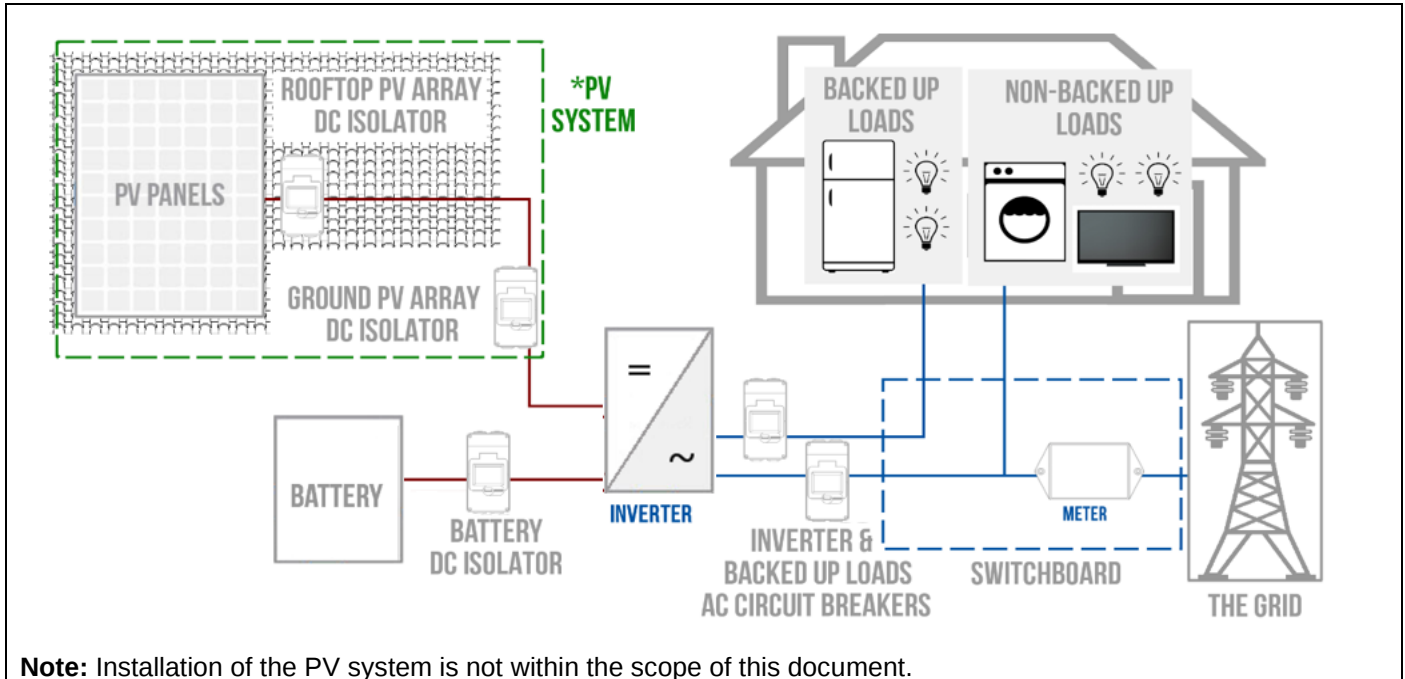


Battery System Quick Start Guide



Battery System: GoodWe Lynx Home U Series Battery and GoodWe EM Series Inverter

System Overview Diagram



Warnings

Disclaimer of Liability and Warranty: This pictorial guide does not replace installation manuals supplied with the components. Solahart assumes no responsibility for loss, damage or expense resulting from improper installation, handling or misuse of components. Refer to the warranty statement in the Solahart Owner's guide for full warranty terms and conditions.

The Australian Consumer Law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Installer Responsibilities

The installer is solely responsible for:

- Observing and conforming to all relevant Australian Standards, all relevant Clean Energy Council Accreditation guidelines and all applicable laws, ordinances, regulations, codes of practice and local or national building codes, including any that may have superseded this guide.
- Ensuring that the installation complies with AS/NZS 3000, AS/NZS 5139, AS/NZS 5033, AS 4777.1, AS/NZS 1768, AS 3008 and any relevant electrical service and installation rules for the state or territory where the system is installed.
- Ensuring that the Battery system and associated components are appropriate for the particular installation and the installation environment.
- Ensuring only parts supplied by Solahart Industries and installer supplied parts as specified by Solahart Industries are utilised (substitution of parts may void the warranty and invalidate certification).
- Ensuring that mounting fasteners have adequate pull-out strength and shear capacities to suit the installation.
- Ensuring safe installation of all electrical aspects of the Battery system.

