

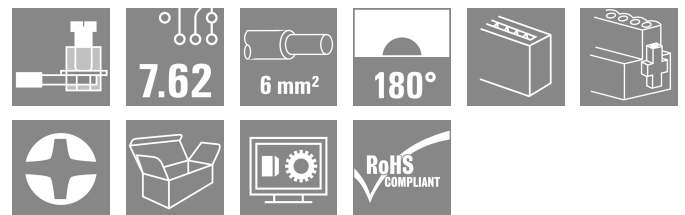
BVZ 7.62HP/03/180F SN BK BX PRT
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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: 3, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box
Order No.	1981580000
Type	BVZ 7.62HP/03/180F SN BK BX PRT
GTIN (EAN)	4032248677818
Qty.	32 items
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A
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	42.1 mm	Depth (inches)	1.6575 inch
Height	23.1 mm	Height (inches)	0.9094 inch
Width	38.1 mm	Width (inches)	1.5 inch
Net weight	18.83 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	3	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm ²
Protection degree	IP20	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 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 ²
Clamping range, max.	10 mm ²
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 ²
Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²

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Flexible, max. H05(07) V-K	10 mm ²			
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 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			
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 ²	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H0.5/18 OR	
	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	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	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	2.5 mm ²		
wire end ferrule	Stripping length	nominal	14 mm	
	Recommended wire-end ferrule	H2.5/19D BL		
	Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	H2.5/12		
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	14 mm	
	Recommended wire-end ferrule	H6.0/20 SW		
	Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	H6.0/12		

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.

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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.	13.8 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 F / UL 1059)	40.5 A	Wire cross-section, AWG, max.	AWG 8
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	351.00 mm
VPE width	135.00 mm	VPE height	48.00 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
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
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

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

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Evaluation	passed	
Requirement	≥20 N	
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
Evaluation	passed	
Requirement	≥80 N	
Conductor type	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 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		

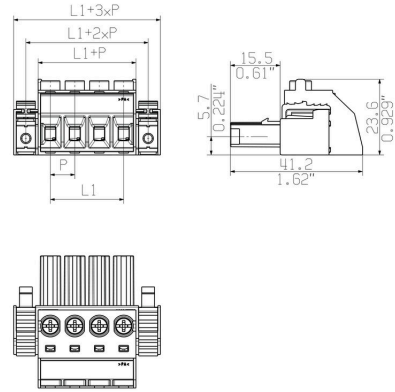
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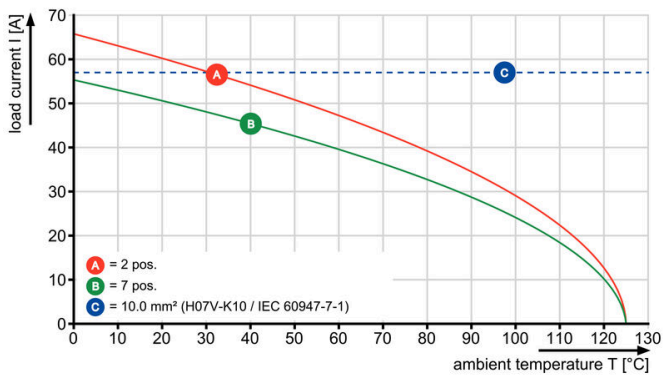
Drawings

Dimensional drawing



Graph

BVZ 7.62HP/..180 - SV 7.62HP/..180



Graph

BVZ 7.62HP/..180 - SVZ 7.62HP/..180

