Quick Installation Guide
V1.0
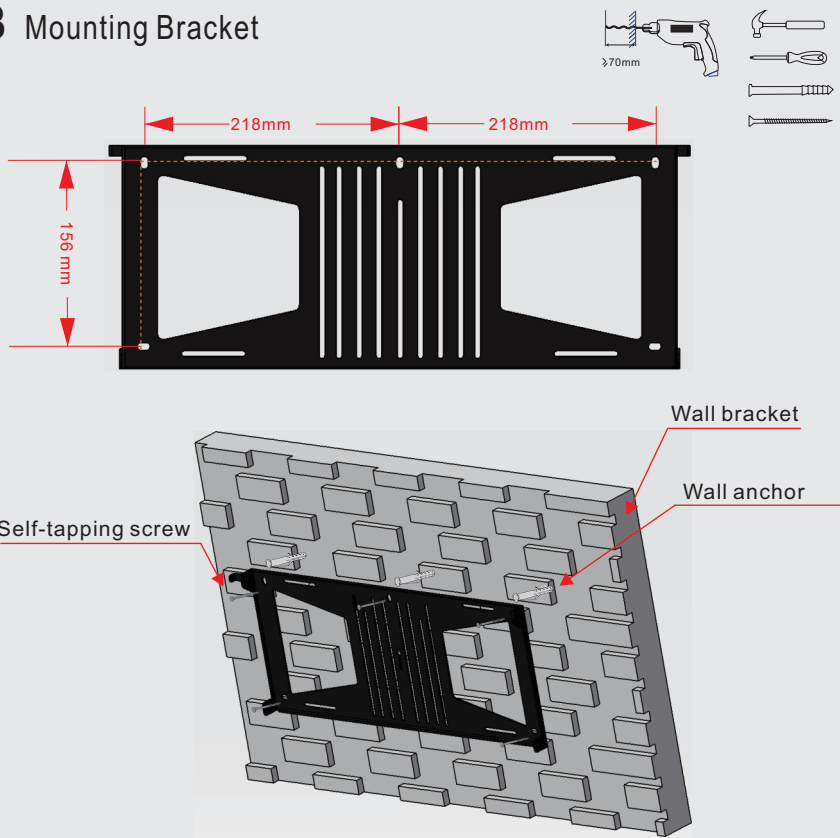
A Installation Space Requirements

Top----------------------------- 300mm
Bottom------------------------- 500mm
Front------------------------- 300mm
Left and right sides----------- 200mm

