



## FOX ESS EPS BOX-TP Performance Inverter User Manual

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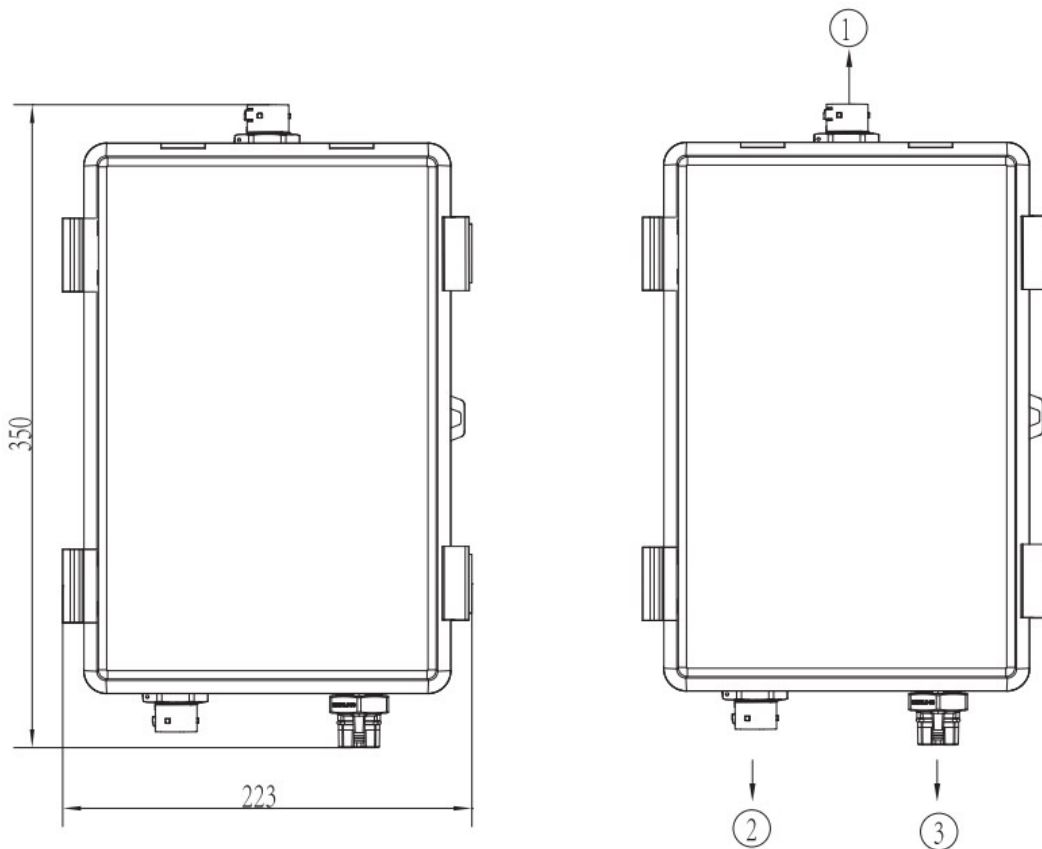
## Contents

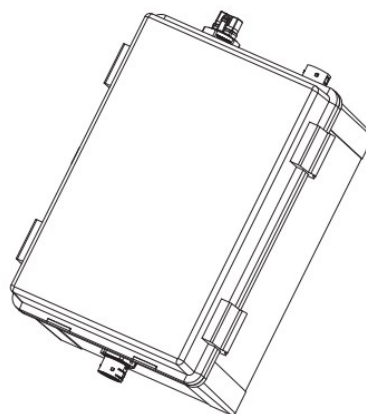
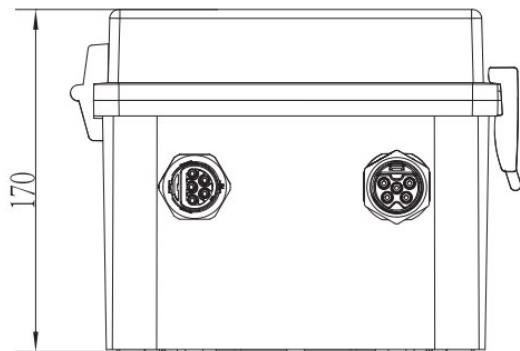
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## Introduction

EPS Box-TP integrates two contactors which provides simple connection for users. It is compatible with equipment with back-up function. Configured with EPS Box, customers just need to connect 3 wires between inverter and EPS Box. It can simplify the operation and improve security.

