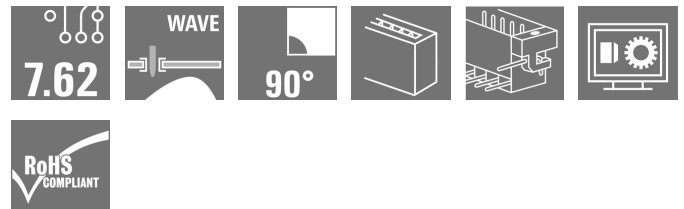


**OMNIMATE Power - series BL/SL 7.62HP
SL 7.62HP/03/270LF 3.2SN BK BX**

Weidmüller Interface GmbH & Co. KG
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 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 mm² / 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/03/270LF 3.2SN BK BX
Order No.	1472370000
Version	PCB plug-in connector, male header, Solder flange, THT solder connection, 7.62 mm, Number of poles: 3, 270°, Solder pin length (l): 3.2 mm, black, Box
GTIN (EAN)	4050118317527
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	2.53 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	3	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	15.24 mm	L1 in inches	0.6 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	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	≥ 10 ⁸ 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

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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	50 mm
VPE width	120 mm	VPE height	165 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/03/270LF 3.2SN BK BX

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Technical data

Downloads

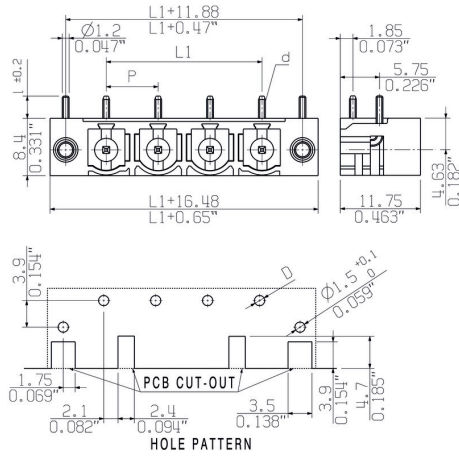
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN_WSCAD
Engineering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

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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 mm² / 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/03/180F SN O ...	Version	Product data	Packaging
Order No.	1095800000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 630 V / 29 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248868865	Clamping yoke connection, Clamping range, max. : 4 mm ² , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	45 pc(s).			
Type	BLZ 7.62HP/03/180F SN B ...	Version	Product data	Packaging
Order No.	1095690000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 630 V / 29 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248868827	Clamping yoke connection, Clamping range, max. : 4 mm ² , Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	45 pc(s).			

**OMNIMATE Power - series BL/SL 7.62HP
SL 7.62HP/03/270LF 3.2SN BK BX**

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Mating connector (fully pluggable)
BLZ 7.62HP/180LR

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General ordering data

Type	BLZ 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	1093480000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 630 V / 29 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248864232	Clamping yoke connection, Clamping range, max. : 4 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	45 pc(s).			
Type	BLZ 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	1270730000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 630 V / 29 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4050118058932	Clamping yoke connection, Clamping range, max. : 4 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	45 pc(s).			
Type	BLZ 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	1093440000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 630 V / 29 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248864348	Clamping yoke connection, Clamping range, max. : 4 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	45 pc(s).			

BLF 7.62HP/180F


180° female header with PUSH-IN connection technology for field wiring in 2.5 mm² 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/03/180F SN B ...	Version	Product data	Packaging
Order No.	1043920000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775460	PUSH IN, Clamping range, max. : 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			

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**OMNIMATE Power - series BL/SL 7.62HP
SL 7.62HP/03/270LF 3.2SN BK BX**

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Mating connector (fully pluggable)

Type	BLF 7.62HP/03/180F SN O ...	Version	Product data	Packaging
Order No.	1043880000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775422	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			

BLF 7.62HP/180LR


180° female header with PUSH-IN connection technology for field wiring in 2.5 mm² 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/03/180LR SN ...	Version	Product data	Packaging
Order No.	1044000000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775545	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			
Type	BLF 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	2460830000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4050118476262	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			
Type	BLF 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	1043960000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775507	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			
Type	BLF 7.62HP/03/180LR SN ...	Version	Product data	Packaging
Order No.	1110630000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248886173	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	54 pc(s).			

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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.	1545710000	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.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

Customer drawing

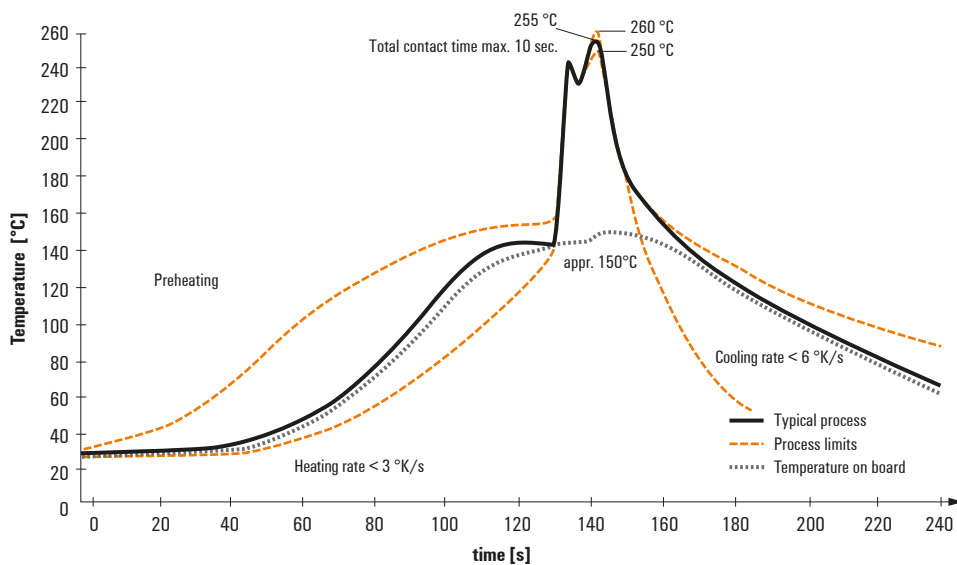
Recommended wave soldering profiles

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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.