# BVL 7.62HP/06/180 3.5SN BK BX

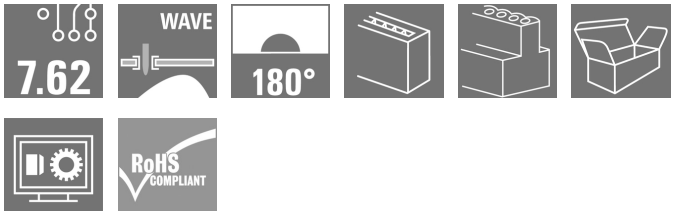
**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

## Product image



Similar to illustration




High-performance female header with solder connection. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity, protection against faulty wiring and 4-point contact.

### General ordering data

| | |
|---|---|
| Version | PCB plug-in connector, female header, closed side, THT solder connection, 7.62 mm, Number of poles: 6, 180°, Solder pin length (l): 3.5 mm, tinned, black, Box |
| Order No. | 1928660000 |
| Type | BVL 7.62HP/06/180 3.5SN BK BX |
| GTIN (EAN) | 4032248578016 |
| Qty. | 50 pc(s). |
| Product data | IEC: 1000 V / 56.8 A<br>UL: 300 V / 42 A |
| Packaging | Box |

Creation date December 4, 2023 1:33:03 PM CET

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## Technical data

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 11.4 mm | Depth (inches) | 0.449 inch |
| Height | 31.4 mm | Height (inches) | 1.236 inch |
| Width | 45.72 mm | Width (inches) | 1.8 inch |
| Net weight | 14.44 g | | |

### System Parameters

| | | | |
|---|---|---|---|
| Product family | OMNIMATE Power - series BV/SV 7.62HP | Type of connection | Board connection |
| Pitch in mm (P) | 7.62 mm | Pitch in inches (P) | 0.3 inch |
| Number of poles | 6 | L1 in mm | 38.1 mm |
| L1 in inches | 1.5 inch | Number of rows | 1 |
| Pin series quantity | 1 | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch, plugged |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | Protection degree | IP20 |
| Volume resistance | 2.00 mΩ | Can be coded | Yes |
| Plugging cycles | 25 | Plugging force/pole, max. | 7 N |
| Pulling force/pole, max. | 4 N | | |

### Material data

| | | | |
|---|---|---|---|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | Insulation strength | ≥ $10^8$ Ω |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Layer structure of solder connection | 4...6 µm Sn matt |
| Layer structure of plug contact | 4...6 µm Sn matt | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 130 °C | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 130 °C | | |

### Rated data acc. to IEC

| | | | |
|---|---|---|---|
| Rated current, min. number of poles (Tu=20°C) | 56.8 A | Rated current, max. number of poles (Tu=20°C) | 41 A |
| Rated current, min. number of poles (Tu=40°C) | 41 A | Rated current, max. number of poles (Tu=40°C) | 41 A |
| Rated voltage for surge voltage class / pollution degree II/2 | 1,000 V | Rated voltage for surge voltage class / pollution degree III/2 | 630 V |
| Rated voltage for surge voltage class / pollution degree III/3 | 630 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 | 6 kV | Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV |
| Short-time withstand current resistance | 3 x 1s with 420 A | Clearance, min. | 6.9 mm |
| Creepage distance, min. | 9.66 mm | | |

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## Technical data

### Rated data acc. to CSA

| | | | |
|---|---|---|---|
| Institute (CSA) | | Certificate No. (CSA) | 200039-1534443 |
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group C / CSA) | 300 V |
| Rated voltage (Use group D / CSA) | 600 V | Rated current (Use group B / CSA) | 35 A |
| Rated current (Use group C / CSA) | 35 A | Rated current (Use group D / CSA) | 5 A |
| 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) | 300 V | Rated voltage (Use group C / UL 1059) | 300 V |
| Rated voltage (Use group D / UL 1059) | 600 V | Rated current (Use group B / UL 1059) | 42 A |
| Rated current (Use group C / UL 1059) | 42 A | Rated current (Use group D / UL 1059) | 5 A |
| Clearance distance, min. | 6.9 mm | Creepage distance, min. | 9.66 mm |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Packing