### Overview:



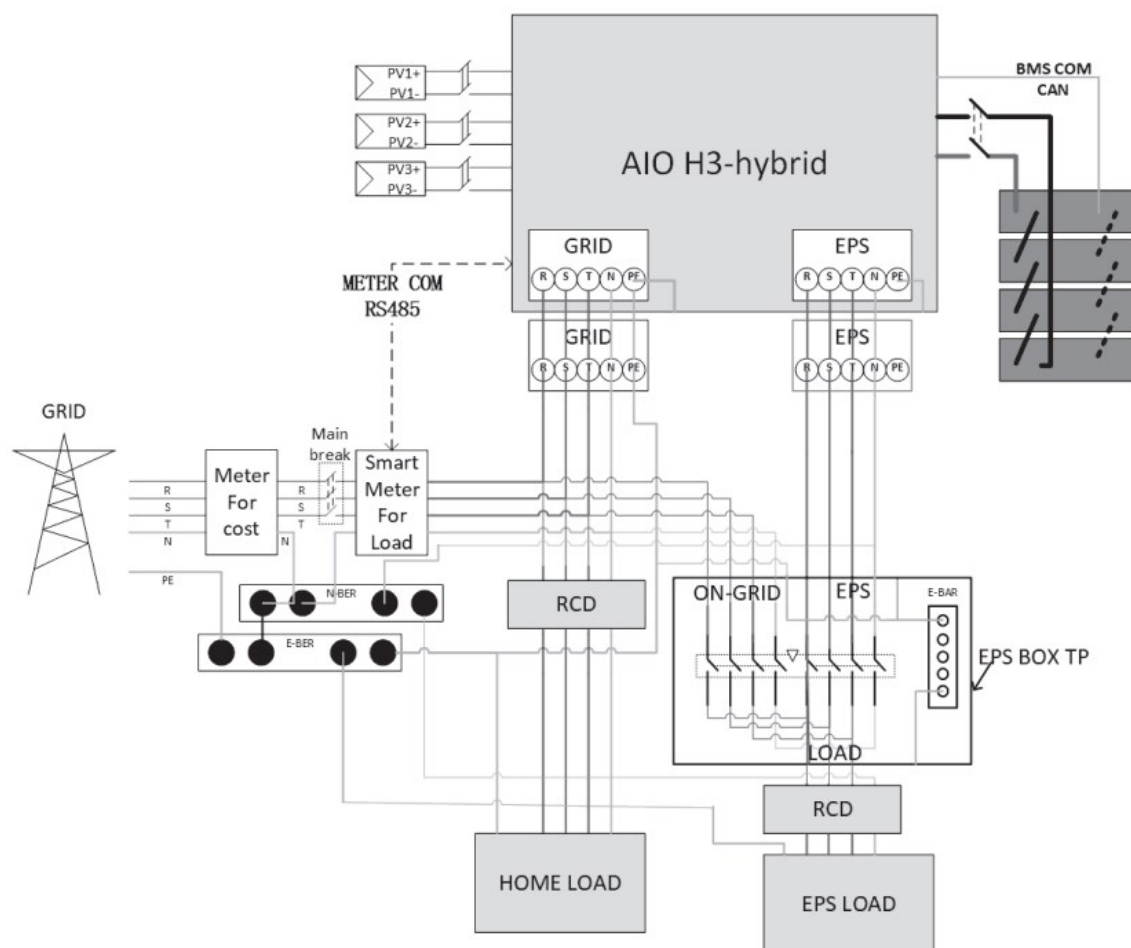


Object	Description
1	LOAD
2	EPS
3	ON-GRID

## Wiring Diagram

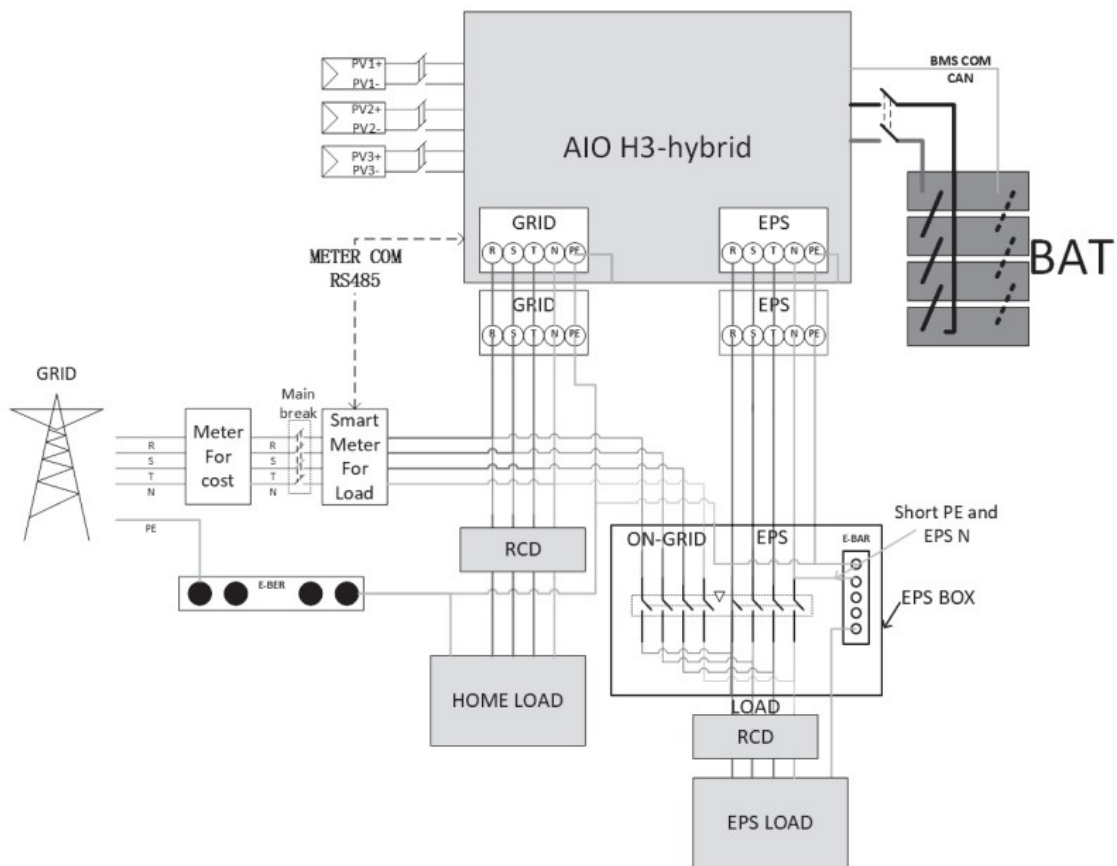
**Note:**the following is the wiring diagram of EPS BOX TP. It is necessary to connect the ON-GRID side of EPS BOX TP to the power grid, connect the EPS port to the EPS port of the energy storage machine, and connect the LOAD port to the load at home. The function of TP is to select the power of the load port from the GRID or the EPS port of the energy storage machine.

