IMPLEMENTATION AND WIRING PROCEDURE OF HPC SERIES

LTR	Revision record	Date	Author
A	Initial release	18NOV2022	Alan DONG

THIS IS A CLASS 1 DOCUMENT WHICH IS NONCONFIDENTIAL.

Table of Contents

| Indicates Change

1. CAUTION

Do not connect or disconnect the connector under electrical load.

The use of lubricants or oils during mounting unless specified are prohibited.

Any kind of pollution (dust, humidity, etc…) during the assembly process can degrade contact and connector performance. This applies in particular to the seal and the crimping of the contacts.

Failure to follow all instructions in Application Specification including using only approved TE tooling (if applicable) can result in improper installation and/or crimping which is dangerous and may cause or contribute to electrical fires.

2. GENERAL INSTRUCTIONS

2.1. Handling and Safety

Personal Protective Equipment (PPE) is mandatory and must be worn when carrying out hazardous tasks.

Ensure your safety and the safety of others.

	Thoroughly read and understand this document before proceeding with any of the listed procedures.
	Competence Only trained and qualified service personnel are allowed to install or replace TE equipment.
	Safety with electricity Always ensure that the electricity has been isolated and that it is safe to work in proximity of the High Voltage cables.
	Solvents Only use solvents in well-ventilated environment. Always follow the manufacturer's handling instructions.

| Indicates Change

2.2. Environmental Protection

TE Connectivity and its subsidiaries, affiliates, and operating units (collectively, the “Company”) are committed to protecting the environment. Always act responsibly and follow local guidelines and recycling policies to help protect the environment.

	E-waste recycling Please consult the Product Environmental Compliance webpage for instructions on recovery and recycling of electrical and electronic equipment sold by TE.
	REACH-RoHS Conformity For information related to conformity of REACH and RoHS directives, refer to the Statements of Compliance (SoC) webpage providing these certificates.

Both topics can be found at the companies’ website under « Product Compliance ».

3. CONNECTORS GENERAL DESCRIPTION

3.1. 90°angle female plug for crimped contact

HPC-200
FG part number : H1111001301-000 (Black) / H1111000301-000 (Orange)
Assembly drawing reference: H111100X301000

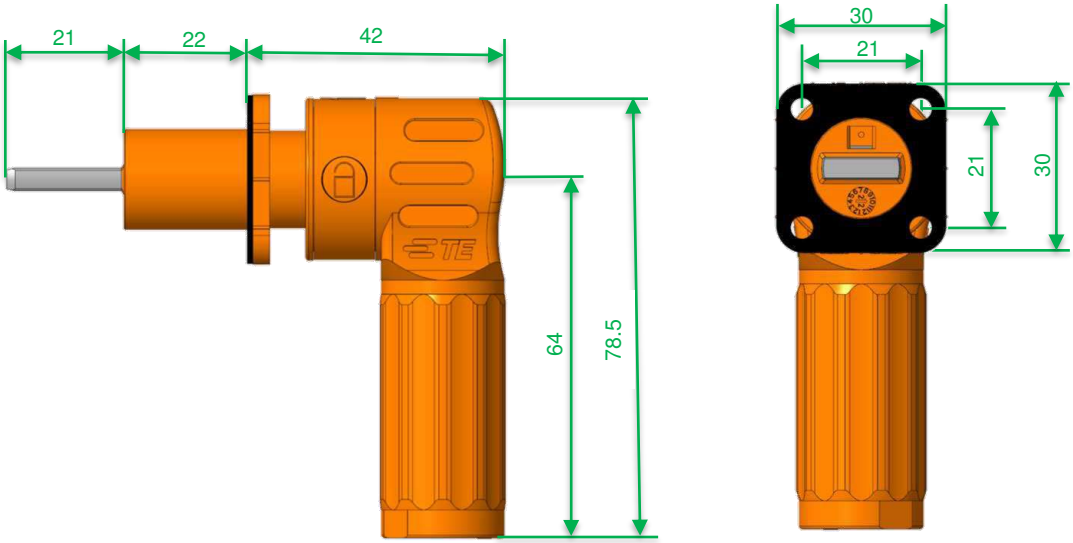
| Indicates Change

3.2. Male receptacle for busbar contact

HPC-200
FG part number : H101100130A-000 (Black) / H101100030A-000 (Orange)
Assembly drawing reference: H101100X30A000