≥300

≥200   ≥200   ≥300

≥500

B Mounting Bracket

218mm   218mm

156mm

Wall bracket

Wall anchor

Self-tapping screw
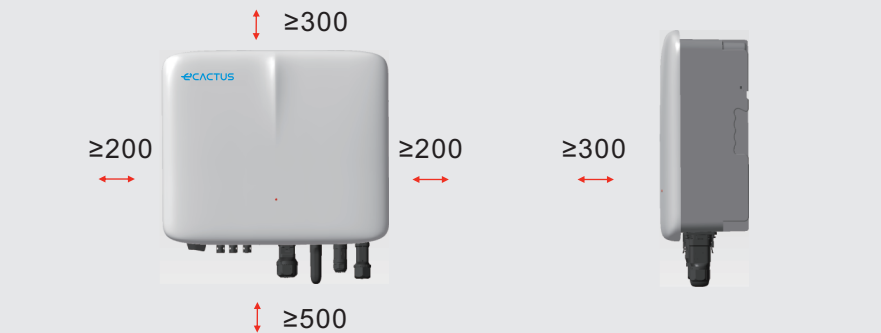
C Installation
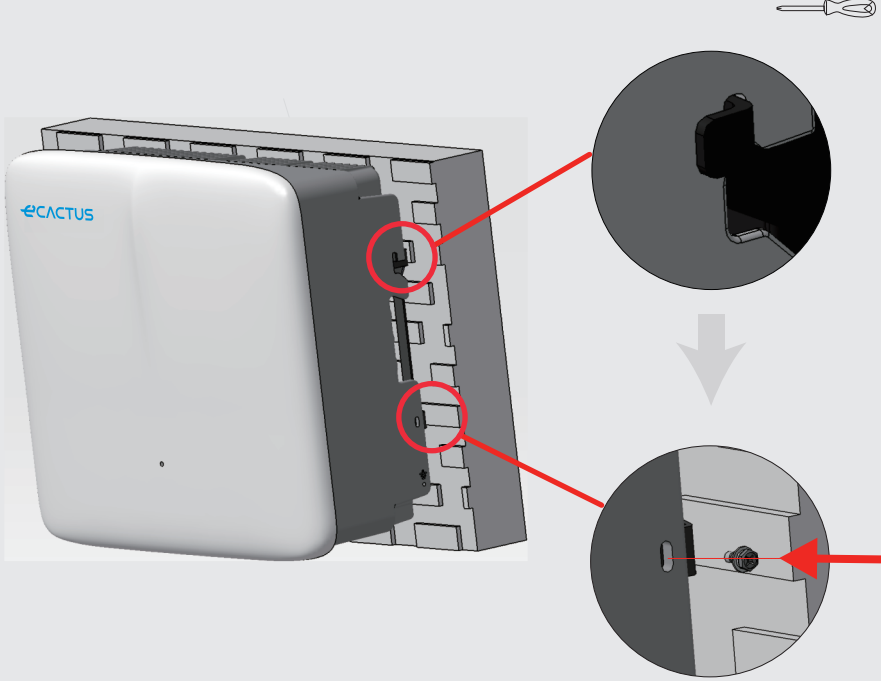
Raise the hybrid inverter by holding it from both sides of the heatsink and attach it to the mounting bracket.
Tighten the two M4 × 14 screws and torque them to 2.5 ± 0.5 N·m

D Connecting the PV Cable

Legend	Description	Value
A	Outer Diameter	5.5-8.0mm
B	Insulated Cable Length	7mm
C	Conductor Core	10AWG

A   B

C

7mm   MC4 series

7mm

Torque 2.0 ± 0.5 N·m

E Connecting the Battery Cable

Legend	Description	Value
A	Outer Diameter	5.5-8.0mm
B	Insulated Cable Length	7 mm
C	Conductor Core	8AWG

A   B

C

7mm   MC4 series

7mm

Torque 2.0 ± 0.5 N·m

F Connecting the EPS Cable

Legend	Description	Value
A	Outer Diameter	8-11mm
B	Individual Cable Length	25-30mm
C	Insulated Cable Length	10mm
D	Conductor Core	10AWG

A   B C

D

STEP 1
Use crimping pliers to crimp the terminals

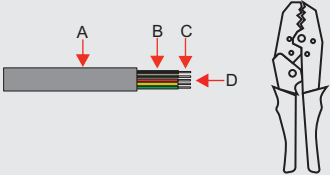STEP 2
Arrange the terminals on the cable and insert them in order

STEP 3
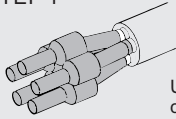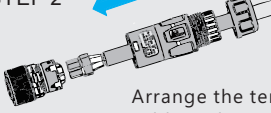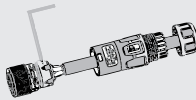Use a hex key to crimp the inner wires and torque them to 1.2 ± 0.1 N·m

STEP 4
Insert the main cable body into the rubber insulator and use an open-ended wrench to torque the nut to 2.5 ± 0.5 N·m

Click

G Connecting GRID

| Legend	Description	Value
A	Outer Diameter	8-11mm
B	Individual Cable Length	25-30mm
C	Insulated Cable Length	10mm
D	Conductor Core	10AWG

STEP 1
Use crimping pliers to crimp the terminals

STEP 2
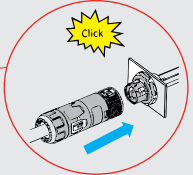Arrange the terminals on the cable and insert them in order

