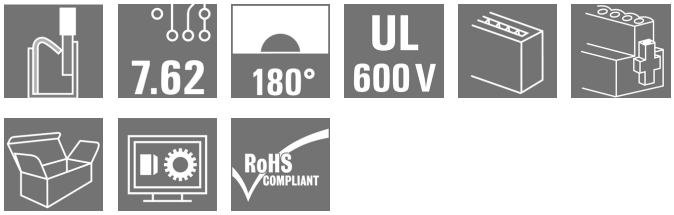
# SVF 7.62HP/04/180SFMF2 SN BK BX

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

www.weidmueller.com

## Product image




180° inverted male header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch as "three-flange variant" for housing passage. Suitable for housings with a max. wall thickness of 2 mm.
Also perfect as a finger-safe solution for inverse voltages. Meets the requirements of UL1059 600 V class C and IEC 61800-5-1.

### General ordering data

| | |
|---|---|
| Version | PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max. : 10 mm², Box |
| Order No. | 1427250000 |
| Type | SVF 7.62HP/04/180SFMF2 SN BK BX |
| GTIN (EAN) | 4050118231335 |
| Qty. | 25 pc(s). |
| Product data | IEC: 1000 V / 57 A / 0.5 - 10 mm²<br>UL: 600 V / 39 A / AWG 24 - AWG 10 |
| Packaging | Box |

Creation date September 16, 2022 5:24:43 AM CEST

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## Technical data

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 47.7 mm | Depth (inches) | 1.878 inch |
| Height | 23.4 mm | Height (inches) | 0.921 inch |
| Width | 53.34 mm | Width (inches) | 2.1 inch |
| Net weight | 27.76 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 inch | Conductor outlet direction | 180° |
| Number of poles | 4 | L1 in mm | 30.48 mm |
| L1 in inches | 1.2 inch | Number of rows | 1 |
| 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 | IP20 plugged | 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 | | |

### 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 | 4...6 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 mm² |
| Clamping range, max. | 10 mm² |
| Solid, min. H05(07) V-U | 0.5 mm² |
| Solid, max. H05(07) V-U | 6 mm² |
| Stranded, min. H07V-R | 10 mm² |
| Stranded, max. H07V-R | 10 mm² |
| Flexible, min. H05(07) V-K | 0.5 mm² |
| Flexible, max. H05(07) V-K | 10 mm² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 1.5 mm² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 6 mm² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 1.5 mm² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 6 mm² |

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## Technical data

| | | | | |
|---|---|---|---|---|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 2.5 mm² | |
| | wire end ferrule | 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 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 4 mm² | |
| | 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 mm² | |
| | wire end ferrule | 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 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1.5 mm² | |
| | 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 | |
| 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) | 57 A |
| Rated current, max. number of poles (Tu=20°C) | 50 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 | 800 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. | 12.7 mm | Creepage distance, min. | 12.7 mm |

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## Technical data

### 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) | 36 A |
| Rated current (Use group C / CSA) | 36 A | Rated current (Use group D / CSA) | 5 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 10 |
| 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 10 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Packing

| | | | |
|---|---|---|---|
| Packaging | Box | VPE length | 338 mm |
| VPE width | 130 mm | VPE height | 54 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 |
| 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 |

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## Technical data

| | | | |
|---|---|---|---|
| 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 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | | Type of conductor and conductor cross-section | solid 6 mm² |
| | | Type of conductor and conductor cross-section | stranded 6 mm² |
| | | 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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## Technical data

| | | | |
|---|---|---|---|
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 | |
| | 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 |
| | | 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 | • Additional variants on request<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Wire end ferrule without plastic collar to DIN 46228/1<br>• Wire end ferrule with plastic collar to DIN 46228/4<br>• P on drawing = pitch<br>• 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.<br>• 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 | EPLAN, WSCAD |
| Product Change Notification | 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors<br>20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder |
| User Documentation | QR-Code product handling video |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN<br>MB DEVICE MANUF. EN<br>FL DRIVES DE<br>FL HEATING ELECTR EN<br>FL APPL_INVERTER EN<br>FL_BASE_STATION_EN<br>FL ELEVATOR EN<br>FL POWER SUPPLY EN<br>FL 72H SAMPLE SER EN<br>PO OMNIMATE EN |

