

SUZ 10.16HP/05/180G AG BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image**OMNIMATE Power BU / SU 10.16HP - the 50 kVA power class****More current for higher performance.**

Top of the class in today's connector systems – the OMNIMATE Power SU / BUZ 10.16HP. They feature a very durable contact system which makes it a pluggable power transmission solution with maximum load reserves. HP stands for High Performance – performance exemplified by a long-term usage temperature of 120°C. This custom, pluggable solution is suitable for all applications that must meet 600 V UL or 1,000 V (IEC) with up to 76 A (IEC) and 54 A (UL).

General ordering data

Version	PCB plug-in connector, male plug, 10.16 mm, Number of poles: 5, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box
Order No.	1947510000
Type	SUZ 10.16HP/05/180G AG BK BX
GTIN (EAN)	4032248623792
Qty.	26 pc(s).
Product data	IEC: 1000 V / 78 A / 0.2 - 16 mm² UL: 600 V / 57 A / AWG 24 - AWG 6
Packaging	Box

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Technical data

Dimensions and weights

Net weight	59.2 g
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System Parameters

Product family	OMNIMATE Power - series BU/SU 10.16HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.4 "	Conductor outlet direction	180°
Number of poles	5	L1 in mm	40.64 mm
L1 in inches	1.6 "	Number of rows	1
Pin series quantity	1	Rated cross-section	16 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Volume resistance	4.50 mΩ	Can be coded	Yes
Stripping length	12 mm	Tightening torque, min.	1.2 Nm
Tightening torque, max.	1.5 Nm	Clamping screw	M 4
Screwdriver blade	1.0 x 5.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25		

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	silver-plated
Layer structure of plug contact	≥ 3 μm Ag	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	130 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	130 °C		

Conductors suitable for connection

Clamping range, min.	0.2 mm ²
Clamping range, max.	16 mm ²
Wire connection cross section AWG, min.	AWG 22
Wire connection cross section AWG, max.	AWG 6
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	16 mm ²
Stranded, min. H07V-R	6 mm ²
Stranded, max. H07V-R	16 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	16 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 10 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.25 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 16 mm ² max.	
Plug gauge in accordance with EN 60999 a x b; ø	5.3mm (B6)

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Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
wire end ferrule	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	H0.5/18 OR	
Cross-section for conductor connection	Type	fine-wired	
	nominal	1 mm ²	
wire end ferrule	Stripping length	nominal	15 mm
	Recommended wire-end ferrule	H1.0/18 GE	
Cross-section for conductor connection	Type	fine-wired	
	nominal	1.5 mm ²	
wire end ferrule	Stripping length	nominal	15 mm
	Recommended wire-end ferrule	H1.5/18D SW	
Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	H1.5/12	
Cross-section for conductor connection	Type	fine-wired	
	nominal	0.75 mm ²	
wire end ferrule	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	H0.75/18 W	
Cross-section for conductor connection	Type	fine-wired	
	nominal	2.5 mm ²	
wire end ferrule	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	H2.5/19D BL	
Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	H2.5/12	
Cross-section for conductor connection	Type	fine-wired	
	nominal	4 mm ²	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	H4.0/12	
Stripping length	nominal	14 mm	
	Recommended wire-end ferrule	H4.0/20D GR	
Cross-section for conductor connection	Type	fine-wired	
	nominal	6 mm ²	
wire end ferrule	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	H6.0/20 SW	
Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	H6.0/12	
Cross-section for conductor connection	Type	fine-wired	
	nominal	10 mm ²	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	H10.0/12	
Stripping length	nominal	15 mm	
	Recommended wire-end ferrule	H10.0/22 EB	
Cross-section for conductor connection	Type	fine-wired	
	nominal	16 mm ²	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	H16.0/12	

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Reference text 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)	78 A
Rated current, max. number of poles (Tu=20°C)	68 A	Rated current, min. number of poles (Tu=40°C)	72 A
Rated current, max. number of poles (Tu=40°C)	61 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	1,000 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	8 kV	Short-time withstand current resistance	3 x 1s with 800A
Clearance, min.	14.8 mm	Creepage distance, min.	14.8 mm

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
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)	57 A
Rated current (Use group C / CSA)	57 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	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)	57 A
Rated current (Use group C / UL 1059)	57 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	353 mm
VPE width	134 mm	VPE height	60 mm

Type tests

Test: Durability of markings	Standard	taking pattern from DIN EN 60068-2-70 / 07.96
	Test	date clock, mark of origin, type identification, type of material
	Evaluation	available
	Test	durability
	Evaluation	passed

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Catalogue status 28.09.2024 / We reserve the right to make technical changes.

