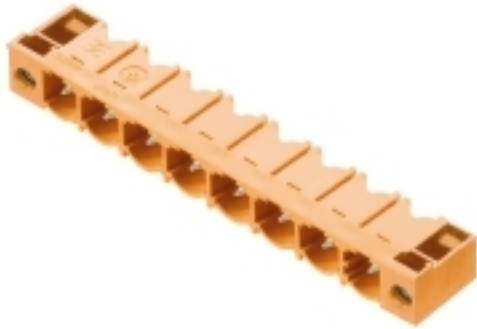


## OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/05/90F 3.2 SN OR BX

**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

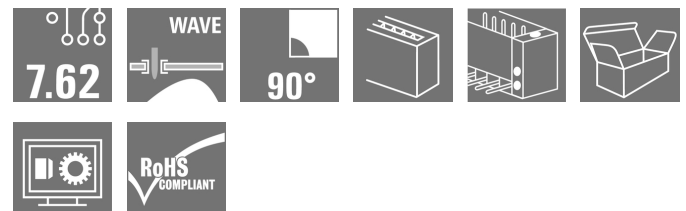
- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

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, 90° outlet angle with screw flanges



#### General ordering data

Type	SL 7.62HP/05/90F 3.2 SN OR BX
Order No.	<a href="#">1026840000</a>
Version	PCB plug-in connector, male header, Flange, THT solder connection, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	403224875233 1
Qty.	50 pc(s).
Product data	IEC: 630 V / 29 A UL: 300 V / 20 A
Packaging	Box

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/05/90F 3.2 SN OR BX**

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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	11.8 mm
Depth (inches)	0.465 inch	Net weight	3.75 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	90°
Number of poles	5	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Tolerance of solder pin position	± 0.1 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	30.48 mm
L1 in inches	1.2 inch	Number of rows	1
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	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
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)	29 A
Rated current, max. number of poles (Tu=20°C)	29 A	Rated current, min. number of poles (Tu=40°C)	25 A
Rated current, max. number of poles (Tu=40°C)	21 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	6 kV	Short-time withstand current resistance	3 x 1s with 180 A
Clearance, min.	6.5 mm	Creepage distance, min.	8.1 mm

## OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/05/90F 3.2 SN OR BX


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## Technical data

### Rated data acc. to CSA

Institute (CSA)				Certificate No. (CSA)	
				200039-1121690	
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		
Reference to approval values	Specifications are maximum values, details - see approval certificate.				

### 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	35 mm
VPE width	115 mm	VPE height	168 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	UNSPSC	30-21-18-01

### Notes

Notes	<ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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> </ul>
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.

**Data sheet**

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/05/90F 3.2 SN OR BX**

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**Technical data**

**Approvals**

Approvals



ROHS

Conform

**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>
Product Change Notification	<a href="#">DE - Change of packaging</a> <a href="#">EN - Change of packaging</a> <a href="#">DE - Change of packaging Step 2</a> <a href="#">EN - Change of packaging Step 2</a>
White paper UL 600 V	<a href="#">Download Whitepaper</a>

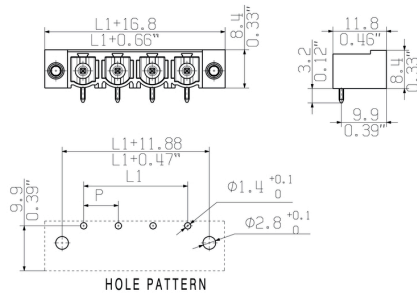
**Data sheet**

**OMNIMATE Power - series BL/SL 7.62HP  
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**Drawings**

**Dimensional drawing**



**OMNIMATE Power - series BL/SL 7.62HP  
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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/05/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1095710000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248868780	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	30 pc(s).			
Type	BLZ 7.62HP/05/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1095820000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248868988	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	30 pc(s).			

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/05/90F 3.2 SN OR BX**

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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/05/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1093500000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248864256	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	30 pc(s).			
Type	BLZ 7.62HP/05/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1093460000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248864362	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	30 pc(s).			
Type	BLZ 7.62HP/05/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">2591930000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4050118600070	Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	30 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/05/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1043940000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775484	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	36 pc(s).			

Creation date May 1, 2020 7:54:05 AM CEST

**OMNIMATE Power - series BL/SL 7.62HP  
SL 7.62HP/05/90F 3.2 SN OR BX**

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**Mating connector (fully pluggable)**

Type	BLF 7.62HP/05/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1043900000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775446	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	36 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/05/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1044020000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775569	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	36 pc(s).			
Type	BLF 7.62HP/05/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1043980000</a>	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775521	PUSH IN, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	36 pc(s).			



## Data sheet

### OMNIMATE Power - series BL/SL 7.62HP SL 7.62HP/05/90F 3.2 SN 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).			

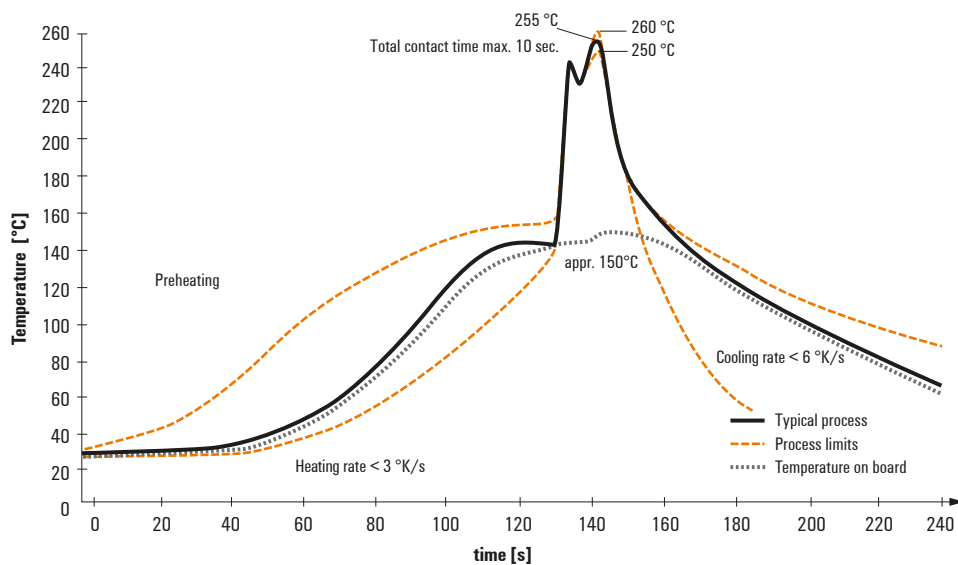
## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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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.