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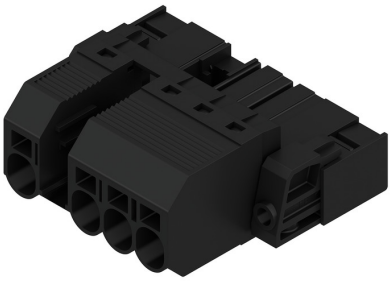
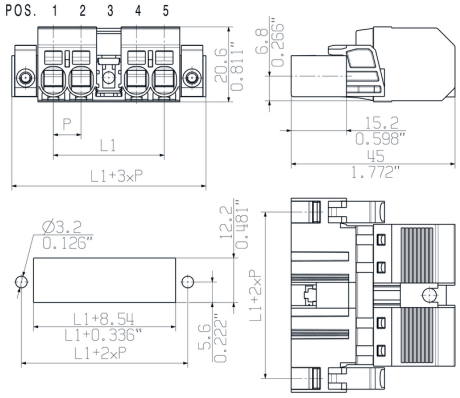
## Drawings

### Product image

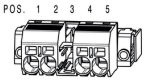


### Dimensional drawing

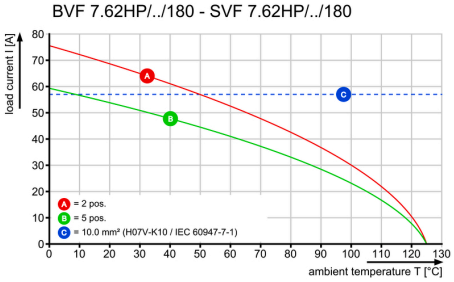



### Connection diagram

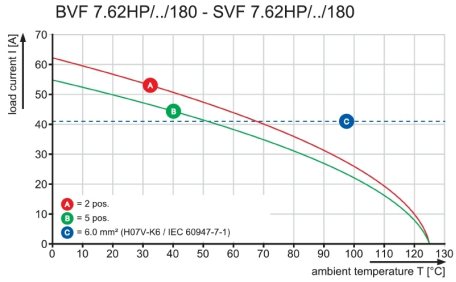
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6 | M(S)F6 | o | o | o | o | o | X | o |
| 6 | M(S)F5 | o | o | o | o | X | o | o |
| 6 | M(S)F4 | o | o | o | X | o | o | o |
| 6 | M(S)F3 | o | o | X | o | o | o | o |
| 6 | M(S)F2 | o | X | o | o | o | o | o |
| 5 | M(S)F5 | o | o | o | o | 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 |




### Graph



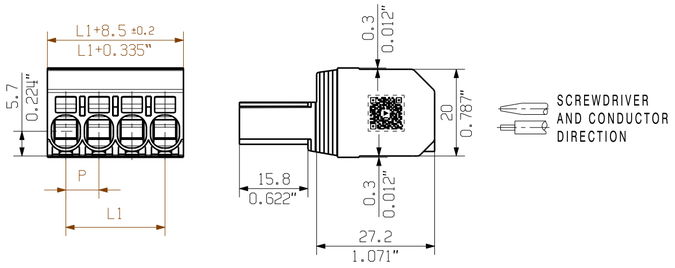

### Graph



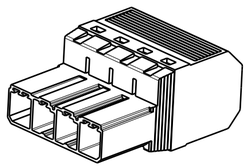
Dimensions without tolerances are no check dimensions