4. OVERALL DIMENSIONS

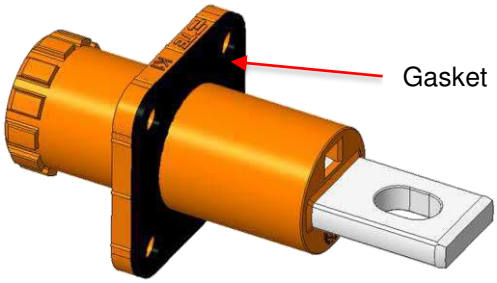
4.1. Male receptacle for busbar contact + 90° angle female plug for crimped contact



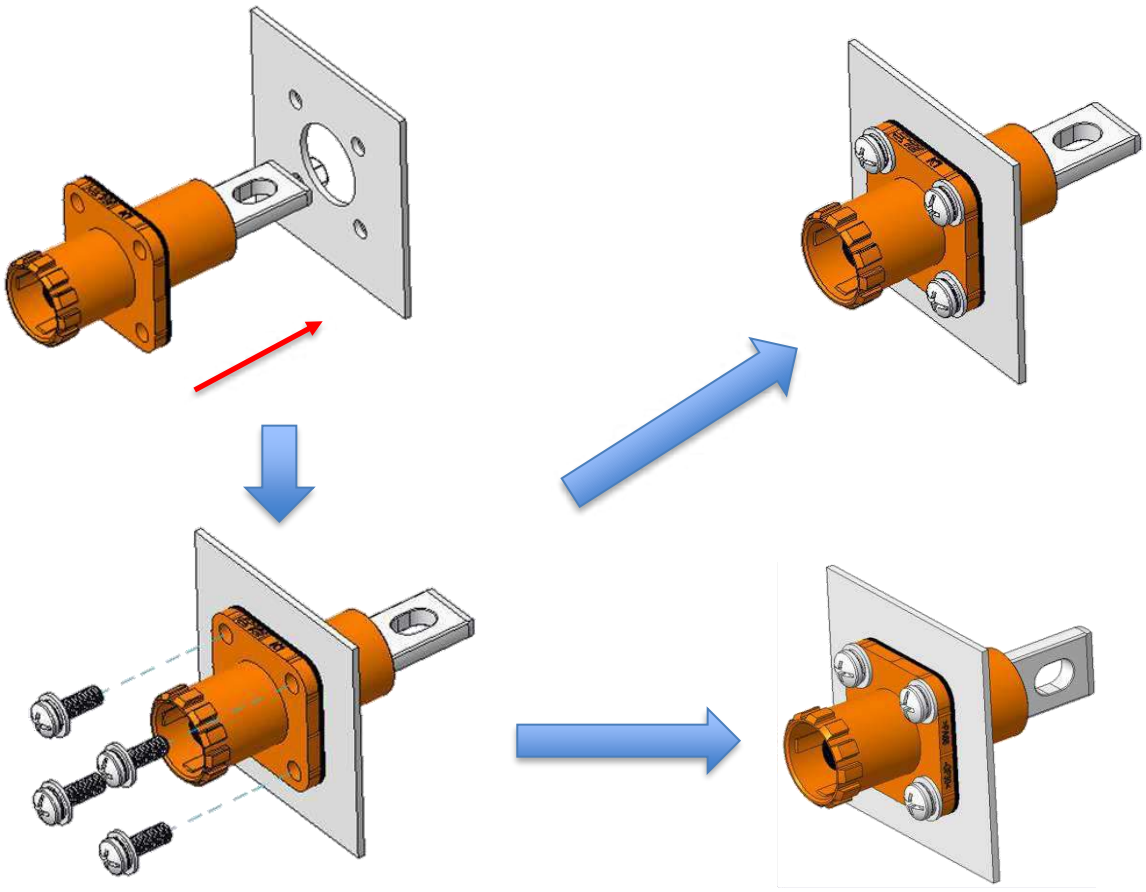
| Indicates Change

5. IMPLEMENTATION OF CONNECTORS ON THE BESS

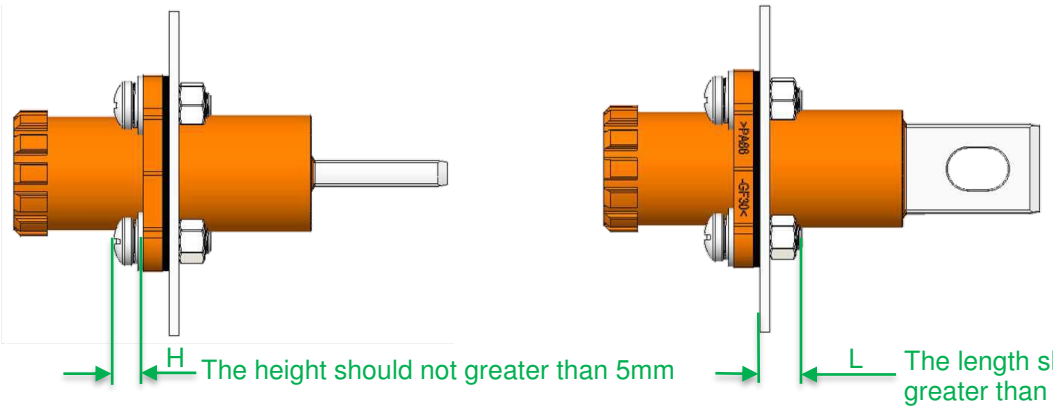
5.1. Male receptacle for busbar contact



