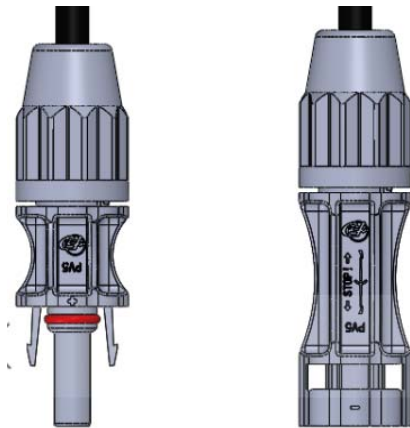




PV5e male cable coupler

PV5e female cable coupler



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**1 Safety Instructions**

The products may be assembled and installed only by suitably qualified and trained specialists with due observance of all applicable safety regulations.

Changshu Friends Connector Technology Co., LTD. (FRD) declines any liability in the event of failure to observe these warnings.

Do not deviate from the preparation and assembly procedures described here, since in this event, in the event of self-assembly, no guarantee can be given as to safety or conformity with the technical data. Do not modify the product in any way.

Connectors not made by FRD which can be mated with FRD elements and in some cases are also described as "FRD-compatible" do not conform to the requirements for safe electrical connection with long-term stability, and for safety reasons must not be plugged together with FRD elements. FRD can therefore accept no liability for damage which occurs as a result of mating these

connectors which lack FRD approval with FRD elements.

**!** The work described here must not be carried out on live or load-carrying parts.

**!** Protection from electric shock must be assured by the end product and its user.

**!** The plug connectors are watertight in accordance with IP protection class. However, they are not suitable for continuous operation under water. Do not place the plug connectors directly on the roof membrane.

**!** Unplug connectors must be protected from moisture, water, dirt or expose in organic solvents, corrosive substances.

**!** Connectors cannot afford more than 100N pulling force. Take it gently when transporting. Connectors cannot be washed by water cannons directly when cleaning the component.

**!** The plug connection must not be subjected to continuous mechanical tension. The cable should be fixed with cable binders.

**2 Technical parameters**

Rated Voltage	PV5e	DC1500V(TUV) 1500V(UL)
Rated Current		30A
Ambient Temperature		-40°C to 85°C
Protection Degree		IP68
Rated Impulse Voltage		16KV
Over voltage category		III
Pollution degree		2
Application Class		Class II

**3 Tools required**

a) Stripping pliers



b) Crimping pliers



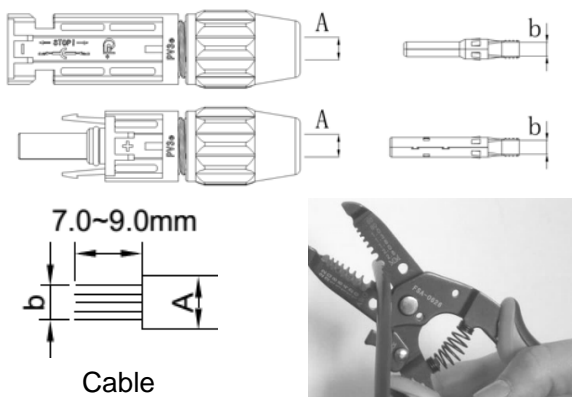
c) Open-end spanner



### 4 Cable preparation

Remove 7.0 to 9.0 mm of insulation from the end of the cable with **Stripping pliers**.

- Do not cut individual strands at stripping.
- Cables with a strand construction of classes 5 and 6 can be connected. PV3 connectors are used for copper stranded wire only.

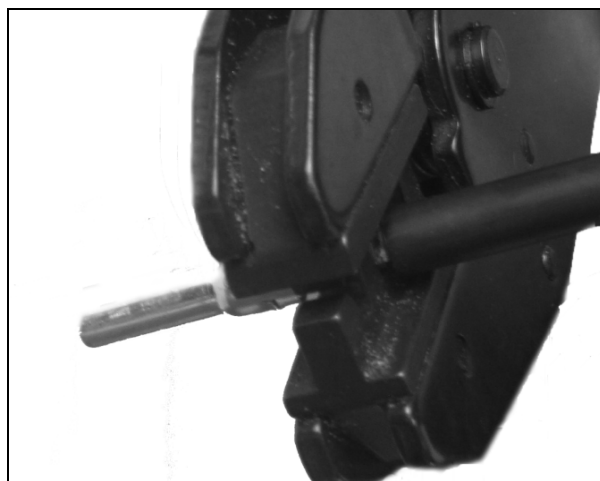


### 5 Crimping

5.1 Press the pliers gently together until the crimp lugs are properly located within the crimping die.



5.2 Insert the stripped cable end until the insulation comes up against the crimp insert. Completely close **Crimping pliers**.



5.3 Visually check the crimp.



### 6 Assembly

6.1 Insert the crimped-on contact into the insulator of the male or female coupler until it clicks into place.

- Pull gently on the lead to check that the metal part is correctly engaged.



6.2 Screw up the cable gland hand-tight with the tools **Open-end spanner**.

- The tightening torque must be appropriate for the solar cables used. Typical values are between 2.5Nm and 3Nm.



## 7 Plugging

Plug the parts of the cable coupler together until they click in place. Check that they have engaged properly by pulling on the cable coupler.

- *Connectors should be inserted in places; otherwise it is unable to seal the wiring harness.*
- *The plug connectors must not be disconnected under load.*

## 8 Unplugging

To disconnect the contacts, press the latches (X) together either by hand or with the tool **Open-end spanner** and pull the halves of the cable coupler apart.

- *It should be holding the head of connectors, not holding the cable when installing or separating Connectors.*
- *Bend radius(R) the end of connector cable should be larger than 75mm when installation*

