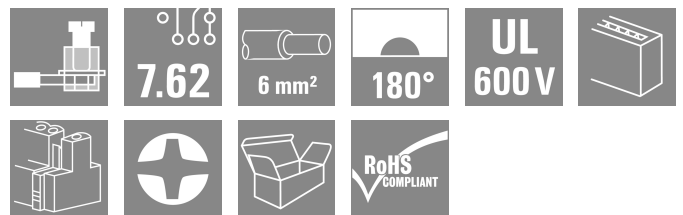
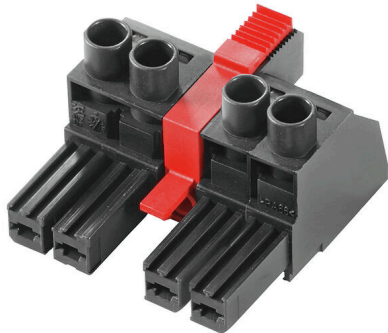


BVZ 7.62IT/03/180MF3 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com



180° female plug with a 7.62 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SV 7.62 IT.. with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

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

On request also available without middle flange interlock.

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box
Order No.	1156730000
Type	BVZ 7.62IT/03/180MF3 SN BK BX
GTIN (EAN)	4032248943937
Qty.	40 items
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A / AWG 24 - AWG 8
Packaging	Box

BVZ 7.62IT/03/180MF3 SN BK BX

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Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	43.1 mm	Depth (inches)	1.6968 inch
Height	26.1 mm	Height (inches)	1.0276 inch
Width	30.48 mm	Width (inches)	1.2 inch
Net weight	17.9 g		

Environmental Product Compliance

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

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62IT	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	22.86 mm
L1 in inches	0.900 "	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
Volume resistance	4.50 mΩ	Can be coded	Yes
Stripping length	12 mm	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Screwdriver blade	0.6 x 3.5	Plugging cycles	25
Plugging force/pole, max.	14 N	Pulling force/pole, max.	14 N

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Moisture Level (MSL)	
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.	0.2 mm ²
Clamping range, max.	10 mm ²
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²

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Technical data

Flexible, max. H05(07) V-K	10 mm ²		
w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min.			
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max.			
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²		
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm ²		
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm		
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)	57 A
Rated current, min. number of poles (Tu=40°C)	41 A	Rated voltage for surge voltage class / pollution degree II/2	1000 V
Rated voltage for surge voltage class / pollution degree III/2	1000 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
Creepage distance, min.	13.8 mm	Clearance, min.	10.2 mm

Rated data acc. to CSA

Institute (CSA)	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)	40.5 A
Rated current (Use group C / CSA)	40.5 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)	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 voltage (Use group F / UL 1059)	1000 V
Rated current (Use group B / UL 1059)	40.5 A	Rated current (Use group C / UL 1059)	40.5 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group F / UL 1059)	40.5 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	353.00 mm
VPE width	135.00 mm	VPE height	49.00 mm

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"> • 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 • 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

Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

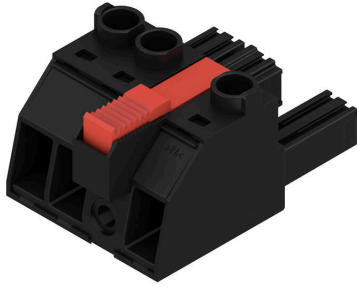
BVZ 7.62IT/03/180MF3 SN BK BX

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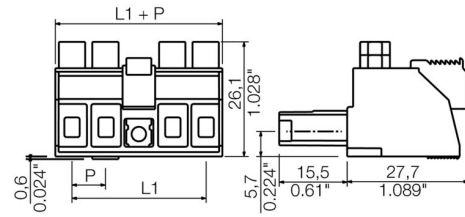
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Drawings

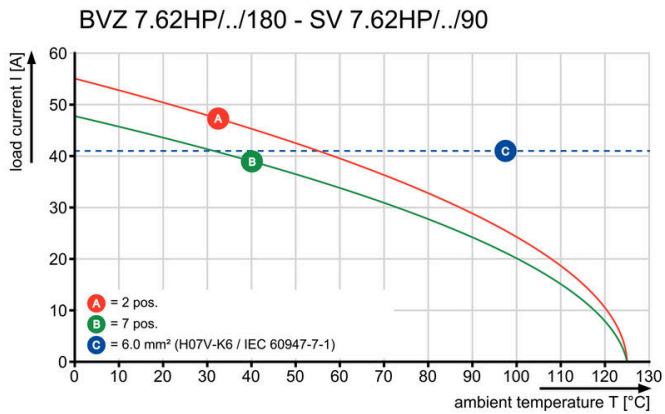
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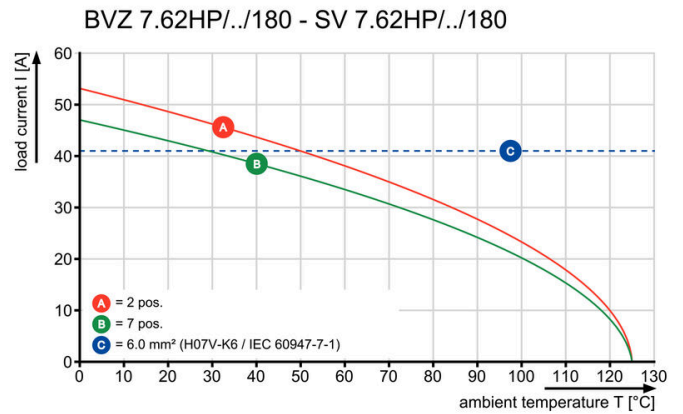
Dimensional drawing



