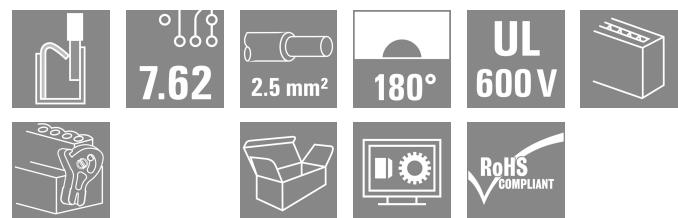


**BLF 7.62HP/07/180LR SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergsstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://www.weidmueller.com)

**Product image**

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**

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 7, 180°, PUSH IN with actuator, Clamping range, max. : 2.5 mm <sup>2</sup> , Box
Order No.	<a href="#">1227430000</a>
Type	BLF 7.62HP/07/180LR SN BK BX
GTIN (EAN)	4050118011784
Qty.	24 items
Product data	IEC: 1000 V / 29 A / 0.5 - 2.5 mm <sup>2</sup> UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

## BLF 7.62HP/07/180LR SN BK BX

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## Technical data

## Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E60693

## Dimensions and weights

Depth	30.1 mm	Depth (inches)	1.185 inch
Height	15.3 mm	Height (inches)	0.6024 inch
Width	62.52 mm	Width (inches)	2.4614 inch
Net weight	11.67 g		

## Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	Cradle to gate 1,121 kg CO <sub>2</sub> eq.

## System Parameters

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	7	L1 in mm	45.72 mm
L1 in inches	1.800 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Protection degree	IP20	Can be coded	Yes
Stripping length	10 mm	Screwdriver blade	0.6 x 3.5
Plugging cycles	25	Plugging force/pole, max.	8.5 N
Pulling force/pole, max.	6 N		

## Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation resistance	≥ 108 Ω
Moisture Level (MSL)		UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Layer structure of plug contact	4...8 µm Sn hot-dip tinned	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

## Conductors suitable for connection

Clamping range, min.	0.08 mm <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12

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## Technical data

Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm
Clampable conductor	Cross-section for conductor connection
	Type fine-wired
	nominal 0.5 mm <sup>2</sup>
	wire end ferrule
	Stripping length nominal 12 mm
	Recommended wire-end ferrule <a href="#">H0,5/16 OR</a>
	Stripping length nominal 10 mm
	Recommended wire-end ferrule <a href="#">H0,5/10</a>
	Cross-section for conductor connection
	Type fine-wired
Clampable conductor	nominal 0.75 mm <sup>2</sup>
	wire end ferrule
	Stripping length nominal 12 mm
	Recommended wire-end ferrule <a href="#">H0,75/16 W</a>
	Stripping length nominal 10 mm
	Recommended wire-end ferrule <a href="#">H0,75/10</a>
	Cross-section for conductor connection
	Type fine-wired
	nominal 1 mm <sup>2</sup>
	wire end ferrule
Clampable conductor	Stripping length nominal 12 mm
	Recommended wire-end ferrule <a href="#">H1,0/16D R</a>
	Stripping length nominal 10 mm
	Recommended wire-end ferrule <a href="#">H1,0/10</a>
	Cross-section for conductor connection
	Type fine-wired
	nominal 1.5 mm <sup>2</sup>
	wire end ferrule
	Stripping length nominal 10 mm
	Recommended wire-end ferrule <a href="#">H1,5/10</a>
Clampable conductor	Stripping length nominal 12 mm
	Recommended wire-end ferrule <a href="#">H1,5/16 R</a>
	Cross-section for conductor connection
	Type fine-wired
	nominal 2.5 mm <sup>2</sup>
	wire end ferrule
	Stripping length nominal 10 mm
	Recommended wire-end ferrule <a href="#">H2,5/10</a>
	Cross-section for conductor connection
	Type fine-wired

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage.

