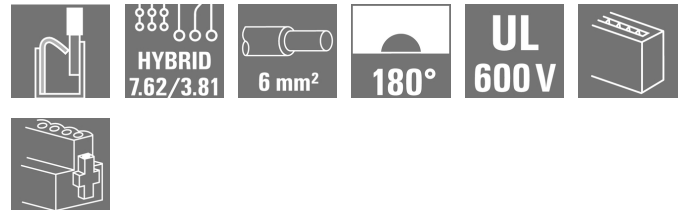


BVF 7.62HP/04/180MF2 BCF/04R SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

180° female plug with energy and signal contacts in PUSH IN wire connection in 7.62 pitch.
Fulfils the IEC 61800-5-1 requirement and for the energy contact UL 1059 ClassC 600 V.

The self-locking middle flange with automatic interlock reduces the space requirements by one pitch width in comparison with conventional solutions. Optionally also available with additional mounting screw.

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with actuator, PUSH IN without actuator, Clamping range, max.: 10 mm², Box
Order No.	2628320000
Type	BVF 7.62HP/04/180MF2 BCF/04R SN BK BX
GTIN (EAN)	4050118631647
Qty.	30 pc(s).
Product data	IEC: 1000 V / 38 A / 0.5 - 10 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

Creation date May 23, 2024 2:59:51 PM CEST

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Technical data**Dimensions and weights**

Net weight	28.47 g
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System Parameters

Product family		Type of connection	Field connection
OMNIMATE Power - series BV/SV 7.62HP			
Wire connection method		Pitch in mm (P)	
PUSH IN with actuator, PUSH IN without actuator			7.62 mm
Pitch in inches (P)		Conductor outlet direction	
0.3 "			180°
Number of poles		L1 in mm	
4			30.48 mm
L1 in inches		L2 in mm	
1.2 "			3.81 mm
L2 in inch		Number of rows	
0.15 "			1
Pin series quantity		Rated cross-section	
1			6 mm ²
Touch-safe protection acc. to DIN VDE 57 106		Touch-safe protection acc. to DIN VDE 0470	
Safe from finger touch			IP 20
Volume resistance		Can be coded	
4.50 mΩ			Yes
Stripping length		Screwdriver blade	
12 mm			0.6 x 3.5
Plugging cycles		Plugging force/pole, max.	
25			17 N
Pulling force/pole, max.			
15 N			

Material data

Insulating material		Colour	
PA GF			black
Colour chart (similar)		Insulating material group	
RAL 9011			II
Comparative Tracking Index (CTI)		UL 94 flammability rating	
≥ 500			V-0
Contact material		Contact surface	
Cu-alloy			tinned
Layer structure of plug contact		Storage temperature, min.	
6...8 µm Sn glossy			-40 °C
Storage temperature, max.		Operating temperature, min.	
70 °C			-50 °C
Operating temperature, max.		Temperature range, installation, min.	
125 °C			-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, 1.5 mm ² min.		
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max.		
w. wire end ferrule, DIN 46228 pt 1, min.		
1.5 mm ²		
w. wire end ferrule, DIN 46228 pt 1, max.		
10 mm ²		

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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	H0.5/18 OR		
	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	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 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	2.5 mm²		
	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 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	14 mm		
	Recommended wire-end ferrule	H6.0/20 SW			
	Stripping length	nominal	12 mm		
	Recommended wire-end ferrule	H6.0/12			
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)	38 A
Rated current, max. number of poles (Tu=20°C)	38 A	Rated current, min. number of poles (Tu=40°C)	34 A
Rated current, max. number of poles (Tu=40°C)	34 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

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)	35 A
Rated current (Use group C / UL 1059)	35 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	338 mm
VPE width	130 mm	VPE height	54 mm

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Technical data**Technical data - hybrid**

