

# PV-FT-CF-C-6-2000-BU - Photovoltaic connector



1707060

<https://www.phoenixcontact.com/us/products/1707060>

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Photovoltaic connector, Range of articles: SUNCLIX, housing material: PPE, color: black, min. conductor cross-section: 6 mm<sup>2</sup>, rated current: 40 A, Connection method: Crimp, cable length: 2000

## Commercial data

Item number	1707060
Packing unit	10 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	ABLBA
GTIN	4046356897730
Weight per piece (including packing)	138.86 g
Weight per piece (excluding packing)	22.22 g
Country of origin	DE

## Technical data

### Notes

#### Safety note

Safety note	<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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<p><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.</p>
	<ul style="list-style-type: none"> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assembled products may not be manipulated or improperly opened.</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>
	<ul style="list-style-type: none"> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <li>• Operate the connector only when it is fully plugged in and interlocked.</li> </ul>
	<ul style="list-style-type: none"> <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

## Insulation characteristics

Protection class	II
Degree of pollution	2

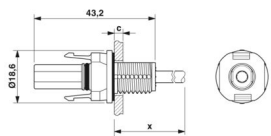
## Electrical properties

Rated voltage (II/2)	1000 V
Rated voltage (III/2)	1500 V
Rated surge voltage (II/2)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (III/3)	16 kV
Rated current (6.0 mm <sup>2</sup> )	40 A
Contact resistance	0.45 mΩ

## Connection data

Connection method	Crimp
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## Dimensions

Dimensional drawing	
Width	18.6 mm
Height	18.6 mm
Length	43.2 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
Cable seal material	Elastosil
Contact material	Cu
Contact surface material	Ag

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O-ring material	Silopren
Outer sheath, material	PE-X

## Cable/line

Cable length	2000 mm
Cable type	S03
Structure of individual litz in acc. with VDE 0295 / smallest wire diameter	84x0.3
External cable diameter	5.40 mm $\pm$ 0.15 mm
Outer sheath, material	PE-X
External sheath, color	blue
Single wire, cross section	6 mm <sup>2</sup>
Smallest bending radius, fixed installation	27 mm
Smallest bending radius, movable installation	54 mm
Cable pull-out force	> 80 N

## Mechanical properties

### Mechanical data

Insertion force	45 N $\pm$ 10 N
Withdrawal force	250 N $\pm$ 50 N

## 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)	IP65
Ambient temperature (operation) (male connector/female connector)	-40 °C ... 85 °C
Ambient temperature (assembly)	-25 °C ... 50 °C

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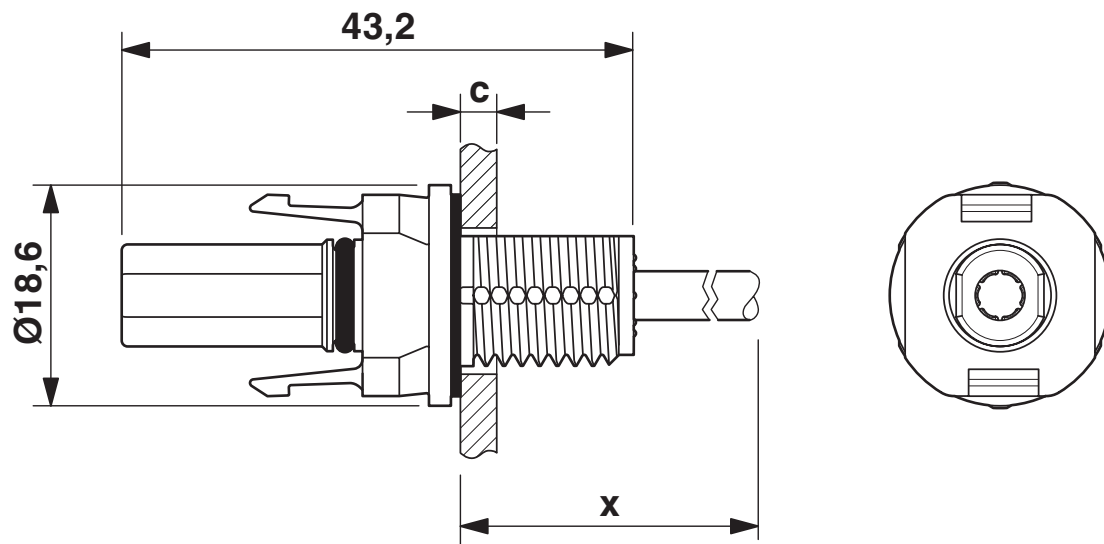