| | | | |
|---|---|---|---|
| Packaging | Box | VPE length | 217 mm |
| VPE width | 130 mm | VPE height | 79 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, type of material |
| | Evaluation | available |
| | Test | durability |
| | Evaluation | passed |
| Test: Misengagement (Non-interchangeability) | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 512 part 7 section 5 / 05.94 |
| | 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 / 12.02 | |
| | 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 10/1 |
| | | Type of conductor and conductor cross-section | AWG 10/19 |
| | Evaluation | passed | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | |
| | 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 | solid 0.5 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | Evaluation | passed | |
| | Requirement | 1.4 kg | |
| | Conductor type | 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 | ≥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 | |
| | 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 | EC002637 | ETIM 7.0 | EC002637 |
| ETIM 8.0 | EC002637 | ETIM 9.0 | EC002637 |
| ECLASS 9.0 | 27-44-04-02 | ECLASS 9.1 | 27-44-04-02 |
| ECLASS 10.0 | 27-44-04-02 | ECLASS 11.0 | 27-46-02-01 |
| ECLASS 12.0 | 27-46-02-01 | ECLASS 13.0 | 27460201 |

### 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>• 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>• 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<br>• Long term storage of the product with average temperature of 50 °C and maximum 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 |
| 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<br>PO OMNIMATE EN |

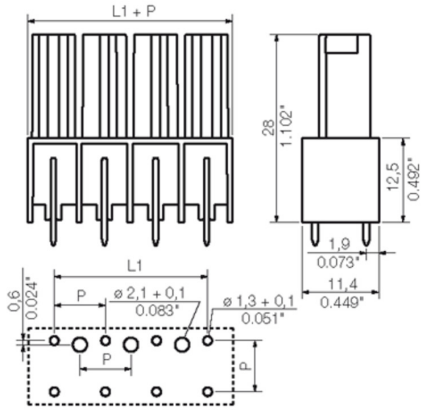
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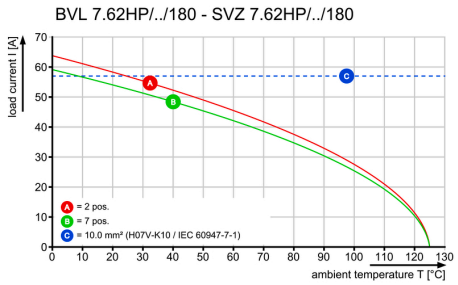
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## Drawings