- Ensuring that the building and building structures are capable of withstanding the additional loads and forces generated as a result of installing the Battery system.
- Ensuring mounting clearance requirements for all components are maintained.
- Ensuring components are not exposed to direct sunlight, rain fall and snow accumulation.
- Ensuring that the batteries and their components are protected from damage during transportation and storage.
- Ensuring that the weight of the battery is taken into account when handling and that all WHS policies are followed.



Tools Required

- Drill and drill bits suitable for drilling holes in the desired mounting surface/structure.
- M5 & M10 tools.
- Torque wrench.
- Spirit level.
- Adjustable spanner.
- Electricians hand tools (screwdrivers, pliers, side cutters, cable crimps etc.)
- An Android or IOS smart device.

Note: The GoodWe mobile App “PV Master” must be downloaded before commissioning.

Note: See each component installation guides for additional tools required for installation.



Planning the Installation

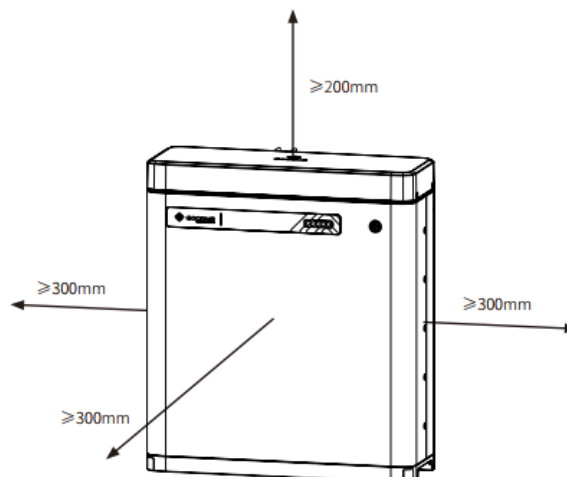
Installation environment

- The battery is floor/wall mounted as per the instructions provided in this guide.
- The operating temperature (charge / discharge) for the battery is **0~50°C**.
- Avoid exposing the equipment to **direct sunlight or rain**.
- Install the equipment away from heat/cold source where the temperature can vary significantly.
- Install the equipment away from strong interference to ensure its reliable operation.
- Keep children / pets away from the equipment.
- Do not install the equipment in places prone to accumulate water.
- Do not put inflammable or explosive materials near the equipment.

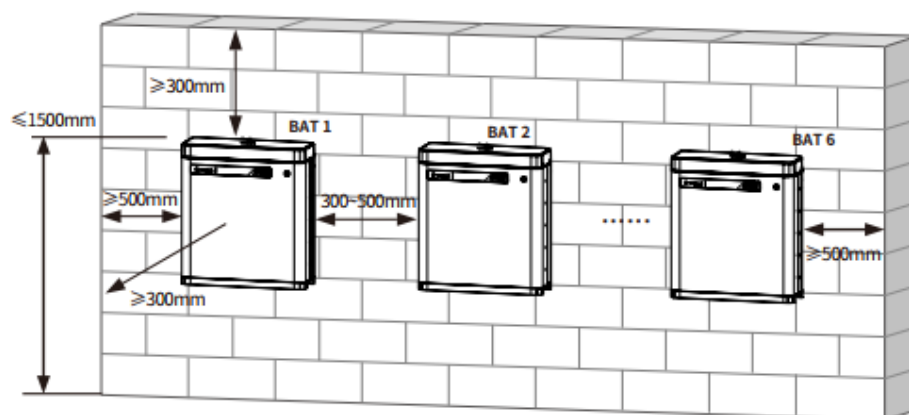
Mounting space requirements

For the GoodWe Lynx U Series Battery

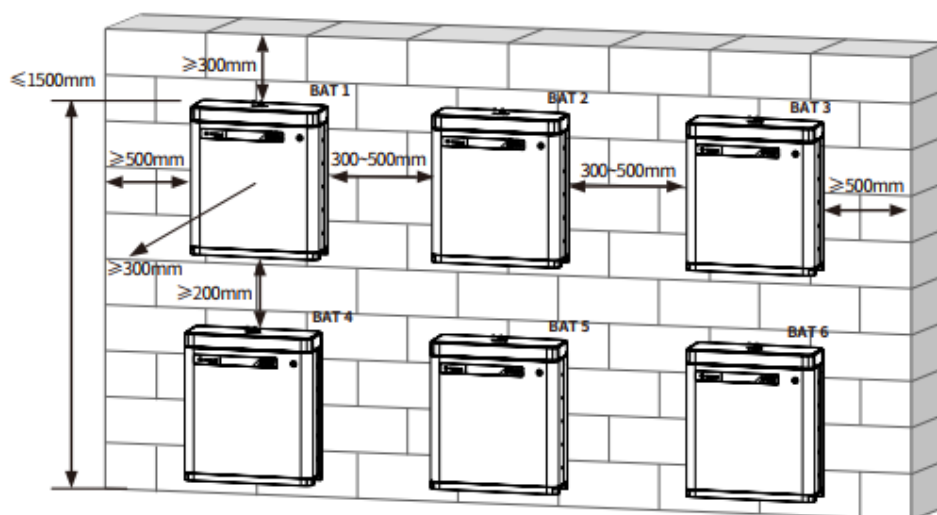
Floor mounting space requirements:



