

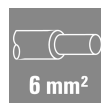
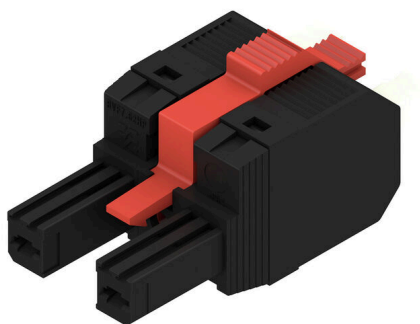
BVFL 7.62HP/02/180MF2 SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

180° female plug with PUSH IN connection system with adjustable actuator (pusher) for field wiring 6 mm² in a 7.62 pitch. Meets the requirements of UL 1059 600 V Class C and IEC 61800-5-1. Also ideal as a touch-safe solution for the power output. The self-locking middle flange which can optionally also be screwed, reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with snap-on mechanism 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 with actuator, Clamping range, max. : 6 mm ² , Box |
| Order No. | 2549300000 |
| Type | BVFL 7.62HP/02/180MF2 SN BK BX |
| GTIN (EAN) | 4050118558739 |
| Qty. | 84 items |
| Product data | IEC: 1000 V / 41 A / 0.5 - 6 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8 |
| Packaging | Box |

BVFL 7.62HP/02/180MF2 SN BK BX

Weidmüller Interface GmbH & Co. KG
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Technical data

Approvals

| | |
|------|---------|
| ROHS | Conform |
|------|---------|

Dimensions and weights

| | | | |
|------------|---------|-----------------|-------------|
| Depth | 52.1 mm | Depth (inches) | 2.0512 inch |
| Height | 20.6 mm | Height (inches) | 0.811 inch |
| Net weight | 14.36 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 with actuator | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 2 | L1 in mm | 15.24 mm |
| L1 in inches | 0.600 " | 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 |

Material data

| | | | |
|---------------------------------------|----------|---------------------------------------|--------------------|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 600 | 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. | 6 mm ² | | |
| Solid, min. H05(07) V-U | 0.5 mm ² | | |
| Solid, max. H05(07) V-U | 6 mm ² | | |
| Flexible, min. H05(07) V-K | 0.5 mm ² | | |
| Flexible, max. H05(07) V-K | 6 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. | 6 mm ² | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |

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Technical data

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

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) | 41 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) | 38 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 |

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Technical data

Rated impulse voltage for surge voltage 6 kV
class/ pollution degree II/2

Rated impulse voltage for surge voltage 8 kV
class/ contamination degree III/3

Creepage distance, min. 12.7 mm

Rated impulse voltage for surge voltage 8 kV
class/ pollution degree III/2

Short-time withstand current resistance 3 x 1 s with 420 A

Clearance, min. 10.4 mm

Rated data acc. to CSA

Rated voltage (Use group B / CSA) 600 V

Rated voltage (Use group D / CSA) 600 V

Rated current (Use group C / CSA) 33 A

Wire cross-section, AWG, min. AWG 24

Rated voltage (Use group C / CSA) 600 V

Rated current (Use group B / CSA) 33 A

Rated current (Use group D / CSA) 5 A

Wire cross-section, AWG, max. AWG 8

Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059) 600 V

Rated voltage (Use group D / UL 1059) 600 V

Rated current (Use group C / UL 1059) 39 A

Wire cross-section, AWG, min. AWG 24

Rated voltage (Use group C / UL 1059) 600 V

Rated current (Use group B / UL 1059) 39 A

Rated current (Use group D / UL 1059) 5 A

Wire cross-section, AWG, max. AWG 8

Packing

Packaging Box

VPE width 136.00 mm

VPE length 353.00 mm

VPE height 61.00 mm

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.
- Additional pole combinations on request
- 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

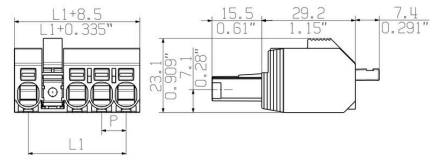
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Drawings