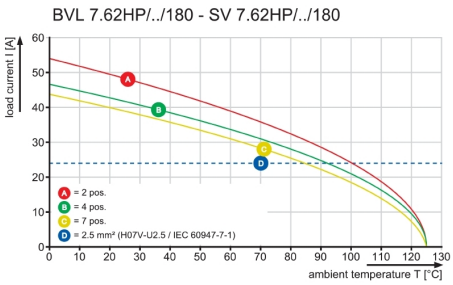
### Dimensional drawing



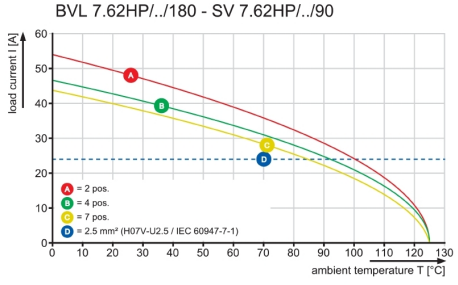

### Graph




### Graph

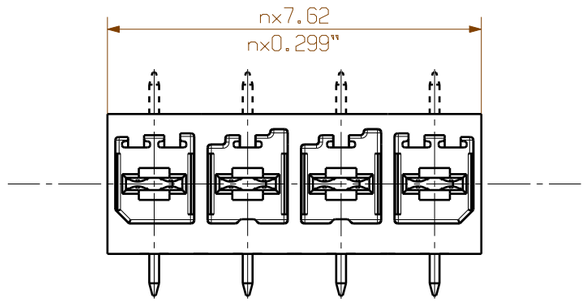


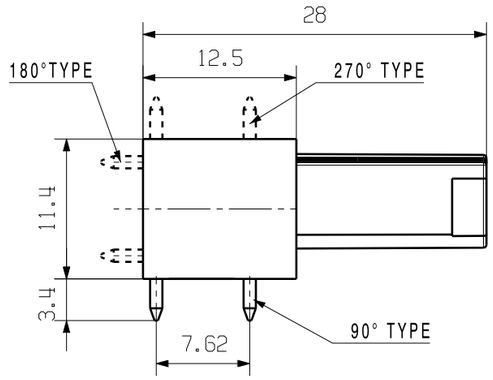

### Graph



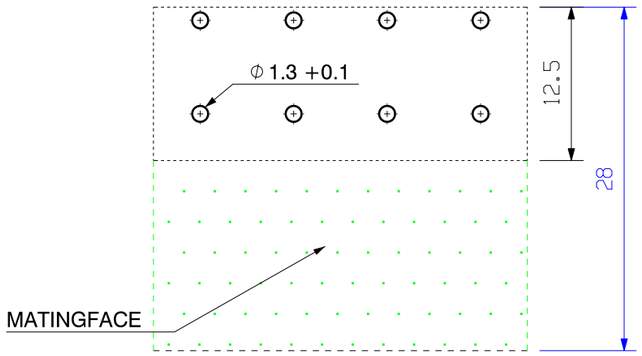
Dimensions without tolerances are no check dimensions

The English version is binding

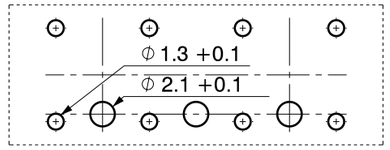


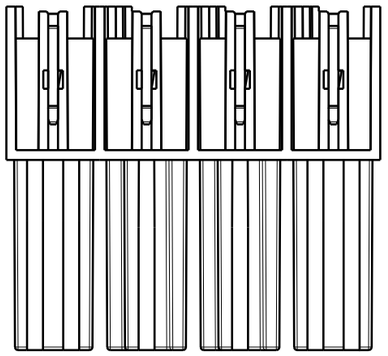




HOLE PATTERN 90°/270°

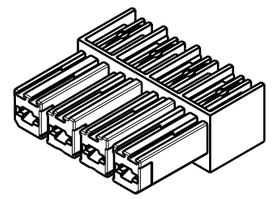



HOLE PATTERN 180°

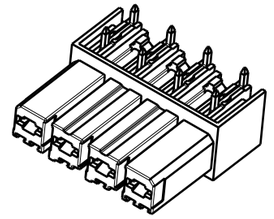


1:1
TOPVIEW 90°



1:1
BOTTOMVIEW 90 °



SHOWN: BVL7.62HP/04/90(/270/180)G

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

| | | | | |
|---|---|---|---|---|
| RoHS COMPLIANT | ISO 2768-m | | | . . Cat.no.: . |
| | | 103243/5 29.03.18 HELIS_MA . | 00 | Weidmüller — 4 39737 (Drawing no.) 04 (Issue no.) |
| | | Modification | | Sheet 01 of 02 sheets |
| | | | Date | Name |
| | | Drawn | 08.12.2006 | HECKERT_M |
| | | Responsible | | KRUG_M |
| Scale: 2:1 | | Checked | 16.04.2018 | HELIS_MA |
| Supersedes: . | | Approved | | LANG_T |

