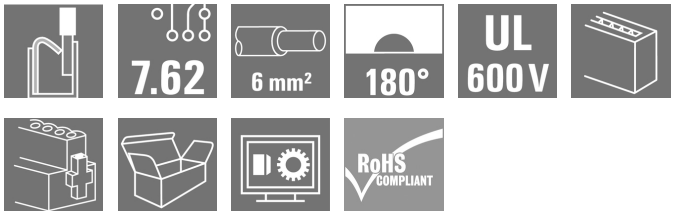
BVF 7.62HP/05/180MSF4 SN BK BX

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: 5, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max. : 10 mm², Box
Order No.	1060690000
Type	BVF 7.62HP/05/180MSF4 SN BK BX
GTIN (EAN)	4032248809561
Qty.	30 pc(s).
Product data	IEC: 1000 V / 57 A / 0.5 - 10 mm² UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Box

Creation date December 5, 2023 10:08:48 AM CET

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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	19.572 g		

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN without actuator, Tension-clamp connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Conductor outlet direction	180°
Number of poles	5	L1 in mm	38.1 mm
L1 in inches	1.5 inch	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 for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max.	0.3 Nm
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	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 mm²
Clamping range, max.	10 mm²
Solid, min. H05(07) V-U	0.5 mm²
Solid, max. H05(07) V-U	10 mm²
Stranded, max. H07V-R	10 mm²
Flexible, min. H05(07) V-K	0.5 mm²
Flexible, max. H05(07) V-K	10 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	6 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	10 mm²

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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
Clearance, min.	10.4 mm	Creepage distance, min.	12.7 mm

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
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
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (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 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
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	353 mm
VPE width	137 mm	VPE height	61 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
	Evaluation	passed

Weidmüller

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Technical data

Test: Misengagement (Non-interchangeability)	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	
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 mm²
		Type of conductor and conductor cross-section	stranded 0.5 mm²
		Type of conductor and conductor cross-section	solid 6 mm²
		Type of conductor and conductor cross-section	stranded 6 mm²
		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	

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	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	27460202

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. • 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

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	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 BVF QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL HEATING ELECTR EN FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

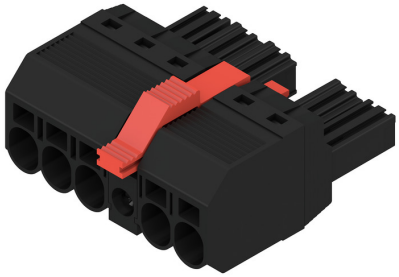
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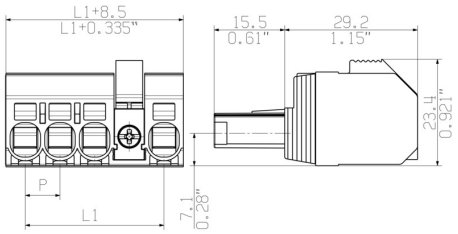
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Drawings

Product image



Dimensional drawing

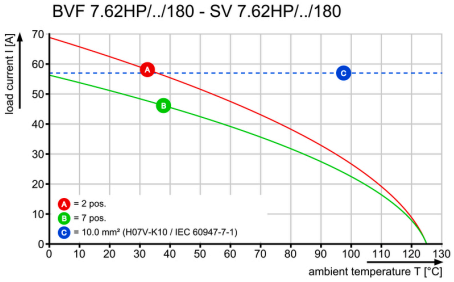


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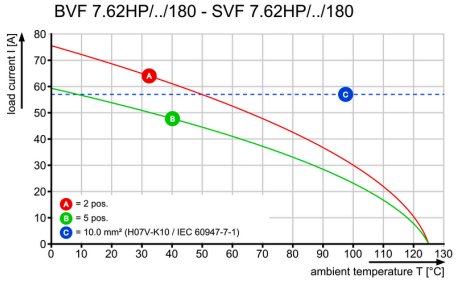
Connection diagram

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				
		1	2	3	4	5	6	7
NO OF POLES	X = MIDDLE FLANGE POSITION	POS. 1 2 3 4 5						

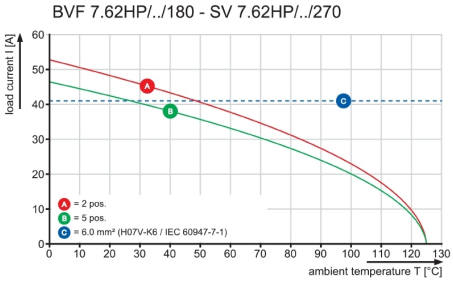
Graph



Graph



Graph



Installation without tools
Outlet direction: 90° und 180°

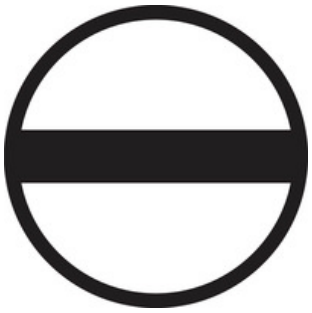
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Accessories

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.	9009020000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

Shielding



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	BVF 7.62HP SH210 4-6 KIT	Version	Product data	Packaging
Order No.	1118490000	PCB plug-in connector, Accessories, For a shield connection, black,		Box
GTIN (EAN)	4032248899302	Number of poles: 0		
Qty.	25 pc(s).			

Type	BVF 7.62HP SH180 4-6 KIT	Version	Product data	Packaging
Order No.	1118470000	PCB plug-in connector, Accessories, For a shield connection, black,		Box
GTIN (EAN)	4032248899456	Number of poles: 0		
Qty.	25 pc(s).			

Type	BVF 7.62HP SH150 4-6 KIT	Version	Product data	Packaging
Order No.	1118480000	PCB plug-in connector, Accessories, For a shield connection, black,		Box
GTIN (EAN)	4032248899449	Number of poles: 0		
Qty.	25 pc(s).			

BVF 7.62HP/05/180MSF4 SN BK BX

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Accessories

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, 0.25mm², 6mm²,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 pc(s).	

Coding elements



The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.
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- 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).			

BVF 7.62HP/05/180MSF4 SN BK BX

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Drawings

Product benefits



Installation without tools
Outlet direction: 90° und 180°