The English version is binding

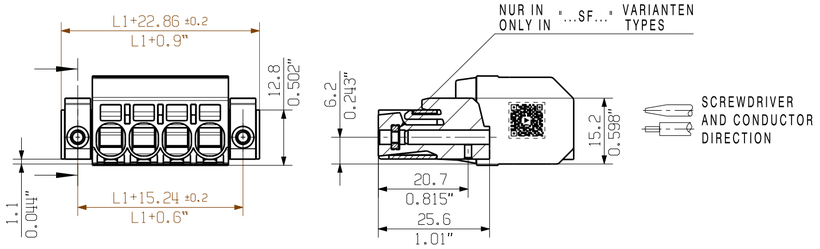
SHOWN: SVF7.62HP/04/180



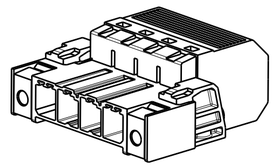

1:1



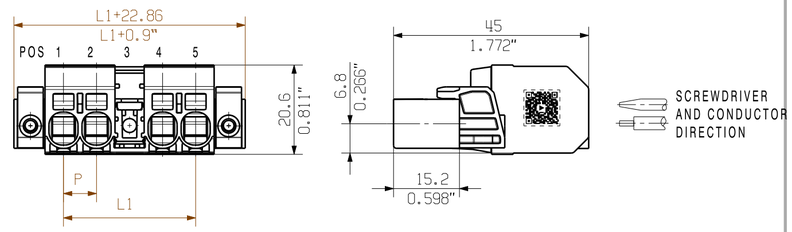
SHOWN: SVF7.62HP/04/180SF

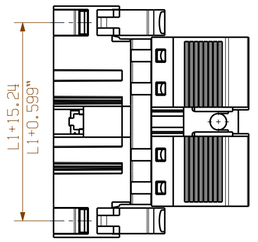



M 1/1



SHOWN: SVF7.62HP/04/180SFMF3

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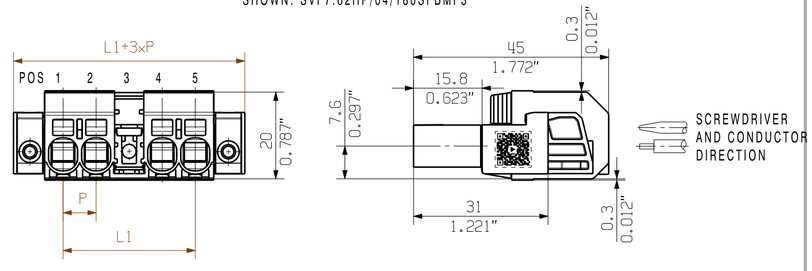
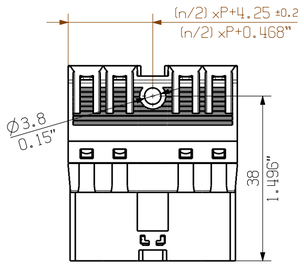
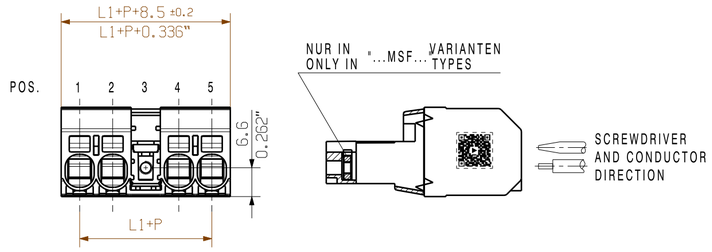
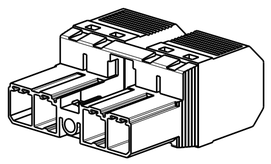



SHOWN: SVF7.62HP/04/180MSF




M 1/1



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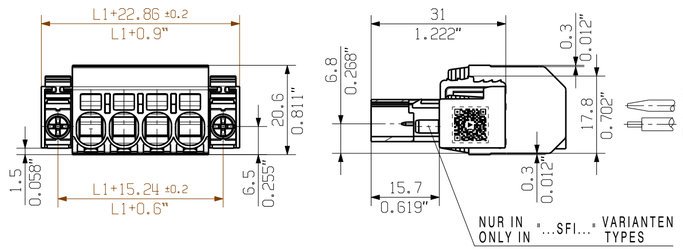
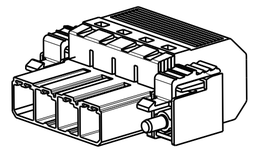



M 1/1



P=RASTER/PITCH
n=POLZAHL/NO OF POLES
MF=MITTELFLANSCH/MIDDLE FLANGE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 MF 4 | POL | POL | POL | MF | POL | POL | POL |
| 5 MF 4 | POL | POL | POL | MF | POL | POL | |
| 5 MF 3 | POL | POL | MF | POL | POL | POL | |
| 4 MF 4 | POL | POL | POL | MF | POL | | |
| 4 MF 3 | POL | POL | MF | POL | POL | | |
| 3 MF 3 | POL | POL | MF | POL | | | |
| 3 MF 2 | POL | MF | POL | POL | | | |
| 2 MF 2 | POL | MF | POL | | | | |
| POLE | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| n | POS. | | | | | | |

ORDER NUMBERS
SEE DRAWING 46101 SHEET 01

| n | L1 (mm) | L1 (Inch) |
|---|---|---|
| 6 | 38,10 | 1,5 |
| 5 | 30,48 | 1,2 |
| 4 | 22,86 | 0,9 |
| 3 | 15,24 | 0,6 |
| 2 | 7,62 | 0,3 |

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

GENERAL TOLERANCE:
DIN ISO 2768-mK

First Issue Date
28.05.2018

RoHS COMPLIANT

EC00000298

Modification

Prim PLM Part No.: 005075

Prim ERP Part No.: 1060920000

Weidmüller

46102 (14)
Drawing no. Issue no.

Sheet 01 of 01 sheets

| | Date | Name |
|---|---|---|
| Drawn | 28.05.2018 | Administrator |
| Responsible | | Krug, Matthias |
| Approved | 26.10.2018 | Lang, Thomas |

Scale: :. Size: A2

Drawings Assembly

SVF7.62HP/../180...
STIFTSTECKER
MALE PLUG

Product file: 7390 BVF/SVF 7.62HP