

## BVZ 7.62HP/05/180SH180C SN BK BX

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

www.weidmueller.com

### Product image



High-performance female 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 operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against faulty wiring, 4-point contact. Suitable for labelling.

### General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box
Order No.	<a href="#">1933400000</a>
Type	BVZ 7.62HP/05/180SH180C SN BK BX
GTIN (EAN)	4032248585731
Qty.	25 items
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A / AWG 24 - AWG 8
Packaging	Box

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## Technical data

## Approvals

Approvals



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

## Dimensions and weights

Depth	84.6 mm	Depth (inches)	3.3307 inch
Height	25 mm	Height (inches)	0.9842 inch
Width	53.34 mm	Width (inches)	2.1 inch
Net weight	51.4 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	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	5	L1 in mm	30.48 mm
L1 in inches	1.200 "	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
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.6 Nm
Clamping screw	M 3	Screwdriver blade	0.6 x 3.5
Plugging cycles	25	Plugging force/pole, max.	16.5 N
Pulling force/pole, max.	11 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 base material	Copper alloy
Contact material	Copper 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.	100 °C		

## Conductors suitable for connection

Clamping range, min.	0.2 mm <sup>2</sup>
Clamping range, max.	10 mm <sup>2</sup>

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Wire connection cross section AWG, min.	AWG 24			
Wire connection cross section AWG, max.	AWG 8			
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>			
Solid, max. H05(07) V-U	6 mm <sup>2</sup>			
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>			
Flexible, max. H05(07) V-K	10 mm <sup>2</sup>			
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min.				
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.				
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm <sup>2</sup>			
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm <sup>2</sup>			
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H0.5/18 OR</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm <sup>2</sup>	
	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 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	<a href="#">H1.5/18D SW</a>	
Stripping length		nominal	12 mm	
Recommended wire-end ferrule		<a href="#">H1.5/12</a>		
Cross-section for conductor connection	Type	fine-wired		
	nominal	0.75 mm <sup>2</sup>		
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	2.5 mm <sup>2</sup>		
wire end ferrule	Stripping length	nominal	14 mm	
	Recommended wire-end ferrule	<a href="#">H2.5/19D BL</a>		
	Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	<a href="#">H2.5/12</a>		
Cross-section for conductor connection	Type	fine-wired		
	nominal	4 mm <sup>2</sup>		
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 mm <sup>2</sup>		
wire end ferrule	Stripping length	nominal	14 mm	

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		Recommended wire-end ferrule	<a href="#">H6,0/20 SW</a>
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H6,0/12</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)	54 A	Rated current, min. number of poles (Tu=40°C)	51 A
Rated current, max. number of poles (Tu=40°C)	41 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	6000 V	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.	13 mm	Clearance, min.	10.2 mm

**Rated data acc. to CSA**

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1534443
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)	40.5 A
Rated current (Use group C / CSA)	40.5 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 voltage (Use group F / UL 1059)	1000 V
Rated current (Use group B / UL 1059)	40.5 A	Rated current (Use group C / UL 1059)	40.5 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group F / UL 1059)	40.5 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	260.00 mm
VPE width	157.00 mm	VPE height	77.00 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, type of material
	Evaluation	available
	Test	durability

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Test: Misengagement (Non-interchangeability)	Evaluation	passed		
	Standard	DIN EN 6 1984 section 6.3 and 6.9.1 / 09.02, DIN IEC 5 12 part 7 section 5 / 05.94		
	Test	180° turned with coding elements		
	Evaluation	passed		
Test: Clampable cross section	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 / 12.02		
	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 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 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	
Evaluation		passed		
Requirement		1.4 kg		
Conductor type	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 10/1		

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**Technical data**

		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	≥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	solid 0.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	
	Evaluation	passed		
	Requirement	≥80 N		
	Conductor type	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 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
  - Rated current related to rated cross-section & min. No. of poles.
  - 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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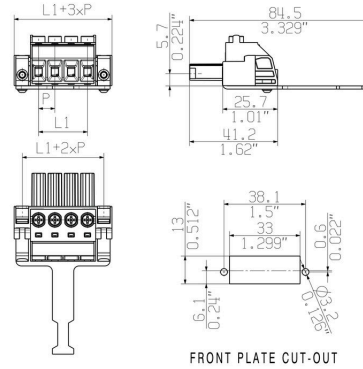
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# Drawings

### Product image



### Dimensional drawing



### Graph



### Graph



### Product benefits



Safe shielding Reliable and space-saving

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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 RD 2022	Version	
Order No.	<a href="#">2007300000</a>	PCB plug-in connector, Accessories, Coding element, red, Number of	
GTIN (EAN)	4050118392715	poles: 1	
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 0.8X4.5X125	Version	
Order No.	<a href="#">9009020000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248266883		
Qty.	1 ST		

Type	SDIS 0.8X4.0X100	Version	
Order No.	<a href="#">9008400000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056361		
Qty.	1 ST		

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## Accessories

### Crosshead screwdriver Phillips



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

#### General ordering data

Type	SDK PH1	Version	
Order No.	<a href="#">9008480000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056477		
Qty.	1 ST		
Type	SDIK PH1	Version	
Order No.	<a href="#">9008570000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056569		
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

#### General ordering data

Type	PZ 6/5	Version	
Order No.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> ,	
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp	
Qty.	1 ST		

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## Counterpart

### SVZ 7.62HP 180FC SN

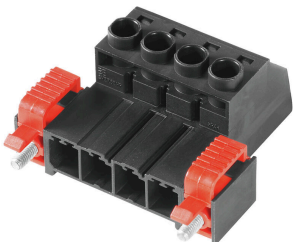


High-performance male header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, incorrect wiring protection. Suitable for labelling.

#### General ordering data

Type	SVZ 7.62HP/05/180FC SN ...	Version
Order No.	<a href="#">1950910000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,
GTIN (EAN)	4032248629787	180°, Clamping yoke connection, Clamping range, max. : 6 mm <sup>2</sup> , Box
Qty.	50 ST	

### SVZ 7.62HP 180SFC 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/05/180SFC SN...	Version
Order No.	<a href="#">1951020000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,
GTIN (EAN)	4032248629923	180°, Clamping yoke connection, Clamping range, max. : 6 mm <sup>2</sup> , Box
Qty.	50 ST	

### SVZ 7.62HP 180SH180C SN



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#### General ordering data

Type	SVZ 7.62HP/05/180RSH180...	Version
Order No.	<a href="#">1951170000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,
GTIN (EAN)	4032248630141	180°, Clamping yoke connection, Clamping range, max. : 6 mm <sup>2</sup> , Box
Qty.	25 ST	