Data sheet

BLZ 7.62HP/03/180 SN BK BX SO

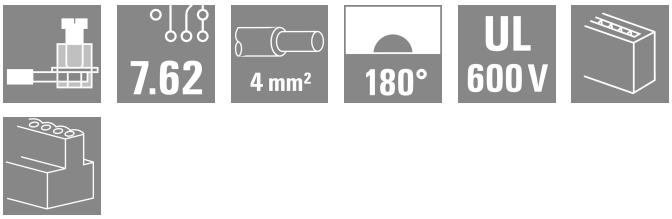
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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.
High-performance female header for applications up to 12 kVA:
- 29 A with 400 V (IEC)
- 20 A at 600 V (UL)
- 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:
- Meets the requirements of 600 V according to UL 508 / UL 840.
- When plugged, meets the increased requirements on touch safety as per IEC 68100-5-1

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!

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box
Order No.	2922390000
Type	BLZ 7.62HP/03/180 SN BK BX SO
GTIN (EAN)	4099986616943
Qty.	100 items
Product data	IEC: 630 V / 29 A / 0.2 - 4 mm² UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

Data sheet

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Technical data

Approvals

Approvals	
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Dimensions and weights

Depth	23.3 mm	Depth (inches)	0.9173 inch
Height	18.3 mm	Height (inches)	0.7205 inch
Width	22.14 mm	Width (inches)	0.8717 inch
Net weight	5.61 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption	
REACH SVHC	No SVHC above 0.1 wt%	
Product Carbon Footprint	Cradle to gate	0.151 kg CO2eq.

System Parameters

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	15.24 mm
L1 in inches	0.600 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm²
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	Volume resistance	5.00 mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Plugging force/pole, max.	9.5 N	Pulling force/pole, max.	8.5 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 mm²
Clamping range, max.	4 mm²
Wire connection cross section AWG, min.	AWG 28

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Technical data

Wire connection cross section AWG, max.	AWG 12			
Solid, min. H05(07) V-U	0.2 mm²			
Solid, max. H05(07) V-U	4 mm²			
Flexible, min. H05(07) V-K	0.2 mm²			
Flexible, max. H05(07) V-K	4 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm²			
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²			
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.25 mm²	
	wire end ferrule	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	H0,25/12 HBL	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.34 mm²	
	wire end ferrule	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	H0,34/12 TK	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,5/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,75/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H1,0/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H1,5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H2,5/7	
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)	26.5 A	Rated current, min. number of poles (Tu=40°C)	25 A

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Technical data

Rated current, max. number of poles (Tu=40°C)	23 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	4 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
Creepage distance, min.	11.3 mm	Clearance, min.	9.8 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	228.00 mm
VPE width	134.00 mm	VPE height	47.00 mm

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	• 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		

BLZ 7.62HP/03/180 SN BK BX SO

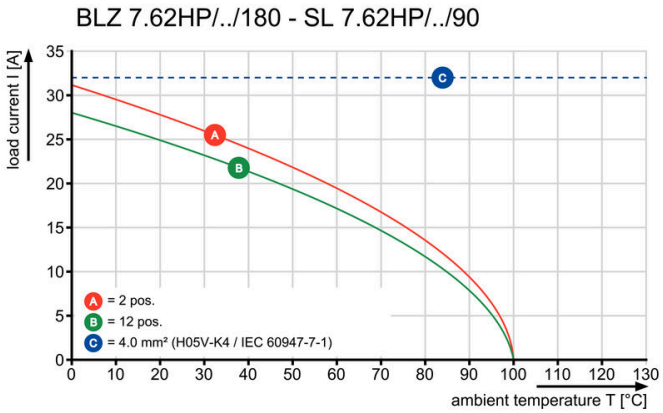
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

