

# PV-C1F-C-HSG - Photovoltaic connector



1050771

<https://www.phoenixcontact.com/us/products/1050771>

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Photovoltaic connector, Range of articles: SUNCLIX, 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: 51 A, Connection method: Crimp, min. cable diameter: 5 mm, max. cable diameter: 8 mm

## Your advantages

- Crimp connection technology for automated assembly processes
- High yield, thanks to silver-plated contacts
- International approvals in accordance with IEC and UL enable worldwide use
- Unique SUNCLIX pin connector pattern

## Commercial data

Item number	1050771
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AB02
Product key	ABLBBB
GTIN	4055626669632
Weight per piece (including packing)	9.821 g
Weight per piece (excluding packing)	9.821 g
Customs tariff number	85359000
Country of origin	IN

## Technical data

### Notes

#### Safety note

<p>Safety note</p>	<ul style="list-style-type: none"> <li>• <b>WARNING:</b> Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> <li>• <b>WARNING:</b> 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.</li> <li><b>WARNING:</b> The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</li> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> <li>• Assembled products may not be manipulated or improperly opened.</li> <li>• 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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> <li>• Ensure that the protective or functional ground has been properly connected.</li> <li>• Observe the corresponding technical data. You will find information:             <ul style="list-style-type: none"> <li>o On the product</li> <li>o On the packing label</li> <li>o In the supplied documentation</li> <li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li> </ul> </li> <li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li> <li>• 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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li> <li>• 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).</li> <li>• Operate the connector only when it is fully plugged in and interlocked.</li> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>
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- Observe the minimum bending radius of the cable. Lay the cable without twisting it.

## Product properties

Product type	Photovoltaic connectors
Product family	SUNCLIX
Number of positions	1

## Insulation characteristics

Protection class	II
Degree of pollution	2

## Electrical properties

Rated voltage (II/2)	1500 V
Rated voltage	1500 V DC (II/2.00) in accordance with IEC 62852:2014/AMD1:2020
	1500 V DC in accordance with UL 6703
	2000 V DC
Rated surge voltage	16 kV
Rated surge voltage (III/3)	16 kV
Rated current (10 mm <sup>2</sup> )	51 A (in accordance with IEC 62852:2014/AMD1:2020)
Rated current (6.0 mm <sup>2</sup> )	40 A (in accordance with IEC 62852:2014/AMD1:2020)
Rated current (4.0 mm <sup>2</sup> )	34 A (in accordance with IEC 62852:2014/AMD1:2020)
Rated current (2.5 mm <sup>2</sup> )	27 A (in accordance with IEC 62852:2014/AMD1:2020)
Rated current	50 A (in accordance with UL 6703)
	35 A (in accordance with UL 6703)
	30 A (in accordance with UL 6703)
Contact resistance	≤ 0.45 mΩ
Contact resistance	< 0.3 mΩ (Crimp to crimp)

## Connection data

Connection method	Crimp
Stripping length	8 mm

## Dimensions

Width	20 mm
Height	20 mm
Length	72.8 mm

## Material specifications

Color	black
Color of the housing part	black
Material Housing	PPE
Material Contact	Cu
Flammability rating according to UL 94	V0
Insulating material group	II

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Insulating material	mPPE
Cable seal material	EPDM
Contact surface material	Ag
O-ring material	Silopren LSR 2660

## Cable/line

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	9 mm -1 mm
Cable pull-out force	> 80 N (IEC 62852:2014)

## Mechanical properties

Outside conductor diameter	5.00 mm 8.00 mm
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### Mechanical data

Outside conductor diameter	5.00 mm 8.00 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	IP66/IP68 (2 m / 24 h) (plugged in)
	IP20 (Not plugged in)
	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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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1050771>

 <b>UL Recognized</b> Approval ID: E477377-20230908				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	1500 V	50 A	14 - 10	-

 <b>TÜV Rheinland</b> Approval ID: R 60159495-0001				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	1500 V	40 A	-	2.5 - 6

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## Classifications

### ECLASS

ECLASS-13.0	27440107
ECLASS-15.0	27440107

### ETIM

ETIM 10.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

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

### EU REACH SVHC

REACH candidate substance (CAS No.)	Triphenyl phosphate(CAS: 115-86-6)
SCIP	151bb1c0-f06b-416f-be4b-0f0d48230e33

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