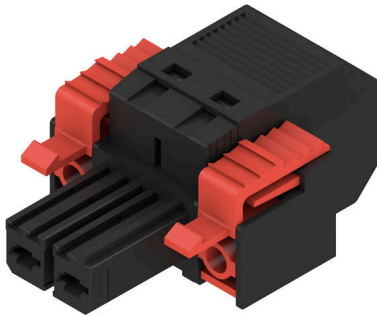


BVF 7.62HP/02/180F SN BK BX
Weidmüller Interface GmbH & Co. KG

 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com
Product image


180° female header with PUSH IN connection technology for field wiring in 6 mm² 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: 2, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max.: 10 mm ² , Box |
| Order No. | 1060440000 |
| Type | BVF 7.62HP/02/180F SN BK BX |
| GTIN (EAN) | 4032248810086 |
| Qty. | 50 items |
| Product data | IEC: 1000 V / 57 A / 0.5 - 10 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8 |
| Packaging | Box |

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Technical data

Approvals

Approvals



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

Dimensions and weights

| | | | |
|------------|---------|-----------------|-------------|
| Depth | 44.7 mm | Depth (inches) | 1.7598 inch |
| Height | 20 mm | Height (inches) | 0.7874 inch |
| Net weight | 13.6 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 without actuator, Tension-clamp connection | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 2 | L1 in mm | 7.62 mm |
| L1 in inches | 0.300 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 6 mm ² |
| 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 |
| 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 | Moisture Level (MSL) | |
| 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 ² |
| Clamping range, max. | 10 mm ² |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 10 mm ² |
| Stranded, max. H07V-R | 10 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |

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Technical data

| | |
|---|---------------------|
| Flexible, max. H05(07) V-K | 10 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 10 mm ² |

| | | | |
|--|--|------------------------------|-----------------------------|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm ² |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0.5/12 OR |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 0.75 mm ² | |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0.75/18 W |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1 mm ² | |
| wire end ferrule | | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1.0/18 GE |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1.5 mm ² | |
| wire end ferrule | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/12 |
| | | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1.5/18D SW |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 2.5 mm ² | |
| 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 mm ² | |
| 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 mm ² | |
| 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 | 10 mm ² | |
| wire end ferrule | | Stripping length | nominal 12 mm |

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Technical data

Recommended wire-
end ferrule [H10,0/12](#)

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) | 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 | 1000 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 1000 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 |
| Creepage distance, min. | 12.7 mm | Clearance, min. | 10.4 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | 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) | 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 | 353.00 mm |
| VPE width | 136.00 mm | VPE height | 61.00 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 |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed |
| | 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 |

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Technical data

| | | | |
|---|----------------|--|------------------------------|
| | 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 conductor cross-section | solid 0.5 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| | | Type of conductor and conductor cross-section | solid 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | 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 | | |
| 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 | |

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Technical data

| | | |
|----------------|---|-----------|
| | 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 | |

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
 - Wire end ferrule with plastic collar to DIN 46228/4
 - Wire end ferrule without plastic collar to DIN 46228/1
 - P on drawing = pitch
 - 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.
 - 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
 - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

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 | | |

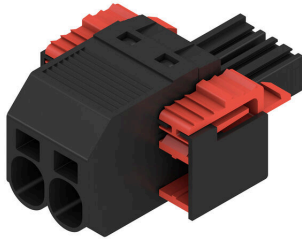
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Drawings

Product image



Dimensional drawing



Graph



Graph



Graph

Product benefits

Installation without tools Outlet direction: 90° und 180°

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 Germany

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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 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² 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 product configurator.

General ordering data

| | | | |
|------------|----------------------------|---|--|
| Type | BV/SV 7.62HP KO | Version | |
| Order No. | 1937590000 | PCB plug-in connector, Accessories, Coding element, black, Number | |
| GTIN (EAN) | 4032248608881 | of poles: 1 | |
| Qty. | 50 ST | | |

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. | 9009020000 | Screwdriver, Screwdriver | |
| GTIN (EAN) | 4032248266883 | | |
| Qty. | 1 ST | | |

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

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Accessories

General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | PZ 6/5 | Version | |
| Order No. | 9011460000 | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm ² , 6mm ² , | |
| GTIN (EAN) | 4008190165352 | Trapezoidal indentation crimp | |
| Qty. | 1 ST | | |