Wall mounting space requirements:



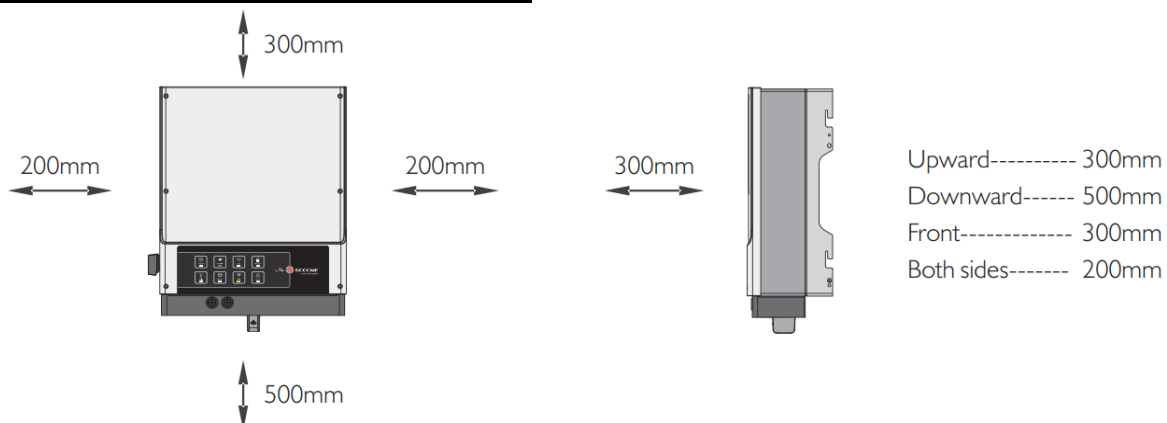
Double Row Installation



Note: The space between the left and the right battery is the recommended distance. Battery mounting and installation must comply with Australian standards.

Note: The Installation location of the Battery must also comply with the requirements of AS/NZS 5139.

For GoodWe EM Storage Inverters (IP65)





Cabling and Conduits

Any earthing cable, DC/ AC cable and conduits are not supplied by Solahart and should be selected based on the following criteria.

Inverter DC/AC cabling must be sized and installed in accordance with AS/NZS 3000, AS/NZS 3008.1.1 and any local applicable codes.

The Battery contains an in-built 63A circuit breaker.

DC CABLING REQUIREMENTS (NOT SUPPLIED BY SOLAHART)

Cable description	Cable type	Conductor Size
Low Voltage (LV) Battery to Battery DC Circuit Breaker/Isolator	DC cable complying with AS/NZS 3000, AS/NZS 3008.1.1 and any local applicable codes. We recommend using 25 mm ² two single-core R-HF-110, R-E-110 or X-HF-110 cable.	25 mm ²
LV Battery DC Circuit Breaker/Isolator to Inverter	DC cable complying with AS/NZS 3000, AS/NZS 3008.1.1 and any local applicable codes. We recommend using 25 mm ² two single-core R-HF-110, R-E-110 or X-HF-110 cable.	25 mm ²
Battery earthing (PE)	Earthing cable complying with requirements of AS/NZS 3000	10 mm ²



Note: Where only **one** battery connected is to the inverter, each 25mm² DC cable must be installed in accordance with AS/NZS 3008.1.1 to achieve a current carrying capacity of >63A (in-built rating of battery circuit breaker).

- Where more than one battery is connected, each 25mm² DC cable must achieve a current capacity of 125A (**external 125A DC circuit breaker must be installed between battery 1 and inverter**). We recommend using 25 mm² two single-core R-HF-110, R-E-110 or X-HF-110 cable.

25mm² DC X-90 cables. Refer to section 4 below for Battery – Inverter wiring diagrams.

