

GOODWE



User Manual

Battery Enclosure

BCL9600

V1.2-2022-10-30

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NOTICE

The information in this user manual is subject to change due to product updates or other reasons. This guide cannot replace the product labels or the safety precautions in the user manual unless otherwise specified. All descriptions here are for guidance only.

01 Product Introduction

1.1 Dimensions

The Battery Enclosure dimensions are: width 516mm, depth 280mm, height 1155mm (without the feet installed) and width 516mm, depth 280mm, height 1205mm (with the feet installed).

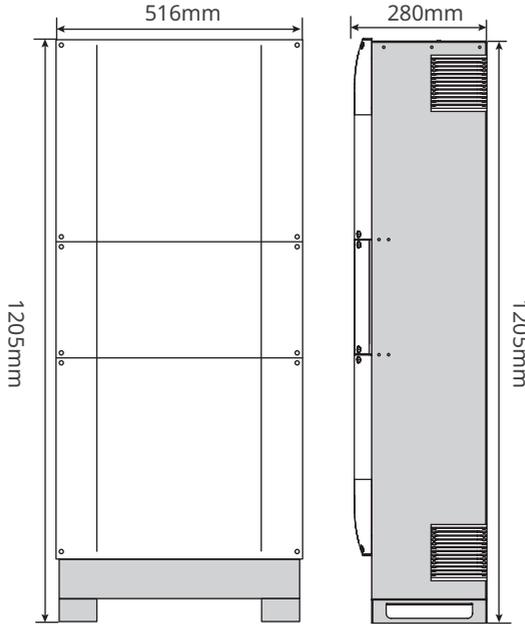
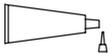
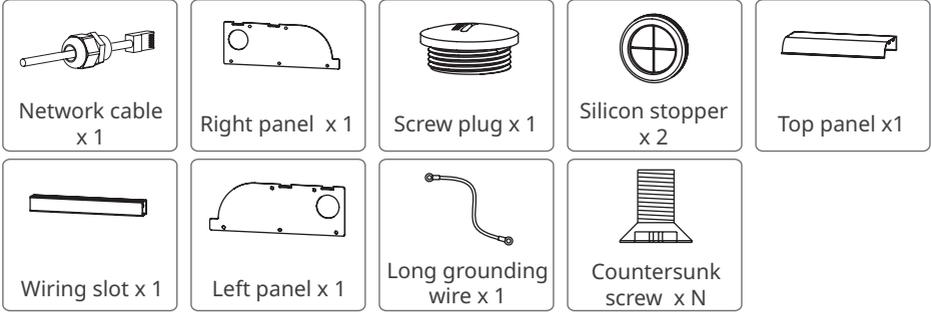


Figure 1: Dimensions

1.2 Parts List

 Expansion bolts x N	 Glue x 1	 Short grounding wire x 4	 Long grounding wire x 1	 Ground screw xN
 Base screw x N	 Hexagon screw of top cover x 4	 Lock bracket x 4	 Countersunk screw x N	 Base x 2
 Signal Cable x 1	 Documents x 1	N = Quantity depends on the product model.		

The following lists are only for battery enclosure parallel connection.



02 Installation

2.1 Tools required

The following tools are recommended when installing the equipment. Use other auxiliary tools on site if necessary.



2.2 Location and environmental requirement

1. Do not install the equipment in a place near flammable, explosive, or corrosive materials.
2. The equipment is heavy. Install the equipment on a surface that is solid enough to bear the weight of the equipment.
3. Install the equipment in a well-ventilated place to ensure good dissipation, there should be ample room (min 150mm) for air circulation. Also, the installation space should be large enough for operations.
4. The equipment with a high ingress protection rating can be installed indoors or outdoors. The temperature and humidity at the installation site should be within the appropriate range.
5. Install the equipment in a sheltered place to avoid direct sunlight, rain, and snow. Build a sunshade if it is needed.
6. Do not install the equipment within children's reach. High temperature exists when the equipment is working. Do not touch the surface to avoid burning.
7. Install the equipment in a place that is convenient for operation and maintenance, electrical connections, and checking indicators and labels.