Product image



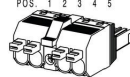
Dimensional drawing



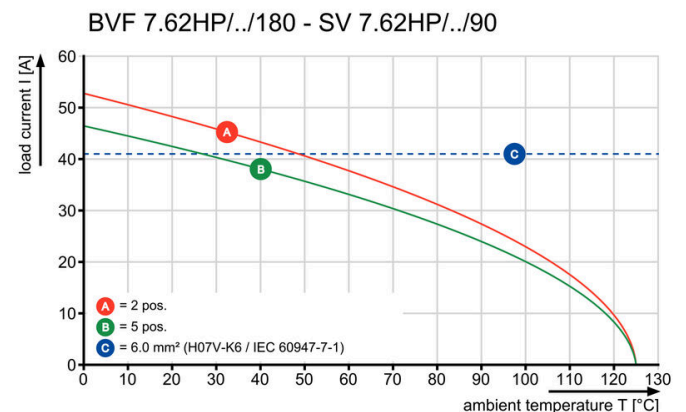
Similar to illustration

Connection diagram

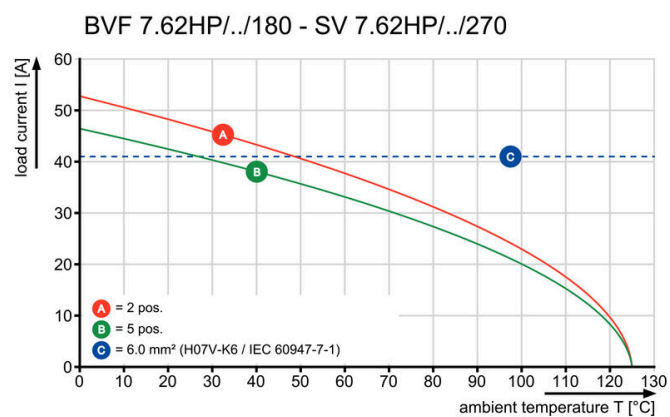
| | | | | | | | | |
|----------------------------|--------|----------------|---|---|---|---|---|---|
| 6 | M(S)F6 | o | o | o | o | o | X | o |
| 6 | M(S)F5 | o | o | o | o | X | o | o |
| 6 | M(S)F4 | o | o | o | X | o | o | o |
| 6 | M(S)F3 | o | o | X | o | o | o | o |
| 6 | M(S)F2 | o | X | o | o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



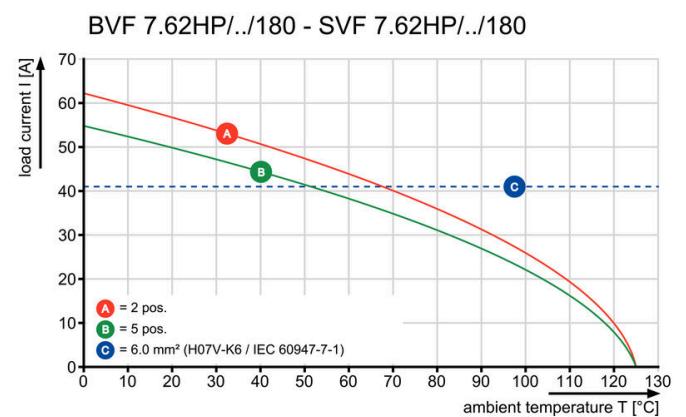
Graph



Graph



Graph



Drawings

Product benefits



Secure connection of small
conductors
PUSH IN WIRE READY

Product benefits



Installation without tools
Outlet direction: 90° und 180°

BVFL 7.62HP/02/180MF2 SN BK BX

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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 | |

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. | 9011460000 | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm ² , 6mm ² , |
| GTIN (EAN) | 4008190165352 | Trapezoidal indentation crimp |
| Qty. | 1 ST | |

Coupling set



With the aid of the SVF/BVF 7.62HP COUPLE SET the two plug-in elements can be connected back-to-back to form a 2-row connector with a maximum of 2 x 4 poles.

