

381166698	Assembly instruction	
Valid from 07.11.2024	EPIC® SOLAR 4 GEN2 PANEL MOUNT	

EPIC® SOLAR 4 GEN2 PANEL MOUNT ASSEMBLY INSTRUCTION

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Trademark on the Product: **EPIC®**

Scope of delivery

The connector EPIC® SOLAR 4 GEN2 PANEL MOUNT is delivered pre-assembled, contacts are included separately.

Article number	Article description
381166698	EPIC SOLAR 4 GEN2 Panelmount M 4-6mm ²
381166699	EPIC SOLAR 4 GEN2 Panelmount F 4-6mm ²
Designation	Description
M / F	Male (M) or female (F) contacts
4-6mm ²	For wire cross-sections 4,0mm ² or 6,0mm ²

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Female connector



Male connector

Contacts



Female contact



Male contact

Technical specifications

According to IEC 62582: 2014+A1:2020	
Rated Voltage	1.500V DC
Rated Current	40A (4,0 mm ²)
	50A (6,0 mm ²)
Rated impulse withstand voltage	16 kV
Rated temperature	-40°C ... +85°C
Upper limit of Temperature	115°C
Protection degree	IP68, 1 m/1h
Connecting Type	Crimp
Contact resistance	< 5 mΩ
Protection Class	II
Material of the Insulating Body	Polyamide
Material of the Lock-Nut	Polyamide
Contact Surface	Tin plated
Pollution Degree	3 (in the interior: 2)

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Suitable matching connectors

Matching connectors for the article 381166698 EPIC SOLAR 4 GEN2 Panelmount M 4-6mm²:

44428278 EPIC SOLAR 4 GEN2 F 4-6 5.2-7.0mm
 381166811 EPIC SOLAR 4 GEN2 F 4-6 5.2-7.0mm
 44428271 EPIC SOLAR 4 GEN2 F 5.2-7.0mm
 381166462 EPIC SOLAR 4 GEN2 F 5.2-7.0mm

Matching connectors for the article 381166699 EPIC SOLAR 4 GEN2 Panelmount F 4-6mm²:

44428277 EPIC SOLAR 4 GEN2 M 4-6 5.2-7.0mm
 381166810 EPIC SOLAR 4 GEN2 M 4-6 5.2-7.0mm
 44428270 EPIC SOLAR 4 GEN2 M 5.2-7.0mm
 381166461 EPIC SOLAR 4 GEN2 M 5.2-7.0mm

Safety instructions

The connectors EPIC® SOLAR 4 GEN2 are not suitable for mating and unmating under load.
 De-energize the circuit by appropriate measures, e.g. at the inverter.
 Disconnecting and plugging in is possible without load, while voltage is present.
 EPIC® SOLAR 4 GEN2 connectors are intended for connecting stationary photovoltaic systems.
 They are suitable for fixed installation in dry and damp rooms, as well as outdoors.
 EPIC® SOLAR 4 GEN2 products are not suitable for underground installation.

The connectors EPIC® SOLAR 4 GEN2 PANEL MOUNT are suitable for the PV-cables ÖLFLEX® SOLAR.

Mated connectors are IP68 (1m/1h) protected.
 Continuous operation under water, e.g. water on the flat roof surface is not possible.

The connectors EPIC® SOLAR 4 GEN2 may only be assembled using tools and aids specified by LAPP. The cable may only be connected to the connector by trained electricians. To protect the installer from the danger of the electric current, the connector must be made floating on all sides during installation.

Unplugged connectors must be protected against ingress of dirt and moisture. Before plugging together, make sure that the mating area is free of any dirt.

Note:

The PV-Connectors EPIC® SOLAR 4 GEN2 are not rewirable.

Defective connectors can be replaced by new connectors of the same type and connection cross-section, complying with all requirements of this installation instruction, and having ensured that the cable is without voltage and not under load.

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Necessary tool

Cable shears for cutting the PV-cables:



LAPP Cable shear KS20, article number 62120523

Stripping Tool to strip the PV-Cable



LAPP Universal Strip Solar, article number 21920120

Crimping tool

Note:

To comply the tested quality, it`s necessary to use only the indicated tools.



Crimptool CSC Parts



Crimptool CSC mounted

Crimptool (11147000) with crimp inserts (e.g. 44428266) and locator (44428244) to crimp the wires 4mm² and 6mm².

Alternatively, the CSC insert can be used with the Crimping Tool. This insert has the function **Cut**, **Stripping** and **Crimping**.

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Installation of EPIC® SOLAR 4 GEN2 PANEL MOUNT

Preparing the cable

Cut the cable cleanly - the strands must not have any oxidation or contamination.

Stripping the cable

Stripping length: $L = 8\text{mm}$.

The insulation must be removed completely and clean. No stranded wires shall be cut off.