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## Drawings

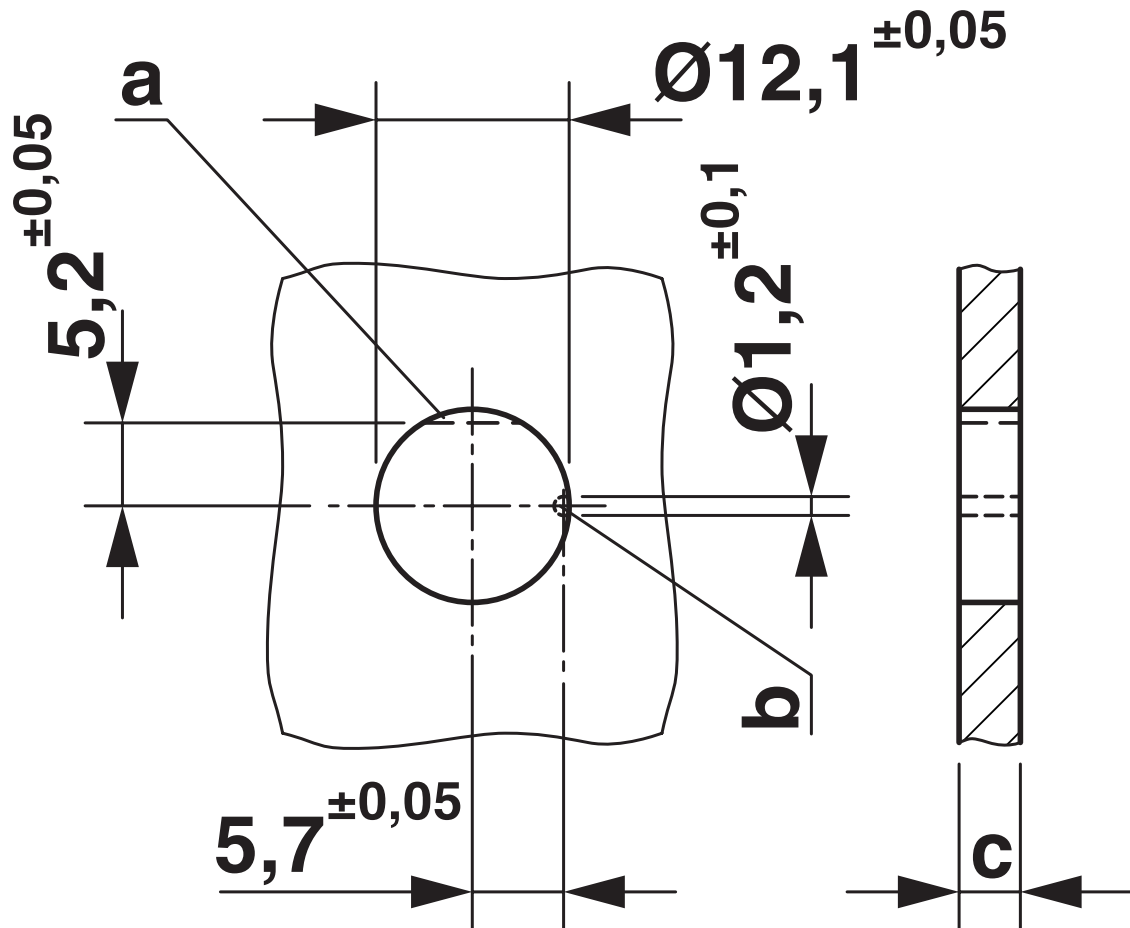
Dimensional drawing



Dimension  $x$  = cable length

$c$ : panel thickness - plastic: 2 - 6 mm; metal: 2 - 5 mm

Dimensional drawing



a: anti-rotation protection

b: coding

c: panel thickness - plastic: 2 - 6 mm; metal: 2 - 5 mm

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## Classifications

### ECLASS

ECLASS-13.0	27440107
ECLASS-15.0	27440107

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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.)	No substance above 0.1 wt%
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