

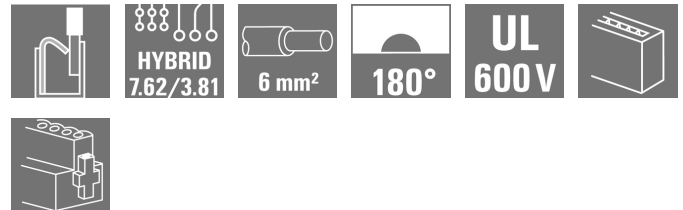
BVFL 7.62HP/04/180MSF2 BCF/08R SN BK BX
Weidmüller Interface GmbH & Co. KG

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. With adjustable, self-locking pusher for opening the contact point.

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, Clamping range, max.: 6 mm², Box
Order No.	2629140000
Type	BVFL 7.62HP/04/180MSF2 BCF/08R SN BK BX
GTIN (EAN)	4050118633153
Qty.	36 pc(s).
Product data	IEC: 1000 V / 38 A / 0.5 - 6 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

Creation date October 27, 2021 11:23:42 PM CEST

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Technical data**Dimensions and weights**

Net weight	31.985 g
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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 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
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		

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	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.	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, min.	0.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm ²

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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	H0.5/18 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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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 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

stripping length (Signal)	8 mm	Pitch in mm (Signal)	3.81 mm
Pitch in inches (Signal)	0.15 inch	Number of poles (Signal)	8
L2 in mm	11.43 mm	L2 in inch	0.45 inch
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	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		

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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	• Technical specifications refer to the power contacts • Technical data of signal contacts: 50V / 5A, stripping length 8mm • Additional colours 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. • Additional pole combinations on request • 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

Approvals

Approvals



UL File Number Search

E60693

Downloads

Product Change Notification	EN - Change of isolation material DE - Werkstoffänderung Pusher
User Documentation	Operating Instruction BVFL hybrid QR-Code product handling video
Catalogues	Catalogues in PDF-format

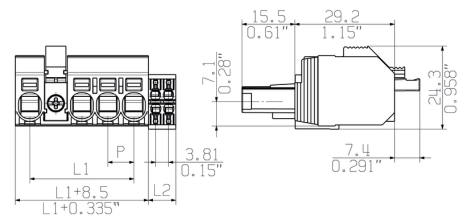
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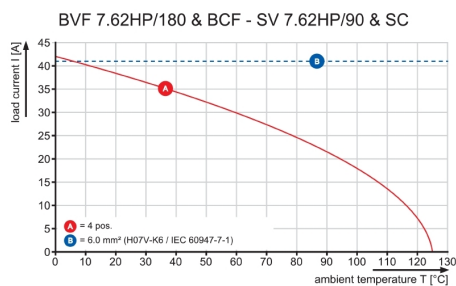
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Drawings

Dimensional drawing



Graph

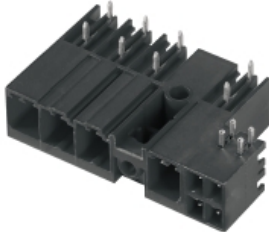


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www.weidmueller.com
Mating connector (fully pluggable)
SV 7.62HP / SC 3.81 270MSF


Combined 270° male header with power and signal contacts incl. self-locking middle flange interlock with a 7.62 pitch.

Enables simultaneous connection of power, signals and (optional) EMC shielding. Ideal for connecting servo and asynchronous drives.

Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V when combined with female header BVF 7.62HP/...BCF..R...

Without a female header, the mating profile guarantees minimum power-contact touch-safety of >3 mm with 20 N pressure on the test finger.

The self-locking middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Optionally on request: without flange fastening, with additional screw mount or with soldered flange fastening.

General ordering data

Type	SV 7.62HP/04/270MSF2 SC ...	Version	Product data	Packaging
Order No.	2628070000	PCB plug-in connector, male header, closed side, Middle screw flange, IEC: 1000 V / 41 A		Box
GTIN (EAN)	4050118632019	THT solder connection, 7.62 mm, Number of poles: 4, 270°, Solder	UL: 300 V / 35 A	
Qty.	30 pc(s).	pin length (l): 3.5 mm, black, Box		

SV-SMT 7.62HP / SC 3.81 90 MSF


OMNIMATE Power BV / SV 7.62HP Hybrid – for power, signals and EMC

Three functions in one!

The OMNIMATE Power Hybrid connector provides developers and users with the perfect three-in-one solution.