5.2. Tighten receptacle connector onto the panel with M4 screws (recommended torque as 0.8±0.1N.m)

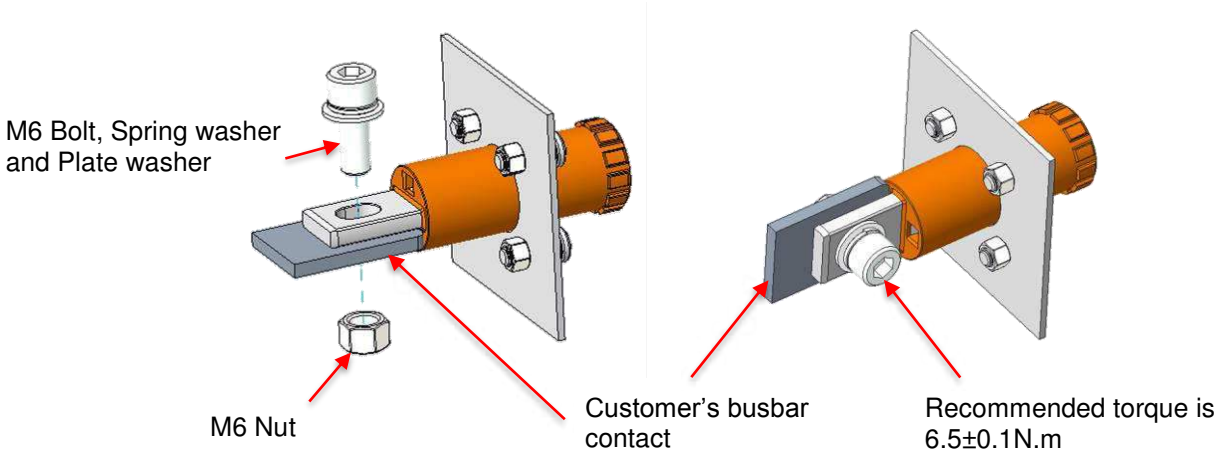


| Indicates Change



Notes:
The customer should verify the recommended torque base on your application and modify it if necessary.
And the customer should add an insulation sheath on the per nut base on your application if necessary.