Crimping the contacts

Check that the contact matches wire cross-section.

Insert the contact with the opening facing upwards into the EPIC® SOLAR Crimping tool.

Insert the wire completely into the crimp area of the contact.

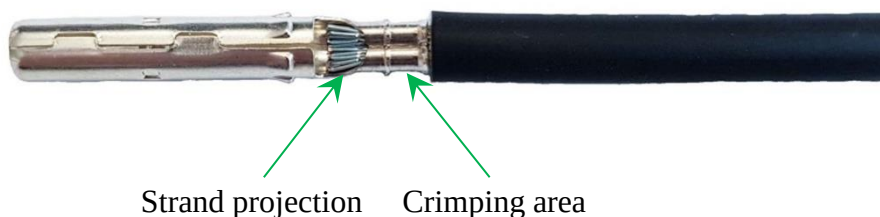


The cable is pushed forward until the insulation strikes the crimp receptacle of the contact. In this way a supernatant of at least 2mm is ensured.

Fully squeeze the tool until the trigger lock releases the crimp insert again.

Remove the crimp and visually check that all strands are completely enclosed.

The strand projection after crimping is at least 2 mm.



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Illustration of the crimping process

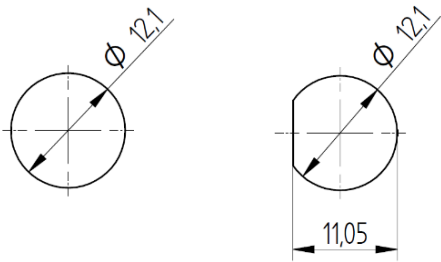


Contact in the crimp insert

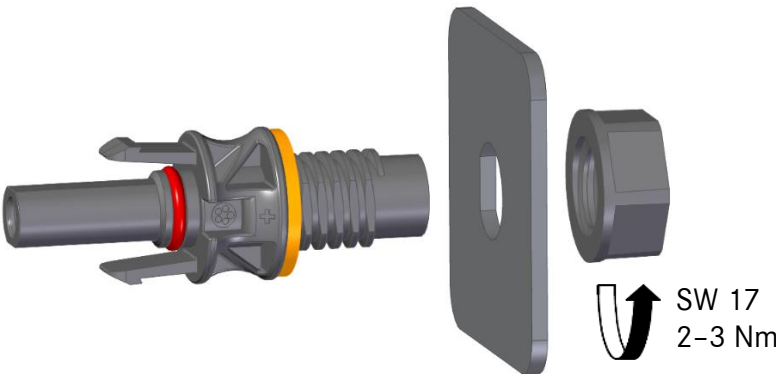
Contact with cable in the crimp insert

Mounting of the connector

Panel cut-out for installation of the connector



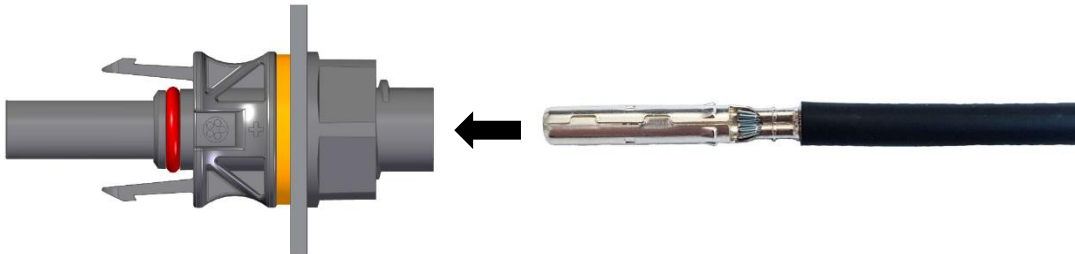
Insert the connector in the cut-out and tighten the locknut by torque moment 2-3 Nm.



Female connector is shown.