This hybrid motor connector simultaneously unites power, signals and pluggable EMC shield support. Thus you save space on the PCB, on the outer side of the housing, and in the electrical cabinet. The self-snapping one-handed interlock mechanism requires only one plugging step and thus speeds up installation and maintenance procedures. It is easy to handle and interlocks automatically – even in difficult installation positions. The unique shielding shape and slender 30° wire entry enable a space savings of up to 10 cm between rows.

General ordering data

Type	SV-SMT 7.62HP/04/90MSF2 ...	Version	Product data	Packaging
Order No.	2626950000	PCB plug-in connector, male header, closed side, Middle screw flange, IEC: 1000 V / 41 A		Box
GTIN (EAN)	4050118630893	THT/THR solder connection, 7.62 mm, Number of poles: 4, Solder pin UL: 300 V / 33 A		
Qty.	30 pc(s).	length (l): 2.6 mm, tinned, black, Box		

BVFL 7.62HP/04/180MSF2 BCF/08R SN BK BX
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www.weidmueller.com
Mating connector (fully pluggable)
SV 7.62HP / SC 3.81 90MSF


Combined 90° male header with power and signal contacts in PUSH IN connection technology incl. self-locking middle flange interlock and (optional) pluggable shield connection with a 7.62 pitch.

Enables simultaneous connection of power, signals and (optional) EMC shielding. Ideal for connecting servo and asynchronous drives.

Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V when combined with female header BVF 7.62HP/...BCF..R...

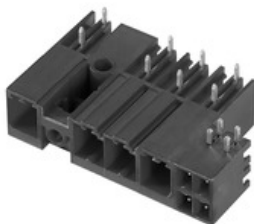
Without a female header, the mating profile guarantees minimum power-contact touch-safety of >3 mm with 20 N pressure on the test finger.

The self-locking middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Optionally on request: without flange fastening, with additional screw mount or with soldered flange fastening.

General ordering data

Type	SV 7.62HP/04/90MSF2 SC/ ...	Version	Product data	Packaging
Order No.	2628250000	PCB plug-in connector, male header, closed side, Middle screw flange, IEC: 1000 V / 41 A		Box
GTIN (EAN)	4050118632187	THT solder connection, 7.62 mm, Number of poles: 4, 90°, Solder pin UL: 300 V / 35 A		
Qty.	30 pc(s).	length (l): 3.5 mm, black, Box		

SV-SMT 7.62HP / SC 3.81 270 MSF


OMNIMATE Power BV / SV 7.62HP Hybrid – for power, signals and EMC

Three functions in one!

The OMNIMATE Power Hybrid connector provides developers and users with the perfect three-in-one solution.

This hybrid motor connector simultaneously unites power, signals and pluggable EMC shield support. Thus you save space on the PCB, on the outer side of the housing, and in the electrical cabinet. The self-snapping one-handed interlock mechanism requires only one plugging step and thus speeds up installation and maintenance procedures. It is easy to handle and interlocks automatically – even in difficult installation positions. The unique shielding shape and slender 30° wire entry enable a space savings of up to 10 cm between rows.

General ordering data

Type	SV-SMT 7.62HP/04/270MSF ...	Version	Product data	Packaging
Order No.	2627190000	PCB plug-in connector, male header, closed side, Middle screw flange, IEC: 1000 V / 41 A		Box
GTIN (EAN)	4050118631067	THT/THR solder connection, 7.62 mm, Number of poles: 4, Solder pin UL: 300 V / 33 A		
Qty.	30 pc(s).	length (l): 2.6 mm, tinned, black, Box		

BVFL 7.62HP/04/180MSF2 BCF/08R SN BK BX

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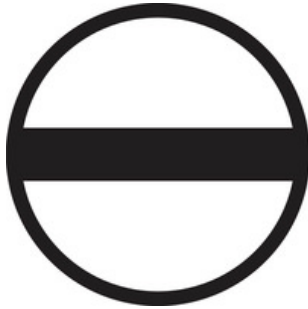
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Accessories

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 0.6X3.5X100	Version
Order No.	9008330000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
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, black		Box
GTIN (EAN)	4032248899456			
Qty.	25 pc(s).			
Type	BVF 7.62HP SH210 4-6 KIT	Version	Product data	Packaging
Order No.	1118490000	PCB plug-in connector, Accessories, black		Box
GTIN (EAN)	4032248899302			
Qty.	25 pc(s).			
Type	BVF 7.62HP SH150 4-6 KIT	Version	Product data	Packaging
Order No.	1118480000	PCB plug-in connector, Accessories, black		Box
GTIN (EAN)	4032248899449			
Qty.	25 pc(s).			

BVFL 7.62HP/04/180MSF2 BCF/08R 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, 0.25mm ² , 6mm ² ,
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:

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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).			