STEP 3
Use a hex key to crimp the inner wires and torque them to 2.0 ± 0.1 N·m

STEP 4
Insert the main cable body into the rubber insulator and use an open-ended wrench to torque the nut to 2.5 ± 0.5 N·m
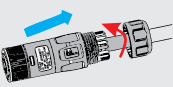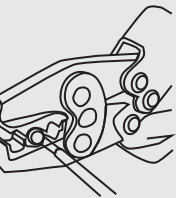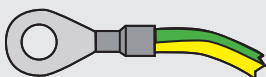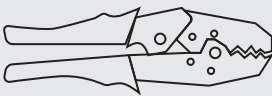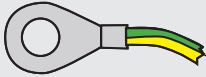
Click

H Connecting WiFi Dongle

Insert the Wi-Fi dongle included in the accessory package into the base, then torque the plastic nut to 2.5 ± 0.5 N·m
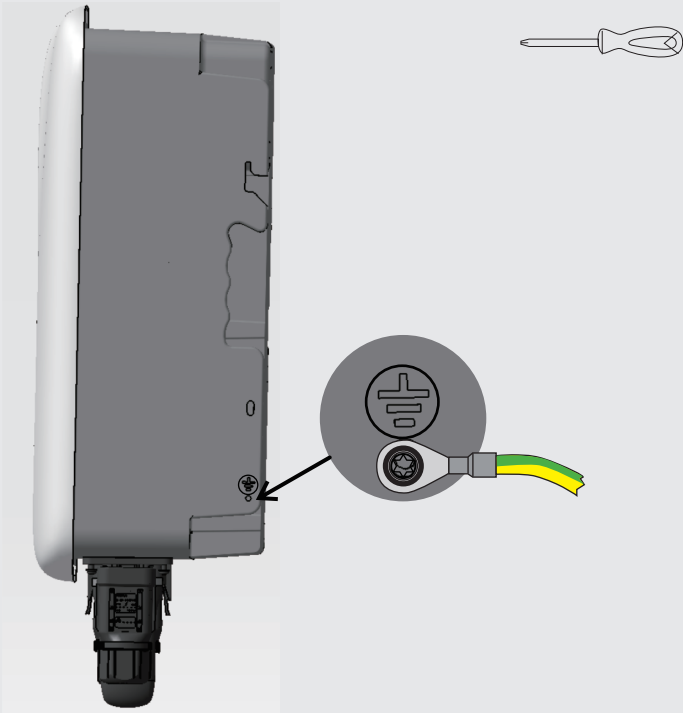
I Connecting PE Cable

7mm

10AWG yellow-green cable

OT5-4 terminal

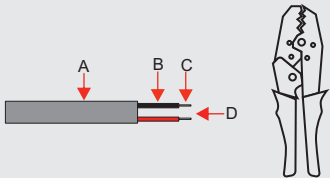NOTE: The PE screw is pre-installed on the hybrid inverter and should be torqued to 2.5 ± 0.5 N·m

J Connecting COM
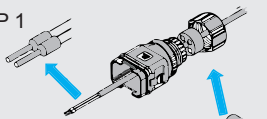
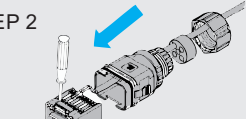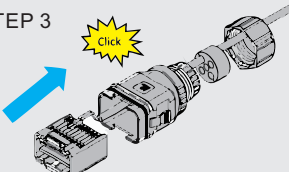| Legend	Description	Value
A	Outer Diameter	5-6mm
B	Individual Cable Length	22-32mm
C	Insulated Cable Length	7-8mm
D	Conductor Core	20AWG

STEP 1
Disassemble the plug connector and unscrew the terminals in the order shown in the figure

STEP 2
Insert the cable into the corresponding terminal, use a slotted screwdriver to crimp the cable, and torque it to 1.2 ± 0.1 N m

