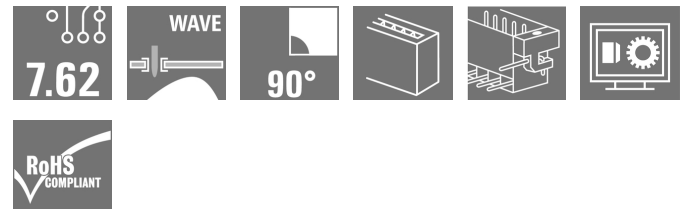


**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/04/270LF 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 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 with solder flanges

**General ordering data**

Type	SL 7.62HP/04/270LF 3.2SN OR BX
Order No.	<a href="#">1472630000</a>
Version	PCB plug-in connector, male header, Solder flange, THT solder connection, 7.62 mm, Number of poles: 4, 270°, Solder pin length (l): 3.2 mm, orange, Box
GTIN (EAN)	4050118317756
Qty.	100 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	2.6 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	4	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	22.86 mm	L1 in inches	0.9 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
Tightening torque for screw flange, min.	0.15 Nm	Tightening torque for screw flange, max.	0.25 Nm
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

Creation date May 4, 2020 5:43:52 AM CEST

**Data sheet**

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/04/270LF 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	181 mm
VPE width	124 mm	VPE height	50 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  
SL 7.62HP/04/270LF 3.2SN OR BX**

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**Technical data****Downloads**

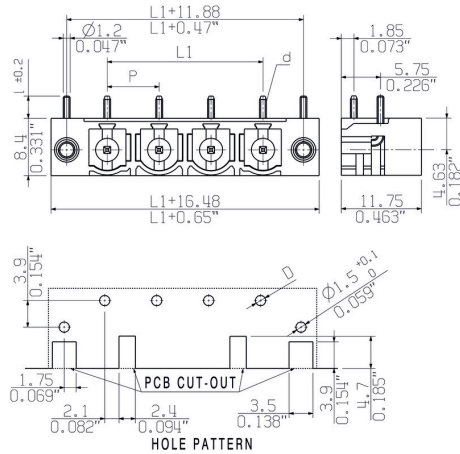
Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</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>

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**Drawings**

**Dimensional drawing**



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**Mating connector (fully pluggable)**
**BLZ 7.62HP/180F**

**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 12kVA.

- 29 A at 630 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assistance with device approval:

- meets the requirements for 600 V in accordance with UL508/UL840
- meets the more stringent touch-safety requirements of IEC68100-5-1

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

**General ordering data**

Type	BLZ 7.62HP/04/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1095810000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248868605	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	35 pc(s).			
Type	BLZ 7.62HP/04/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1095700000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248868766	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	35 pc(s).			

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 Fon: +49 5231 14-0  
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**Mating connector (fully pluggable)****BLZ 7.62HP/180LR****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 12kVA.

- 29 A at 630 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assistance with device approval:

- meets the requirements for 600 V in accordance with UL508/UL840
- meets the more stringent touch-safety requirements of IEC68100-5-1

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

**General ordering data**

Type	BLZ 7.62HP/04/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1093450000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248864430	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	35 pc(s).			

Type	BLZ 7.62HP/04/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1093490000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248864478	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	35 pc(s).			

**BLF 7.62HP/180F**

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/04/180F SN 0 ...	Version	Product data	Packaging
Order No.	<a href="#">1043890000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775439	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			

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**Mating connector (fully pluggable)**

Type	BLF 7.62HP/04/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1043930000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775477	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			

**BLF 7.62HP/180LR**


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/04/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1043970000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775514	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			
Type	BLF 7.62HP/04/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1044010000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775552	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			



## Data sheet

### OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/04/270LF 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

**Weidmüller Interface GmbH & Co. KG**  
 Klängenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
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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.