

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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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: 4, 180°, Clamping yoke connec- tion, Clamping range, max. : 10 mm², Box
Order No.	<u>1933480000</u>
Туре	BVZ 7.62HP/04/180SH210C SN BK BX
GTIN (EAN)	4032248585861
Qty.	25 items
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm <sup>2</sup>
	UL: 600 V / 40.5 A / AWG 24 - AWG 8
Packaging	Вох





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# **Technical data**

### **Approvals**

Approvals



ROHS	Conform	
UL File Number Search	<u>UL Website</u>	
Certificate No. (cURus)	E60693	

### **Dimensions and weights**

Depth	80.3 mm	Depth (inches)	3.1614 inch
Height	25 mm	Height (inches)	0.9842 inch
Width	45.72 mm	Width (inches)	1.8 inch
Net weight	43.72 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	4	L1 in mm	22.86 mm
L1 in inches	0.900 "	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm²
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, 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	68 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,	AWG 24		
min.			
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 min.	4, 0.2 mm <sup>2</sup>		
w. plastic collar ferrule, DIN 46228 pt max.	4, 6 mm²		
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	Туре	fine-wired
		nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H0,5/18 OR
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire- end ferrule	H1,0/18 GE
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire- end ferrule	H1,5/18D SW
		Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H1,5/12
	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H0,75/18 W
	Cross-section for conductor connection	Туре	fine-wired
		nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H2,5/19D BL
		Stripping length	nominal 12 mm
		Recommended wire-	H2,5/12
		end ferrule	
	Cross-section for conductor connection	Туре	fine-wired
		nominal	4 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire- end ferrule	<u>H4,0/12</u>
		Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H4,0/20D GR
	Cross-section for conductor connection	Туре	fine-wired
		nominal	6 mm <sup>2</sup>
	wire and formula	Stripping longth	nominal 14 mm

Catalogue status / Drawings

Stripping length

nominal

14 mm

wire end ferrule





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	Recommended wire- H6,0/20 SW end ferrule	
	Stripping length nominal 12	2 mm
	Recommended wire- end ferrule	
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P), Length or is to be chosen depending on the product and the rated voltage.	of ferrules

#### 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	261.00 mm
VPE width	156.00 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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# **Technical data**

	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	
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 solid 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor AWG 24/1 and conductor cross-section	
		Type of conductor AWG 24/19 and conductor cross-section	
		Type of conductor AWG 10/1 and conductor cross-section	
		Type of conductor AWG 10/19 and conductor cross-section	
	Evaluation	passed	
Test for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00	
loosening of conductors	Requirement	0.2 kg	
	Conductor type	Type of conductor AWG 24/1 and conductor cross-section	
		Type of conductor AWG 24/19 and conductor cross-section	
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section	
	Evaluation	passed	
	Requirement	1.4 kg	
	Conductor type	Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor AWG 10/1 and conductor cross-section	



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# **Technical data**

		Type of conductor AWG 10/19 and conductor cross-section
	Evaluation	passed
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	Conductor type	Type of conductor AWG 24/1 and conductor cross-section
		Type of conductor AWG 24/19 and conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section
	Evaluation	passed
	Requirement	≥80 N
	Conductor type	Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section
		Type of conductor AWG 10/1 and conductor cross-section
		Type of conductor AWG 10/19 and conductor cross-section
	Evaluation	passed

#### Important note

Notes

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.

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
- $\bullet$  Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

#### Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02

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**Technical data** 

ECLASS 15.0 27-46-02-02

# Weidmüller 3

# **BVZ 7.62HP/04/180SH210C SN BK BX**

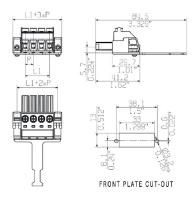
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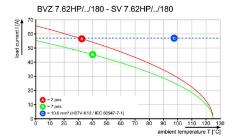
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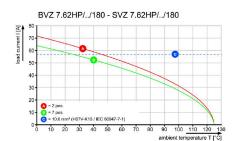
# **Drawings**

### **Dimensional drawing**



Graph Graph





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### **Product benefits**



Safe shieldingReliable 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**

Туре	BV/SV 7.62HP KO RD 2022	Version
Order No.	2007300000	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**

Туре	SDS 0.8X4.5X125	Version
Order No.	9009020000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 ST	
Туре	SDIS 0.8X4.0X100	Version
Type Order No.	SDIS 0.8X4.0X100 9008400000	Version Screwdriver, Screwdriver

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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**

Туре	SDK PH1	Version
Order No.	9008480000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056477	
Qty.	1 ST	
Туре	SDIK PH1	Version
Type Order No.	SDIK PH1 9008570000	Version Screwdriver, Screwdriver

### **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**

Туре	PZ 6/5	Version
Order No.	9011460000	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm², 6mm²,
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. Sideby-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

Туре SVZ 7.62HP/04/180FC SN ... Version

Order No. 1950900000 GTIN (EAN) 4032248629763 Qty.

100 ST

PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,

180°, Clamping yoke connection, Clamping range, max.: 6 mm², Box

#### **SVZ 7.62HP 180SFC SN**



High-performance male header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Sideby-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**

Туре SVZ 7.62HP/04/180SFC SN... Version Order No. 1951010000 PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4, GTIN (EAN) 4032248629916 180°, Clamping voke connection, Clamping range, max.: 6 mm<sup>2</sup>, Box 100 ST

### **SVZ 7.62HP 180SH180C SN**



High-performance male header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Sideby-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**

SVZ 7.62HP/04/180RSH180... Version Туре Order No. 1951160000 PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4, GTIN (EAN) 4032248630134 180°, Clamping yoke connection, Clamping range, max.: 6 mm², Box 25 ST Qty.

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