## 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)	24 A	Rated current, min. number of poles (Tu=40°C)	23.8 A

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## Technical data

Rated current, max. number of poles (Tu=40°C)	23 A	Rated voltage for surge voltage class / pollution degree II/2	1000 V
Rated voltage for surge voltage class / pollution degree III/2	1000 V	Rated voltage for surge voltage class / pollution degree III/3	630 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	8 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
Creepage distance, min.	11.4 mm	Clearance, min.	11.4 mm

## Rated data acc. to CSA

Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 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
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12

## Rated data acc. to UL 1059

Institute (cURus)	CURUS	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 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
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## Packing

Packaging	Box	VPE length	350.00 mm
VPE width	135.00 mm	VPE height	35.00 mm

## Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, pitch, type of material, date clock
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 04.08
	Conductor type	Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section

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## Technical data

Test for damage to and accidental loosening of conductors	Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
	Type of conductor and conductor cross-section	AWG 20/1
	Type of conductor and conductor cross-section	AWG 20/19
	Type of conductor and conductor cross-section	AWG 14/1
	Type of conductor and conductor cross-section	AWG 12/19
	Evaluation	passed
	Standard	DIN EN 60999-1 section 9.4 / 12.00
	Requirement	0.3 kg
	Conductor type	Type of conductor and conductor cross-section
		H05V-U0.5
Pull-out test	Type of conductor and conductor cross-section	H05V-K0.5
	Type of conductor and conductor cross-section	AWG 20/1
	Type of conductor and conductor cross-section	AWG 20/19
	Evaluation	passed
	Requirement	0.7 kg
	Conductor type	Type of conductor and conductor cross-section
		H07V-U2.5
	Type of conductor and conductor cross-section	H07V-K2.5
	Type of conductor and conductor cross-section	AWG 14/1
	Evaluation	passed
Pull-out test	Requirement	0.9 kg
	Conductor type	Type of conductor and conductor cross-section
		AWG 12/19
	Evaluation	passed
	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥20 N
	Conductor type	Type of conductor and conductor cross-section
		H05V-U0.5
	Type of conductor and conductor cross-section	H05V-K0.5
	Type of conductor and conductor cross-section	AWG 20/1
Evaluation	Type of conductor and conductor cross-section	AWG 20/19
	Requirement	≥50 N

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## Technical data

Conductor type	Type of conductor and conductor cross-section	H07V-U2.5
	Type of conductor and conductor cross-section	H07V-K2.5
	Type of conductor and conductor cross-section	AWG 14/1
Evaluation	passed	
Requirement	≥60 N	
Conductor type	Type of conductor and conductor cross-section	AWG 12/19
Evaluation	passed	

## Important note

## 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.

## Notes

- Additional variants on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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.
- Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

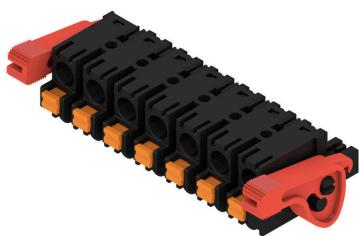
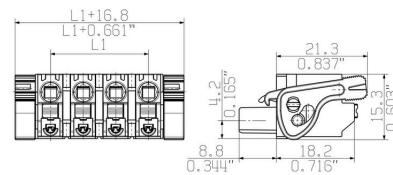
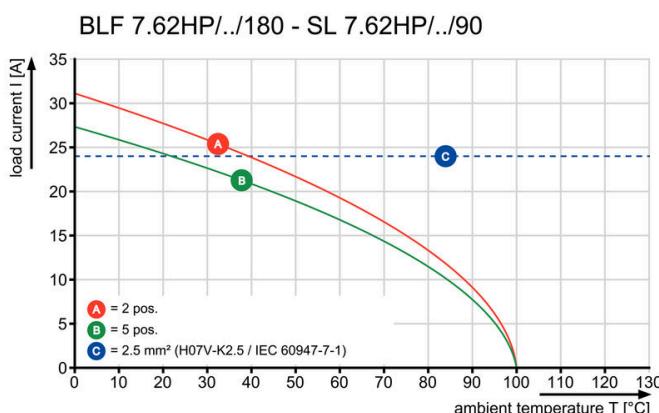
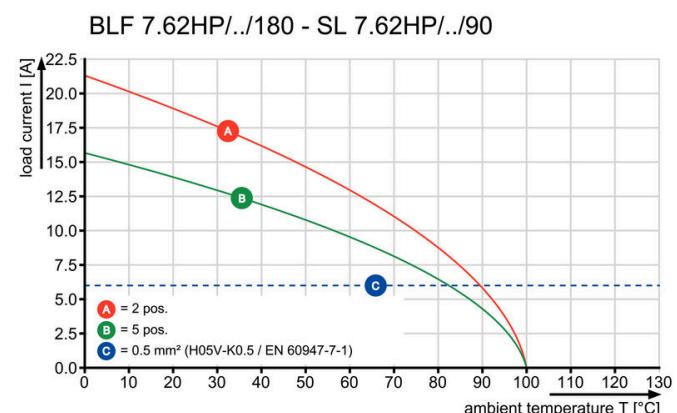
## Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