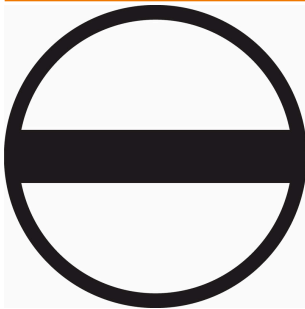
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Accessories**General ordering data**

| | | |
|------------|----------------------------|---|
| Type | SVF/BVF 7.62HP COUPLE S... | Version |
| Order No. | 1440850000 | PCB plug-in connector, Accessories, Mounting block, black |
| GTIN (EAN) | 4050118247060 | |
| Qty. | 20 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 0.6X3.5X100 | Version |
| Order No. | 9008330000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286 | |
| Qty. | 1 ST | |

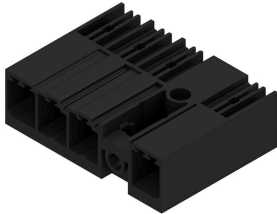
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Counterpart

SV 7.62HP 90MSF SN

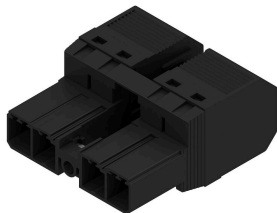


Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional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

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/90MSF2 3.5... | Version |
| Order No. | 1048400000 | PCB plug-in connector, male header, closed side, Middle screw flange, |
| GTIN (EAN) | 4032248786626 | THT solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin |
| Qty. | 78 ST | length (l): 3.5 mm, tinned, black, Box |

SVF 7.62HP/180MSF

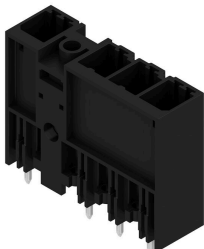


180° inverted inverse voltage-safe male header with PUSH IN connection technology for field wiring. With automatically locking middle flange for field wiring in 6 mm² with 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL 1059 600 V class C and IEC 61800-5-1. On request, also available without middle flange.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | SVF 7.62HP/02/180MSF2 S... | Version |
| Order No. | 1061110000 | PCB plug-in connector, male plug, 7.62 mm, Number of poles: |
| GTIN (EAN) | 4032248810659 | 2, 180°, PUSH IN without actuator, Tension-clamp connection, |
| Qty. | 65 ST | Clamping range, max. : 10 mm ² , Box |

SV 7.62HP 180MF SN



180° male header with middle flange with a 7.62 pitch. Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V. Without a female header, the mating profile guarantees minimum touch safety of >3 mm with 20 N pressure on the test finger. The automatically locking middle flange which can optionally also be screwed, reduces space requirements by one pitch width in comparison with conventional solutions. On request: available with screw flange or without flange.

BVFL 7.62HP/02/180MF2 SN BK BX

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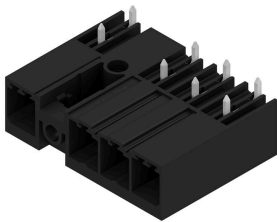
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Counterpart

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/180MF2 3.5... | Version |
| Order No. | 1048350000 | PCB plug-in connector, male header, closed side, Middle flange, THT |
| GTIN (EAN) | 4032248786671 | solder connection, 7.62 mm, Number of poles: 2, 180°, Solder pin |
| Qty. | 78 ST | length (l): 3.5 mm, tinned, black, Box |

SV 7.62HP 270MF SN

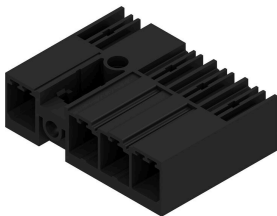


270° male header with middle flange with a 7.62 pitch. Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V. Without a female header, the mating profile guarantees minimum touch safety of >3 mm with 20 N pressure on the test finger. The automatically locking middle flange which can optionally also be screwed, reduces space requirements by one pitch width in comparison with conventional solutions.
 On request: available with screw flange or without flange.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/270MF2 3.5... | Version |
| Order No. | 1048370000 | PCB plug-in connector, male header, closed side, Middle flange, THT |
| GTIN (EAN) | 4032248786657 | solder connection, 7.62 mm, Number of poles: 2, 270°, Solder pin |
| Qty. | 78 ST | length (l): 3.5 mm, tinned, black, Box |

SV 7.62HP 90MF SN



90° male header with middle flange with a 7.62 pitch. Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V. Without a female header, the mating profile guarantees minimum touch safety of >3 mm with 20 N pressure on the test finger. The automatically locking middle flange which can optionally also be screwed, reduces space requirements by one pitch width in comparison with conventional solutions.
 On request: available with screw flange or without flange.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV 7.62HP/02/90MF2 3.5S... | Version |
| Order No. | 1048390000 | PCB plug-in connector, male header, closed side, Middle flange, THT |
| GTIN (EAN) | 4032248786633 | solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin |
| Qty. | 78 ST | length (l): 3.5 mm, tinned, black, Box |