AC CABLING

Cables must be selected so that the current carrying capacity is suitable for the maximum continuous current as shown below:

Inverter Model	GW3048-EM	GW3648-EM	GW5048-EM
Max AC Current (On Grid) - incoming	23.6 A	23.6 A	23.6 A
Max AC Current (Backup, continuous)	10.0 A	10.0 A	10.0 A

For common thermoplastic PVC/PVC cable types operating in a wiring enclosure in air at 75°C on a 230 V single-phase circuit, the following table provides the maximum cable length for a voltage drop of less than 1%:

Conductor cross section area	6.0 mm ²	10.0 mm ²	16.0 mm ²
GW3048-EM (On Grid)	13.0 m	21.8 m	34.6 m
GW3648-EM (On Grid)	13.0 m	21.8 m	34.6 m
GW5048-EM (On Grid)	13.0 m	21.8 m	34.6 m

COMMUNICATION CABLING

Communication cables are provided and pre-fitted on GoodWe Inverters. Extension of communication cable is permitted to the maximum length specified in the table below.

Cable Description	Cable Type	Provided Cable Length	Maximum Length
Cable between Inverter and EzMeter	Data cable with RJ 45 connector pre-crimped on Meter end	10 m	100 m
Cable between EzMeter and CT	Data cable with 1 twisted pair	3 m	5 m
Cable between Inverter and Battery	Data cable with RJ 45 connector pre-crimped on Battery end	3 m	100 m

Note: Check insulation voltage rating of these communication cables.

CONDUITS

Conduit Description	Size
HD Conduit and terminator or adaptor to suit AC Output (Load / Grid) or AC (backup) cable entries located at the base of the GoodWe Inverter.	>25 mm
HD Conduit and terminator or adaptor to suit DC Input for Battery cable entry located at the base of the GoodWe Inverter.	40 mm

Note: Additional conduit terminators/glands may be required depending on the installation location.

Note: Refer to AS/NZS 3000 for appropriate conduit sizing.

1

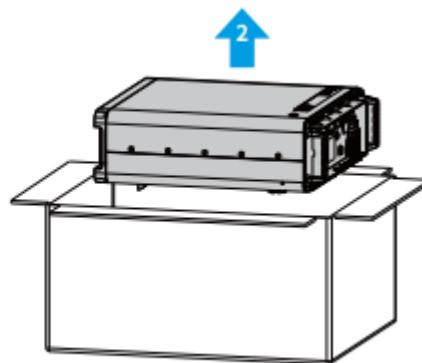
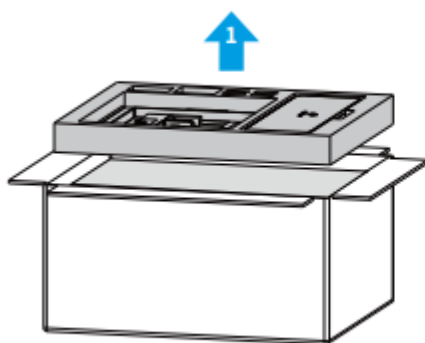
Unpacking and Mounting Battery

Refer to GoodWe Lynx U-Series User Manual for further mounting instructions.

Unpack contents from the GoodWe battery packaging as per the arrows below.



Warning: Battery modules are heavy (approximately 57 kg each). It is recommended that the installation is done by two people.

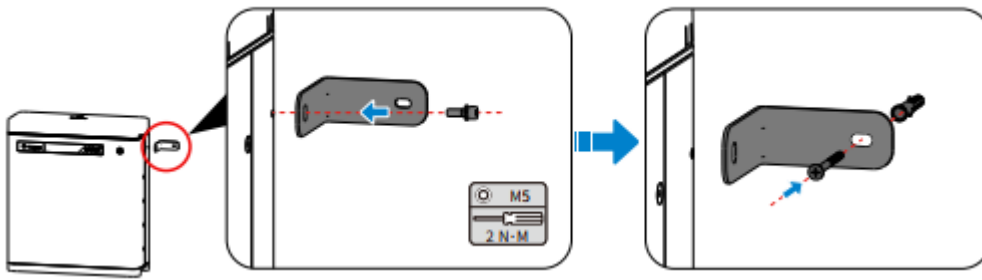


Note: If multiple batteries are to be connected, check that the production date is similar and cell grade is the same.

Floor mounting:

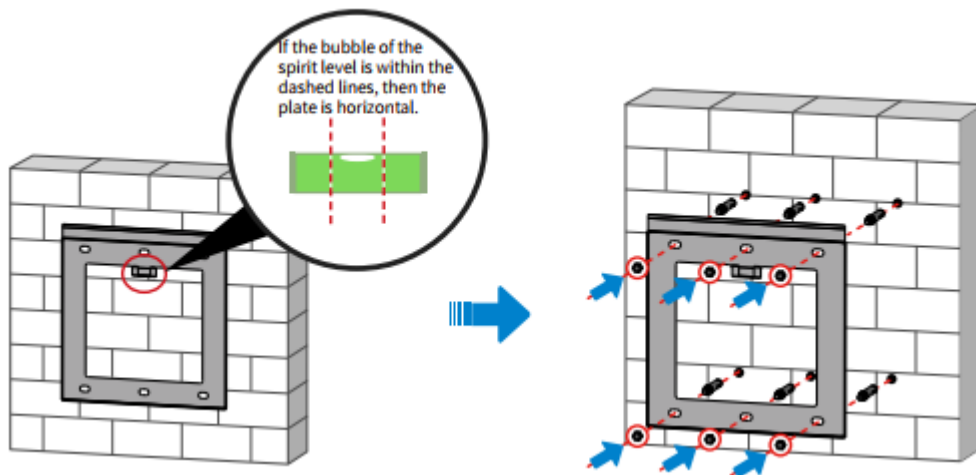
1. Make sure that the floor is flat and horizontal. Install the anti-dumping bracket on both sides.
2. Align the battery and the wall, then put the anti-dumping bracket close to the wall. Mark the drilling position and remove the battery.
3. Drill a hole on the wall using the power drill. The hole diameter shall be 10mm at a depth of 80mm.

4. Fix the expansion bolts, tightening torque: 10N·m.

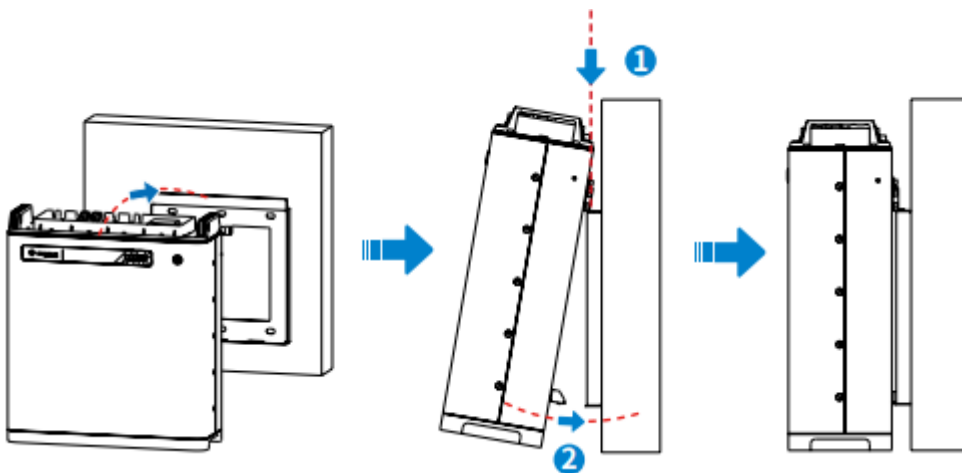


Wall mounting:

1. Mark the drilling position using the wall mounting plate and level using a spirit level.
2. Place the wall mounting plate close to the wall firmly, mark the drilling position and remove the wall mounting plate.
3. Drill a hole on the wall using the power drill. The hole diameter shall be 13mm at a depth of 65mm.
4. Fix the M10 expansion bolts, tightening torque: 10N·m



5. Lift the battery parallel to the ground.
6. Hang the upper part of the battery on the wall mounting plate.
7. Push the bottom part of the battery to the slot



Note: The battery shall be installed and mechanically protected according to CEC Battery Installation Guidelines and AS/NZS 5139. This includes:

- Providing restricted access to the battery system designed to prevent access by unauthorised persons.

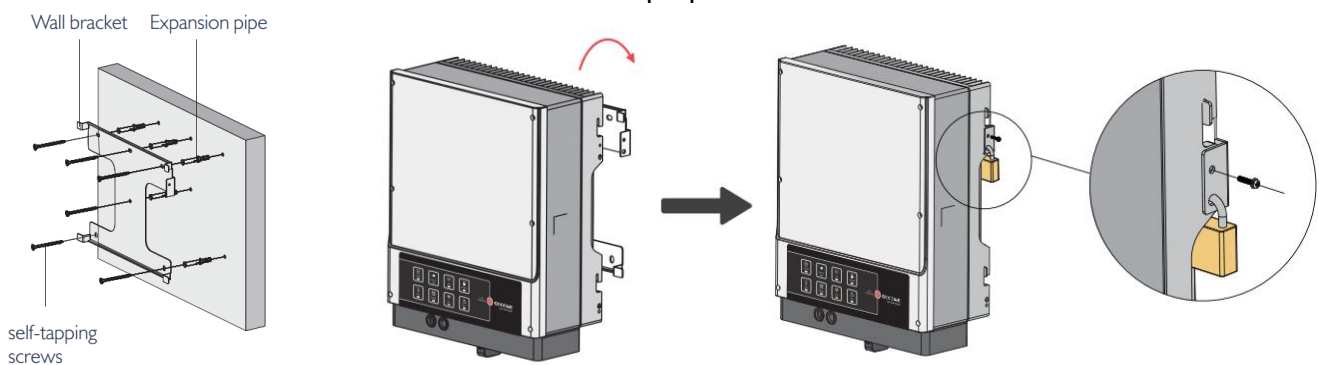
- Where subject to potential physical damage, mechanical protection shall be provided to the battery system to minimise the risk of such, resulting in electrolyte leakage, including:
 - Crushing
 - Impact
 - Puncturing
- Mechanical protection may be achieved via the use of a suitable battery system enclosure and/ or bollards.