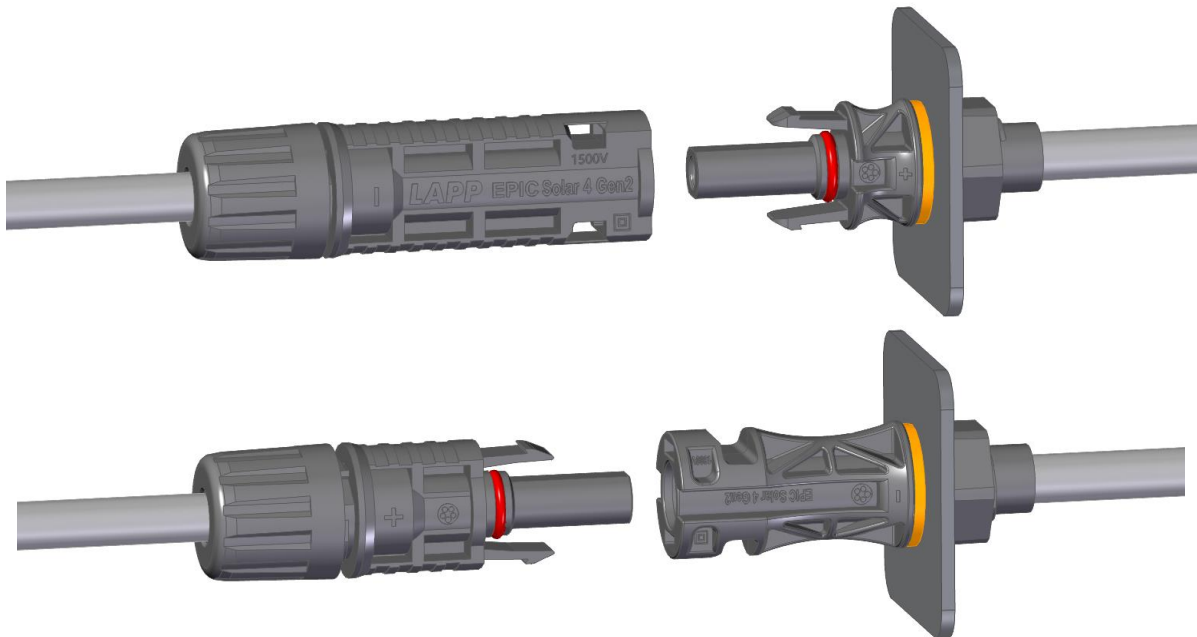
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Insert the crimped contact into the connector until the contact clicks into place.
Pull the cable slightly to make sure that the contact is properly engaged.



Connecting and disconnecting

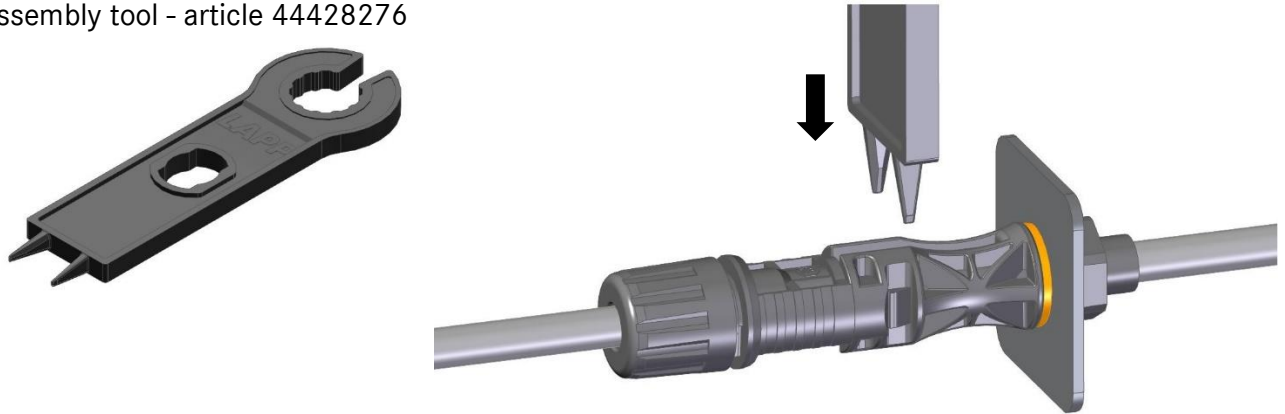
Before plug in, check the plugging area for possible soiling and clean it if necessary. Especially the O-ring on the female connector must be entirely clean. Residual moisture shall be removed. Plug EPIC® SOLAR 4 GEN2, male and female together until the snap-in hooks are fully engaged on both sides.



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To disconnect, press the latching hooks on both sides with the recommended assembly tool and pull the connectors apart carefully but firmly.

Assembly tool - article 44428276

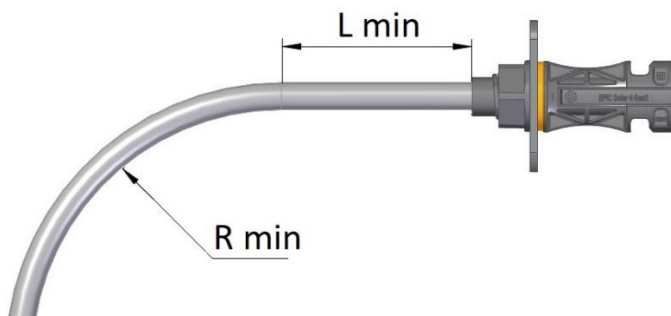


Alternatively, the standard pliers (article 3115160) can be used to press the latching hooks to disconnect the connectors.



Cable laying

In the photovoltaic system, cables must be firmly laid and securely fastened. The cable must be led straight out of the connector at least $L_{min} = 50 \text{ mm}$. The bending radius R_{min} must be at least 10x outer diameter of the cable.



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