2.3 Preparations

1. In preparation for the installation of the enclosure, take off the three front covers of the battery enclosure by removing the 12 screws.
2. Screw the two feet to the base of the battery enclosure, using the three screws provided.
3. Once the feet are fixed, the battery enclosure is ready for installation as shown in Figure 4.

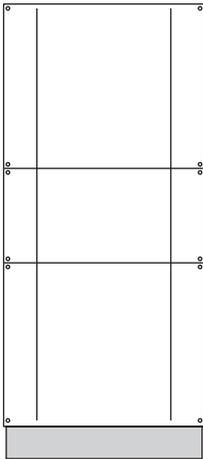


Figure 2: BCL9600 out of the packing box.

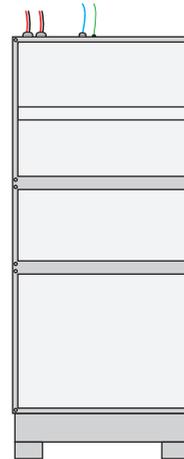


Figure 4: Battery Enclosure with the feet attached and ready for installation.

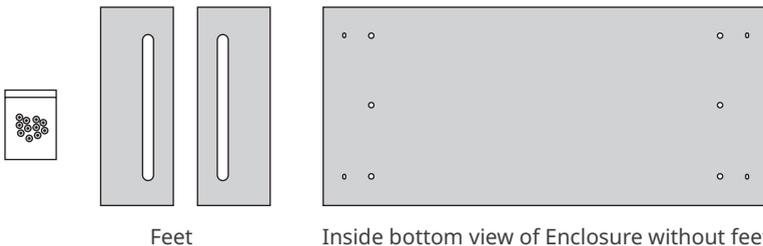


Figure 3: Battery Enclosure feet and mounting screws.

2.4 Mounting the Enclosure

The battery enclosure is designed to be installed below the inverter and comes prewired for easy integration with the inverter.

1. Set the battery enclosure against the wall. Ensure that the floor where it is to be installed is level.
2. Use the supplied fixing screw and plug set to fix the enclosure onto the wall. An alternative fixing mechanism can be employed if the supplied screw and plug set is not appropriate for the wall.
3. Once the enclosure is fixed onto the wall, apply generous amount of the supplied sealant on the six screw holes to seal off any moisture ingress points.

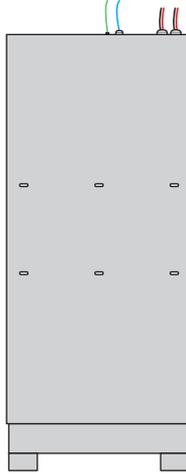


Figure 5: BCL9600 wall mounting holes.

2.5 Inserting the Batteries

Note: The battery switch should remain off during the installation process.

The enclosure can be used to house Li-ion battery types, the following installation uses GoodWe SECU-A battery as an example.

Up to two GoodWe SECU-A(4.8kWh) battery packs with a total storage capacity of 9.6 kWh.

1. Insert the batteries onto the shelves one at a time by inserting the battery pack bottom first into the cabinet. Please fill the cabinet from bottom to top, insert battery 2 first, then 1.

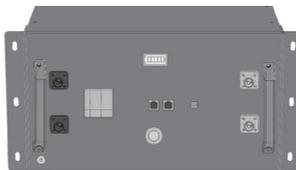


Figure 6: GoodWe SECU-A battery front handles

- Once the batteries are placed into position, plug the respective power leads into the power connectors on the batteries while taking note of the polarity. Ensure that the battery 2 lead which has the power connector for the Fan Controller is plugged into one of the batteries.

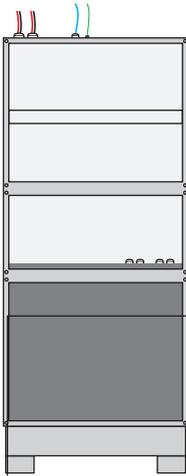


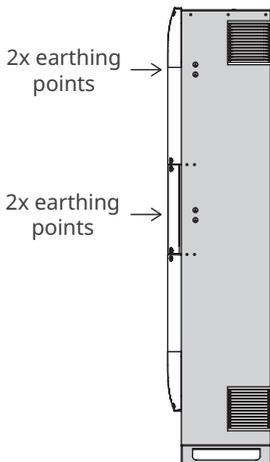
Figure 7: BCL9600 with the bottom battery inserted



Figure 8: Inside view of BCL9600 with two Goodwe SECU-A batteries.