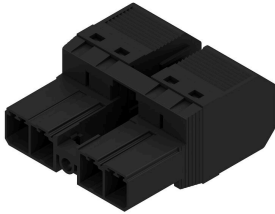
BVFL 7.62HP/02/180MF2 SN BK BX

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Counterpart

SVF 7.62HP/180MF

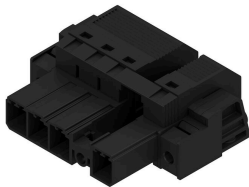


180° inverted inverse voltage-safe male header with PUSH IN connection technology for field wiring. With automatically locking middle flange for field wiring in 6 mm² with 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL1059 600 V class C and IEC 61800-5-1. On request, also available without middle flange.

General ordering data

| Type | SVF 7.62HP/02/180MF2 SN... | Version |
|------------|----------------------------|--|
| Order No. | 1061020000 | PCB plug-in connector, male plug, 7.62 mm, Number of poles: |
| GTIN (EAN) | 4032248810727 | 2, 180°, PUSH IN without actuator, Tension-clamp connection, |
| Qty. | 65 ST | Clamping range, max. : 10 mm ² , Box |

SVF 7.62HP/180SFBMF

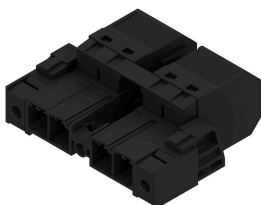


180° inverted male header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch as "three-flange variant" for housing passage. Suitable for housings with a max. wall thickness of 16 mm. Also perfect as a finger-safe solution for inverse voltages. Meets the requirements of UL 1059 600 V class C and IEC 61800-5-1.

General ordering data

| Type | SVF 7.62HP/02/180SFBMF2... | Version |
|------------|----------------------------|--|
| Order No. | 1429920000 | PCB plug-in connector, male plug, 7.62 mm, Number of poles: |
| GTIN (EAN) | 4050118234800 | 2, 180°, PUSH IN without actuator, Tension-clamp connection, |
| Qty. | 40 ST | Clamping range, max. : 10 mm ² , Box |

SVF 7.62HP/180SFMF



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 UL 1059 600 V class C and IEC 61800-5-1.

General ordering data

| Type | SVF 7.62HP/02/180SFMF2 ... | Version |
|------------|----------------------------|--|
| Order No. | 1427220000 | PCB plug-in connector, male plug, 7.62 mm, Number of poles: |
| GTIN (EAN) | 4050118231250 | 2, 180°, PUSH IN without actuator, Tension-clamp connection, |
| Qty. | 40 ST | Clamping range, max. : 10 mm ² , Box |

BVFL 7.62HP/02/180MF2 SN BK BX

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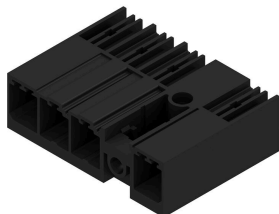
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Counterpart

SV-SMT 7.62IT 90MF SN BX



OMNIMATE Power for IT networks – scalable to 50 kVA
 Tailor-made solutions for special requirements
 More standard-compliance means fewer compromises:
 OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation.
 Results for the application and advantages for the user:
 unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process.
 In conclusion: You need no additional device covering.
 The application-oriented design means that no compromises are necessary during the approval process.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SV-SMT 7.62IT/02/90MF2 ... | Version |
| Order No. | 2499530000 | PCB plug-in connector, male header, Middle flange, THT/THR solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): 2.6 mm, tinned, black, Box |
| GTIN (EAN) | 4050118513134 | |
| Qty. | 50 ST | |
| Type | SV-SMT 7.62IT/02/90MF2 ... | Version |
| Order No. | 2498580000 | PCB plug-in connector, male header, Middle flange, THT/THR solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): 3.5 mm, tinned, black, Box |
| GTIN (EAN) | 4050118511567 | |
| Qty. | 50 ST | |