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ESS



User Manual

# EPS BOX-TP

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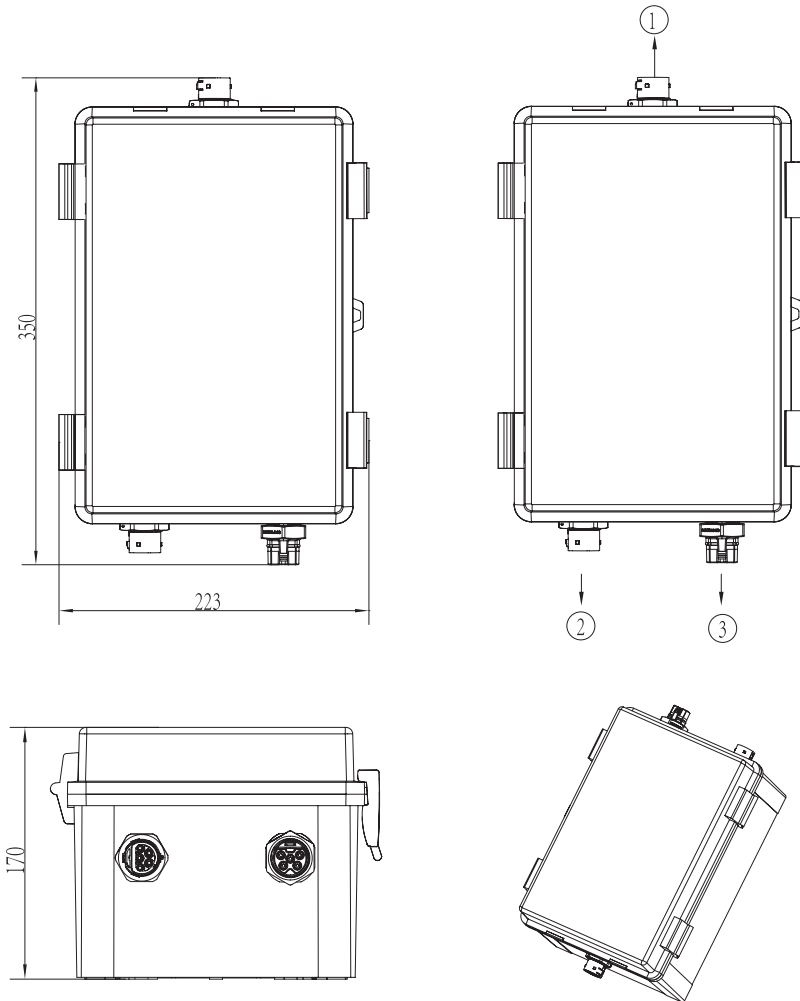
## Table of Contents

1. Introduction .....	1
2. Preparation .....	2
2.1 Package Contents .....	2
2.2 Tools .....	2
3. Mounting .....	3
4. Wiring Connection .....	4
4.1 Overview of EPS Box-TP.....	6
5. Technical Parameters .....	7

# 1. 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

## 2. Preparation

### 2.1 Package Contents

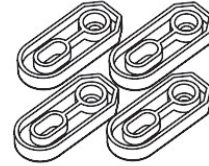
Before installation, make sure that nothing inside the package is damaged. The following items should be inside the package.



A



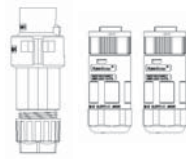
B



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

### 2.2 Tools

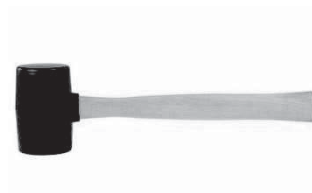
Before you start, get the following tools ready.