2

Mounting the Inverter

Follow the GoodWe EM Series User Manual to choose a suitable location and correctly mount the Inverter to the wall using appropriate fasteners and with regards to clearance requirements.

A lock can be installed on the inverter for anti-theft purposes.



3

Mounting AC Isolator Enclosure(s)

ISOLATOR ENCLOSURES

1. Determine the mounting locations of the enclosures with regard to system clearances, layout specifications and AS/NZS 3000.
2. Install a minimum of two (2) fasteners diagonally opposite, to fix the enclosure to the wall.
3. Install the silicone rubber plugs supplied with the enclosure on the internal mounting points.

Note: Where the Inverter is not adjacent to the switchboard to which it is connected, an “Inverter AC Isolator” must be installed at the Inverter in accordance with AS/NZS 3000.

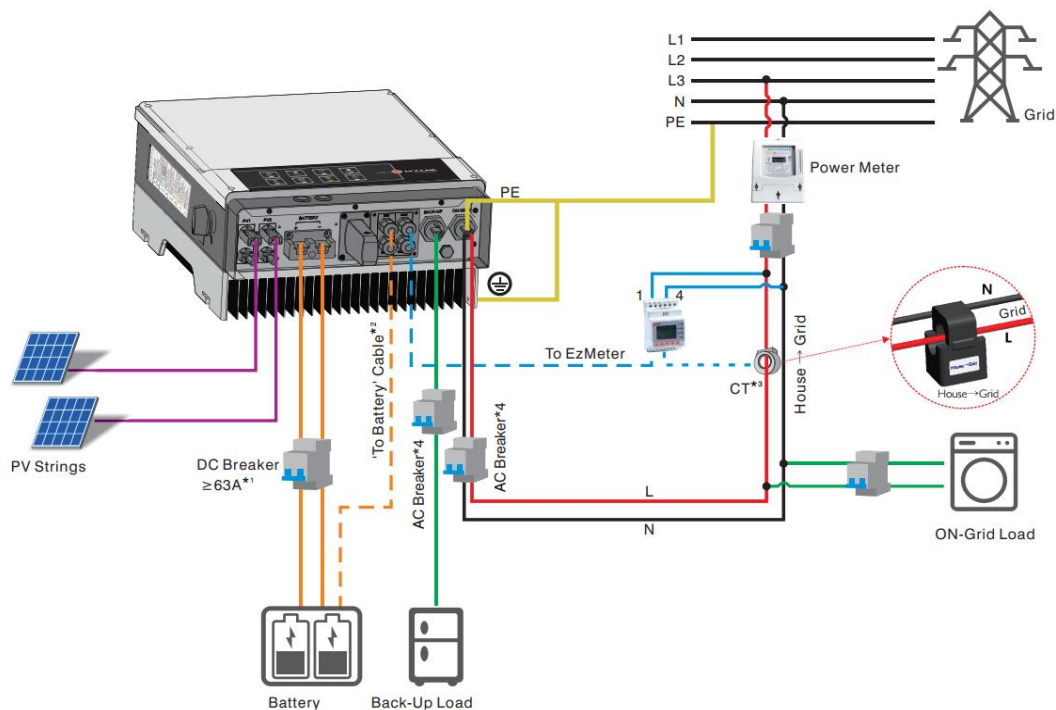