**Note:** According to Australian safety requirements, the neutral cables of the on-grid side and backup side must be connected together. Otherwise, the backup function will not work. This diagram is an example for an application that neutral connects with the PE in a distribution box. For countries such as Australia, New Zealand, South Africa, etc, please follow local wiring regulations.



This diagram is an example for an application in which neutral is separated from the PE in the distribution box.

For countries such as China, Germany, the Czech Republic, Italy, etc, please follow local wiring regulations. Need internal or external eps box, connect PE and the off-grid N line.



## Preparation

### Package Contents

Before installation, make sure that nothing inside the package is damaged. The following items should be inside the package.

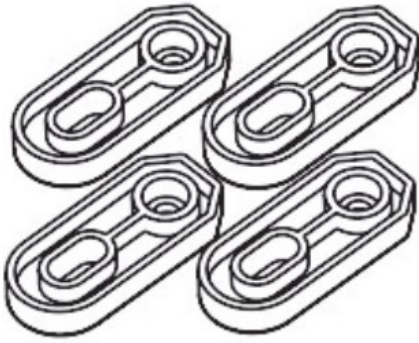
- A.



- B.



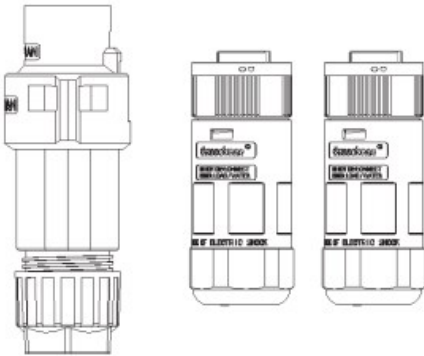
- C.



• D.



• E.



Number	Items	Quantity
A	Expansion Screws	4
B	Expansion Tubes	4
C	Cushion Blocks	4
D	Self-Tapping Screws	4
E	AC Connectors	3

## Tools

Before you start, get the following tools ready.