- If you are using GoodWe SECU-A battery packs, connect the bonding leads between each battery and the earthing studs inside the enclosure.

Side of battery enclosure
(wire-frame view)



Front view of battery enclosure

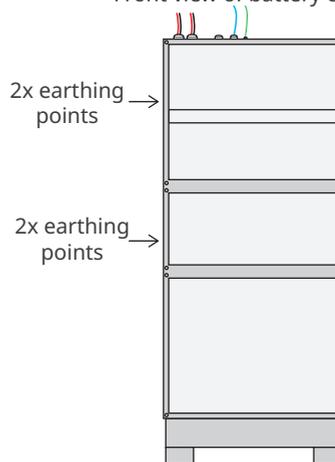


Figure 9: BCL9600 earthing connection points.

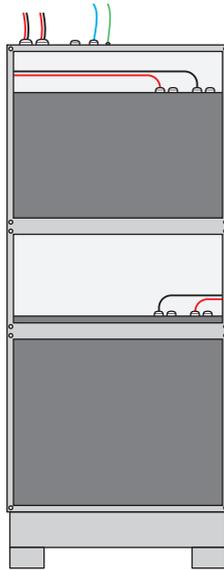


Figure 10: BCL9600 with batteries and connected (Goodwe SECU-A).

At this stage the preliminary installation of the Battery Enclosure is complete. The next step is the connection of the BMS cables.

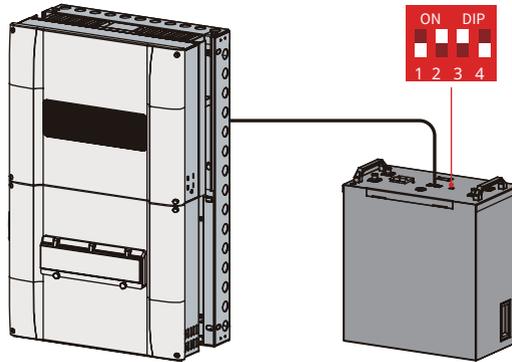
03 BMS Connections

The BMS (Battery Management System) communication for GoodWe SECU A5.4-20 or SECU A5.4L battery is as follows:

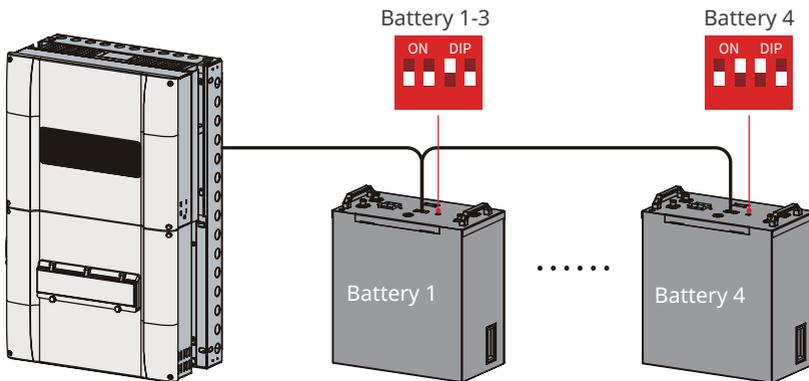
3.1 DIP Switch Calibration (Only for SECU-A5.4L)

The DIP switches shall be configured differently between single piece battery and multi battery paralleling system.

1* Pack System (5.4kWh)



Multi Pack System (at most 4 pack)

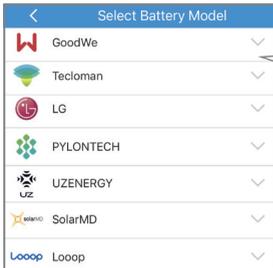


DIP	Function	Description
2	Terminal Resistance Switch	To recognize the last battery connected to inverter.
3	GoodWe communication protocol Switch	To realize the communication between inverter and inverter unit part.