STEP 3
Click
Assemble the core cable
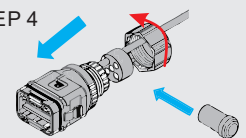
STEP 4
Attach the plug connector to the main body and plug it into the empty hole, then torque it to 2.5 ± 0.5 N·m

Click

No.	Function	No.	Function
1	COM/DRM0	11	CANL_OUT
2	REFGEN	12	CANH_OUT
3	DRM1/5	13	IN+
4	DRM2/6	14	IN-
5	DRM3/7	15	RLY1_IN
6	DRM4/8	16	OUT_12V
7	METER_485B	17	RLY2_IN
8	METER_485A	18	RLY2_OUT
9	VPP_485A	19	GND_COM
10	VPP_485B	20	VCC_COM

	BMS		METER
1	BMS_485A	1	NC
2	BMS_485B	2	NC
3	BMS_CANL	3	NC
4	BMS_CANH	4	NC
5	NC	5	NC
6	NC	6	NC
7	NC	7	METER_485B
8	NC	8	METER_485A

RJ45 2 METER 12345678

RJ45 1 BMS 12345678
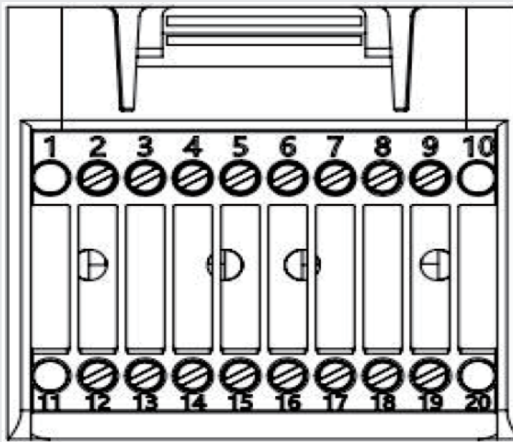
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Note: Please read the Copia-TH user manual carefully before installation.