- Diagonal Piler



- Screwdriver



- Rubber Hammer



- $\Phi$  6 Driller

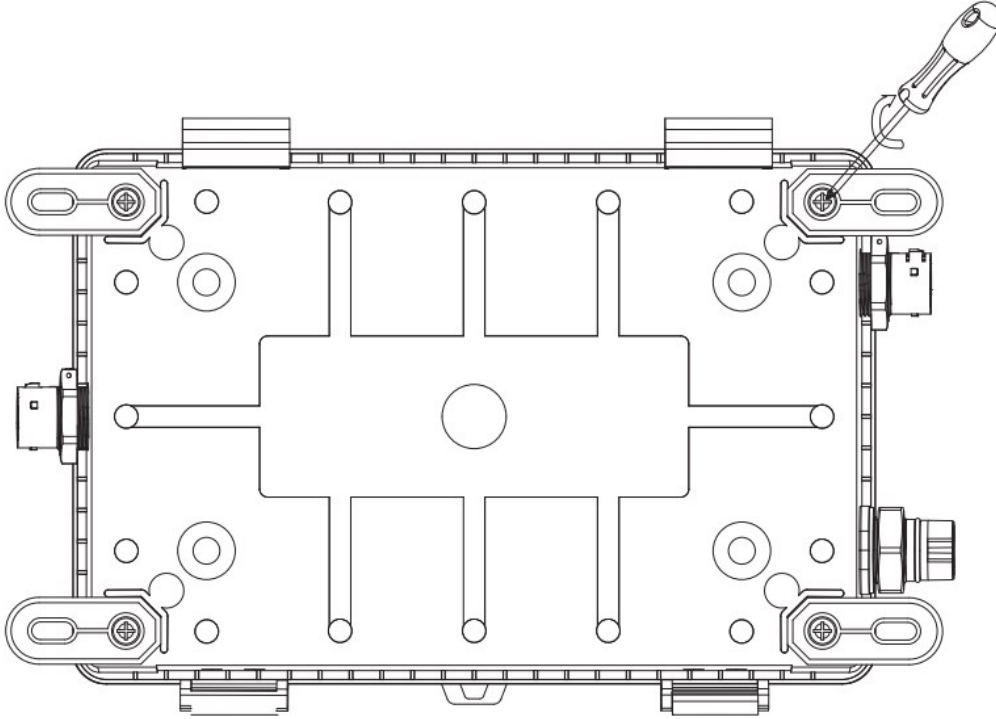


- Marker Pen

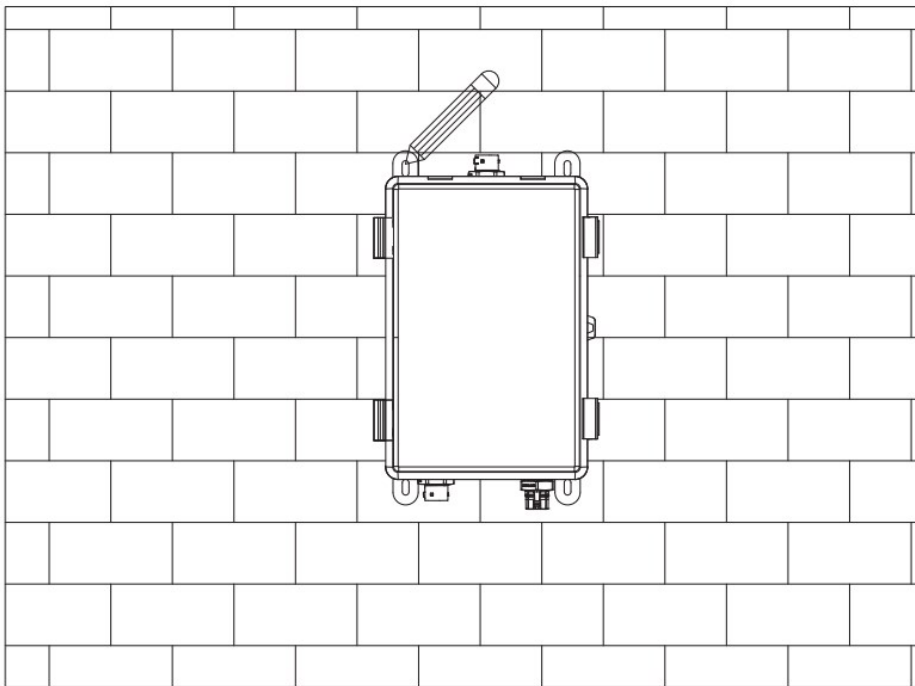


## Mounting

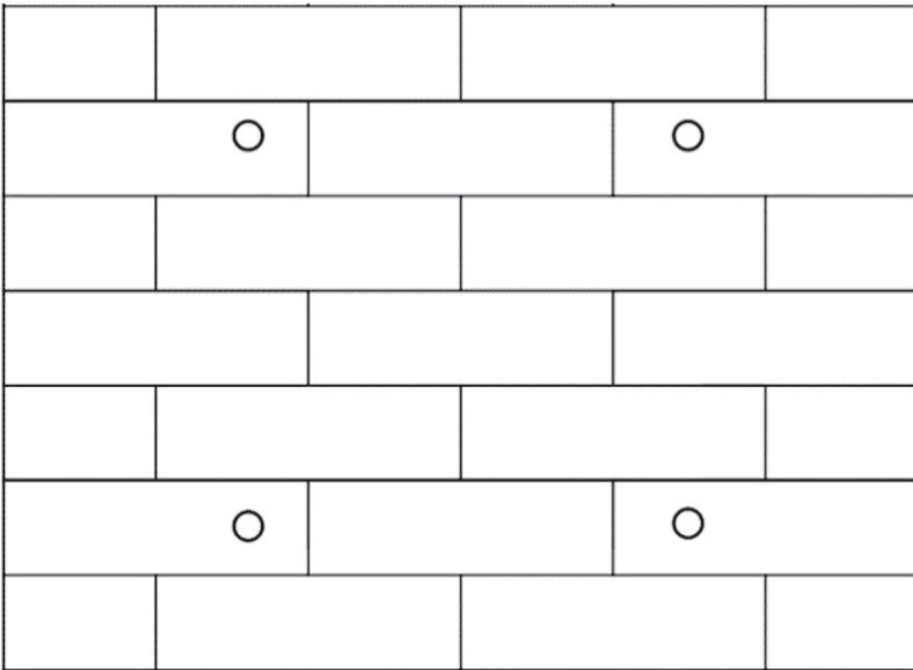
**Step 1:** Install the four cushion blocks on EPS Box -TP with self-tapping screws.



