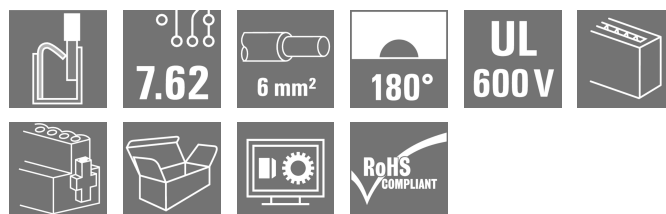


**BVF 7.62HP/04/180SF SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

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: 4, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max.: 10 mm <sup>2</sup> , Box
Order No.	<a href="#">1060520000</a>
Type	BVF 7.62HP/04/180SF SN BK BX
GTIN (EAN)	4032248810017
Qty.	30 items
Product data	IEC: 1000 V / 57 A / 0.5 - 10 mm <sup>2</sup> UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Box

# BVF 7.62HP/04/180SF SN BK BX

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## Technical data

### Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cULus)	E60693

### Dimensions and weights

Depth	44.7 mm	Depth (inches)	1.7598 inch
Height	20 mm	Height (inches)	0.7874 inch
Net weight	26.03 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	4	L1 in mm	22.86 mm
L1 in inches	0.900 "	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	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Tinning type	glossy
Layer structure of plug contact	6...8 µm Sn	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>

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## Technical data

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, 0.5 mm² min.				
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm² max.				
w. wire end ferrule, DIN 46228 pt 1, 0.5 mm² min.				
w. wire end ferrule, DIN 46228 pt 1, 10 mm² max.				
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	

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## Technical data

	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.		

## 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	352.00 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

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**Technical data**

Test: Clampable cross section	Evaluation	passed	
	Test	180° turned without coding elements	
	Evaluation	passed	
	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 <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 6 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 6 mm <sup>2</sup>
		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
Test for damage to and accidental loosening of conductors	Evaluation	passed	
	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
Pull-out test	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥20 N	

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## Technical data

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	

## 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		

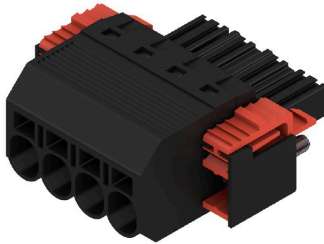
## BVF 7.62HP/04/180SF SN BK BX

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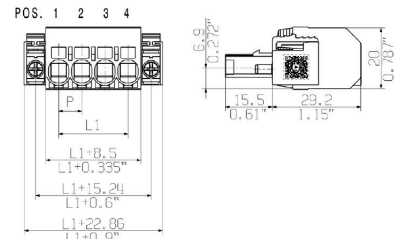
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## Drawings

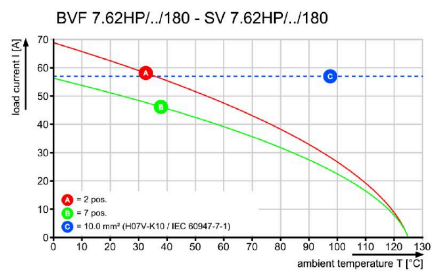
### Product image



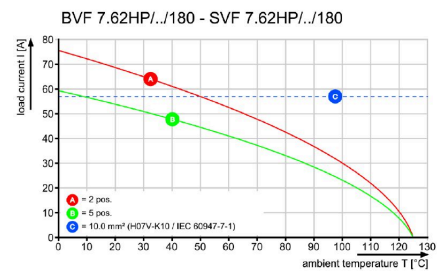
### Dimensional drawing



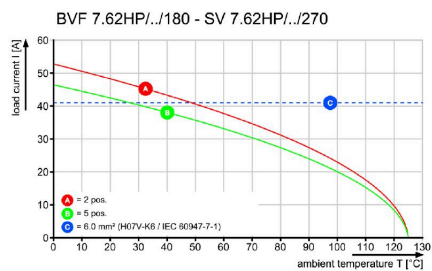
### Graph



### Graph



### Graph



### Product benefits



Installation without tools Outlet direction: 90° und 180°

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## 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 product configurator.