3.2 APP Setting (On SolarGo)

To make sure the battery communicates to inverter unit successfully, users have to use SolarGo to choose the right battery option on SolarGo:

APP Installation And Connection:



- SECU-A5.4L*1
- SECU-A5.4L*2
- SECU-A5.4L*3
- SECU-A5.4L*4

Select SECU-A5.4L or SECU A5.4-20 on battery page in SolarGo Application

- Notes:
1. Select wrong battery will lead to BMS communication failure.
 2. For the complete commissioning of the whole ESA system, please go to ESA instruction.

3.3 BMS battery connection table

Description	From	To	Cable label
GoodWe SECU-A (Figure 12)	BMS feed through port	Master battery COM 1 port to inverter port	To inverter
	Fan Controller To Battery port	Battery 2 +/-port	Cabinet of battery
	Link Port COM 2 of the master battery	Link port COM 1 of the slave battery	Link

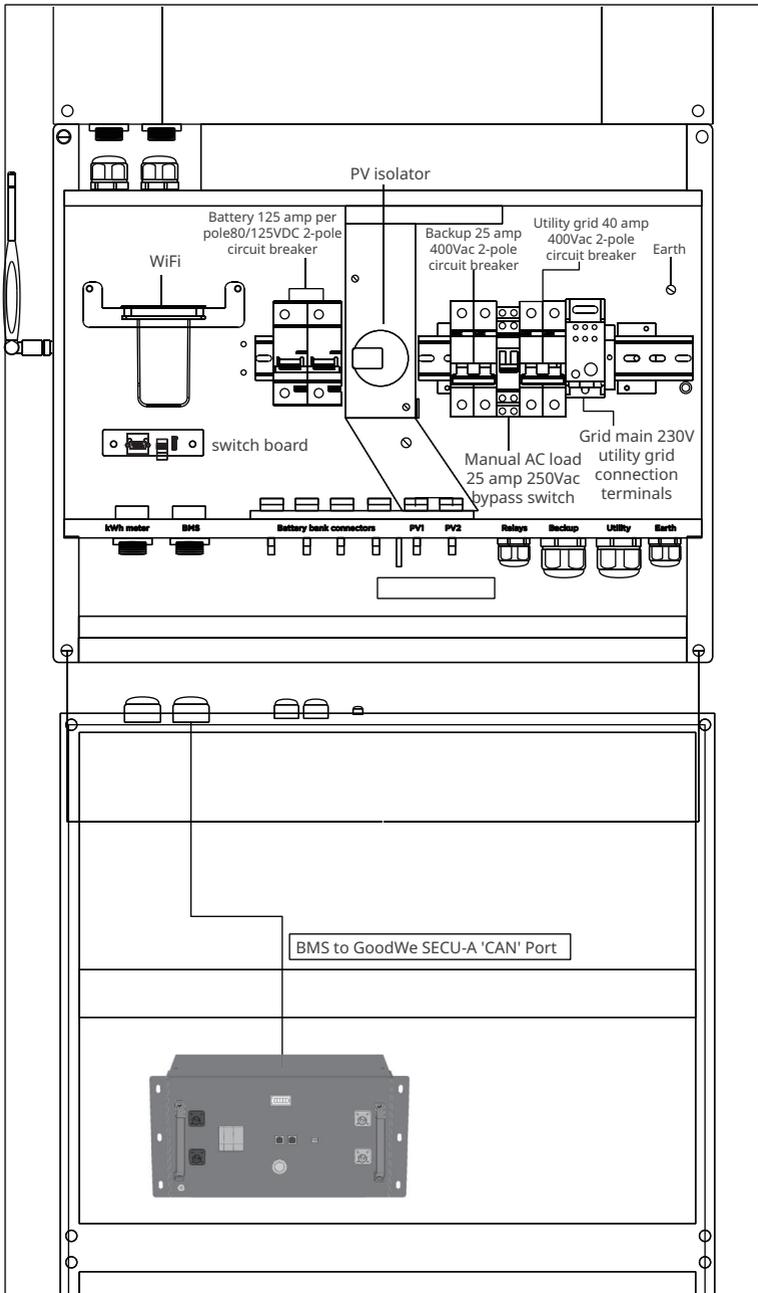


Figure 11: GoodWe SECU-A

04 Connecting the Battery Enclosure to the Inverter



CAUTION!