5.3. Connect receptacle terminal with customer's busbar contact

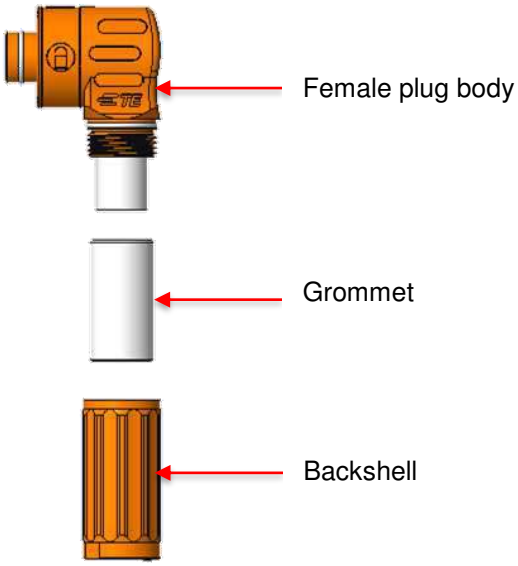


Notes:
The customer should verify the recommended torque base on your application and modify it if necessary.

| Indicates Change

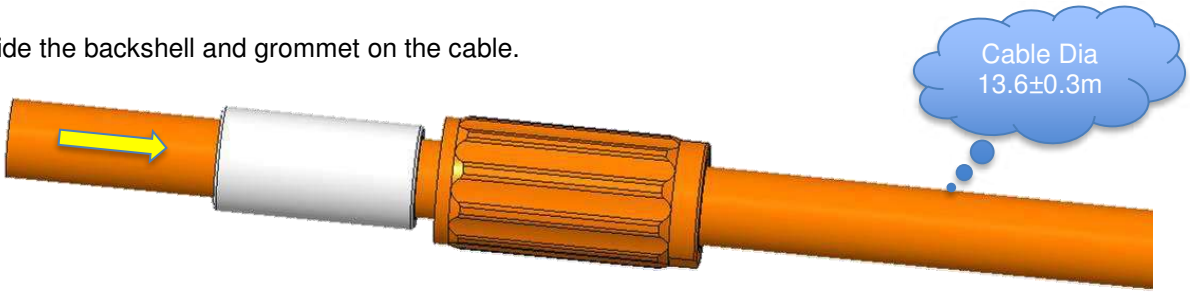
6. MOUNTING SPECIFICATION OF 90°ANGLE FEMALE PLUG FOR CRIMPED CONTACT

6.1. 90°angle female plug for crimped contact



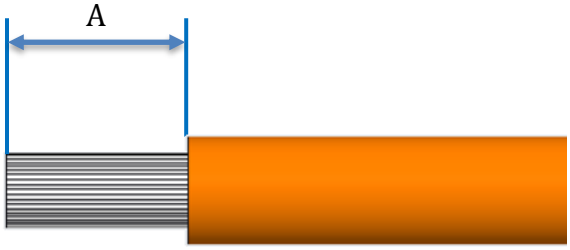
6.2. Pass the backshell and grommet on the cable

Slide the backshell and grommet on the cable.



6.3. Strip the sheath of the cable core

Strip the cable sheath up to the cable core according to dimensions indicated below:
Proceed to clean and clear cuts of the insulating sheath without deterioration of the conducting strands