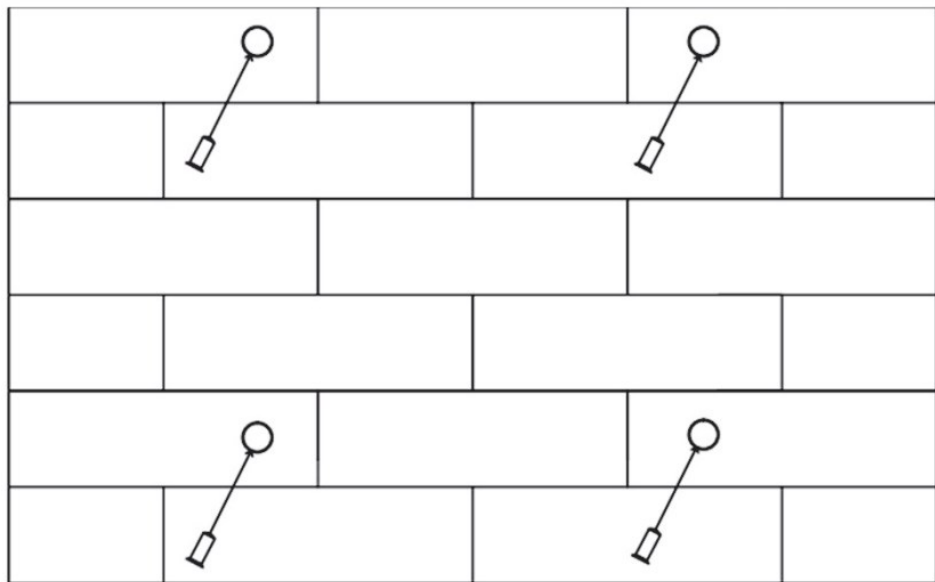
**Step 2:** Use EPS Box -TP with cushion blocks as a template to mark the four holes' position on the wall with marker pen.



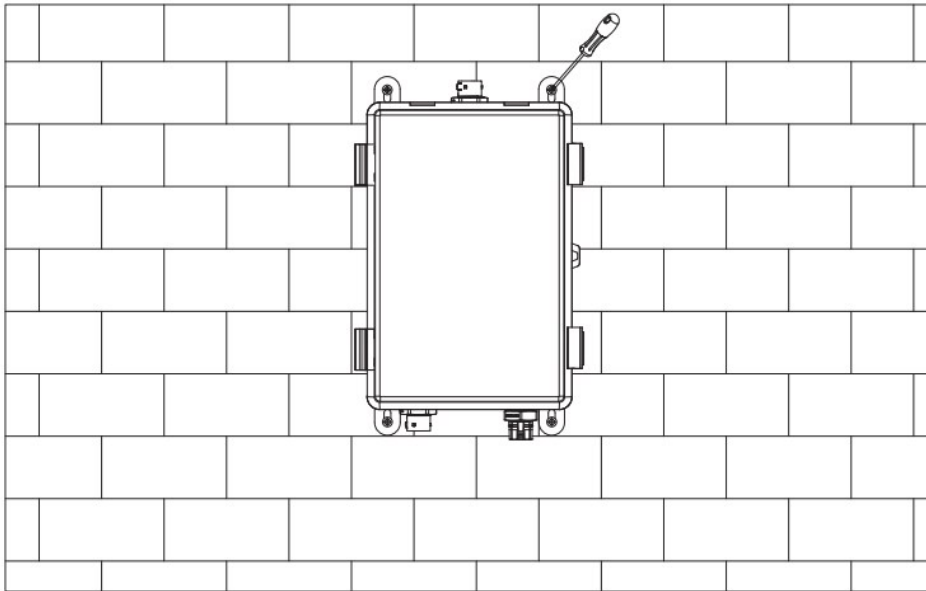




**Step 3:** Drill holes with (‘) 6 driller carefully, make sure the holes are deep enough for installing. Install the expansion tubes through cushion blocks into the holes and tighten them.



**Step 4:** Install the expansion screws with screwdriver to fix the EPS Box-TP.



## Wiring Connection

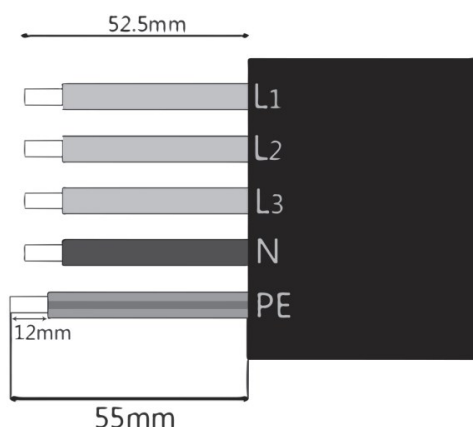
### Step 1: Grid String Connection

**EPS Box-TP is designed for three-phase grid. Per voltage range is 220/230/240V; frequency is 50/60Hz. Other technical requests should comply with the requirement of the local public grid.**

Model(kw)	5.0	6.0	8.0	10.0	12.0
Cable (ON-GRID)	6.0mm <sup>2</sup>	6.0mm <sup>2</sup>	6.0mm <sup>2</sup>	6.0mm <sup>2</sup>	6.0mm <sup>2</sup>
Cable (EPS)	4.0mm <sup>2</sup>	4.0mm <sup>2</sup>	4.0mm <sup>2</sup>	4.0mm <sup>2</sup>	4.0mm <sup>2</sup>
Micro-Breaker	32A	32A	32A	32A	32A

### Step 2: Grid Wiring

- Check the grid voltage and compare with the permitted voltage range (refer to technical data).
- Disconnect the circuit-breaker from all the phases and secure against re-connection.
- Trim the wires:
  - Trim all the wires to 52.5mm and the PE wire to 55mm.
  - Use the crimping pliers to trim 12mm of insulation from all wire ends as below.

