

Quick Installation Manual APX 86~200H-S1



Shenzhen Growatt New Energy Co., Ltd.

Environment requirements



Front view of APX 14.3P-B1



Note: 1. APX 1000140-C1 is the Control Module (CM for short) of the high-voltage battery system. 2. APX 14.3P-B1 is the Battery Module (BM for short) of the high-voltage battery system.

1. Checking before installation













- 1. The system should be installed with the help of at least 2 grown-up males.
- 2. It is recommended to use a forklift during the installation.
- 3.A maximum of 7 battery modules can be stacked in one column. If more than 7 of them are to be configured, please install them in two columns.







4. Cable Connection





Number	Name	Description
1	Ventilation valve	Exhaust air and keep water out
2	PCS+	CM positive terminal connected to the PCS positive terminal
3	PCS-	CM negative terminal connected to the PCS negative terminal
4	SEM	Communication terminal connected to the ShineMaster
5	AC INPUT	AC INPUT terminal
6	PCS	Communication terminal connected to the hybrid inverter



Number	Name	Description
1	Explosion-proof valve	Exhaust air and keep water out
2	FAN	Fan power supply terminal
3	USB	USB terminal cover plate
4	IN1	Communication input 1, connected to OUT1 on the previous BM, or BM1 on the CM (for the first BM)
5	IN2	Communication input 2, connected to OUT2 on the previous BM, or BM2 on the CM (for the first BM)
6	B+	BAT positive terminal
7		PE terminal 1
8		PE terminal 2
9	B-	BAT negative terminal
10	OUT2	Communication output 2, connected to IN2 on the next BM, or covered with the short-circuit connector cap (for the last BM)
11	OUT1	Communication output 1, connected to IN1 on the next BM, or covered with the dust-proof cover (for the last BM)

4-3 System wiring and installing the covers

Step 1: Cut the rubber sealing plug on the base with a knife before connecting cables.



NOTE:

If less than seven battery modules are installed, you can skip this step.
Prior to connecting cables, please cut the rubber sealing plug on the base using a knife.

3. Alternatively, you can cut the rubber sealing plugs on the sides of the base or remove them, which is not recommended as it might compromise the sealing performance of the system. If the use of a conduit is required, please remove the plugs and install the conduit fittings. The conduit and fittings should be separately purchased.







Bottom view of the cable connections between two columns

NOTE:

- When connecting the power cables and communication cables between the two columns, make sure to pass the wires through the two wire holes on the base before connecting them to the other column. (The length of the wires for connection between two columns is designed based on the situation where a maximum of 7 battery modules are installed in the second row. If the wires are too long for the actual use, please place the excess part into the middle of the base through the cable routing hole.)
- Connect the power cables and the communication cables from the bottom BM in the column with the CM to the top BM of the other column. Ensure that the dust-proof cover and the short circuit connector cap are in place on the OUT1 and OUT2 terminals of the BM farthest from the CM.
- 3. Connect the B- terminal of the BM farthest from the CM to the B- terminal of CM.
- 4. The cable color is for demonstration purpose only. The actual cable color prevails. colors of the cables.



NOTE:

- 1. Remove the back cover of the CM.
- 2. Connect the power cables from the PCS to the PCS+ and PCS- terminals on the CM. Ensure the correct polarity when connecting cables.
- 3. Connect the PCS communication port on the CM to the BMS communication port on the PCS.
- 4. Install the dust-proof cover onto the SEM port of the CM.
- 5. Connect the grounding cable from the ground point on the base to the ground. The grounding cable MUST BE properly connected; otherwise, it may cause system damage or electric shocks. The ring terminals to be crimped with the grounding cable can be found in the cable package.





5. Terminal Connection



6. Powering on/off the Battery System

6-1 Powering on the Battery System Power Power O press - \bigcirc QFF QFF ΟN Rotate Rotate ON Before turning on the battery, please check if all cables are properly connected. Turn the DC switch on the Control Module to the "ON" position, then press the power button for 1 to 2 seconds. The battery system will be powered on in about 2 seconds when you hear the sound of the fan in operation. Turn the DC switch to ON , and then press the "Power" button (1s<t<2s) No. Procedure Acceptance criteria Connect the battery and the Make sure the wiring harnesses are securely 1 hybrid inverter connected Ensure that the DC switch is set to the ON Set the DC switch to the ON 2 position position 1. If the LED display of the control module lights up in 10 seconds, the system is Press the POWER button for 1 successfully powered on. 3 to 2 seconds. Observe the LED 2. If the LED indicator turns red, a fault might have occurred. Please shut down the indication on the front panel system and rectify the issue before restarting it.



Serial	Procedure	Acceptance criteria
1	Press the POWER button for 10 to 15 seconds.	Press the "POWER" button for 10-15 seconds.
2	Set the DC switch to OFF	The DC switch is set to the "OFF" position.

7. Service and contact



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