Mounting GoodWe EzMeter

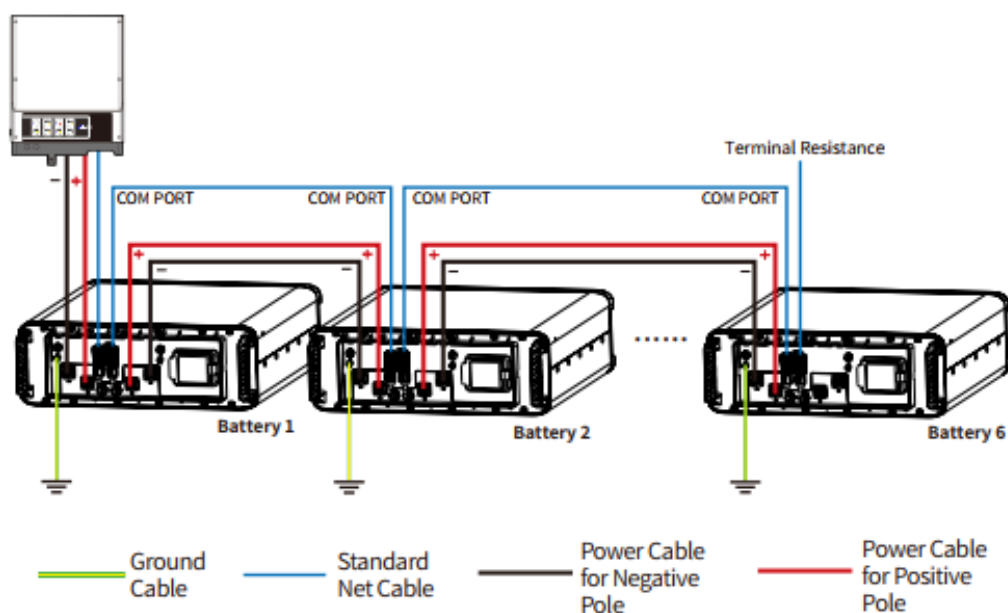
The GoodWe EzMeter can be attached to a DIN rail inside the switchboard via mounting clips supplied with the Meter.

Note: Check EzMeter and CT communication cable to ensure insulation is rated for the highest voltage present inside the switchboard. Additional insulation may be required.

Battery - Inverter Wiring Diagrams



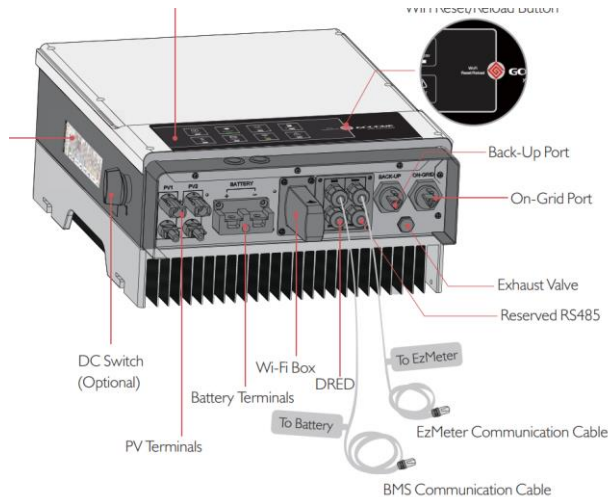
Note: A DC circuit breaker and DC isolator rated at 125A must be installed between battery 1 and the inverter (see diagram below).



INVERTER

Communication cables to the Battery (CAN COM) and the GoodWe EzMeter (RS-485) are pre-installed at the inverter. Check all connections prior to installation.

All communication cabling between inverter, battery and metering shall be mechanically protected to prevent damage from vermin and tampering from unauthorised users.