Cable cross section (mm²)	A : Stripping length (mm)
50	22

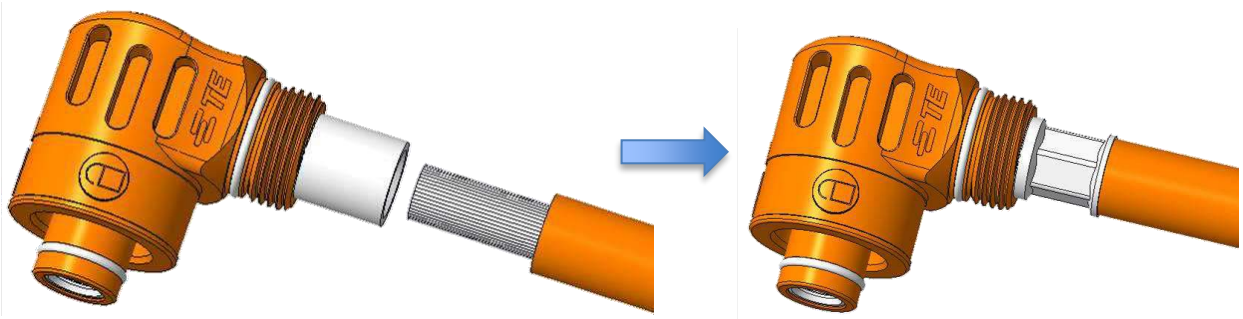
| Indicates Change

6.4. Crimp the contact

Proceed to clean and clear cuts of the insulating sheath without damage of the conducting strands.

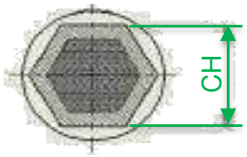
Engage the stripped wires inside the back drums of the contact. Be sure of the good insertion of the conductor strands.

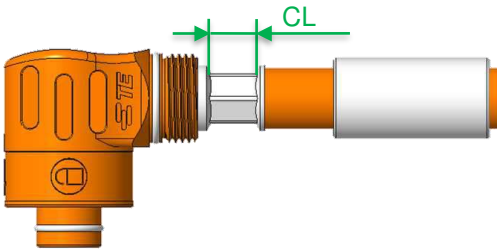
Crimp the contact by using the corresponding tools. This operation is identical for each type of crimping contact



PART NUMBER	DESCRIPTION	PICTURE	REMARK
T3100000033-100	CRIMPBOX-E-120kN		CRIMPING FORCE 120kN
T3100000033-004	CRIMPDIE-HD1350		For CROSS-SECTION 50mm²

Recommended crimping parameter			
Cable size	CH	CL	Pullout force (Min.)
50mm²	11.0	12.0	3200 N

