

Quick Installation Guide

3-6kW All-In-One Single Phase Energy Station

Packing List

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

Object	Quantity	Description	Object	Quantity	Description
A	1	Energy station	K	1	CT extension connector
B	2	Brackets	L	1	LAN/WiFi/4G (Optional)
C	4	PV connectors (Only for Hybrid) (2*positive, 2*negative)	M	1	Meter (Optional)
D	4	PV pin contacts (Only for Hybrid) (2*positive, 2*negative)	N	2	Hexagonal screws
E	2	AC connectors	O	4	Expansion screws (For ground installation)
F	3	Expansion tubes & Expansion screws	P	3	Battery Power cables (1*320mm, 1*620mm, 1*900mm)
G	1	Earth terminal	Q	1	Communication cable
H	1	Communication connector	R	1	Offset ring spanner
I	1	Quick installation guide	S	1	Binding band
J	1	CT (with 10m cable)			

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Installation Steps

Please make sure the energy station will be installed with a proper distance as shown below.

300mm

400mm

600mm

Position	Min Distance
Left	400mm
Right	600mm
Top	300mm

A. Energy station installation

1. Wall mounting

Choose a clean and stable wall surface for installation.

Use hexagonal screws to fix the brackets on the back of the All-In-One.

Aim the All-In-One towards the wall and mark position of two holes from brackets.

Brackets

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Drill holes on the marks with a diameter of 6mm drill. Insert the expansion screws into the hole.

Align the All-In-One with expansion screws and tighten the screws firmly.

2. Ground installation

Choose a flat and stable ground for installation and place the All-In-One on that ground.

Mark position of the four corners on the bottom of the All-In-One then remove the All-In-One.

Drill holes on the marks, make sure the depth is at least 60mm, the diameter of the holes is about 13-14 mm. The hole which closest to the wall should keep a minimum distance of 170mm from the wall.

3

Insert the expansion screw into the ground.

Place the All-In-One back to the ground, align the All-In-One with four expansion screws and tighten the screws firmly.

Ground

Note: For easy installation, instead of using the All-In-One for hole remarks, you can remark the hole with the installation guide (Size is same as

170mm

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Ground

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B. Battery installation

Remove the brackets on both sides of the battery. There are eight screws on the left and right sides (4*left, 4*right).

Push the battery into the All-In-One as shown in the figure below.

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Serial Port Connections

Communication interface between the inverter and Meter/Battery/DRM/485 are as follows with RJ45 connectors which should be inserted corresponding port in the inverter.

1

2

3

4

5

6

7

8

PIN Port	1	2	3	4	5	6	7	8
CT/ Meter/ 485	Meter 485A	Meter 485B	485B	485A	CT2+	CT2-	CT1-	CT1+
DRM	GND	GND	DRM0	+3.3V	DRM 4/8	DRM 3/7	DRM 2/6	DRM 1/5

Note:

CT1: For All-in-One, CT2: Grid tied inverter (if have).

Compatible Meter type: DDSU666 (CHINT), SDM230 (EASTRON).

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Wiring Steps

PV Wiring (For Hybrid version Only)

Choose 12 AWG wire to connect the PV module.

Trim 6mm of insulation from the wire end.

6.0mm

12 AWG

trip length

Separate the DC connector (PV) as below.

Plug

Pin contact cable nut

D-

D+

Insert striped cable into pin contact and ensure all conductor strands are captured in the pin contact.

Crimp pin contact by using a crimping plier. Put the pin contact with striped cable into the corresponding crimping pliers and crimp the contact.

Insert pin contact through the cable nut to assemble into back of the male or female plug. When you feel or hear a “click” the pin contact assembly is seated correctly.

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Unlock the DC connector:

Use the specified wrench tool.

When separating the DC+ connector, push the tool down from the top.

When separating the DC- connector, push the tool down from the bottom.

Separate the connectors by hand.

Battery Wiring

A. Connection of battery power line and communication line

For two batteries

Note:

No.1 is reserved line.

No.2 & No.3 please find it in the battery pack.

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For three batteries

Note:

No.1 is reserved line.

No.2 & No.3 please find it in the battery pack.

For four batteries

Note:

No.1 is reserved line.

No.2 & No.3 & No.4 & No.5 please find it in the battery pack.

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B. Connection of battery ground cable

Four ground cables please find it in the battery pack.

AC Wiring

Cable dimensions

Model (kW)	3.0	3.7	4.6	5.0	6.0
Cable (ON-GRID)	8.0mm ²	8.0mm ²	8.0mm ²	8.0mm ²	10.0mm ²
Cable (EPS)	4.0mm ²	4.0mm ²	6.0mm ²	6.0mm ²	6.0mm ²
Micro-Breaker	50A	50A	63A	63A	63A

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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 shown in the picture.

52.5mm

Outer jacket

55mm

L: Brown/Red Wire

N: Blue/Black Wire

PE: Yellow & Green Wire

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

A. EPS Wiring

Run the cable into the sleeve assembly.

body

Seal body

claw

Nut

Install the cable into the plug terminal and lock the screw, torque is (0.8 + / - 0.1 N·m).

Locker

Housing

Insert the plastic core into the main body.

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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 + / - 0.5N·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 Wiring

Separate the ON-GRID plug into three parts as below.

1. Hold the middle part of the female insert, rotate the back shell to loosen it, and detach it from female inset.

2. Remove the cable nut (with rubber insert) from the back shell.

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

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

Push the threaded sleeve to connection terminal until both are locked tightly on the energy station.

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.

Grounding Wiring

Use the crimping pliers to press the ground cable into the ground terminal, screw the ground screw with screwdriver as shown below.

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Energy Station Start-Up

Please refer to the following steps to start up the energy station.

1. Ensure the energy station fixed well.

2. Make sure all wirings are completed.

3. Make sure the meter is connected well.

4. Make sure the battery is connected well.

5. Make sure the external EPS contactor is connected well (if needed).

6. Turn on the PV/DC switch (for Hybrid version only), AC breaker, EPS breaker and battery breaker.

7. Enter the settings page, select START / STOP and set it to start.

Note:

When starting energy station for the first time, the country code will be set by default to the local settings. Check if the country code is correct.

Set the time on the inverter using the button or by using the APP.

Energy Station Switch Off

Please refer to the following steps to switch off the energy station.

1. Enter the settings page, select START / STOP and set it to stop.

2. Turn off the PV/DC switch (for Hybrid version only), AC breaker, EPS breaker and battery breaker.

3. Wait 5 min before you open the upper lid (if in need of repair).

Note:

The ethernet port under inverter is only for local monitoring use (Via register), LAN connection need to purchase an separate product Smart LAN.

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