K System Wiring Diagram

Only applicable to VPP

A

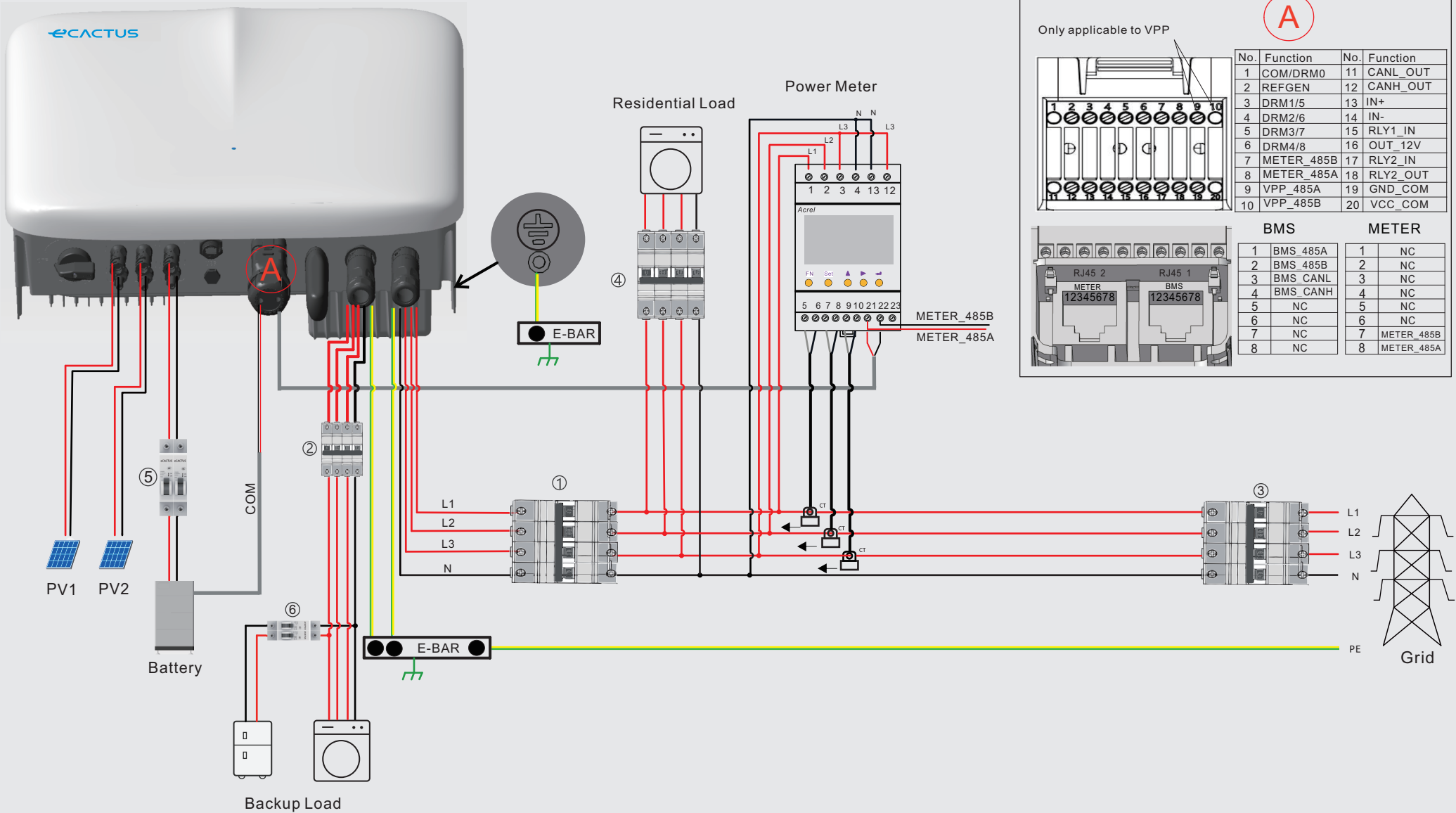| No.	Function	No.	Function
1	COM/DRM0	11	CANL_OUT
2	REFGEN	12	CANH_OUT
3	DRM1/5	13	IN+
4	DRM2/6	14	IN-
5	DRM3/7	15	RLY1_IN
6	DRM4/8	16	OUT_12V
7	METER_485B	17	RLY2_IN
8	METER_485A	18	RLY2_OUT
9	VPP_485A	19	GND_COM
10	VPP_485B	20	VCC_COM

BMS		METER	
1	BMS_485A	1	NC
2	BMS_485B	2	NC
3	BMS_CANL	3	NC
4	BMS_CANH	4	NC
5	NC	5	NC
6	NC	6	NC
7	NC	7	METER_485B
8	NC	8	METER_485A

RJ45 2 METER RJ45 1 BMS

Residential Load

Power Meter

Acrel

METER_485B
METER_485A

④

E-BAR

②

⑤

COM

PV1 PV2

Battery

⑥

E-BAR

Backup Load

L1
L2
L3
N

①

CT
CT

③

L1
L2
L3
N

PE

Grid

Model	①	② ⑥	③ ④	⑤
WH-THA502	32A/230V AC breaker	32A/230V AC breaker	According to residential load (generally already installed in the grid distribution box)	40 A/750 V DC breaker (no external DC breaker is necessary when using battery systems with existing breakers)
WH-THA602	32A/230V AC breaker	32A/230V AC breaker		
WH-THA802	32A/230V AC breaker	32A/230V AC breaker		
WH-THA103	32A/230V AC breaker	32A/230V AC breaker		
WH-THA123	32A/230V AC breaker	32A/230V AC breaker		
WH-THA133	32A/230V AC breaker	32A/230V AC breaker		