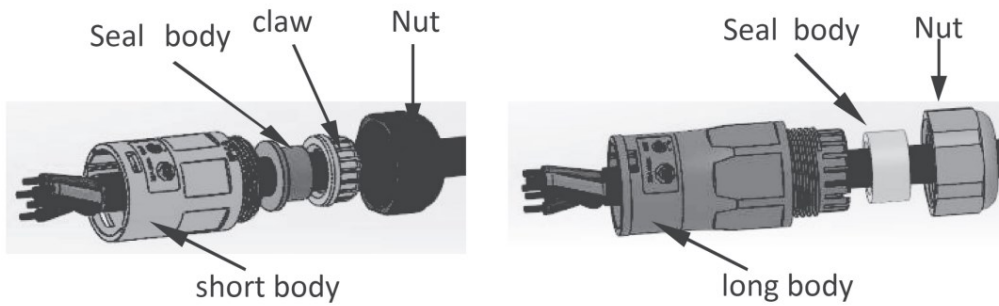


L1/L2/L3: Brown/Red/Green or Yellow Wire  
 N: Blue/Black Wire  
 PE: Yellow & Green Wire

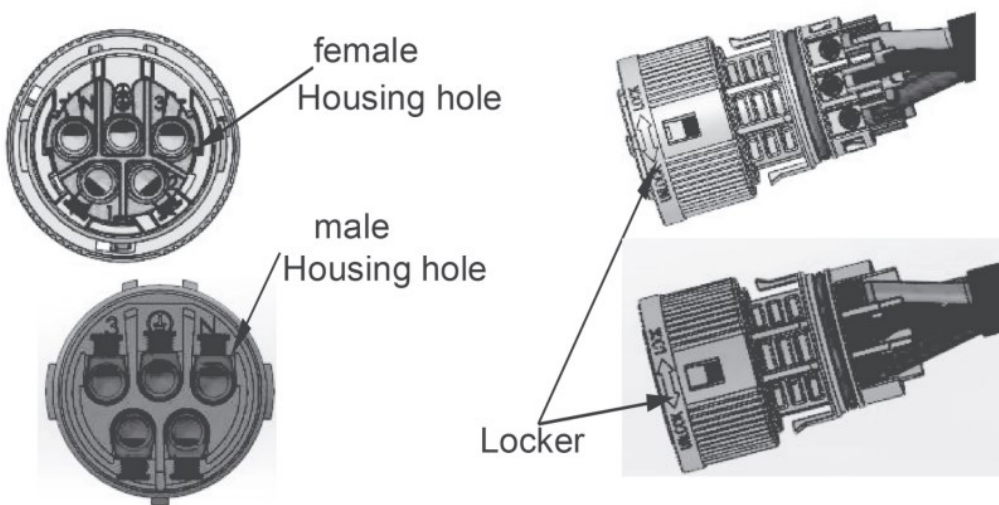
Note: Please refer to local cable type and color for actual installation.

## A. EPS Wiring

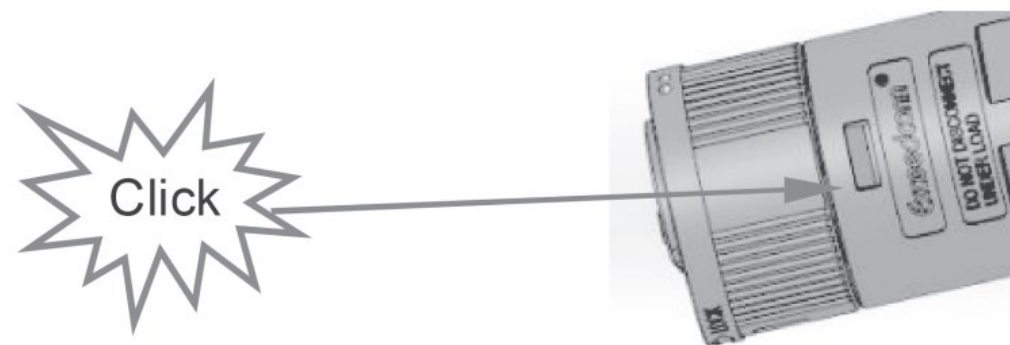
- Set the parts on the cable.



