

# PV-C1F-S 2,5-6 (+) - Connector



1789821

<https://www.phoenixcontact.com/us/products/1789821>

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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 current: 27 A, Connection method: Spring-cage

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1789821                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AB02                           |
| Product key                          | ABLBBA                         |
| GTIN                                 | 4046356626828                  |
| Weight per piece (including packing) | 16.34 g                        |
| Weight per piece (excluding packing) | 16.34 g                        |
| Customs tariff number                | 85359000                       |
| Country of origin                    | DE                             |

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## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Photovoltaic connectors |
| Product family      | SUNCLIX                 |
| Number of positions | 1                       |
| Pitch               | 2.5 mm                  |

### Insulation characteristics

|                     |    |
|---------------------|----|
| Protection class    | II |
| Degree of pollution | 3  |

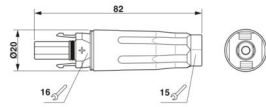
### Electrical properties

|                                      |   |
|--------------------------------------|---|
| Rated voltage (III/2)                | 1500 V                                      |
| Rated surge voltage (III/3)          | 16 kV                                       |
| Rated current (2.5 mm <sup>2</sup> ) | 27 A  |
| Rated current (4.0 mm <sup>2</sup> ) | 40 A  |
| Rated current                        | 40 A  |
| 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              | 20 mm  |
| Length              | 60 mm  |
| Pitch               | 2.5 mm   |

### Material specifications

|  |         |
|--|---------|
| Color                                  | black   |
| Color of the housing part              | black   |
| Flammability rating according to UL 94 | V0      |
| Insulating material group              | CTI 600 |
| Insulating material                    | mPPE    |
| Contact surface                        | Tin Sn  |
| Housing material                       | PPE     |

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|                               |                      |
|-------------------------------|----------------------|
| 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 |
| Material for screw connection | PPE                  |

## Cable/line

|   |                                       |
|---|---------------------------------------|
| Cable type                              | PV1-F cables                          |
| External cable diameter                 | 5 mm ... 8 mm                         |
| Single wire, cross section              | 2.5 mm <sup>2</sup> 6 mm <sup>2</sup> |
| Stripping length of the individual wire | 15 mm                                 |
| Cable pull-out force                    | > 330 N                               |
| Halogen-free                            | yes                                   |

## Mechanical properties

|                            |                 |
|----------------------------|-----------------|
| Outside conductor diameter | 8.00 mm 5.00 mm |
|----------------------------|-----------------|

### Mechanical data

|                             |                           |
|-----------------------------|---------------------------|
| Outside conductor diameter  | 8.00 mm 5.00 mm           |
| 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  | IP66/IP68 (2 m / 24 h) |
|   | 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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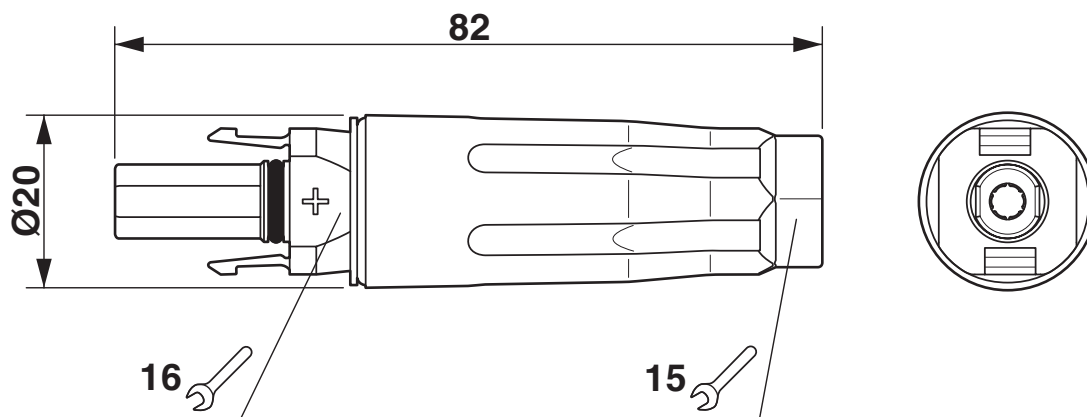
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## Drawings

Dimensional drawing



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## Classifications

### ECLASS

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

### ETIM

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

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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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