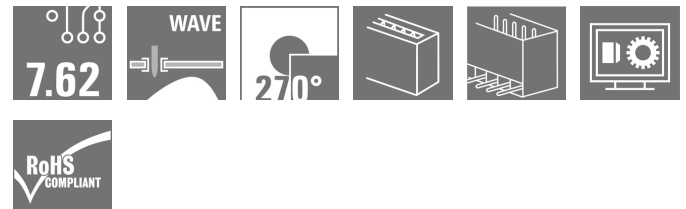


## OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/09/270G 3.2SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
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Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



Similar to illustration

#### Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:  
Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 270° outlet angle

#### General ordering data

Type	SL 7.62HP/09/270G 3.2SN OR BX
Order No.	<a href="#">1472560000</a>
Version	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 9, 270°, Solder pin length (l): 3.2 mm, orange, Box
GTIN (EAN)	4050118317695
Qty.	50 pc(s).
Product data	IEC: 630 V / 27.5 A UL: 300 V / 20 A
Packaging	Box

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

Height	11.6 mm	Height (inches)	0.457 inch
Height of lowest version	8.4 mm	Depth	11.75 mm
Depth (inches)	0.463 inch	Net weight	5.65 g

**System specifications**

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Outgoing elbow	270°
Number of poles	9	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin dimensions	1.0 x 1.0 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	60.96 mm	L1 in inches	2.4 inch
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch, plugged
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged	Can be coded	Yes
Plugging cycles	25		

**Material data**

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Layer structure of solder connection	2-3 μm Ni / 2-4 μm Sn matt
Layer structure of plug contact	2-3 μm Ni / 2-4 μm Sn matt	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	27.5 A
Rated current, max. number of poles (Tu=20°C)	27.5 A	Rated current, min. number of poles (Tu=40°C)	25 A
Rated current, max. number of poles (Tu=40°C)	22 A	Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	500 V	Rated voltage for surge voltage class / pollution degree III/3	400 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	3 x 1s with 180 A
Clearance, min.	6.5 mm	Creepage distance, min.	8.1 mm

**Rated data acc. to CSA**

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group C / CSA)	20 A	Rated current (Use group D / CSA)	5 A

**Data sheet**

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/09/270G 3.2SN OR BX**

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**Technical data**

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	20 A
Rated current (Use group C / UL 1059)	20 A	Rated current (Use group D / UL 1059)	5 A
Clearance distance, min.	6.5 mm	Creepage distance, min.	11.2 mm
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Packing**

Packaging	Box	VPE length	143 mm
VPE width	88 mm	VPE height	67 mm

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

**Notes**

- Notes
- Additional colours on request
  - Gold-plated contact surfaces on request
  - Rated current related to rated cross-section & min. No. of poles.
  - 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.

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.

**Approvals**

Approvals



ROHS      Conform

**Data sheet****OMNIMATE Power - series BL/SL 7.62HP  
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**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">EPLAN_WSCAD</a>
Engineering Data	<a href="#">STEP</a>
White paper power electronics connected correctly	<a href="#">Download Whitepaper</a>
White paper UL 600 V	<a href="#">Download Whitepaper</a>

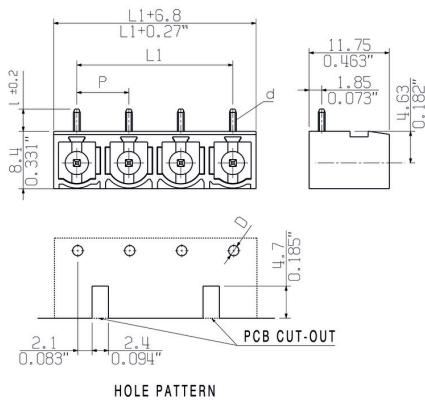
**Data sheet**

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**Drawings**

**Dimensional drawing**



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**Mating connector (fully pluggable)**
**BLF 7.62HP/180**


180° female header with PUSH-IN connection technology for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch. Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1  
Variants: without flange, external flange, release latch.

**General ordering data**

Type	BLF 7.62HP/09/180 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1227370000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 9,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118011722	PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	24 pc(s).			
Type	BLF 7.62HP/09/180 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1230220000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 9,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118014105	PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	24 pc(s).			

**BLZ 7.62HP/180**

**Power on board - 100% safety, 100% integration, 100% cost-effectiveness:**

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance female header for applications up to 12 kVA:

- 29 A with 400 V (IEC)
- 20 A at 600 V (UL)
- 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assisting in device approval:

- Meets the requirements of 600 V according to UL 508 / UL 840.
- When plugged, meets the increased requirements on touch safety as per IEC 68100-5-1

The slimming diet for multiple-stage device series:  
Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

**General ordering data**

Type	BLZ 7.62HP/09/180 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1059620000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 9,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248807574	Clamping yoke connection, Clamping range, max.: 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	50 pc(s).			

## Data sheet

### OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/09/270G 3.2SN OR BX

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## Mating connector (fully pluggable)

Type	BLZ 7.62HP/09/180 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1980550000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 9,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248675609	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	20 pc(s).			

## OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/09/270G 3.2SN OR BX

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# Accessories

## Coding elements



**Only connects what is supposed to be connected:  
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			
Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			



Customer drawing

## Recommended wave soldering profiles

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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.