Graph



Graph



BVZ 7.62IT/03/180MF3 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 product configurator.

General ordering data

Type	BV/SV 7.62HP KO RD 2022	Version	
Order No.	2007300000	PCB plug-in connector, Accessories, Coding element, red, Number of	
GTIN (EAN)	4050118392715	poles: 1	
Qty.	20 ST		

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 ST		
Type	SDIS 0.8X4.0X100	Version	
Order No.	9008400000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056361		
Qty.	1 ST		

BVZ 7.62IT/03/180MF3 SN BK BX

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Accessories
Crosshead screwdriver Phillips


Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PH1	Version	
Order No.	9008480000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056477		
Qty.	1 ST		
Type	SDIK PH1	Version	
Order No.	9008570000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056569		
Qty.	1 ST		

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 ST		

BVZ 7.62IT/03/180MF3 SN BK BX

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Counterpart**SV 7.62IT 90MF SN**

90° male header with soldered flange fastening with 7.62 pitch for 400 V IT power networks according to IEC 61800-5-1.

UL approval as per UL840 600 V.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth when combined with female header BVZ 7.62 IT...

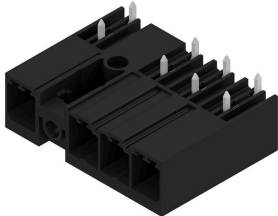
Without a female header, the mating profile guarantees minimum touch safety of >3 mm with 20 N pressure on the test finger.

The automatically locking middle flange which can optionally also be screwed, reduces space requirements by one pitch width in comparison with conventional solutions.

On request: available with screw flange or without flange.

General ordering data

Type	SV 7.62IT/03/90MF3 3.5S...	Version
Order No.	1156570000	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4032248943296	solder connection, 7.62 mm, Number of poles: 3, 90°, Solder pin
Qty.	60 ST	length (l): 3.5 mm, tinned, black, Box

SV 7.62IT 270MF SN

270° male header with 7.62 pitch for 400 V IT power networks according to IEC 61800-5-1.

UL approval as per UL840 600 V.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth when combined with female header BVZ 7.62 IT... Without a female header, the mating profile guarantees minimum touch safety of >3 mm with 20 N pressure on the test finger.

General ordering data

Type	SV 7.62IT/03/270MF3 3.5...	Version
Order No.	1156510000	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4032248943364	solder connection, 7.62 mm, Number of poles: 3, 270°, Solder pin
Qty.	60 ST	length (l): 3.5 mm, tinned, black, Box

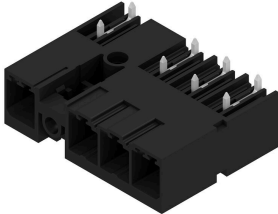
BVZ 7.62IT/03/180MF3 SN BK BX

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Counterpart

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SV-SMT 7.62IT 270MF SN BX

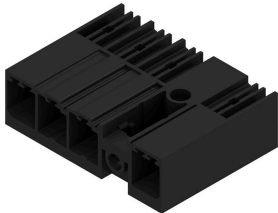


OMNIMATE Power for IT networks – scalable to 50 kVA
 Tailor-made solutions for special requirements
 More standard-compliance means fewer compromises:
 OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation. Results for the application and advantages for the user: unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process. In conclusion: You need no additional device covering. The application-oriented design means that no compromises are necessary during the approval process.

General ordering data

Type	SV-SMT 7.62IT/03/270MF3...	Version
Order No.	2500230000	PCB plug-in connector, male header, Middle flange, THT/THR solder connection, 7.62 mm, Number of poles: 3, 270°, Solder pin length (l):
GTIN (EAN)	4050118512939	
Qty.	50 ST	2.6 mm, tinned, black, Box

SV-SMT 7.62IT 90MF SN BX



OMNIMATE Power for IT networks – scalable to 50 kVA
 Tailor-made solutions for special requirements
 More standard-compliance means fewer compromises:
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General ordering data

Type	SV-SMT 7.62IT/03/90MF3 ...	Version
Order No.	2499730000	PCB plug-in connector, male header, Middle flange, THT/THR solder connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l):
GTIN (EAN)	4050118513158	
Qty.	60 ST	2.6 mm, tinned, black, Box