

**BVF 7.62HP/03/180MSF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

180° female header with PUSH IN connection technology for field wiring in 6 mm<sup>2</sup> 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 <sup>2</sup> , Box |
| Order No.    | <a href="#">1060650000</a>  |
| Type         | BVF 7.62HP/03/180MSF3 SN BK BX  |
| GTIN (EAN)   | 4032248809592   |
| Qty.         | 50 pc(s).   |
| Product data | IEC: 1000 V / 57 A / 0.5 - 10 mm <sup>2</sup><br>UL: 600 V / 39 A / AWG 24 - AWG 8  |
| Packaging    | Box   |

Creation date August 29, 2024 7:25:38 AM CEST

**BVF 7.62HP/03/180MSF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

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Germany

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**Technical data****Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 47.7 mm | Depth (inches)  | 1.878 inch |
| Height     | 22.9 mm | Height (inches) | 0.902 inch |
| Net weight | 21.2 g  |                 |            |

**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 "  | Conductor outlet direction                 | 180°              |
| Number of poles                              | 3  | L1 in mm                                   | 22.86 mm          |
| L1 in inches                                 | 0.9 "  | 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             |
| 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                      | 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 <sup>2</sup> |
| Clamping range, max.  | 10 mm <sup>2</sup>  |
| Solid, min. H05(07) V-U   | 0.5 mm <sup>2</sup> |
| Solid, max. H05(07) V-U   | 10 mm <sup>2</sup>  |
| Stranded, max. H07V-R   | 10 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, 0.5 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, 0.5 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 10 mm <sup>2</sup> max.        |                     |

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**Technical data**

|  |  |                              |                             |       |
|--|--|------------------------------|-----------------------------|-------|
| 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="#">H0.5/12 OR</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                      | 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                     | 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   | Type                         | fine-wired                  |       |
|  |  | 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   | 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                      | 12 mm                       |       |
|  | 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 | Type   | fine-wired                   |                             |       |
|  | nominal  | 10 mm <sup>2</sup>           |                             |       |
| wire end ferrule                       | Stripping length   | nominal                      | 12 mm                       |       |
|  | Recommended wire-end ferrule   | <a href="#">H10.0/12</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 (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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|   |                |  |
|---|----------------|--|
| Test: Misengagement (Non-interchangeability)              | Standard       | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08              |
|   | Test           | 180° turned with coding elements   |
|   | Evaluation     | passed   |
|   | 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 solid 0.5 mm <sup>2</sup> conductor cross-section            |
|   |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section         |
|   |                | Type of conductor and solid 6 mm <sup>2</sup> conductor cross-section              |
|   |                | Type of conductor and stranded 6 mm <sup>2</sup> conductor cross-section           |
|   |                | Type of conductor and AWG 24/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 24/19 conductor cross-section                            |
|   |                | Type of conductor and AWG 14/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 14/19 conductor cross-section                            |
|   | 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 H05V-U0.5 conductor cross-section                            |
|   |                | Type of conductor and H05V-K0.5 conductor cross-section                            |
|   |                | Type of conductor and AWG 20/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 20/19 conductor cross-section                            |
|   | Evaluation     | passed   |
|   | Requirement    | 1.4 kg   |
|   | Conductor type | Type of conductor and H07V-U6 conductor cross-section                              |
|   |                | Type of conductor and H07V-K6 conductor cross-section                              |
|   |                | Type of conductor and AWG 10/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 10/19 conductor cross-section                            |
|   | Evaluation     | passed   |

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**Technical data**

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

**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 | 27-46-02-02 | ECLASS 13.0 | 27-46-02-02 |
| ECLASS 14.0 | 27-46-02-02 |             |             |

**Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| REACH SVHC             | /                           |
| RoHS Compliance Status | Compliant without exemption |

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**Technical data****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> |

**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>  |
| 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="#">Operating Instruction BVF</a><br><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>     |

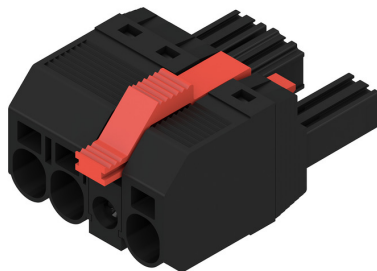
## BVF 7.62HP/03/180MSF3 SN BK BX

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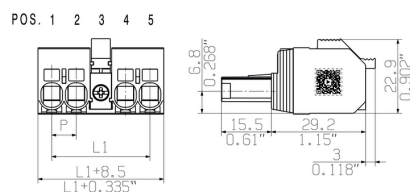
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## Drawings