The inverter should be powered down during this process.

The battery enclosure is now ready to be connected to the inverter mounted on the same wall above the battery enclosure as per figure 13.

1. Connect the Amphenol connectors, on the top of the battery enclosure, to the matching battery connectors at the base of the inverter.
Note: You need to check the inverter's commissioning steps to complete the commissioning of the whole system.
2. Connect the battery enclosure's earth lead to the earth terminal inside the inverter.
3. (optional) Install the panels and wiring slot between the two battery enclosures. Connect the cable connectors on the second battery enclosure to the inverter and the master battery enclosure.
4. With the inverter's BoS box and the battery enclosure's front cover still open, turn on the inverter and subsequently close the battery breaker in preparation for the commissioning process.

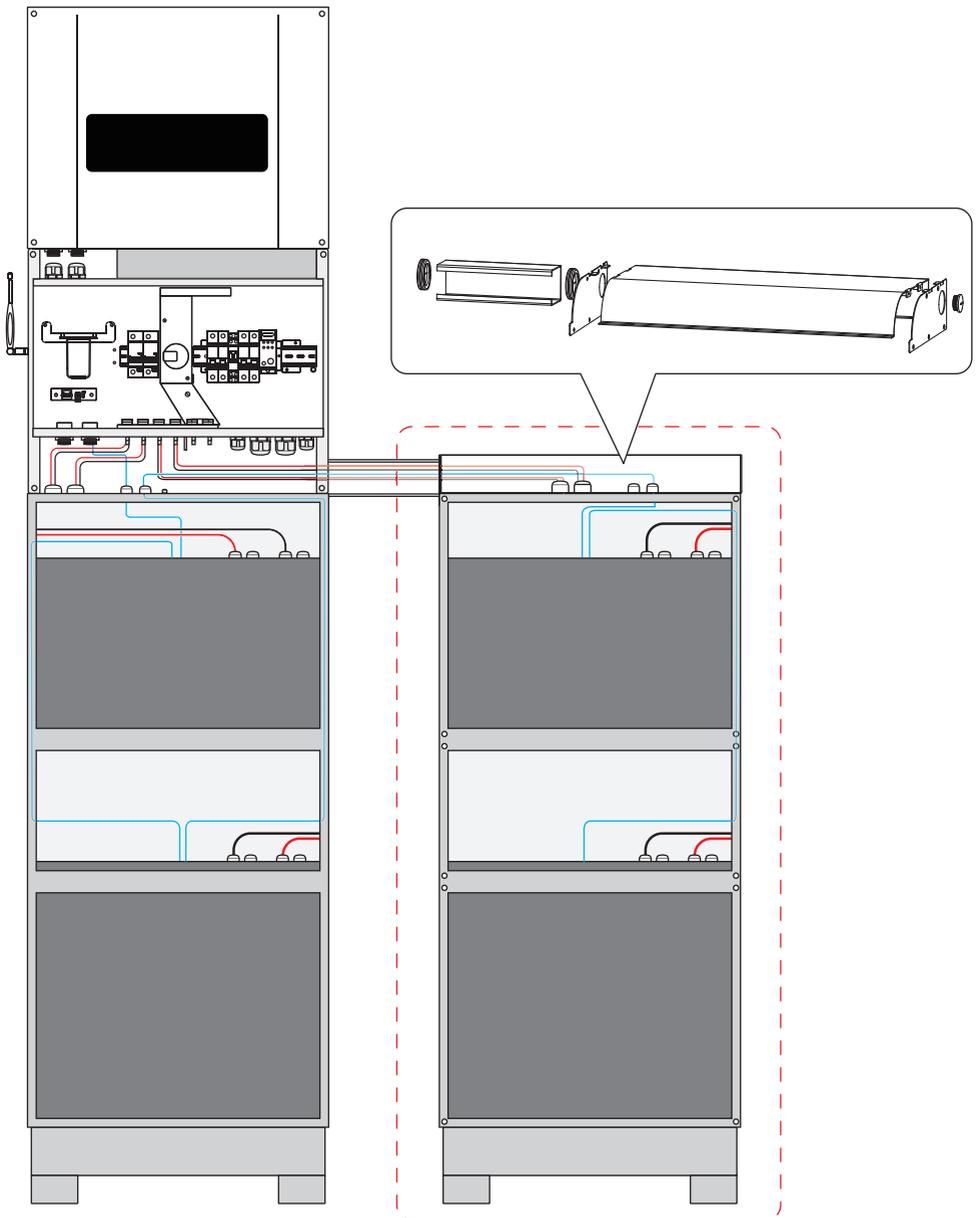
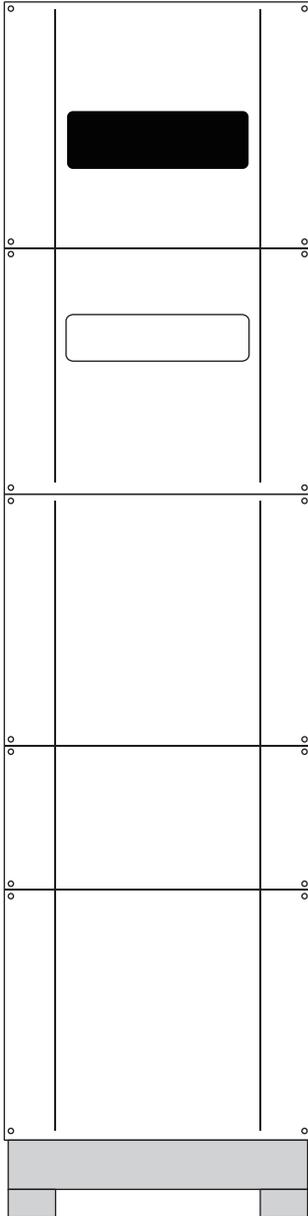