Three phase meter wiring diagram

Power Meter

Acrel

No.	Function
7	METER_485 B
8	METER_485 A
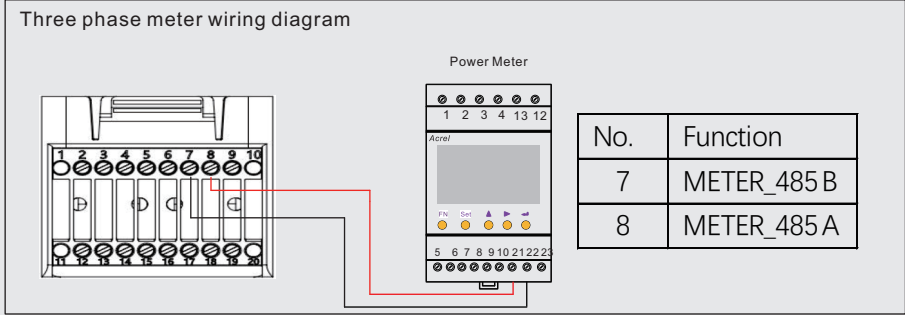
NOTE:
1. Make sure that any batteries selected are included on the WH-THA list of approved batteries before purchase, or the system may not work as intended. Please contact your installer or the ECACTUS service team for confirmation if you're not sure whether your chosen battery is an approved battery.
2. This section mainly describes cable connections on the inverter side. Refer to the instructions supplied by the battery manufacturer for battery side connections and configurations.
3. Please make sure that the AC line matches the "L1", "L2", "L3", "N", and the grounding port of the AC terminal completely when wiring. If the cable is connected incorrectly, the device may be damaged.

L App Pairing

1. Hybrid inverter must be connected to PV power only.
2. A router connected to the Internet is required to connect to the ECOS application center.
3. Android or iOS smartphone.

Notice

Scan the QR code below to download the Android or iOS version of the ECOS app.
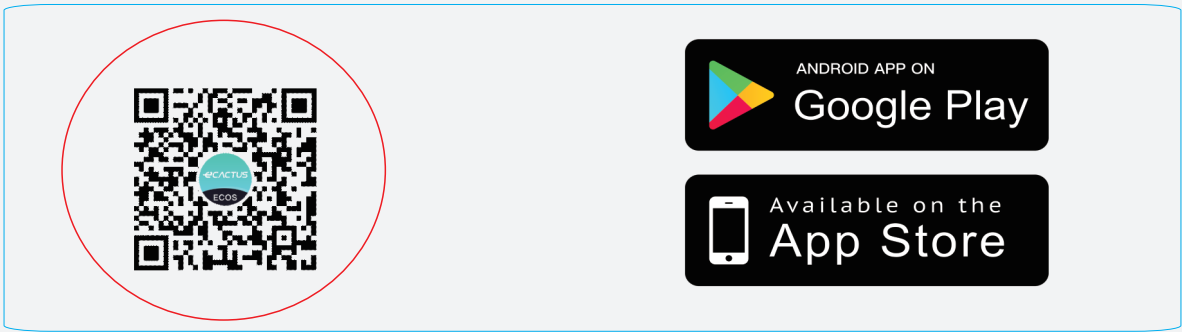
The product ID QR code required for connection can be found on the included Wi-Fi dongle installed on the right side of the device.
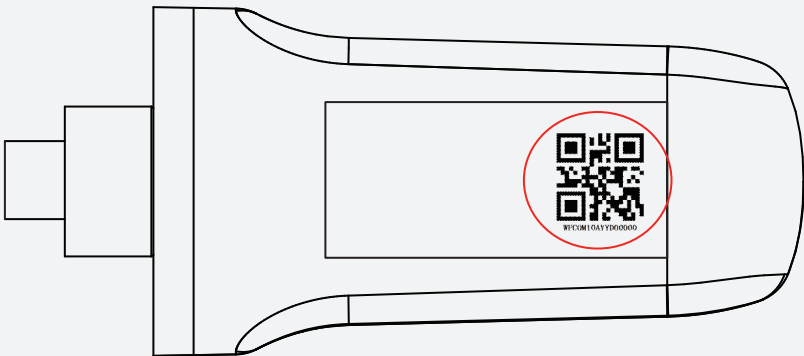
For network configuration instruction, please scan the QR code.