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Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512 part 7 section 5 / 05.94
	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 / 12.02
	Conductor type	Type of conductor and solid 0.2 mm ² conductor cross-section
		Type of conductor and stranded 0.2 mm ² conductor cross-section
		Type of conductor and solid 16 mm ² conductor cross-section
		Type of conductor and stranded 16 mm ² conductor cross-section
		Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
		Type of conductor and AWG 6/1 conductor cross-section
		Type of conductor and AWG 6/19 conductor cross-section
	Evaluation	passed

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Technical data

Test for damage to and accidental loosening of conductors

Standard	DIN EN 60999-1 section 9.4 / 12.00
Requirement	0.2 kg
Conductor type	Type of conductor and AWG 24/1 conductor cross-section
	Type of conductor and AWG 24/19 conductor cross-section
Evaluation	passed
Requirement	0.3 kg
Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
	Type of conductor and stranded 0.5 mm ² conductor cross-section
Evaluation	passed
Requirement	2.9 kg
Conductor type	Type of conductor and solid 16 mm ² conductor cross-section
	Type of conductor and stranded 16 mm ² conductor cross-section
Evaluation	passed
Requirement	0.9 kg
Conductor type	Type of conductor and AWG 6/7 conductor cross-section
	Type of conductor and AWG 6/19 conductor cross-section
Evaluation	passed

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Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	≥100 N
	Conductor type	Type of conductor and solid 16 mm ² conductor cross-section
		Type of conductor and stranded 16 mm ² conductor cross-section
		Type of conductor and AWG 6/7 conductor cross-section
		Type of conductor and AWG 6/19 conductor cross-section
	Evaluation	passed

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ECLASS 9.0	27-44-03-09	ECLASS 9.1	27-44-03-09
ECLASS 10.0	27-44-03-09	ECLASS 11.0	27-46-02-02
ECLASS 12.0	27-46-02-02	ECLASS 13.0	27-46-02-02
ECLASS 14.0	27-46-02-02		

Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

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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	<ul style="list-style-type: none"> • Additional variants 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. • 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

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	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 PO OMNIMATE EN

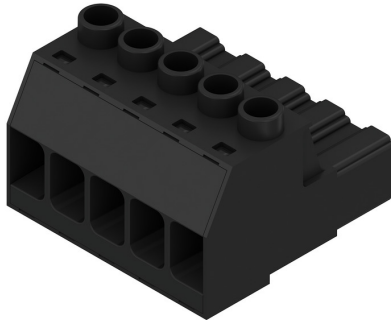
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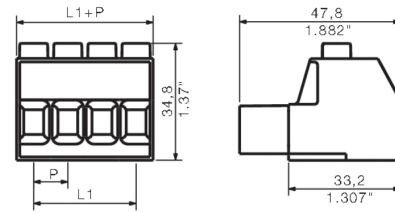
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Drawings

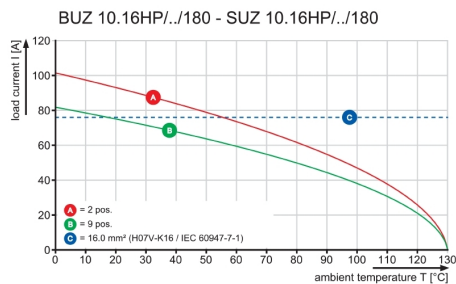
Product image



Dimensional drawing



Graph



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Accessories

Crosshead screwdriver Phillips



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PH1	Version
Order No.	9008480000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056477	
Qty.	1 pc(s).	

Mounting blocks

The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

General ordering data

Type	SUZ DF 10.16/05/180SF B ...	Version	Product data	Packaging
Order No.	2838040000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4064675436867	poles: 5		
Qty.	20 pc(s).			

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Accessories

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 0.8X4.5X125	Version
Order No.	9009020000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

Coding elements



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General ordering data

Type	Version	Product data	Packaging
KO BU/SU10.16HP WT	PCB plug-in connector, Accessories, Coding element, Natural, Number of poles: 1		Box
Order No.	2592600000		
GTIN (EAN)	4050118717389		
Qty.	50 pc(s).		
Type	Version	Product data	Packaging
KO BU/SU10.16HP BK	PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1		Box
Order No.	1824410000		
GTIN (EAN)	4032248326716		
Qty.	50 pc(s).		