Figure 12: BCL9600 Battery Enclosure connected to inverter (GoodWe Secu-A)

05 Commissioning the Battery

GoodWe Battery (SECU-A)



1. Ensure all the BMS connections have been done as per the instruction provided in this installation manual.
2. You don't need to assign the battery (ADD) addresses manually as the master battery will do this for you (provided the BMS wiring is done per the instruction in this installation manual).
3. Press the Battery Breaker on all batteries. The green LED light should light up. (Please note that the batteries won't be discharging any power at this stage).
4. Press the Battery Switch on the master battery. That will start all batteries.
5. The 'Battery' light on the Control Board should be on, indicating that BMS communication has been established between the master battery and the inverter and at this stage you should be able to see the battery on the portal in the SolarGo app.

Note: You need to check the inverter's commissioning steps to complete the commissioning of the whole system.

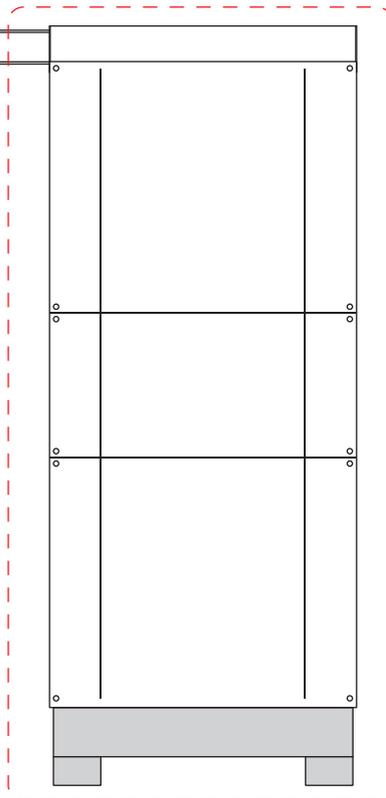


Figure 13: The completed installation of BCL9600



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