### General ordering data

Type	BV/SV 7.62HP KO	Version	
Order No.	<a href="#">1937590000</a>	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.	<a href="#">9009020000</a>	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.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm², 6mm²,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 ST	

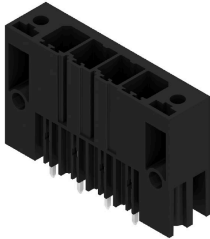
## BVF 7.62HP/04/180SF SN BK BX

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## Counterpart

## SV 7.62HP 180SF SN

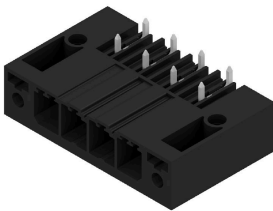


Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional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

## General ordering data

Type	SV 7.62HP/04/180SF 3.5S...	Version
Order No.	<a href="#">1930840000</a>	PCB plug-in connector, male header, Screw/clip-on flange, THT solder
GTIN (EAN)	4032248580811	connection, 7.62 mm, Number of poles: 4, 180°, Solder pin length (l):
Qty.	36 ST	3.5 mm, tinned, black, Box

## SV 7.62HP 270SF SN

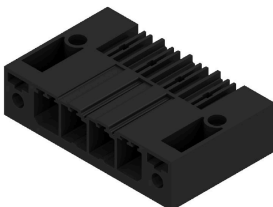


Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional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

## General ordering data

Type	SV 7.62HP/04/270SF 3.5S...	Version
Order No.	<a href="#">1931500000</a>	PCB plug-in connector, male header, Screw/clip-on flange, THT solder
GTIN (EAN)	4032248581535	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	36 ST	3.5 mm, tinned, black, Box

## SV 7.62HP 90SF SN



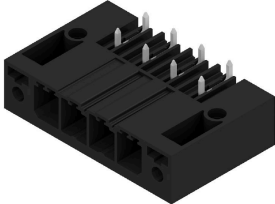
Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional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

## General ordering data

Type	SV 7.62HP/04/90SF 3.5SN...	Version
Order No.	<a href="#">1930510000</a>	PCB plug-in connector, male header, Screw/clip-on flange, THT solder
GTIN (EAN)	4032248580484	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	36 ST	3.5 mm, tinned, black, Box

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**Counterpart****SV-SMT 7.62HP 270SF BX**

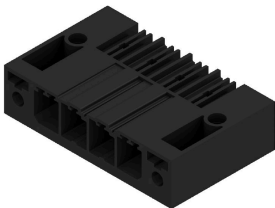
OMNIMATE Power BV / SV 7.62HP – the 28 kVA performance class

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/04/270SF ...	Version
Order No.	<a href="#">2499960000</a>	PCB plug-in connector, male header, Screw flange, THT/THR solder
GTIN (EAN)	4050118513387	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	36 ST	2.6 mm, tinned, black, Box
Type	SV-SMT 7.62HP/04/270SF ...	Version
Order No.	<a href="#">2498910000</a>	PCB plug-in connector, male header, Screw flange, THT/THR solder
GTIN (EAN)	4050118512045	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	50 ST	3.5 mm, tinned, black, Box

**SV-SMT 7.62HP 90SF BX**

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**General ordering data**

Type	SV-SMT 7.62HP/04/90SF 2...	Version
Order No.	<a href="#">2499620000</a>	PCB plug-in connector, male header, Screw flange, THT/THR solder
GTIN (EAN)	4050118513035	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	36 ST	2.6 mm, tinned, black, Box
Type	SV-SMT 7.62HP/04/90SF 3...	Version
Order No.	<a href="#">2498480000</a>	PCB plug-in connector, male header, Screw flange, THT/THR solder
GTIN (EAN)	4050118511703	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	50 ST	3.5 mm, tinned, black, Box

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[www.weidmueller.com](http://www.weidmueller.com)**Counterpart****SVZ 7.62HP 180SF SN**

High-performance male header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. 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, unique coding diversity, incorrect wiring protection. Suitable for labelling.

**General ordering data**

Type	SVZ 7.62HP/04/180SF SN ...	Version
Order No.	<a href="#">2590730000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,
GTIN (EAN)	4050118599053	180°, Clamping yoke connection, Box
Qty.	100 ST	