Diagonal Plier



Screwdriver



Rubber Hammer



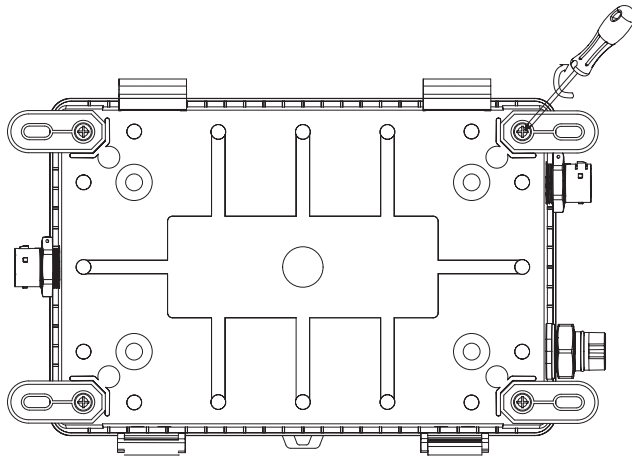
Φ 6 Driller



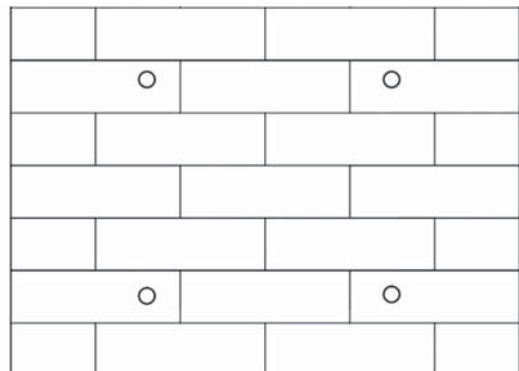
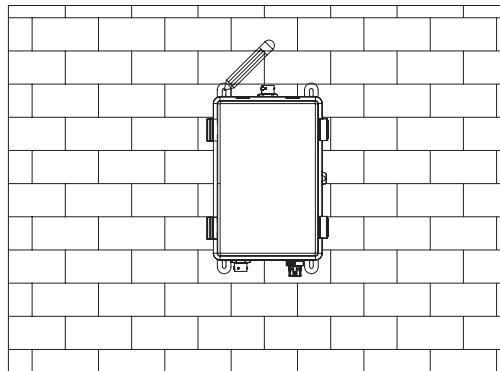
Marker Pen

### 3. Mounting

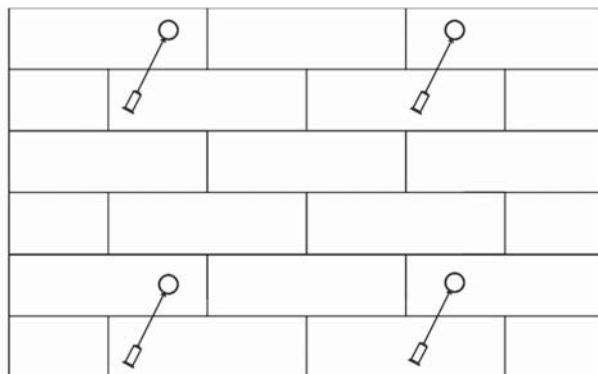
Step 1: Install the four cushion blocks on EPS Box-TP with self-tapping screws.



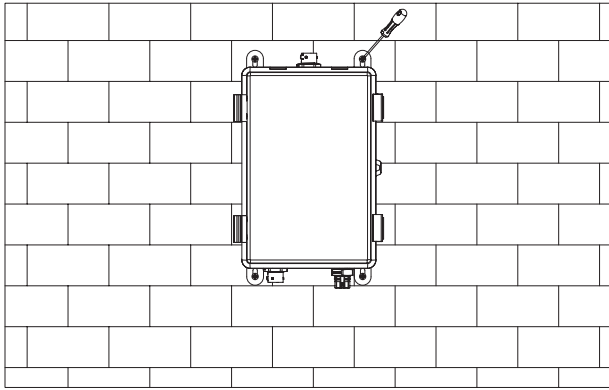
Step 2: Use EPS Box-TP with cushion blocks as a template to mark the four holes' position on the wall with marker pen.



Step 3: Drill holes with  $\phi 6$  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.



## 4. Wiring Connection

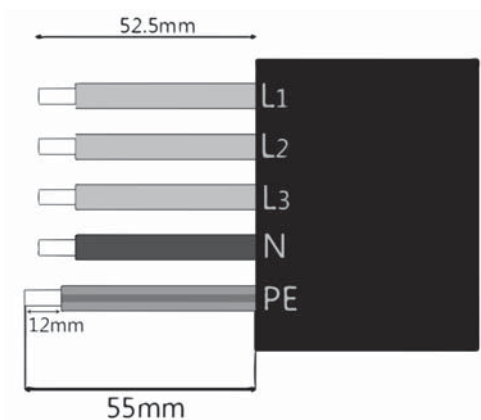
### Step 1: Grid String Connection

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.

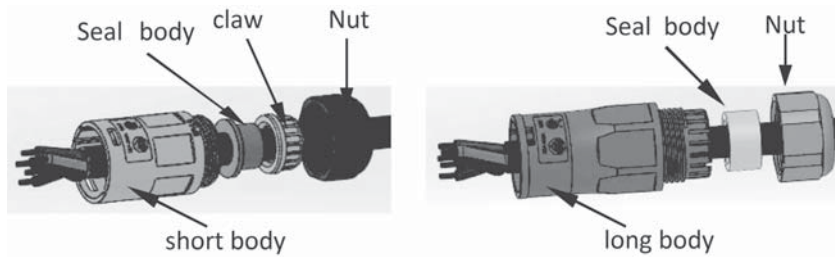


L1/L2/L3: Brown/Red/Green or Yellow Wire  
 N: Blue/Black Wire  
 PE: Yellow & Green Wire

