OMNIMATE Power - series BL/SL 7.62HP
SL 7.62HP/12/90F 3.2 SN OR BX

Weidmüller Interface GmbH & Co. KG
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Germany
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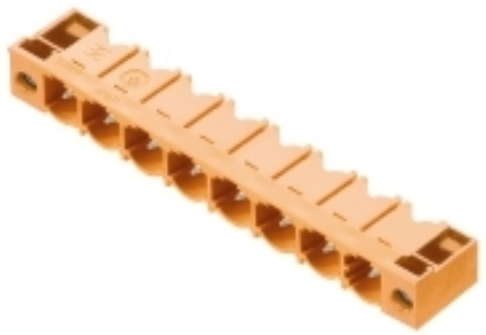
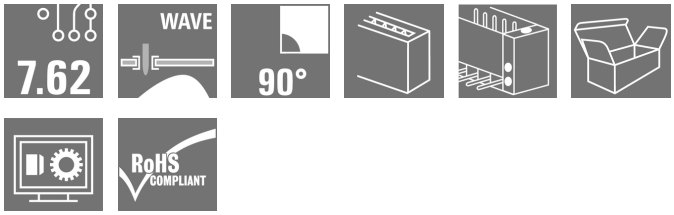
Product image





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, 90° outlet angle with screw flanges

General ordering data

Type	SL 7.62HP/12/90F 3.2 SN OR BX
Order No.	1124400000
Version	PCB plug-in connector, male header, Flange, THT solder connection, 7.62 mm, Number of poles: 12, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4032248906529
Qty.	18 pc(s).
Product data	IEC: 630 V / 29 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	11.8 mm
Depth (inches)	0.465 inch	Net weight	7.52 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	12	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Tolerance of solder pin position	± 0.15 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	83.82 mm
L1 in inches	3.3 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	≥ 10^8 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

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Technical data

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

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	42 mm
VPE width	110 mm	VPE height	230 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

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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
Product Change Notification	DE - Change of packaging EN - Change of packaging DE - Change of packaging Step 2 EN - Change of packaging Step 2
White paper UL 600 V	Download Whitepaper

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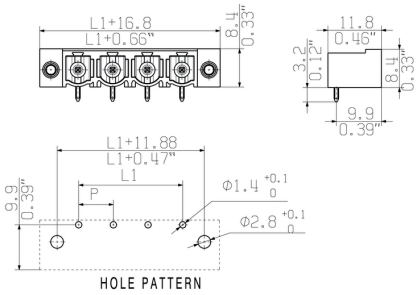
Drawings

Dimensional drawing



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Mating connector (fully pluggable)

BLZ 7.62HP/180LR

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- 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/12/180LR SN ...	Version	Product data	Packaging
Order No.	1164950000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 12,	IEC: 630 V / 29 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248954957	Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	15 pc(s).			

Type	BLZ 7.62HP/12/180LR SN ...	Version	Product data	Packaging
Order No.	1165020000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 12,	IEC: 630 V / 29 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248955008	Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	15 pc(s).			

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General ordering data

Type	BLZ 7.62HP/12/180F SN B ...	Version	Product data	Packaging
Order No.	1095780000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 12,	IEC: 630 V / 29 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248868674	Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	15 pc(s).			
Type	BLZ 7.62HP/12/180F SN O ...	Version	Product data	Packaging
Order No.	1095890000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 12,	IEC: 630 V / 29 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248868841	Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 600 V / 20 A / AWG 28 - AWG 12	
Qty.	15 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 OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number of poles: 1		Box
GTIN (EAN)	4008190048396			
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1		Box
GTIN (EAN)	4008190087142			
Qty.	50 pc(s).			

Recommended wave solderding profiles

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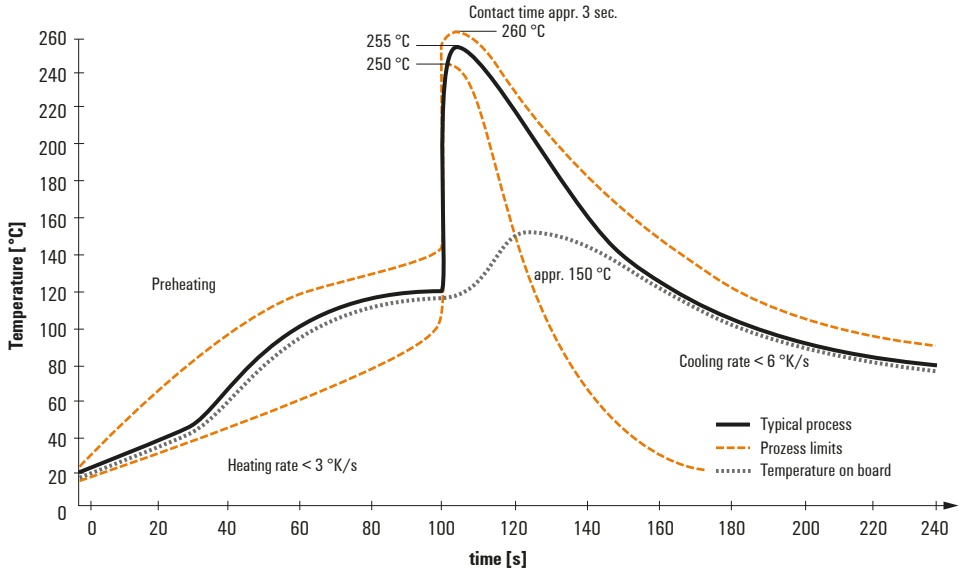
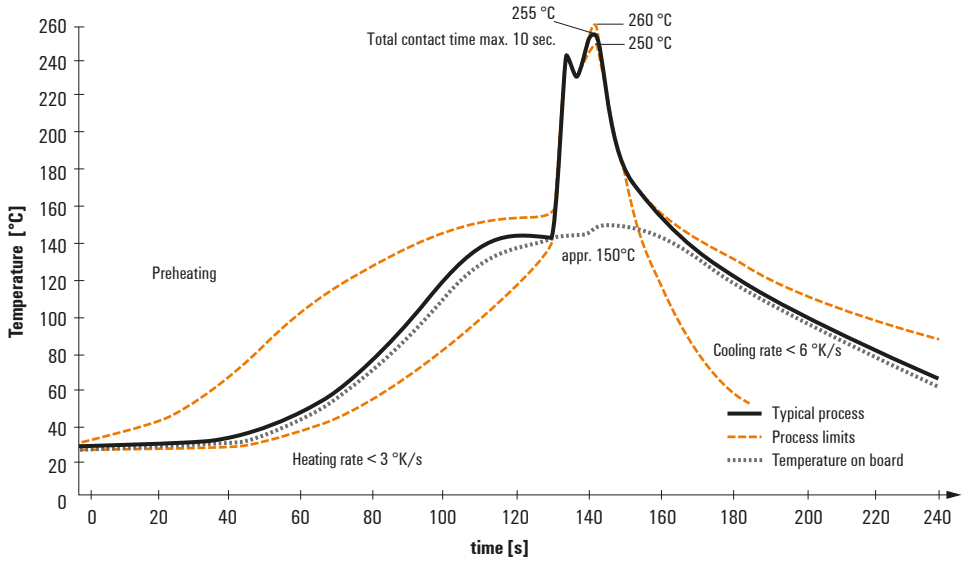
Single Wave:



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.

We reserve the right to make technical changes.