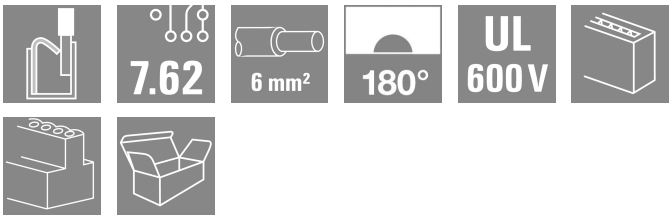
Data sheet

BVDF 7.62HP/04/180 SN BK BX

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

www.weidmueller.com

Product image



Bus connector with two connections per pole with the time-saving 6mm² PUSH IN connection system.

- The extremely short cross-connection allows you to safely loop through bus currents.
- PUSH IN connection: Solid wires and stranded wires with ferrules need only to be inserted and they are ready.
- The self-locking middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with actuator, Tension-clamp connection, Clamping range, max. : 10 mm², Box
Order No.	2720440000
Type	BVDF 7.62HP/04/180 SN BK BX
GTIN (EAN)	4050118780956
Qty.	30 items
Product data	IEC: 600 V / 46 A / 0.5 - 10 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

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Technical data

Approvals

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

Dimensions and weights

Depth	42.55 mm	Depth (inches)	1.6752 inch
Height	35.05 mm	Height (inches)	1.3799 inch
Width	39.1 mm	Width (inches)	1.5394 inch
Net weight	34.26 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 7.62HP	
Type of connection	Field connection	
Wire connection method	PUSH IN with actuator, Tension-clamp connection	
Pitch in mm (P)	7.62 mm	
Pitch in inches (P)	0.300 "	
Conductor outlet direction	180°	
Number of poles	4	
L1 in mm	22.86 mm	
L1 in inches	0.900 "	
Number of rows	2	
Pin series quantity	1	
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	
Stripping length tolerance	min.	-1 mm
	max.	1 mm
Screwdriver blade	0.6 x 3.5	
Plugging cycles	25	
Plugging force/pole, max.	12 N	
Pulling force/pole, max.	12 N	

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	1...3 µm Ni / 4...10 µm Sn
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C

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Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C

Conductors suitable for connection

Clamping range, min.	0.5 mm²
Clamping range, max.	10 mm²
Wire connection cross section AWG, min.	AWG 24
Wire connection cross section AWG, max.	AWG 8
Solid, min. H05(07) V-U	0.5 mm²
Solid, max. H05(07) V-U	10 mm²
Stranded, min. H07V-R	1.5 mm²
Stranded, max. H07V-R	6 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. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm²

Clampable conductor	Cross-section for conductor connection	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	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	nominal	1 mm²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H1,0/18 GE	
	Cross-section for conductor connection	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	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	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	nominal	6 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H6,0/12	
		Stripping length	nominal	14 mm

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Technical data

		Recommended wire-end ferrule	H6,0/20 SW
	Cross-section for conductor connection	nominal	10 mm²
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.		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	46 A
Rated current, max. number of poles (Tu=20°C)	42 A	Rated current, min. number of poles (Tu=40°C)	41 A
Rated current, max. number of poles (Tu=40°C)	37.5 A	Rated voltage for surge voltage class / pollution degree II/2	600 V
Rated voltage for surge voltage class / pollution degree III/2	600 V	Rated voltage for surge voltage class / pollution degree III/3	600 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 400 A
Creepage distance, min.	11.03 mm	Clearance, min.	10.36 mm

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 current (Use group B / UL 1059)	35 A
Rated current (Use group C / UL 1059)	35 A	Rated current (Use group D / UL 1059)	35 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	355.00 mm
VPE width	135.00 mm	VPE height	60.00 mm

Type tests

Test: Durability of markings	Standard	IEC 61984 section 7.3.2 / 10.08 Taking pattern from IEC 60068-2-70 / 12.95	
	Test	mark of origin, type identification, pitch, durability	
	Evaluation	available	
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	H05V-U0.5
		Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	H07V-K6
		Type of conductor and conductor cross-section	H07V-K10

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Technical data

		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 8/19
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	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
	Evaluation	passed	
	Requirement	1.4 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K6
	Evaluation	passed	
	Requirement	2.0 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-U10
		Type of conductor and conductor cross-section	AWG 8/19
	Evaluation	passed	
Pull-out test	Standard	IEC 60999-1 section 9.5 / 11.99	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	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
	Evaluation	passed	
	Requirement	≥80 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-K6
	Evaluation	passed	
	Requirement	≥ 90N	