Pitch in mm (Signal)	3.81 mm	Pitch in inches (Signal)	0.15 inch
Number of poles (Signal)	4	L2 in mm	3.81 mm
L2 in inch	0.15 "	Number of rows (Signal)	2
Contact material (Signal)	CuMg	Contact surface (Signal)	tinned
Layer structure of the plug contact (Signal)	1-3 µ Ni / 4-8 µ Sn	Rated voltage for overvoltage class/pollution severity level II/2 (Signal)	400 V
Rated voltage for overvoltage class/pollution severity level III/2 (Signal)	320 V	Rated voltage for overvoltage class/pollution severity level III/3 (Signal)	200 V
Rated impulse voltage for overvoltage class/pollution severity level II/2 (Signal)	4 kV	Rated impulse voltage for overvoltage class/pollution severity level III/2 (Signal)	4 kV
Rated impulse voltage for overvoltage class/pollution severity level III/3 (Signal)	4 kV	Short-time withstand current resistance (Signal)	3 x 1s with 80 A
Rated voltage (Use group B / CSA) (Signal)	300 V	Rated voltage (Use group C / CSA) (Signal)	50 V
Rated voltage (Use group D / CSA) (Signal)	300 V	Rated current (Use group B / CSA) (Signal)	9 A
Rated current (Use group C / CSA) (Signal)	9 A	Rated current (Use group D / CSA) (Signal)	9 A
Wire connection cross-section AWG (Signal)	AWG 24...AWG 16	Rated voltage (Use group B / UL 1059] (Signal)	300 V
Rated voltage (Use group C / UL 1059] (Signal)	50 V	Rated voltage (Use group D / UL 1059] (Signal)	300 V
Rated current (Use group B / UL 1059] (Signal)	5 A	Rated current (Use group C / UL 1059] (Signal)	5 A
Rated current (Use group D / UL 1059] (Signal)	5 A	Connector cross-section (Signal)	AWG 26...AWG 16

Conductors that can be connected - Hybrid

Clamping range, rated connection (Power)	0.5...10 mm ²	Clamping range, rated connection (Signal)	0.2...1.5 mm ²
Connector cross-section (Power)	AWG 24...AWG 8	Connector cross-section AWG (Signal)	AWG 26...AWG 16
solid, H05(07) V-U (Power)	0.5...10 mm ²	solid, H05(07) V-U (Signal)	0.14...1.5 mm ²
flexible, H05(07) V-K (Power)	0.5...6 mm ²	flexible, H05(07) V-K (Signal)	0.14...1.5 mm ²
with wire-end ferrule with collar (Power)	0.5...6 mm ²	with wire-end ferrule with collar, DIN 46 228/4 (Signal)	0.25...1.5 mm ²
with wire-end ferrule according to DIN 46 228/1 (Power)	0.5...6 mm ²	with wire-end ferrule according to DIN 46 228/1 (Signal)	0.25...1.5 mm ²

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	27-46-03-02	ECLASS 13.0	27-46-03-02

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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	<ul style="list-style-type: none"> • Technical specifications refer to the power contacts • Technical data of signal contacts: 50V / 5A, stripping length 8mm • 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 • 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

Approvals

Approvals



UL File Number Search	UL Website
Certificate No. (cULus)	E60693

Downloads

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	QR-Code product handling video
Catalogues	Catalogues in PDF-format

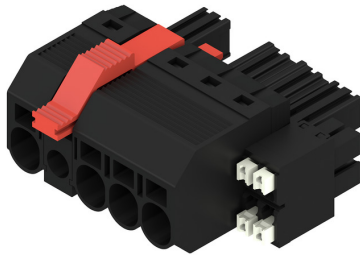
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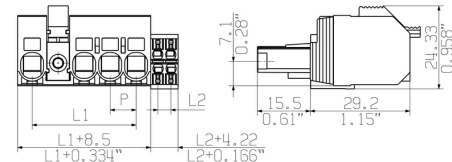
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Drawings

Product image



Dimensional drawing



Graph



Graph



Product benefits



Single-handed operation
Automatic latching

BVF 7.62HP/04/180MF2 BCF/04R SN BK BX

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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 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 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 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).			

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Accessories

Coding elements



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- 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).	