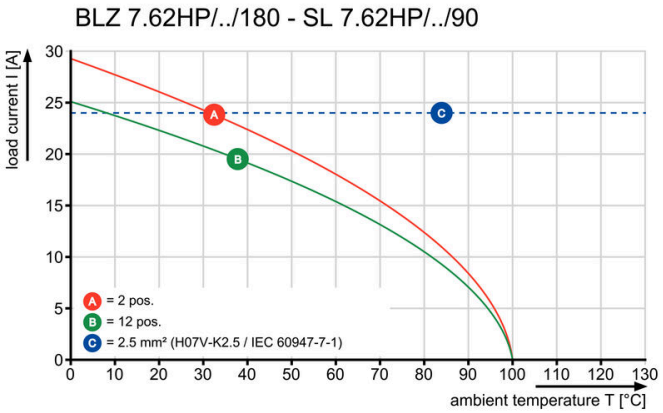
Drawings

Dimensional drawing

Graph



Graph



BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

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.	1573010000	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.	1545710000	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.	9008330000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 ST	

Type	SDIS 0.6X3.5X100	Version
Order No.	9008390000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 ST	

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

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.	9011460000	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm², 6mm²,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 ST	

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Counterpart

SL 7.62HP/180G



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

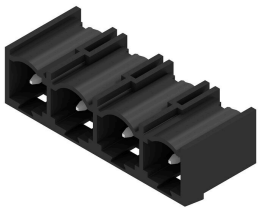
Assisting in device approval:
- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1 when combined with female header BLZ 7.62 HP

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, without flange

General ordering data

Type	SL 7.62HP/03/180G 3.2SN...	Version
Order No.	1122570000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248904570	connection, 7.62 mm, Number of poles: 3, 180°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, black, Box
Type	SL 7.62HP/03/180G 3.2SN...	Version
Order No.	1048880000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248786855	connection, 7.62 mm, Number of poles: 3, 180°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, orange, Box

SL 7.62HP/270G



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

BLZ 7.62HP/03/180 SN BK BX SO

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

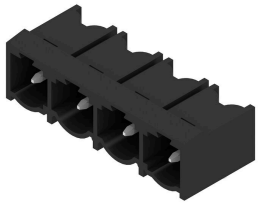
www.weidmueller.com

Counterpart

General ordering data

Type	SL 7.62HP/03/270G 3.2SN...	Version
Order No.	1472250000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4050118317411	connection, 7.62 mm, Number of poles: 3, 270°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, black, Box
Type	SL 7.62HP/03/270G 3.2SN...	Version
Order No.	1472490000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4050118317633	connection, 7.62 mm, Number of poles: 3, 270°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, orange, Box

SL 7.62HP/90G



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

General ordering data

Type	SL 7.62HP/03/90G 3.2SN ...	Version
Order No.	1026770000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248752171	connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, black, Box
Type	SL 7.62HP/03/90G 3.2SN ...	Version
Order No.	1980380000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248707409	connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l):
Qty.	100 ST	3.2 mm, tinned, orange, Box

SL-SMT 7.62HP/180G SN Box

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Counterpart

General ordering data

Type	SL-SMT 7.62HP/03/180G 2...	Version
Order No.	3114270000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4099987204071	connection, 7.62 mm, Number of poles: 3, 180°, Solder pin length (l):
Qty.	ST	2.1 mm, tinned, black, Box

SL-SMT 7.62HP/180G SN Tape

General ordering data

Type	SL-SMT 7.62HP/03/180G 2...	Version
Order No.	3114320000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4099987204125	connection, 7.62 mm, Number of poles: 3, 180°, Solder pin length (l):
Qty.	ST	2.1 mm, tinned, black, Reel

SL-SMT 7.62HP/90G SN Box

General ordering data

Type	SL-SMT 7.62HP/03/90G 2....	Version
Order No.	3040760000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4099987011396	connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l):
Qty.	ST	2.1 mm, tinned, black, Box

BLZ 7.62HP/03/180 SN BK BX SO

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

www.weidmueller.com

Counterpart

SL-SMT 7.62HP/90G Tape

General ordering data

Type	SL-SMT 7.62HP/03/90G 2....	Version
Order No.	3114110000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4099987203913	connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l):
Qty.	ST	2.1 mm, tinned, black, Reel