BVL 7.62HP/../...
BUCHSENLEISTE
FEMALE HEADER

Product file: BVL 7.62 — 7167

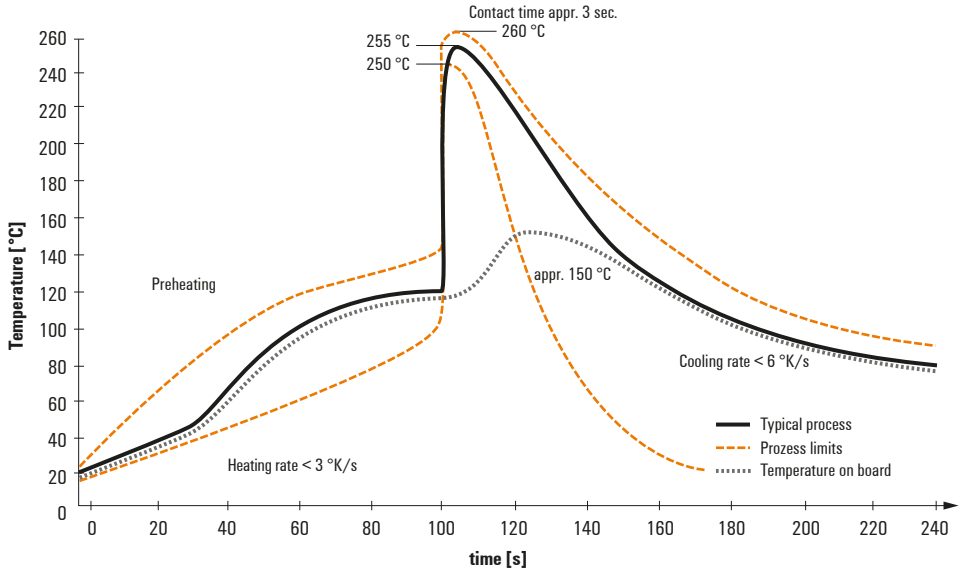
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# Wave Solder Profile

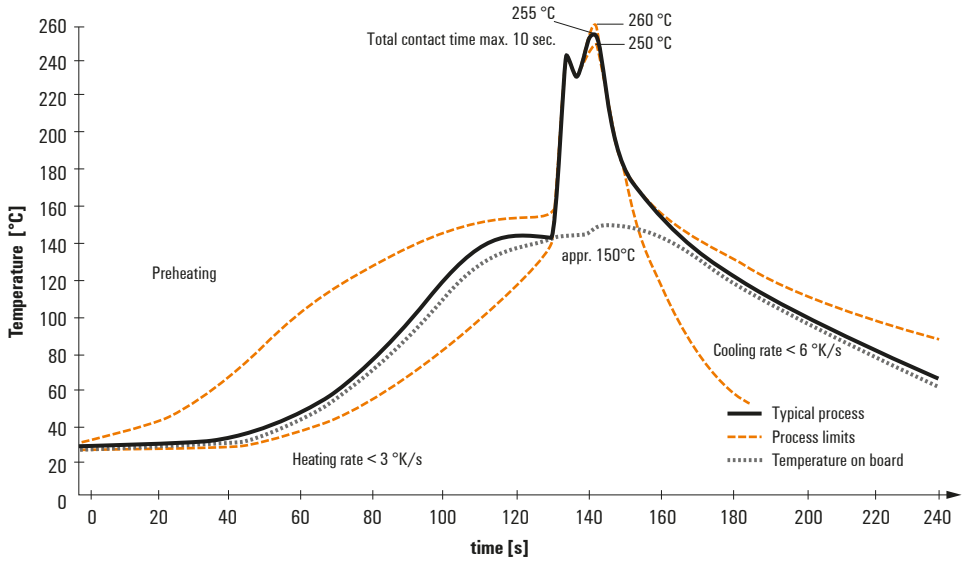
## Recommended wave solderding profiles

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Fon: +49 5231 14-0
Fax: +49 5231 14-292083
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**Single Wave:**




**Double Wave:**




**Wave soldering profiles**

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.