

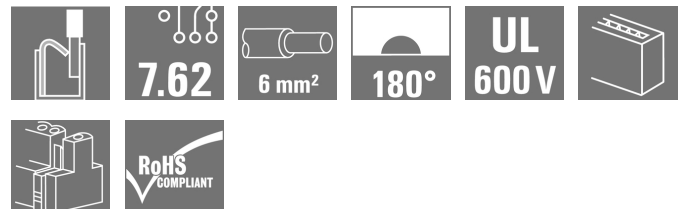
BVF 7.62HP/04/180MF4 SN BK BX LRP**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

180° female header with PUSH IN connection technology for field wiring in 6 mm² 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, Clamping range, max.: 10 mm ² , Box
Order No.	2590220000
Type	BVF 7.62HP/04/180MF4 SN BK BX LRP
GTIN (EAN)	4050118598179
Qty.	40 pc(s).
Product data	IEC: 1000 V / 57 A / 0.5 - 10 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Box

Creation date April 16, 2021 3:56:31 AM CEST

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Technical data**Dimensions and weights**

Depth	47.7 mm	Depth (inches)	1.878 inch
Height	22.9 mm	Height (inches)	0.902 inch
Net weight	24.194 g		

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Conductor outlet direction	180°
Number of poles	4	L1 in mm	30.48 mm
L1 in inches	1.2 inch	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	Volume resistance	4.50 mΩ
Can be coded	Yes	Stripping length	12 mm
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	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
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.	10 mm ²
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	10 mm ²
Stranded, max. H07V-R	10 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	10 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, 0.5 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 10 mm ² max.	

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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	H0.5/12 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
Cross-section for conductor connection		Type	fine-wired
		nominal	10 mm ²
wire end ferrule		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H10.0/12
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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Technical data

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	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 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

Rated data acc. to CSA

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

Rated data acc. to UL 1059

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

Packing

Packaging	Box	VPE length	338 mm
VPE width	130 mm	VPE height	54 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
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed

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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 / 04.08	
	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 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	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
	Evaluation	passed	

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Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥20 N	
	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.
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Notes	• Additional colours 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. • MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3 • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months
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Approvals

ROHS	Conform
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Downloads

User Documentation	QR-Code product handling video
Brochure/Catalogue	Catalogues in PDF-format

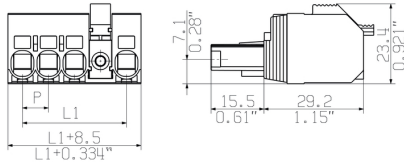
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Drawings

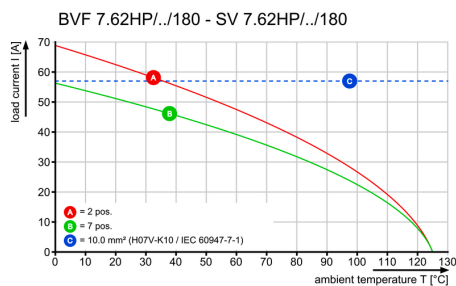
Dimensional drawing



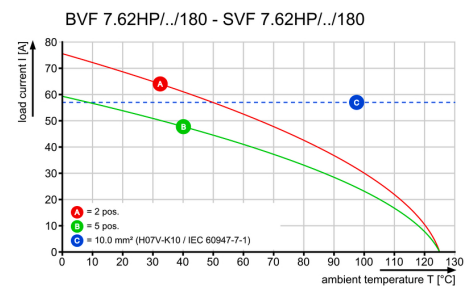
Connection diagram

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	
5	M(S)F4	o	o	o	X	o	o	
5	M(S)F3	o	o	X	o	o	o	
5	M(S)F2	o	X	o	o	o	o	
4	M(S)F4	o	o	o	X	o		
4	M(S)F3	o	o	X	o	o		
4	M(S)F2	o	X	o	o	o		
3	M(S)F3	o	o	X	o			
3	M(S)F2	o	X	o	o			
2	M(S)F2	o	X	o	o			
NO OF POLES	X = MIDDLE FLANGE POSITION	1	2	3	4	5	6	7

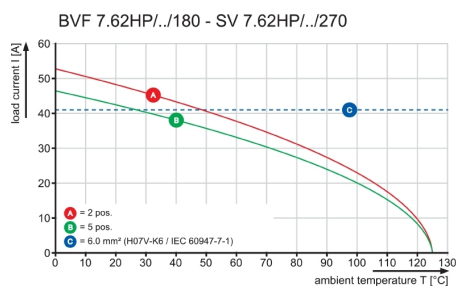
Graph



Graph



Graph



Product benefits



Installation without tools
Outlet direction: 90° und 180°