

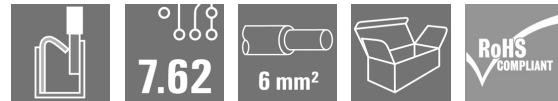
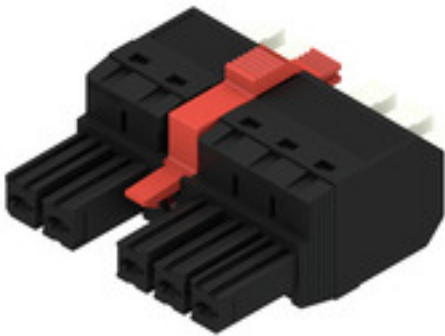
BVFL 7.62HP/05/180MF4 SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

180° female plug with PUSH IN connection system with adjustable actuator (pusher) for field wiring 6 mm² in a 7.62 pitch. Meets the requirements of UL 1059 600 V Class C and IEC 61800-5-1. Also ideal as a touch-safe solution for the power output. The self-locking middle flange which can optionally also be screwed, reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with snap-on mechanism and optionally additional screw mount

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5, 180°, PUSH IN with actuator, Clamping range, max.: 6 mm ² , Box
Order No.	2549390000
Type	BVFL 7.62HP/05/180MF4 SN BK BX
GTIN (EAN)	4050118558937
Qty.	42 pc(s).
Product data	IEC: 1000 V / 41 A / 0.5 - 6 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Box

Creation date May 11, 2025 9:28:17 PM CEST

Catalogue status 26.04.2025 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

Depth	52.1 mm	Depth (inches)	2.051 inch
Height	20.6 mm	Height (inches)	0.811 inch
Net weight	24.452 g		

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 "	Conductor outlet direction	180°
Number of poles	5	L1 in mm	38.1 mm
L1 in inches	1.5 "	Number of rows	1
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
Protection degree	IP20	Volume resistance	4.50 mΩ
Can be coded	Yes	Stripping length	12 mm
Screwdriver blade	0.6 x 3.5	Plugging cycles	25

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Cu-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.	125 °C		

Conductors suitable for connection

Clamping range, min.	0.5 mm ²
Clamping range, max.	6 mm ²
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	6 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, 6 mm ² max.	

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Technical data

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	
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)	41 A
Rated current, max. number of poles (Tu=20°C)	41 A	Rated current, min. number of poles (Tu=40°C)	41 A
Rated current, max. number of poles (Tu=40°C)	38 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
Clearance, min.	10.4 mm	Creepage distance, min.	12.7 mm

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	353 mm
VPE width	135 mm	VPE height	61 mm

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
ECLASS 15.0	27-46-02-02		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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Technical data**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. • Additional pole combinations on request • 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

Approvals

ROHS	Conform
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Downloads

Engineering Data	CAD data – STEP
Product Change Notification	EN - Change of isolation material DE - Werkstoffänderung Pusher 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder 20220208 Visual change Temporarily different color for connectors and accessories 20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör
User Documentation	Operating Instruction BVFL QR-Code product handling video
Catalogues	Catalogues in PDF-format

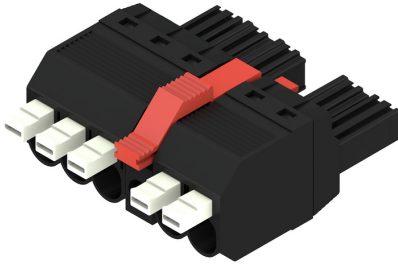
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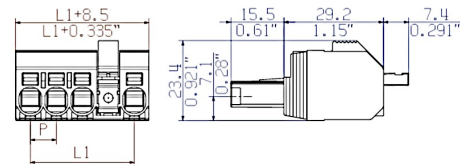
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Drawings

Product image



Dimensional drawing

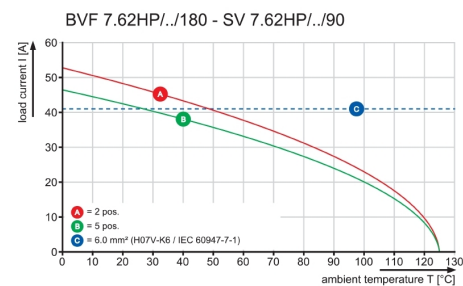


Similar to illustration

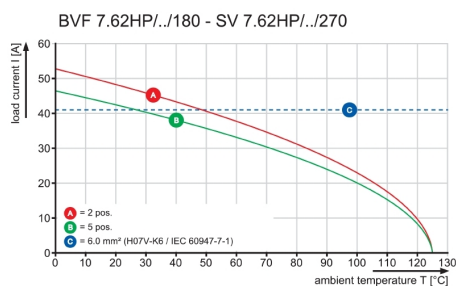
Connection diagram

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

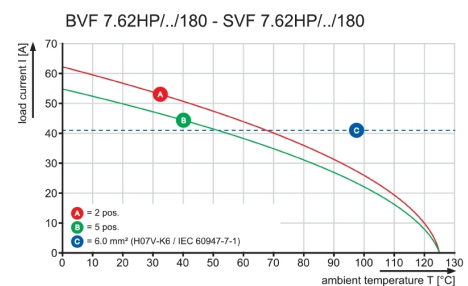
Graph



Graph



Graph



BVFL 7.62HP/05/180MF4 SN BK BX
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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 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² 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

General ordering data

Type	BV/SV 7.62HP KO	Version	Product data	Packaging
Order No.	1937590000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248608881	of poles: 1		
Qty.	50 pc(s).			