## Product image



## Dimensional drawing




Similar to illustration

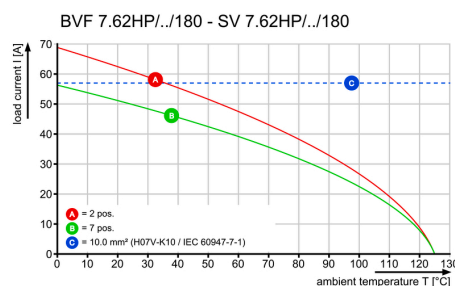
## Connection diagram

|             |                            |   |   |   |   |   |   |   |
|-------------|----------------------------|---|---|---|---|---|---|---|
| 6           | M(S)F6                     | o | o | o | o | o | X | o |
| 6           | M(S)F5                     | o | o | o | o | o | X | o |
| 6           | M(S)F4                     | o | o | o | X | o | o | o |
| 6           | M(S)F3                     | o | o | X | o | o | o | o |
| 6           | M(S)F2                     | o | X | o | o | o | o | o |
| 5           | M(S)F5                     | o | o | o | o | X | o |   |
| 5           | M(S)F4                     | o | o | o | X | o | o |   |
| 5           | M(S)F3                     | o | o | X | o | o | o |   |
| 5           | M(S)F2                     | o | X | o | o | o | o |   |
| 4           | M(S)F4                     | o | o | o | X | o |   |   |
| 4           | M(S)F3                     | o | o | X | o | o |   |   |
| 4           | M(S)F2                     | o | X | o | o | o |   |   |
| 3           | M(S)F3                     | o | o | X | o |   |   |   |
| 3           | M(S)F2                     | o | X | o | o |   |   |   |
| 2           | M(S)F2                     | o | X | o |   |   |   |   |
| NO OF POLES | X = MIDDLE FLANGE POSITION | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

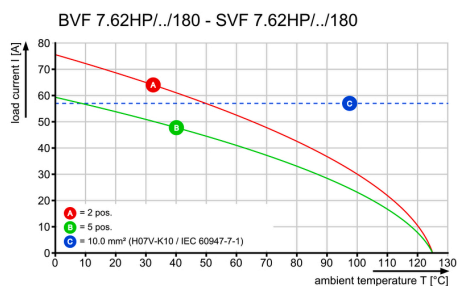
POS. 1 2 3 4 5



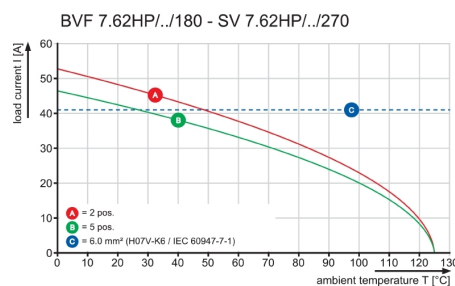
## Graph



## Graph



## Graph



Installation without tools  
 Outlet direction: 90° und 180°



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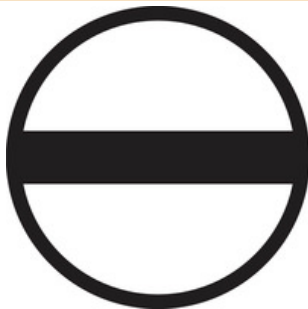
Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crimping tools****Crimping tools for wire end ferrules, with and without plastic collars**

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

**General ordering data**

|            |                            |  |
|------------|----------------------------|--|
| Type       | PZ 6/5                     | Version  |
| Order No.  | <a href="#">9011460000</a> | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> , |
| GTIN (EAN) | 4008190165352              | Trapezoidal indentation crimp  |
| Qty.       | 1 pc(s).                   |  |

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |   |
|------------|----------------------------|---|
| Type       | SDS 0.8X4.5X125            | Version   |
| Order No.  | <a href="#">2749370000</a> | Screwdriver, Blade width (B): 4.5 mm, Blade length: 125 mm, Blade |
| GTIN (EAN) | 4050118895599              | thickness (A): 0.8 mm   |
| Qty.       | 1 pc(s).                   |   |

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Coding elements**

**The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.**

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

**General ordering data**

| Type       | BV/SV 7.62HP KO            | Version   | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No.  | <a href="#">1937590000</a> | PCB plug-in connector, Accessories, Coding element, black, Number |              | Box       |
| GTIN (EAN) | 4032248608881              | of poles: 1   |              |           |
| Qty.       | 50 pc(s).                  |   |              |           |

### BVF 7.62HP/03/180MSF3 SN BK BX

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## Drawings

### Product benefits



Installation without tools  
Outlet direction: 90° und 180°