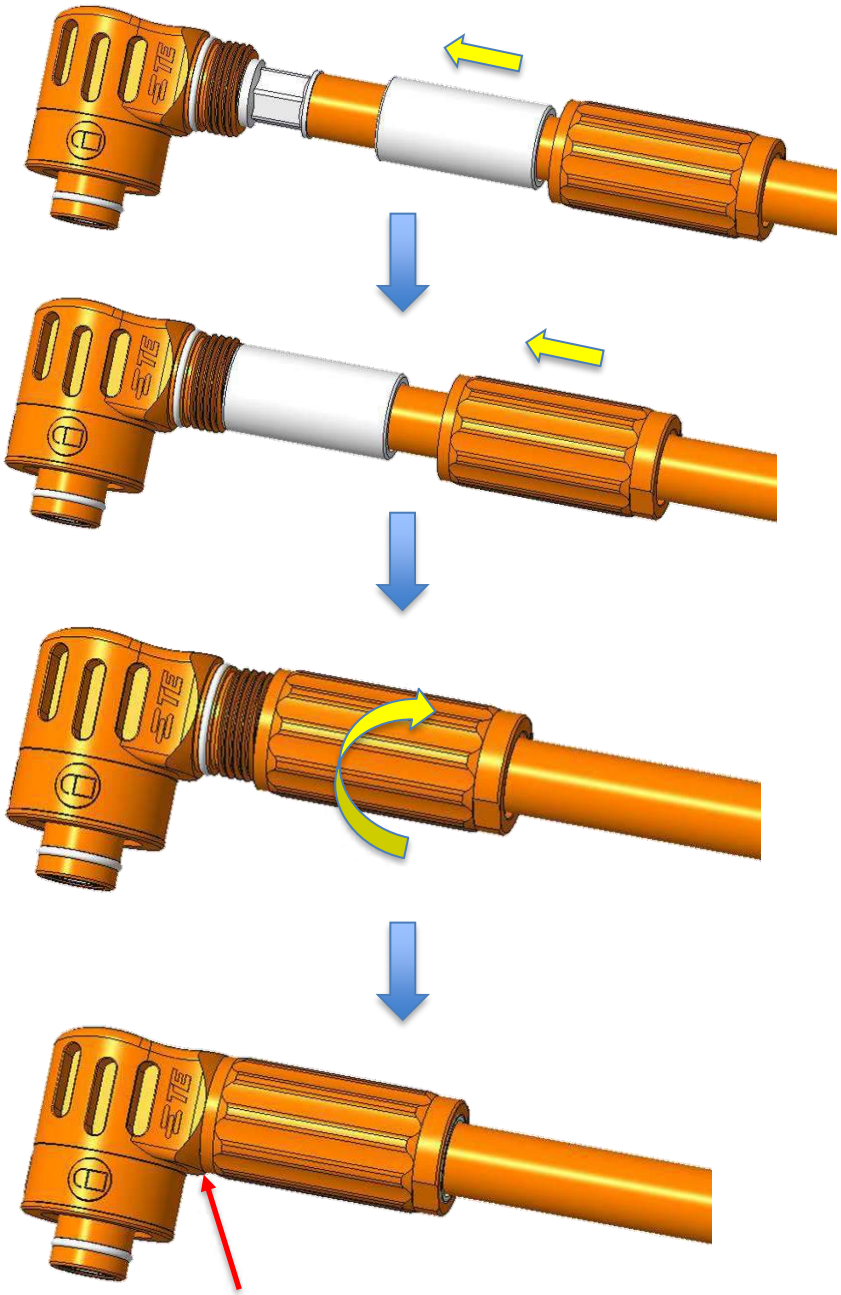




| Indicates Change

6.5. Tighten the backshell onto the housing

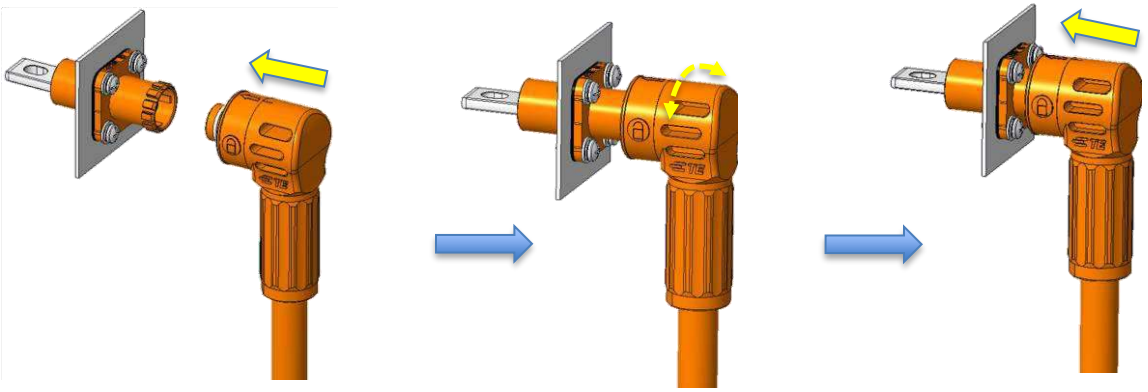
Slide the grommet and backshell onto the crimped contact of connector, then tighten the backshell onto the housing as picture by hand or wrench (recommended torque is 1.2±0.1N.m).



| Indicates Change

7. MATING PLUG-RECEPTACLE

Mate the plug on the corresponding socket by hand according to customer's right angle until heard "click".



Notes:
While mating the plug connector to receptacle connector, the customer should proper rotation plug left or right with a tiny angle due to the existing of prevent rotation structure on the plug.

8. ADDITIONAL DOCUMENTS

8.1. Product specification

- 108-137616

8.2. Other download document

www.te.com/documentation

8.3. Standards

- EN 61984: Connectors - Safety requirements and tests
- IEC 60068: Environmental testing
- IEC 60512: Connectors for electronic equipment -Test and measurements
- UL 4128: Outline of Investigation for Intercell and Intertier Connectors for Use in Electrochemical Battery System Applications
- NFF 00-363:1995 - Rolling stock - Products to be crimped for electrical connections
- EN 60529:1991+A1:2000 - Degree of protection procured by enclosures (IP code)
- EN 61373:1999 - Railway applications-Rolling stock equipment-Shock and vibrations tests

| Indicates Change