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.	9011460000	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm ² , 6mm ² ,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 pc(s).	

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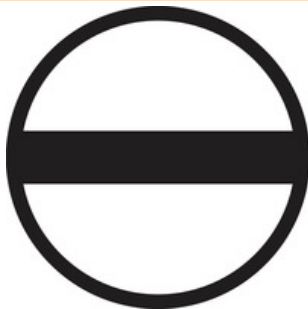
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Accessories
Coupling set


With the aid of the SVF/BVF 7.62HP COUPLE SET the two plug-in elements can be connected back-to-back to form a 2-row connector with a maximum of 2 x 4 poles.

General ordering data

Type	SVF/BVF 7.62HP COUPLE S ...	Version	Product data	Packaging
Order No.	1440850000	PCB plug-in connector, Accessories, Mounting block, black		Box
GTIN (EAN)	4050118247060			
Qty.	20 pc(s).			

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 0.6X3.5X100	Version
Order No.	9008330000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

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Drawings

Product benefits



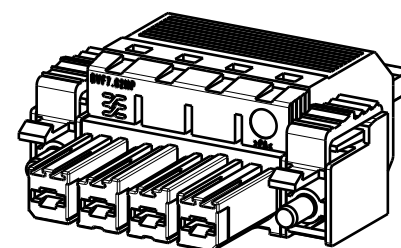
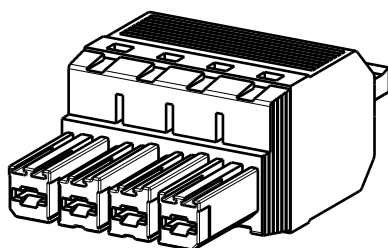
Secure connection of small conductors
PUSH IN WIRE READY

Product benefits



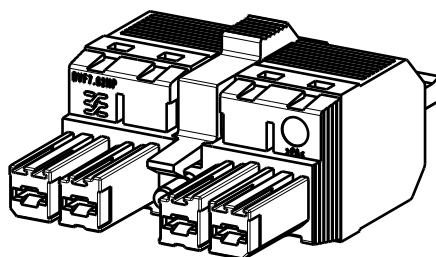
Installation without tools
Outlet direction: 90° und 180°

SHOWN: BVFL 7.62HP/04/180(S)F



Technical drawing of the front view of a 5-pin D-sub connector. The drawing shows the connector's profile with dimensions. The top section has a width of $nxP+4.25 \pm 0.2$ inches ($nxP+0.468$ inches) and a height of 0.15 inches. The bottom section has a height of 22.2 inches (0.874 inches). A central pin is labeled with a diameter of $\varnothing 3.8$. The drawing is a black and white line drawing with dimension lines and text.

M 1:1



Technical drawing of a screwdriver with dimensions in inches and millimeters. The drawing shows a side view of the handle and shaft. Dimensions are provided for the handle length, grip diameter, and shaft diameter. The handle length is 23.4 inches (594 mm). The grip diameter is 0.921 inches (23.4 mm). The shaft diameter is 0.28 inches (7.1 mm). The handle has a length of 15.5 inches (393 mm) and a grip diameter of 0.61 inches (15.5 mm). The shaft has a length of 29.2 inches (742 mm) and a diameter of 1.15 inches (29.2 mm). The tip has a length of 7.4 inches (188 mm) and a diameter of 0.291 inches (7.4 mm). The drawing also includes a legend for the screwdriver and conductor symbols.

Dimension	Value (inches)	Value (millimeters)
Handle Length	23.4	594
Grip Diameter	0.921	23.4
Shaft Diameter	0.28	7.1
Handle Length (to Grip)	15.5	393
Grip Diameter (to Grip)	0.61	15.5
Shaft Length	29.2	742
Shaft Diameter	1.15	29.2
Tip Length	7.4	188
Tip Diameter	0.291	7.4

F = Flansch / flange
SF = Schraubflansch / screw flange
MF = Mittelflansch / middle flange
MSF = Mittelschraubflansch / middle screw flange
P = Raster / pitch
n = Polzahl/no of poles

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.

The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

6 M(S)F 4	P	P	P	M(S)F	P	P	P
5 M(S)F 4	P	P	P	M(S)F	P	P	
5 M(S)F 3	P	P	M(S)F	P	P	P	
4 M(S)F 4	P	P	P	M(S)F	P		
4 M(S)F 3	P	P	M(S)F	P	P		
3 M(S)F 3	P	P	M(S)F	P			
3 M(S)F 2	P	M(S)F	P	P			
2 M(S)F 2	P	M(S)F	P				
POS.	1	2	3	4	5	6	7

7	45,72	1,8
6	38,10	1,5
5	30,48	1,2
4	22,86	0,9
3	15,24	0,6
2	7,62	0,3
POLE NO OF POLES	L1 (mm)	L1 (Inch)

 DIN ISO 2768-m	97120/0 18.08.17 HELIS_MA		00	Weidmüller 	CAT.NO.:	
	MODIFICATION				C 60714	03
					DRAWING NO.	ISSUE NO.
		DATE	NAME	BVFL 7.62HP/.. /180... BUCHSENSTECKER FEMALE PLUG		
	DRAWN	23.09.2014	HELIS_MA			
	RESPONSIBLE		KRUG_M			
SCALE: 2:1	CHECKED	18.08.2017	HELIS_MA			
SUPERSEDES: .	APPROVED		LANG_T	PRODUCT FILE: BVF 7.62HP	7390	