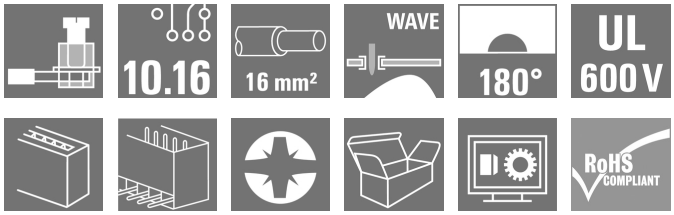
# SUZ 10.16HP/06/180G AG BK BX

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

www.weidmueller.com

## Product image






Similar to illustration

**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: 6, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box |
| Order No. | 1966920000 |
| Type | SUZ 10.16HP/06/180G AG BK BX |
| GTIN (EAN) | 4032248659906 |
| Qty. | 22 pc(s). |
| Product data | IEC: 1000 V / 78 A / 0.2 - 16 mm²<br>UL: 600 V / 57 A / AWG 24 - AWG 6 |
| Packaging | Box |

Creation date December 1, 2023 1:22:16 PM CET

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## Technical data

### Dimensions and weights

| | |
|---|---|
| Net weight | 70.86 g |

### 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 inch | Conductor outlet direction | 180° |
| Number of poles | 6 | L1 in mm | 50.8 mm |
| L1 in inches | 2 inch | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 16 mm² |
| 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 mm² |
| Clamping range, max. | 16 mm² |
| Wire connection cross section AWG, min. | AWG 22 |
| Wire connection cross section AWG, max. | AWG 6 |
| Solid, min. H05(07) V-U | 0.2 mm² |
| Solid, max. H05(07) V-U | 16 mm² |
| Stranded, min. H07V-R | 6 mm² |
| Stranded, max. H07V-R | 16 mm² |
| Flexible, min. H05(07) V-K | 0.5 mm² |
| Flexible, max. H05(07) V-K | 16 mm² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 10 mm² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 16 mm² |
| Plug gauge in accordance with EN 60999 a x b; ø | 5.3mm (B6) |

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## Technical data

| | | | |
|---|---|---|---|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | 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 mm² |
| | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H16,0/12 |

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## Technical data

| | |
|---|---|
| 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 | 354 mm |
| VPE width | 140 mm | VPE height | 61 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 |

Creation date December 1, 2023 1:22:16 PM CET

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# Technical data

| | | | |
|---|---|---|---|
| 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 conductor cross-section | solid 0.2 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.2 mm² |
| | | Type of conductor and conductor cross-section | solid 16 mm² |
| | | Type of conductor and conductor cross-section | stranded 16 mm² |
| | | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | | Type of conductor and conductor cross-section | AWG 6/19 |
| | Evaluation | passed | |
| 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 conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | 0.3 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | Evaluation | passed | |
| | Requirement | 2.9 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 16 mm² |
| | | Type of conductor and conductor cross-section | stranded 16 mm² |
| | 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 conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | ≥20 N | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | Evaluation | passed | |
| | Requirement | ≥100 N | |
| | Conductor type | Type of conductor and conductor cross-section | solid 16 mm² |
| | | Type of conductor and conductor cross-section | stranded 16 mm² |
| | | Type of conductor and conductor cross-section | AWG 6/7 |
| | | Type of conductor and conductor cross-section | AWG 6/19 |
| | 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 | 27460202 |

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## Technical data

### 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<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Wire end ferrule without plastic collar to DIN 46228/1<br>• Wire end ferrule with plastic collar to DIN 46228/4<br>• P on drawing = pitch<br>• 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.<br>• 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<br>• 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<br>MB DEVICE MANUF. EN<br>FL DRIVES DE<br>FL HEATING ELECTR EN<br>FL APPL_INVERTER EN<br>FL_BASE_STATION_EN<br>FL ELEVATOR EN<br>FL POWER SUPPLY EN<br>FL 72H SAMPLE SER EN<br>PO OMNIMATE EN<br>PO OMNIMATE EN |

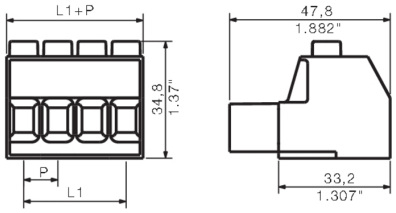
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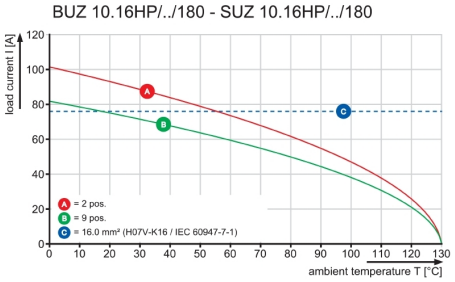
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## Drawings

### Dimensional drawing




### Graph



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## Accessories

### Coding elements



**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

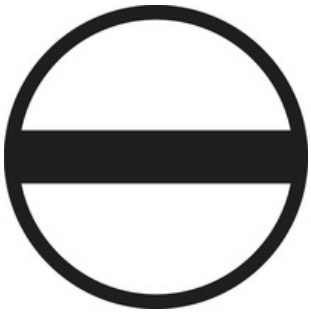
Our Service:
Design your individual connectors simply by using the

#### General ordering data

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

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

### 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). | |

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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.
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- 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 10.16/06/180SF B ... | Version | Product data | Packaging |
| Order No. | 2838050000 | PCB plug-in connector, Accessories, Mounting block, black, Number of | | Box |
| GTIN (EAN) | 4064675436874 | poles: 6 | | |
| Qty. | 20 pc(s). | | | |