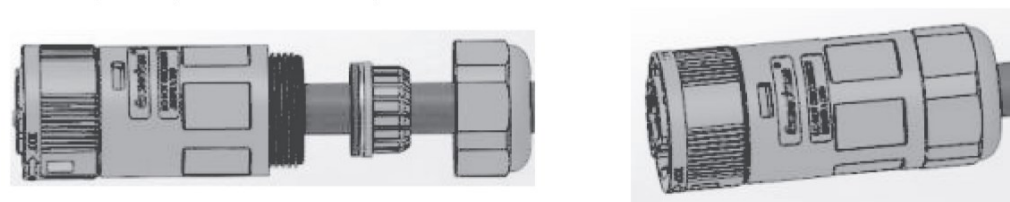
- Crimp wires, screw twisting torque  $0.8 \pm 0.1 \text{ N}\cdot\text{m}$ .



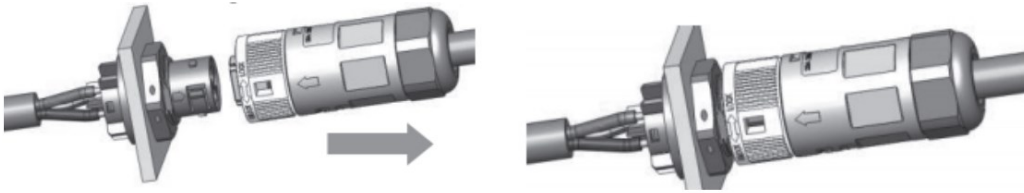
- Push Housing into Body.



- Put the sealing body and yarn trapper into the main body, screw the lock nut into the main body, and the torque is  $(2.5 \pm 0.5 \text{ N}\cdot\text{m})$ .

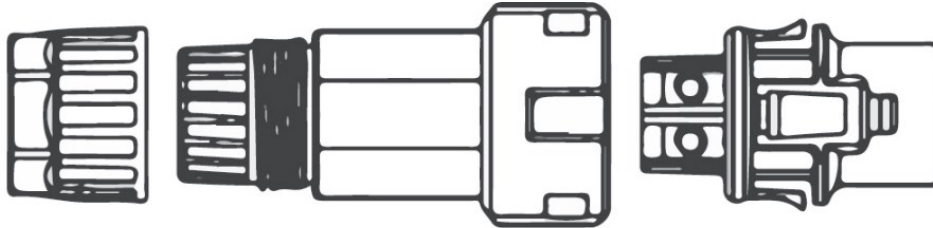


- Insert the male end into the female end. For the rotation direction of the lock, please refer to the LOCK mark on the assembly.

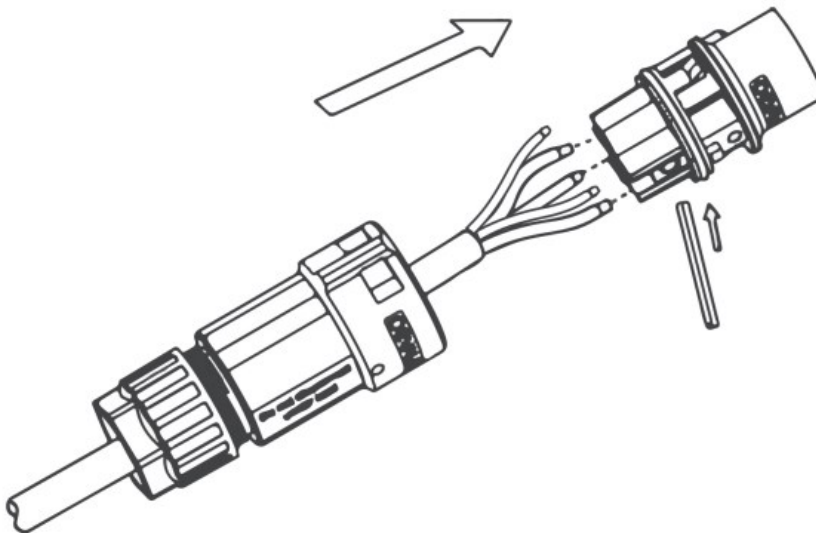


## B. ON-GRID/LOAD Wiring

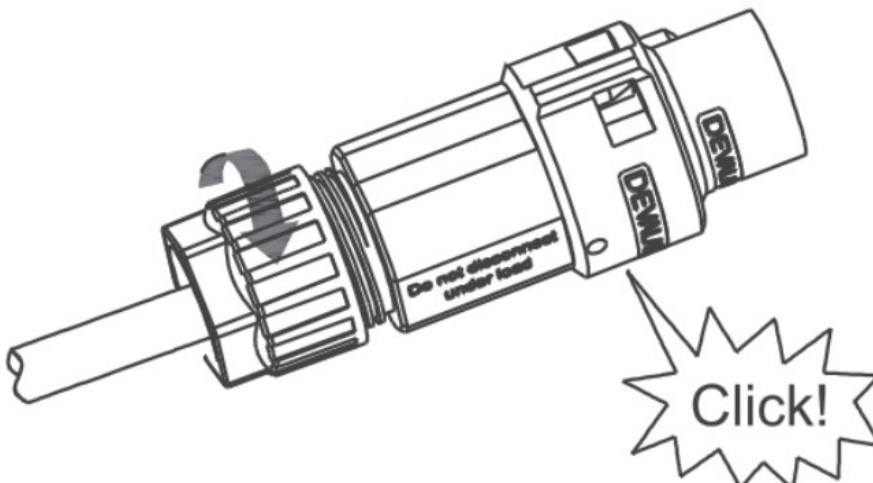
- Separate the ON-GRID plug into three parts as below.
  - Hold middle part of the female insert, rotate the back shell to loosen it, detach it from female inset.
  - Remove the cable nut (with rubber insert) from the back shell.