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Technical data

	Conductor type	Type of conductor and conductor cross-section	H07V-K10
		Type of conductor and conductor cross-section	AWG 8/19
	Evaluation	passed	

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

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		

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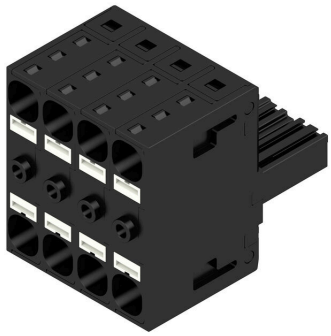
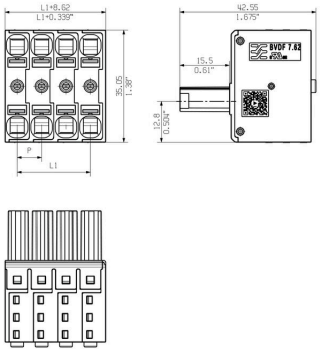
Drawings

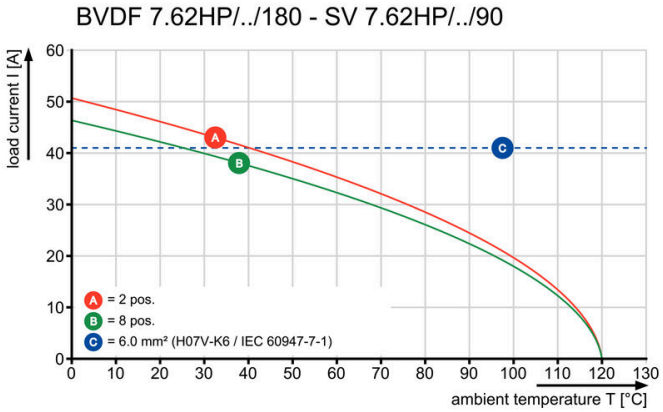
Product image



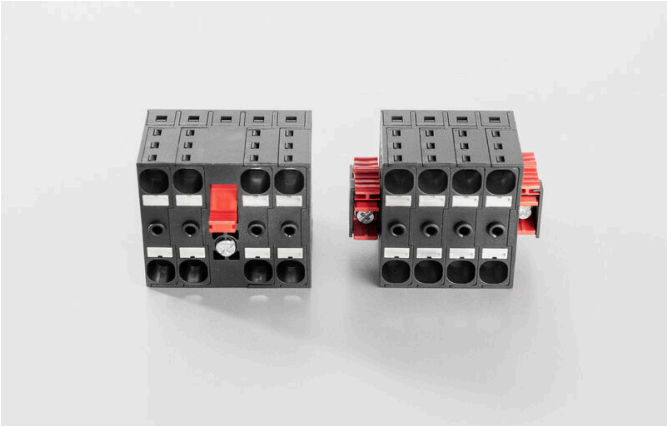
Dimensional drawing



Derating curve

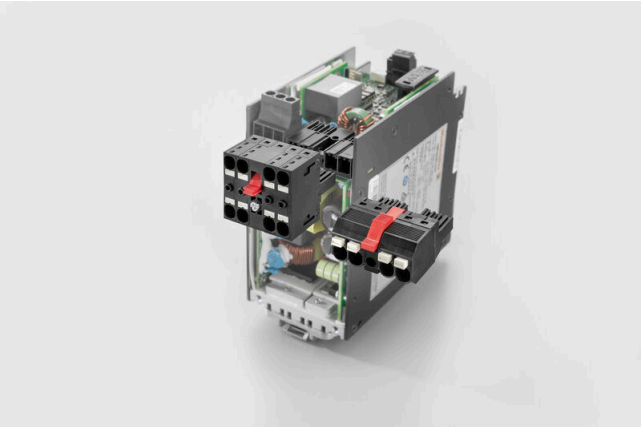


Product benefits



Product benefits

Product benefits



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Counterpart

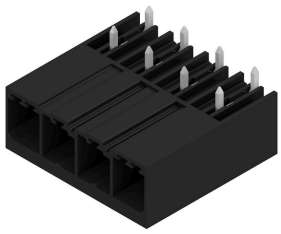
SV 7.62HP 180G SN

Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for lead-free wave soldering.

