

# PV-C4M-S 2,5-6 (-) - Connector



1020775

<https://www.phoenixcontact.com/us/products/1020775>

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Connector, Range of articles: SUNCLIX, housing material: PPE, color: black, number of positions: 1, min. conductor cross section: 2.5 mm<sup>2</sup>, max. conductor cross section: 6 mm<sup>2</sup>, rated voltage: 1500 V DC, rated current: 35 A, Connection method: Spring-cage, Contact connection type: Pin, min. cable diameter: 5 mm, max. cable diameter: 8 mm

## Your advantages

- Convenient, secure spring connection technology
- High yield, thanks to silver-plated contacts
- Convenient release without a special tool
- One-piece DC connector

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1020775       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AB02          |
| Product key                          | ABLBBA        |
| GTIN                                 | 4055626511283 |
| Weight per piece (including packing) | 19.73 g       |
| Weight per piece (excluding packing) | 19.602 g      |
| Customs tariff number                | 85359000      |
| Country of origin                    | IN            |

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## 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        | Photovoltaic connector |
| Product family      | SUNCLIX                |
| Number of positions | 1                      |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 10 |
|------------------|----|

### Insulation characteristics

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

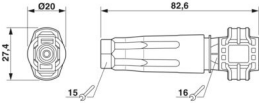
### Electrical properties

|                             |   |
|-----------------------------|---|
| Rated voltage (II/2)        | 1000 V  |
| Rated voltage (III/2)       | 1500 V  |
| Nominal voltage ATD         | 1500 V DC (III/2.00) in accordance with IEC 62852:2014/AMD1:2 020 |
|                             | 1500 V DC in accordance with UL 6703                              |
| Rated surge voltage         | 16 kV   |
| Rated surge voltage (II/2)  | 12 kV   |
| Rated surge voltage (III/2) | 12 kV   |
| Rated surge voltage (III/3) | 16 kV   |
| Rated current (6.0 mm²)     | 35 A (in accordance with IEC 62852:2014-11)                       |
| Rated current (4.0 mm²)     | 30 A (in accordance with IEC 62852:2014-11)                       |
| Rated current (2.5 mm²)     | 20 A (in accordance with IEC 62852:2014-11)                       |
| Rated current               | 30 A (in accordance with UL 6703)                                 |
|                             | 35 A (in accordance with UL 6703)                                 |
|                             | 50 A (in accordance with UL 6703)                                 |
| Contact resistance          | 0.45 mΩ   |
| Contact resistance          | ≤ 0.45 mΩ (when plugged in (without cable))                       |

### Connection data

|                   |             |
|-------------------|-------------|
| Connection method | Spring-cage |
| Stripping length  | 15 mm       |

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 20 mm  |
| Height              | 27.4 mm  |

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|        |         |
|--------|---------|
| Length | 82.6 mm |
|--------|---------|

## Material specifications

|  |                      |
|--|----------------------|
| Color                                  | black                |
| Color of the housing part              | black                |
| Material                               | PPE (Housing)        |
| Flammability rating according to UL 94 | V0                   |
| Insulating material group              | II                   |
| Insulating material                    | mPPE                 |
| Housing material                       | PPE                  |
| Cable seal material                    | EPDM                 |
| Contact material                       | Cu                   |
| Contact surface material               | Ag                   |
| Contact carrier material               | PA 6.6 V0            |
| O-ring material                        | Elastosil LR 3065/50 |

## Cable/line

|   |   |
|---|---|
| Cable type                              | in accordance with IEC 62930                        |
| External cable diameter                 | 5 mm ... 8 mm                                       |
| External cable diameter                 | 5 mm ... 8 mm                                       |
| Single wire, cross section              | 2.5 mm <sup>2</sup> 6 mm <sup>2</sup> 14 AWG 10 AWG |
| Stripping length of the individual wire | 15 mm   |
| Cable pull-out force                    | > 80 N  |

## Mechanical properties

### Mechanical data

|                             |                           |
|-----------------------------|---------------------------|
| Insertion/withdrawal cycles | 100                       |
| Insertion force             | 45 N ±10 N                |
| Withdrawal force            | 250 N ±50 N (when locked) |

## Environmental and real-life conditions

### Ambient conditions

|  |  |
|--|--|
| Degree of protection (when plugged in) | IP66 / IP68 (2 m / 24 h)                           |
| Degree of protection (not plugged in)  | IP20   |
| Degree of protection                   | IP66 / IP68 (2 m / 24 h)                           |
| Ambient temperature (operation)        | -40 °C ... 85 °C (dependent on the derating curve) |
| Ambient temperature (assembly)         | -5 °C ... 50 °C                                    |

## Standards and regulations

|                          |                          |
|--------------------------|--------------------------|
| Standards/specifications | IEC 62852:2014/AMD1:2020 |
|--------------------------|--------------------------|

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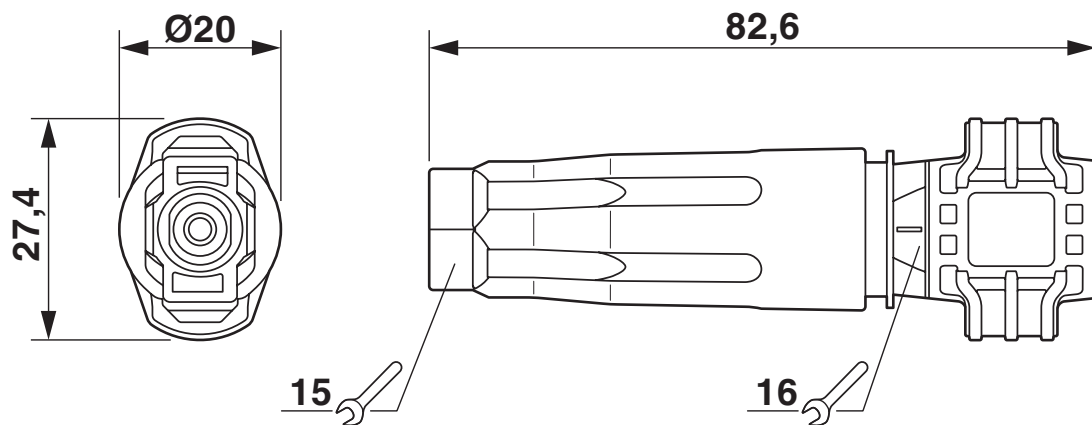


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## Drawings

Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1020775>

|   |                               |                                |                                |                               |
|---|-------------------------------|--------------------------------|--------------------------------|-------------------------------|
|  | <b>UL Recognized</b>          |                                |                                |                               |
|   | Approval ID: E477377-20180202 |                                |                                |                               |
|   |                               | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG             |
|   |                               | 1500 V                         | 50 A                           | - 10                          |
|   |                               |                                |                                | Cross section mm <sup>2</sup> |
|   |                               |                                |                                | -                             |

|   |                             |  |  |  |
|---|-----------------------------|--|--|--|
|  | <b>TÜV Rheinland</b>        |  |  |  |
|   | Approval ID: R60169305 0001 |  |  |  |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440102 |
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002635 |
|----------|----------|

### 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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