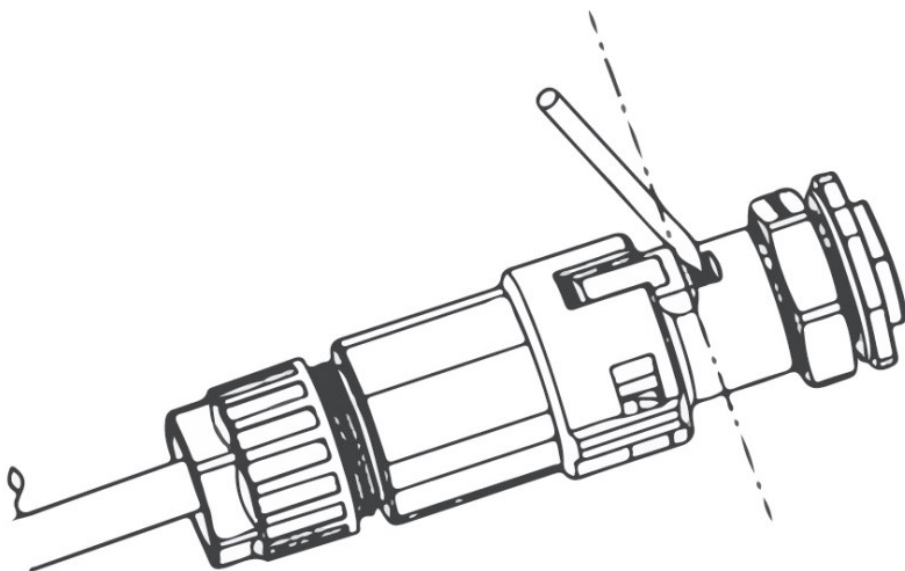
- Slide the cable nut and then Install the back shell onto the cable.



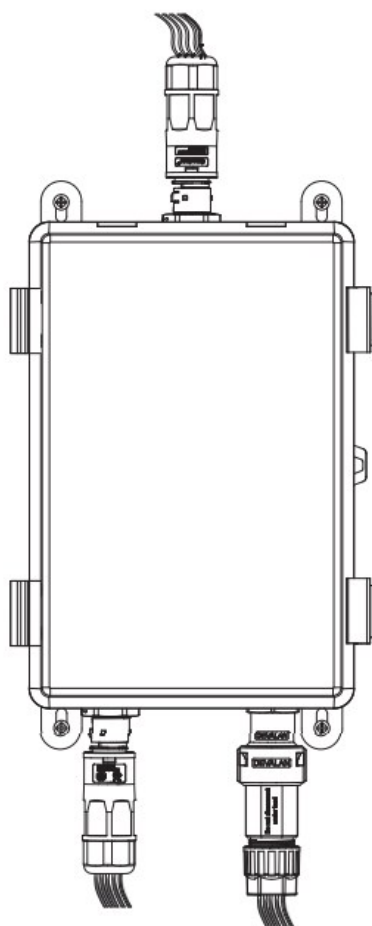
- Push the threaded sleeve into the socket, tighten up the cap on the terminal.



- Remove the ON-GRID connector: Press the bayonet out of the slot with a small screwdriver or the unlock tool and pull it out, or unscrew the threaded sleeve, then pull it out.



## Overview of EPS Box-TP



## Technical Parameters

Model	EPS Box-TP
<b>Grid</b>	
Max. AC Input Current (A)	32
Rated AC Voltage (V)	220/380, 230/400, 3L/N/PE
Rated AC Frequency (Hz)	50/60
<b>EPS</b>	
Max. EPS Input Current (A)	25
Rated EPS Voltage (V)	220/380, 230/400, 3L/N/PE
Rated EPS Frequency (Hz)	50/60

<b>Load</b>	
Rated Output Current (A), On Grid Mode	On Grid Mode 32
Rated Output Current (A), EPS Mode	EPS Mode 32
Rated Grid Voltage (V)	220/380, 230/400, 3L/N/PE
Rated Grid Frequency (Hz)	50/60
<b>General Data</b>	
Cooling Concept	Natural
Operating Temperature Range (°C)	-25~+50
Demensions (W*H*D)(mm)	340*223*170
Net Weight (Kg)	2.8
Ingress Protection	IP65

## Customer Support

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## Documents / Resources



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EPS BOX-TP Performance Inverter, EPS BOX-TP, Performance Inverter, Inverter