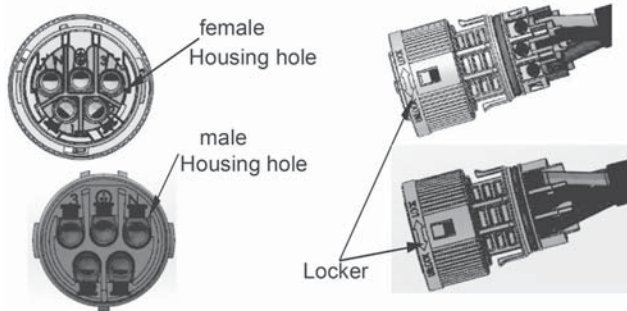
Note: Please refer to local cable type and color for actual installation.

**A. EPS Wiring**

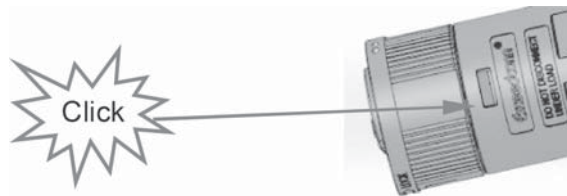
- Set the parts on the cable.



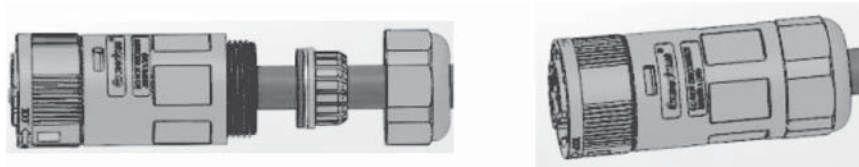
- Crimp wires, screw twisting torque  $0.8 \pm 0.1 \text{ N}\cdot\text{m}$ .



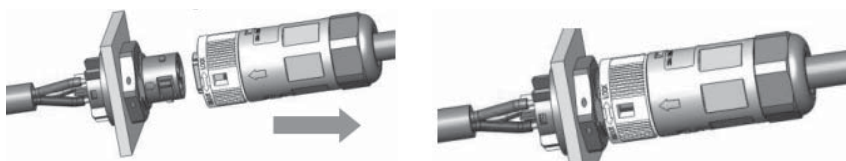
- Push Housing into Body.



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

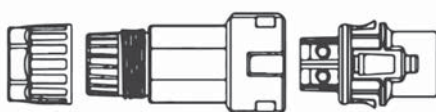


- Insert the male end into the female end. For the rotation direction of the lock, please refer to the LOCK mark on the assembly.

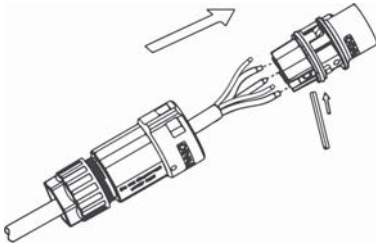


**B. ON-GRID/LOAD Wiring**

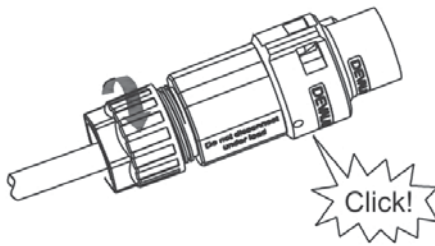
- Separate the ON-GRID plug into three parts as below.
  - Hold middle part of the female insert, rotate the back shell to loosen it, detach it from female inset.
  - Remove the cable nut (with rubber insert) from the back shell.



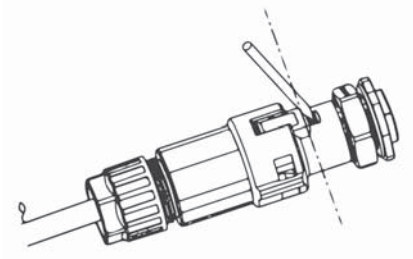
- Slide the cable nut and then Install the back shell onto the cable.



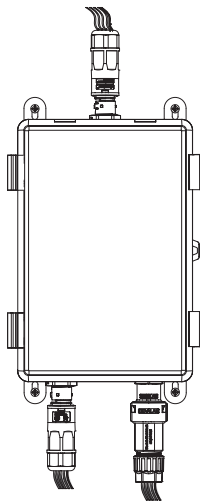
- Push the threaded sleeve into the socket, tighten up the cap on the terminal.



- 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.



#### 4.1 Overview of EPS Box-TP





## 5. Technical Parameters

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







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