General ordering data

Type	SV 7.62HP/04/180G 3.5SN...	Version
Order No.	1930620000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248580590	connection, 7.62 mm, Number of poles: 4, 180°, Solder pin length (l):
Qty.	60 ST	3.5 mm, tinned, black, Box

SV 7.62HP 270G SN



Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional fastening in the flange.

General ordering data

Type	SV 7.62HP/04/270G 3.5SN...	Version
Order No.	1931280000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248581313	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	60 ST	3.5 mm, tinned, black, Box

SV 7.62HP 90G SN

Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional fastening in the flange.

General ordering data

Type	SV 7.62HP/04/90G 3.5SN ...	Version
Order No.	1930290000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248580163	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	60 ST	3.5 mm, tinned, black, Box

BVDF 7.62HP/04/180 SN BK BX

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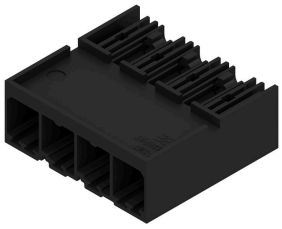
Counterpart

SV-SMT 7.62HP 270G BX

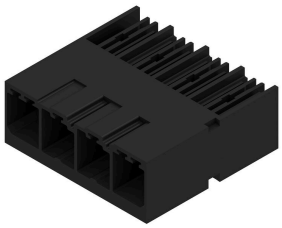


OMNIMATE Power BV / SV 7.62HP – the 28 kVA performance class
Tailor-made solutions for high performers
More power reserves for higher load bearing capacity: The OMNIMATE Power BV / SV 7.62HP is the middle-class of the power connector systems. It has a large clamping capacity, high overload resistance and the largest range of variants and accessories to choose from: the high performer of the HP range. HP means High Performance – this performance covers a great deal: the full rated current up to 50°C without derating, unlimited 600-V approval according to UL, and the additional finger safety for 400 V-TN systems (+ 3.0 mm) in compliance with the application directive IEC 61800-5-1.

General ordering data

Type	SV-SMT 7.62HP/04/270G 2...	Version
Order No.	2499350000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4050118511994	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	60 ST	2.6 mm, tinned, black, Box
Type	SV-SMT 7.62HP/04/270G 3...	Version
Order No.	2498410000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4050118511635	connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l):
Qty.	50 ST	3.5 mm, tinned, black, Box

SV-SMT 7.62HP 90G BX



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General ordering data

Type	SV-SMT 7.62HP/04/90G 2....	Version
Order No.	2499550000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4050118512854	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	60 ST	2.6 mm, tinned, black, Box
Type	SV-SMT 7.62HP/04/90G 3....	Version
Order No.	2498360000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4050118511390	connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	50 ST	3.5 mm, tinned, black, Box

BVDF 7.62HP/04/180 SN BK BX

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Counterpart

SVF 7.62HP/180G

180° inverted pin header with PUSH IN connection technology for field wiring in 6mm² in a 7.62 pitch, as a “three-flange variant” for enclosure feed-through. Suitable for enclosures with a max. wall thickness of 2mm. Also perfect as a touch-safe solution for reverse voltages. Meets the requirements of UL1059 600 V Class C and IEC 61800-5-1.

General ordering data

Type	SVF 7.62HP/04/180G SN B...	Version
Order No.	1060850000	PCB plug-in connector, male plug, 7.62 mm, Number of poles:
GTIN (EAN)	4032248810857	4, 180°, PUSH IN without actuator, Tension-clamp connection,
Qty.	45 ST	Clamping range, max. : 10 mm², Box

SVFL 7.62HP/180G

180° inverted pin header with PUSH IN connection technology and adjustable actuator (pusher) for field wiring 6 mm² in a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL1059 600 V Class C and IEC 61800-5-1. Variants: without flange, external flange, middle flange with snap-on mechanism and optional additional screw mount.

General ordering data

Type	SVFL 7.62HP/04/180G SN ...	Version
Order No.	1547550000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,
GTIN (EAN)	4050118353303	180°, PUSH IN with actuator, Clamping range, max. : 6 mm², Box
Qty.	60 ST	

SVZ 7.62HP 180 SN

High-performance male header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, incorrect wiring protection. Suitable for labelling.

General ordering data

Type	SVZ 7.62HP/04/180G SN B...	Version
Order No.	1931640000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,
GTIN (EAN)	4032248581641	180°, Clamping yoke connection, Clamping range, max. : 6 mm², Box
Qty.	100 ST	