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**Drawings****Product image****Dimensional drawing****Graph****Graph****Product benefits**

Vibration-proof connection

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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

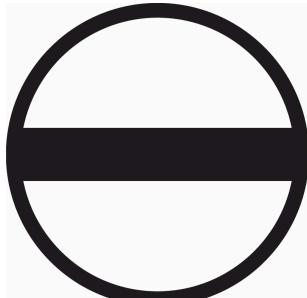
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

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

## Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

## General ordering data

Type	SDS 0.6X3.5X100	Version
Order No.	<a href="#">9008330000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 ST	
Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">9008390000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 ST	

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**Accessories****Crimping tools**

Crimping tools for wire end ferrules, with and without plastic collars

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

**General ordering data**

Type	PZ 6/5	Version
Order No.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> ,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 ST	

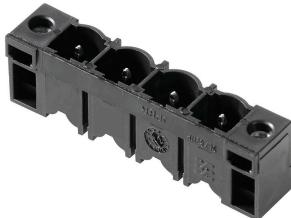
## BLF 7.62HP/07/180LR SN BK BX

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## Counterpart

## SL 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.

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

- 29 A at 400 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile

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 when combined with female header BLZ 7.62 HP

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, 180° outlet direction, with screw flanges

## General ordering data

Type	SL 7.62HP/07/180F 3.2 S...	Version
Order No.	<a href="#">1140920000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248923380	7.62 mm, Number of poles: 7, 180°, Solder pin length (l): 3.2 mm,
Qty.	24 ST	tinned, black, Box
Type	SL 7.62HP/07/180F 3.2 S...	Version
Order No.	<a href="#">1141030000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248923816	7.62 mm, Number of poles: 7, 180°, Solder pin length (l): 3.2 mm,
Qty.	24 ST	tinned, orange, Box

## SL 7.62HP/180LF



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- 20 A at 600 V (UL)
- Single compartment mating profile

Assisting in device approval:

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- Meets the increased requirements on touch safety as per IEC68100-5-1 when combined with female header BLZ 7.62 HP

The slimming diet for multiple-stage device series:

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Male header, 180° outlet direction, with solder flanges

## BLF 7.62HP/07/180LR SN BK BX

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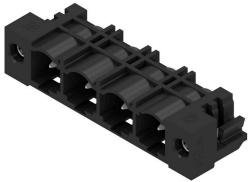
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## Counterpart

## General ordering data

Type	SL 7.62HP/07/180LF 3.2 ...	Version
Order No.	<a href="#">1141140000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248923441	connection, 7.62 mm, Number of poles: 7, 180°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, black, Box
Type	SL 7.62HP/07/180LF 3.2 ...	Version
Order No.	<a href="#">1141250000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248923649	connection, 7.62 mm, Number of poles: 7, 180°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, orange, Box

## SL 7.62HP/270LF



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/07/270LF 3.2S...	Version
Order No.	<a href="#">1472420000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4050118317565	connection, 7.62 mm, Number of poles: 7, 270°, Solder pin length (l):
Qty.	50 ST	3.2 mm, tinned, black, Box
Type	SL 7.62HP/07/270LF 3.2S...	Version
Order No.	<a href="#">1472660000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4050118317787	connection, 7.62 mm, Number of poles: 7, 270°, Solder pin length (l):
Qty.	50 ST	3.2 mm, tinned, orange, Box

## BLF 7.62HP/07/180LR SN BK BX

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## Counterpart

## SL 7.62HP/90F



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/07/90F 3.2 SN...	Version
Order No.	<a href="#">1124270000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248906406	7.62 mm, Number of poles: 7, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Qty.	24 ST	
Type	SL 7.62HP/07/90F 3.2 SN...	Version
Order No.	<a href="#">1124340000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248906369	7.62 mm, Number of poles: 7, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Qty.	24 ST	

## SL 7.62HP/90LF



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 solder flanges

## General ordering data

Type	SL 7.62HP/07/90LF 3.2 S...	Version
Order No.	<a href="#">1095970000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248957446	connection, 7.62 mm, Number of poles: 7, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, black, Box

**BLF 7.62HP/07/180LR SN BK BX**

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**Counterpart**

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Type	SL 7.62HP/07/90LF 3.2 S...	Version
Order No.	<a href="#">1096080000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248960125	connection, 7.62 mm, Number of poles: 7, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, orange, Box