 SN BK BX                                                                                                       |
| GTIN (EAN)   | 4032248943937                                                                                                                       |
| Qty.         | 40 pc(s).                                                                                                                           |
| Product data | IEC: 1000 V / 57 A / 0.2 - 10 mm²<br>UL: 600 V / 40.5 A / AWG 24 - AWG 8                                                            |
| Packaging    | Box                                                                                                                                 |

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## Technical data

## Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 43.1 mm  | Depth (inches)  | 1.697 inch |
| Height     | 26.1 mm  | Height (inches) | 1.028 inch |
| Width      | 30.48 mm | Width (inches)  | 1.2 inch   |
| Net weight | 17.897 g |                 |            |

## Temperatures

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

## System Parameters

|                                              |                                      |                                            |                   |
|----------------------------------------------|--------------------------------------|--------------------------------------------|-------------------|
| Product family                               | OMNIMATE Power - series BV/SV 7.62IT | Type of connection                         | Field connection  |
| Wire connection method                       | Clamping yoke 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                                   | 22.86 mm          |
| L1 in inches                                 | 0.9 inch                             | Number of rows                             | 1                 |
| Pin series quantity                          | 1                                    | Rated cross-section                        | 6 mm <sup>2</sup> |
| 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                                | 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.                    | 14 N                                 | Pulling force/pole, max.                   | 14 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 |
| 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.                                                 | 0.2 mm <sup>2</sup>     |
| Clamping range, max.                                                 | 10 mm <sup>2</sup>      |
| Solid, min. H05(07) V-U                                              | 0.2 mm <sup>2</sup>     |
| Solid, max. H05(07) V-U                                              | 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, 0.25 mm <sup>2</sup> min. |                         |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.    |                         |
| w. wire end ferrule, DIN 46228 pt 1, 0.25 mm <sup>2</sup> min.       |                         |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm <sup>2</sup> max.          |                         |
| Plug gauge in accordance with EN 60999 a x b; ø                      | 2.8 mm x 2.0 mm; 2.4 mm |

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|                     |                                        |                              |                             |       |
|---------------------|----------------------------------------|------------------------------|-----------------------------|-------|
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 0.5 mm <sup>2</sup>         |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 14 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | 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 | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 1.5 mm <sup>2</sup>         |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 15 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |       |
|                     |                                        | Stripping length             | nominal                     | 12 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | 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 | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 2.5 mm <sup>2</sup>         |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 14 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |       |
|                     |                                        | Stripping length             | nominal                     | 12 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H2.5/12</a>     |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | 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 | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 6 mm <sup>2</sup>           |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 14 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H6.0/20 SW</a>  |       |
|                     |                                        | Stripping length             | nominal                     | 12 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H6.0/12</a>     |       |

## 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<br>(Tu=20°C)                         | 57 A              |
| Rated current, min. number of poles<br>(Tu=40°C)                             | 41 A                   | Rated voltage for surge voltage class /<br>pollution degree II/2         | 1,000 V           |
| Rated voltage for surge voltage class /<br>pollution degree III/2            | 1,000 V                | Rated voltage for surge voltage class /<br>pollution degree III/3        | 800 V             |
| Rated impulse voltage for surge voltage<br>class/ pollution degree II/2      | 6 kV                   | Rated impulse voltage for surge voltage<br>class/ pollution degree III/2 | 8 kV              |
| Rated impulse voltage for surge voltage<br>class/ contamination degree III/3 | 8 kV                   | Short-time withstand current resistance                                  | 3 x 1s with 420 A |
| Clearance, min.                                                              | 10.2 mm                | Creepage distance, min.                                                  | 13.8 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) | 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)                     |  | 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) | 40.5 A |
| Rated current (Use group C / UL 1059) | 40.5 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 | 353 mm |
| VPE width | 135 mm | VPE height | 49 mm  |

## 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 |

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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"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

### Approvals

Approvals



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

### Downloads

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

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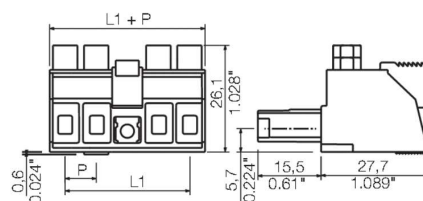
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

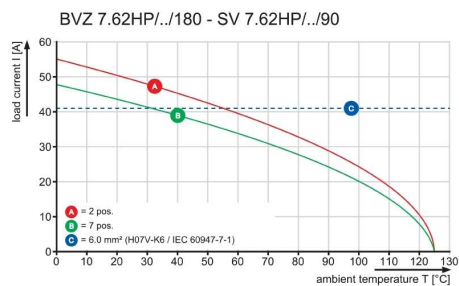
### Product image



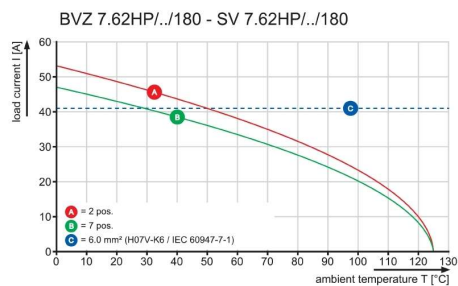
### Dimensional drawing



### Graph



### Graph



# BVZ 7.62IT/04/180M(S)F4

