

PV-CF/M-S-2,5-6 SET EC - Connector



1706821

<https://www.phoenixcontact.com/us/products/1706821>

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Connector, Range of articles: SUNCLIX, housing material: PPE, color: black, min. conductor cross-section: 2.5 mm², max. conductor cross-section: 6 mm², rated current: 27 A, Connection method: Spring-cage



Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1706821 |
| Packing unit | 1 pc |
| Minimum order quantity | 10 pc |
| Product key | ABLBS |
| GTIN | 4046356883436 |
| Weight per piece (including packing) | 38.3 g |
| Weight per piece (excluding packing) | 38.3 g |
| Country of origin | DE |

Technical data

Notes

Safety note

Safety note

- **WARNING:** Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
- **WARNING:** Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
- WARNING:** The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
- The products are suitable for applications in plant, controller, and electrical device engineering.
- Assembled products may not be manipulated or improperly opened.
- Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at [phoenixcontact.com/products](https://www.phoenixcontact.com/products)).
- When using the product in direct connection with third-party manufacturers, the user is responsible.
- For operating voltages > 50 V AC, conductive connector housings must be grounded
- Ensure that the protective or functional ground has been properly connected.
- Observe the corresponding technical data. You will find information:
 - o On the product
 - o On the packing label
 - o In the supplied documentation
 - o Online at [phoenixcontact.com/products](https://www.phoenixcontact.com/products) under the product
- The installation notes/Design In documents online on the download page at [phoenixcontact.com/products](https://www.phoenixcontact.com/products) must be observed for this product.
- Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at [phoenixcontact.com/products](https://www.phoenixcontact.com/products)
- The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
- Operate the connector only when it is fully plugged in and interlocked.
- Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.

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• Observe the minimum bending radius of the cable. Lay the cable without twisting it.

Product properties

| | |
|----------------|---------------|
| Product type | Connector set |
| Product family | SUNCLIX |

Insulation characteristics

| | |
|---------------------|----|
| Protection class | II |
| Degree of pollution | 2 |

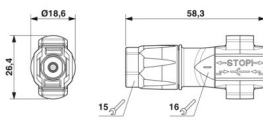
Electrical properties

| | |
|--------------------------------------|---------|
| Rated voltage (II/2) | 1000 V |
| Rated voltage (III/2) | 1100 V |
| Rated surge voltage (II/2) | 12 kV |
| Rated surge voltage (III/2) | 12.8 kV |
| Rated surge voltage (III/3) | 12 kV |
| Rated current (2.5 mm ²) | 27 A |
| Rated current (4.0 mm ²) | 35 A |
| Rated current (6.0 mm ²) | 40 A |
| Contact resistance | 0.45 mΩ |

Connection data

| | |
|-------------------|--------------|
| Connection method | Spring-cage |
| Tightening torque | 2 Nm ±0.1 Nm |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 19 mm |
| Height | 26.4 mm |
| Length | 99.2 mm |

Material specifications

| | |
|--|-------------|
| Color | black |
| Color of the housing part | black |
| Flammability rating according to UL 94 | V0 |
| Insulating material group | I / CTI 600 |
| Seal material | EPDM |
| Insulating material | mPPE |
| Contact surface | Silver Ag |
| Housing material | PPE |

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| | |
|-------------------------------|------|
| Cable seal material | EPDM |
| Contact material | Cu |
| Contact surface material | Ag |
| Contact carrier material | PPE |
| O-ring material | EPDM |
| Material for screw connection | PPE |

Cable/line

| | |
|----------------------------|---------------------------------------|
| Cable type | PV1-F cables |
| External cable diameter | 5.5 mm ... 8 mm |
| Single wire, cross section | 2.5 mm ² 6 mm ² |
| Cable pull-out force | > 330 N |

Mechanical properties

Mechanical data

| | |
|------------------|-------------|
| Insertion force | 45 N ±10 N |
| Withdrawal force | 250 N ±50 N |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------------|
| Degree of protection (when plugged in) | IP66/IP68 (2 m / 24 h) |
| Degree of protection | IP66/IP68 (2 m / 24 h) |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 85 °C |
| Ambient temperature (assembly) | -25 °C ... 50 °C |

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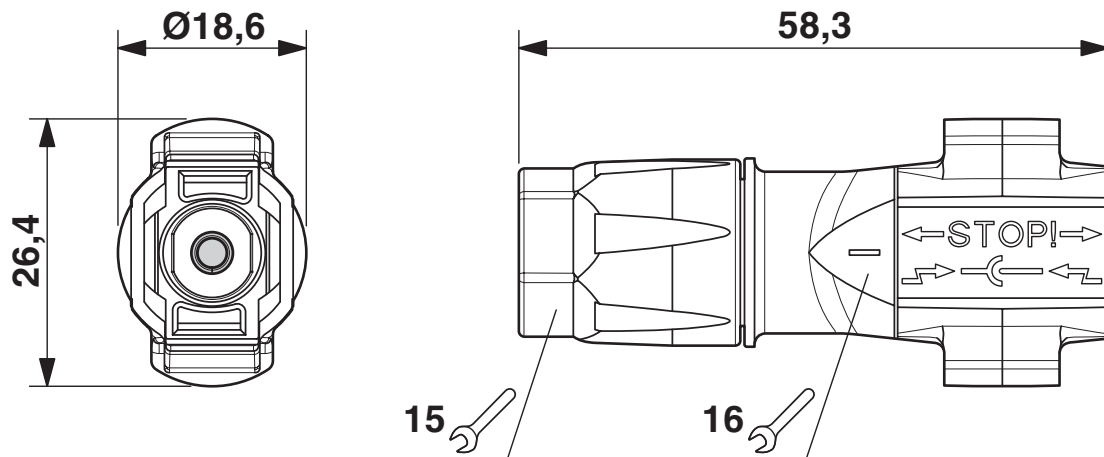


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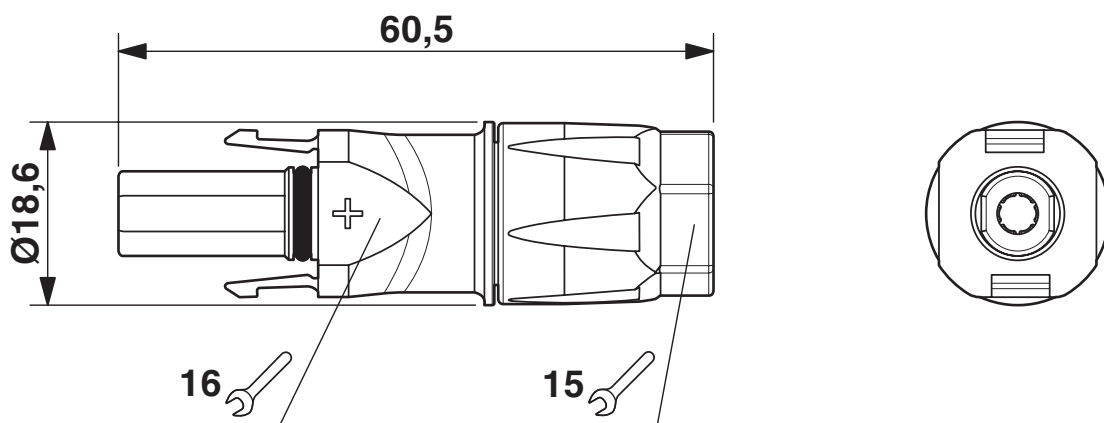
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Drawings

Dimensional drawing



Dimensional drawing



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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27440107 |
| ECLASS-15.0 | 27440107 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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