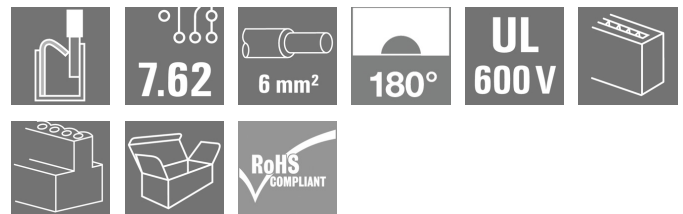


**BVDF 7.62HP/07/180SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

Bus connector with two connections per pole with the time-saving 6mm<sup>2</sup> 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: 7, 180°, PUSH IN with actuator, Tension-clamp connection, Clamping range, max. : 10 mm <sup>2</sup> , Box
Order No.	<a href="#">2720470000</a>
Type	BVDF 7.62HP/07/180SN BK BX
GTIN (EAN)	4050118780987
Qty.	15 pc(s).
Product data	IEC: 600 V / 46 A / 0.5 - 10 mm <sup>2</sup> UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

Creation date August 29, 2024 5:18:01 AM CEST

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**Technical data****Dimensions and weights**

Depth	42.55 mm	Depth (inches)	1.675 inch
Height	35.05 mm	Height (inches)	1.38 inch
Width	69.58 mm	Width (inches)	2.739 inch
Net weight	73.172 g		

**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)	0.3 "		
Conductor outlet direction	180°		
Number of poles	7		
L1 in mm	45.62 mm		
L1 in inches	1.8 "		
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	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	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C		

**Conductors suitable for connection**

Clamping range, min.	0.5 mm <sup>2</sup>
Clamping range, max.	10 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 24
Wire connection cross section AWG, max.	AWG 8
Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	10 mm <sup>2</sup>
Stranded, min. H07V-R	1.5 mm <sup>2</sup>
Stranded, max. H07V-R	6 mm <sup>2</sup>

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**Technical data**

Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>		
Flexible, max. H05(07) V-K	10 mm <sup>2</sup>		
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm <sup>2</sup> min.			
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm <sup>2</sup>		
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm <sup>2</sup>		
Clampable conductor	Cross-section for conductor connection	nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H0.5/12 OR</a>
	Cross-section for conductor connection	nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H0.75/18 W</a>
	Cross-section for conductor connection	nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	<a href="#">H1.0/18 GE</a>
	Cross-section for conductor connection	nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H1.5/12</a>
		Stripping length	nominal 15 mm
		Recommended wire-end ferrule	<a href="#">H1.5/18D SW</a>
	Cross-section for conductor connection	nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H2.5/12</a>
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H2.5/19D BL</a>
	Cross-section for conductor connection	nominal	4 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H4.0/12</a>
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H4.0/20D GR</a>
	Cross-section for conductor connection	nominal	6 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H6.0/12</a>
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H6.0/20 SW</a>
	Cross-section for conductor connection	nominal	10 mm <sup>2</sup>
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)	46 A
Rated current, max. number of poles (Tu=20°C)	41 A	Rated current, min. number of poles (Tu=40°C)	38 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
Clearance, min.	10.36 mm	Creepage distance, min.	11.03 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)	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	338 mm
VPE width	130 mm	VPE height	54 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

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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 H05V-U0.5 conductor cross-section
		Type of conductor and H05V-K0.5 conductor cross-section
		Type of conductor and H07V-K6 conductor cross-section
		Type of conductor and H07V-K10 conductor cross-section
		Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
		Type of conductor and AWG 8/19 conductor cross-section
	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 AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor and H05V-U0.5 conductor cross-section
		Type of conductor and H05V-K0.5 conductor cross-section
	Evaluation	passed
	Requirement	1.4 kg
	Conductor type	Type of conductor and H07V-K6 conductor cross-section
		Type of conductor and H07V-U10 conductor cross-section
	Evaluation	passed
	Requirement	2.0 kg
	Conductor type	Type of conductor and AWG 8/19 conductor cross-section
		Type of conductor and AWG 8/19 conductor cross-section
	Evaluation	passed

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**Technical data**

Pull-out test	Standard	IEC 60999-1 section 9.5 / 11.99
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and H05V-U0.5 conductor cross-section
		Type of conductor and H05V-K0.5 conductor cross-section
	Evaluation	passed
	Requirement	≥80 N
	Conductor type	Type of conductor and H07V-K6 conductor cross-section
	Evaluation	passed
	Requirement	≥ 90N
	Conductor type	Type of conductor and H07V-K10 conductor cross-section
		Type of conductor and AWG 8/19 conductor cross-section
	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	27-46-02-02
ECLASS 14.0	27-46-02-02		

**Environmental Product Compliance**

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

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[www.weidmueller.com](http://www.weidmueller.com)**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"><li>• Additional variants on request</li><li>• Wire end ferrule with plastic collar to DIN 46228/4</li><li>• Wire end ferrule without plastic collar to DIN 46228/1</li><li>• P on drawing = pitch</li><li>• 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.</li><li>• 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</li><li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li></ul>

**Approvals**

Approvals



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

**Downloads**

Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

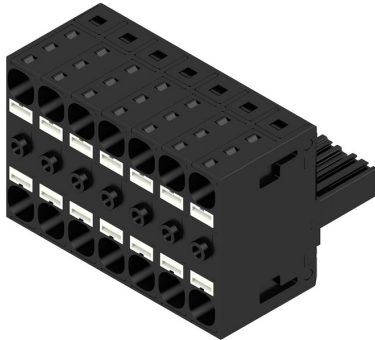
## BVDF 7.62HP/07/180SN BK BX

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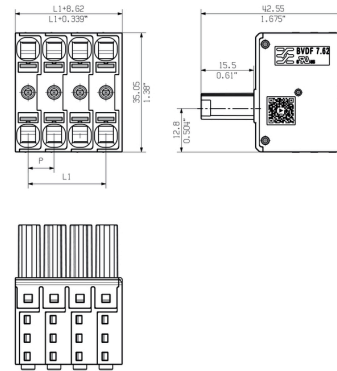
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

## Product image

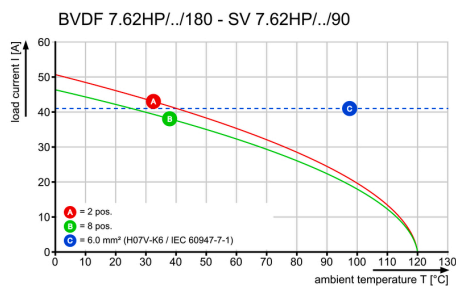


## Dimensional drawing



Similar to illustration

## Derating curve



## Product benefits



## Product benefits



## Product benefits