BVF 7.62HP/02/180F SN BK BX

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Counterpart

SV 7.62HP 180F SN

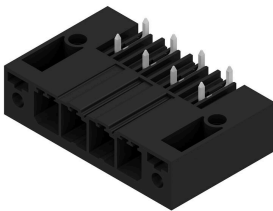


Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for lead-free wave soldering.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/180F 3.5SN... | Version |
| Order No. | 1930710000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248580682 | connection, 7.62 mm, Number of poles: 2, 180°, Solder pin length (l): |
| Qty. | 60 ST | 3.5 mm, tinned, black, Box |

SV 7.62HP 270F SN

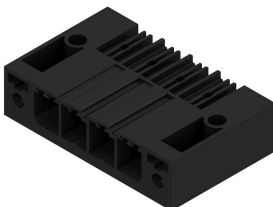


Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional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

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/270F 3.5SN... | Version |
| Order No. | 1931370000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248580408 | connection, 7.62 mm, Number of poles: 2, 270°, Solder pin length (l): |
| Qty. | 60 ST | 3.5 mm, tinned, black, Box |

SV 7.62HP 90F 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/02/90F 3.5SN ... | Version |
| Order No. | 1930380000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248580255 | connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): |
| Qty. | 60 ST | 3.5 mm, tinned, black, Box |

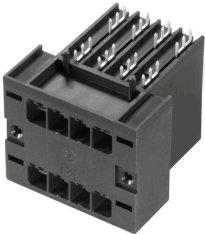
BVF 7.62HP/02/180F SN BK BX

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Counterpart

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SVD 7.62HP 270F SN



Double-row high-current, high-performance pin headers, with or without flange, for fast, tool-free locking. Optimised for "book-size modules" measuring 50mm wide and above. With integrated mounting option for mounting to the housing wall. Exceptional reliability and operational safety thanks to 100% failsafe mating profile, unique coding and optional additional screw mounting in the flange.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SVD 7.62HP/04/270F 3.2S... | Version |
| Order No. | 1523940000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4050118329810 | connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l): |
| Qty. | 33 ST | 3.2 mm, tinned, black, Box |

SV-SMT 7.62HP 270F BX



OMNIMATE Power BV / SV 7.62HP – the 28 kVA performance class
 Tailor-made solutions for high performers
 More power reserves for higher load bearing capacity:
 The OMNIMATE Power BV / SV 7.62HP is the middle-class of the power connector systems. It has a large clamping capacity, high overload resistance and the largest range of variants and accessories to choose from: the high performer of the HP range. HP means High Performance – this performance covers a great deal: the full rated current up to 50°C without derating, unlimited 600-V approval according to UL, and the additional finger safety for 400 V-TN systems (+ 3.0 mm) in compliance with the application directive IEC 61800-5-1.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV-SMT 7.62HP/02/270F 2... | Version |
| Order No. | 2499540000 | PCB plug-in connector, male header, Flange, THT/THR solder |
| GTIN (EAN) | 4050118513325 | connection, 7.62 mm, Number of poles: 2, 270°, Solder pin length (l): |
| Qty. | 50 ST | 2.6 mm, tinned, black, Box |
| Type | SV-SMT 7.62HP/02/270F 3... | Version |
| Order No. | 2498780000 | PCB plug-in connector, male header, Flange, THT/THR solder |
| GTIN (EAN) | 4050118511581 | connection, 7.62 mm, Number of poles: 2, 270°, Solder pin length (l): |
| Qty. | 50 ST | 3.5 mm, tinned, black, Box |

BVF 7.62HP/02/180F SN BK BX

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SV-SMT 7.62HP 90F BX


OMNIMATE Power BV / SV 7.62HP – the 28 kVA performance class

Tailor-made solutions for high performers

More power reserves for higher load bearing capacity: The OMNIMATE Power BV / SV 7.62HP is the middle-class of the power connector systems. It has a large clamping capacity, high overload resistance and the largest range of variants and accessories to choose from: the high performer of the HP range. HP means High Performance – this performance covers a great deal: the full rated current up to 50°C without derating, unlimited 600-V approval according to UL, and the additional finger safety for 400 V-TN systems (+ 3.0 mm) in compliance with the application directive IEC 61800-5-1.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV-SMT 7.62HP/02/90F 2.... | Version |
| Order No. | 2499520000 | PCB plug-in connector, male header, Flange, THT/THR solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): |
| GTIN (EAN) | 4050118512878 | |
| Qty. | 60 ST | 2.6 mm, tinned, black, Box |
| Type | SV-SMT 7.62HP/02/90F 3.... | Version |
| Order No. | 2498390000 | PCB plug-in connector, male header, Flange, THT/THR solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): |
| GTIN (EAN) | 4050118511550 | |
| Qty. | 50 ST | 3.5 mm, tinned, black, Box |