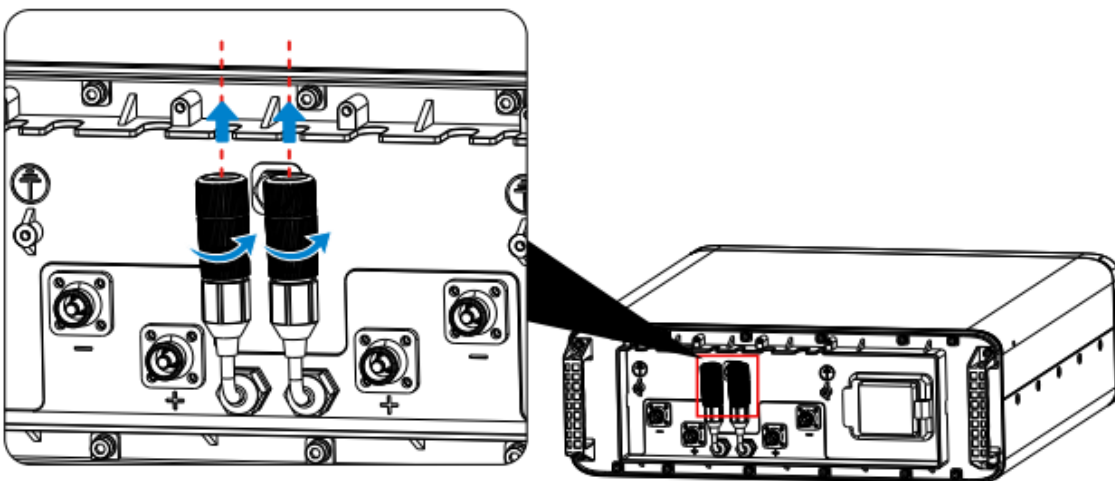


BATTERY

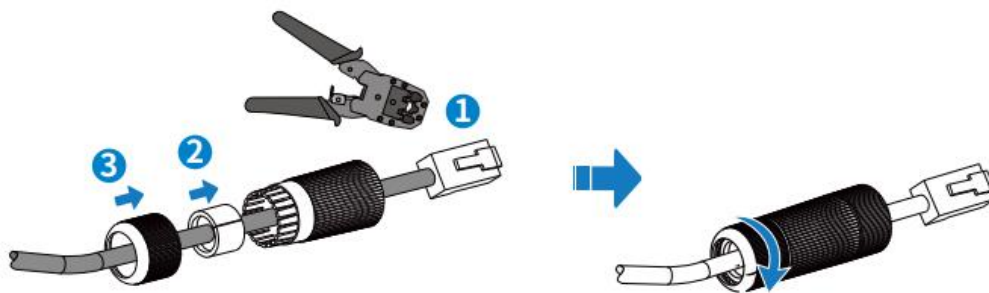
Note: The two communication cables are the same.

- Do not use RJ45 cable with protective cover.
- When one battery is applied, connect one communication cable to the inverter by RJ45 connector and connect the other cable to the terminal resistance.
- When multiple batteries are applied, connect the communication ports in series using net cables. Connect one communication cable of the last battery to the terminal resistance.

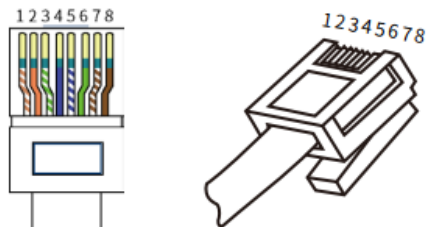
1. Remove the waterproof module.



2. Route the cable through the waterproof module.
3. Crimp the RJ45 Registered Jack.
4. Secure the back cover.



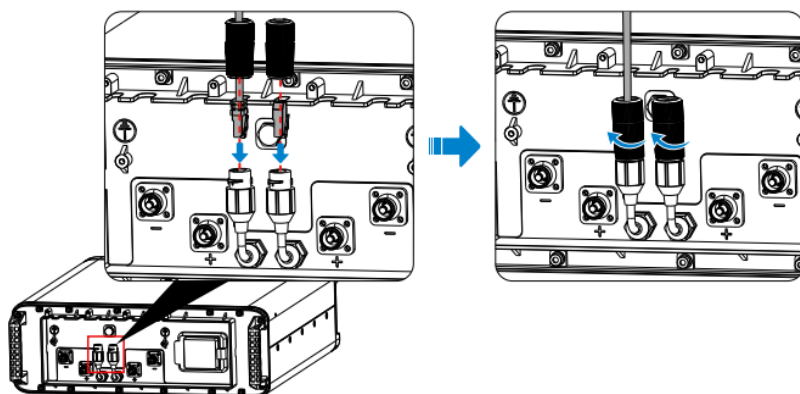
RJ45 Registered Jack



CAN COM Port

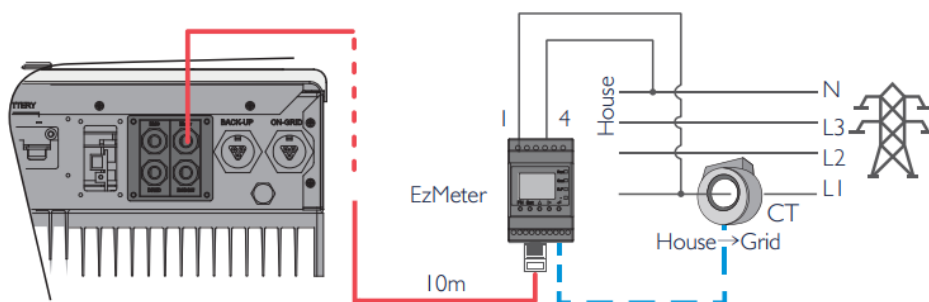
PIN	Definition
4	CAN_H
5	CAN_L
1,2,3,6,7,8	N/A

5. Connect the communication cable and the terminal resistance to the battery.
6. Secure the cover.



METER

Follow instructions from GoodWe EM User Manual to connect the communication cable from the Inverter.



Note: Check the communication cables to ensure the insulation is rated for the highest voltage present inside the switchboard. Additional insulation may be required.

Note: If extension of communication cable is required, a female RJ45 joiner may be used to avoid crimping the connector.



Warning: If extension of communication cable is required, ensure cable joints are adequately protected from moisture.



Warning: Ensure all communication cables are adequately protected against mechanical damage.

Refer to the wiring diagrams on page 8.

Warning: Ensure all DC and AC cables are adequately protected against vermin and other damage.

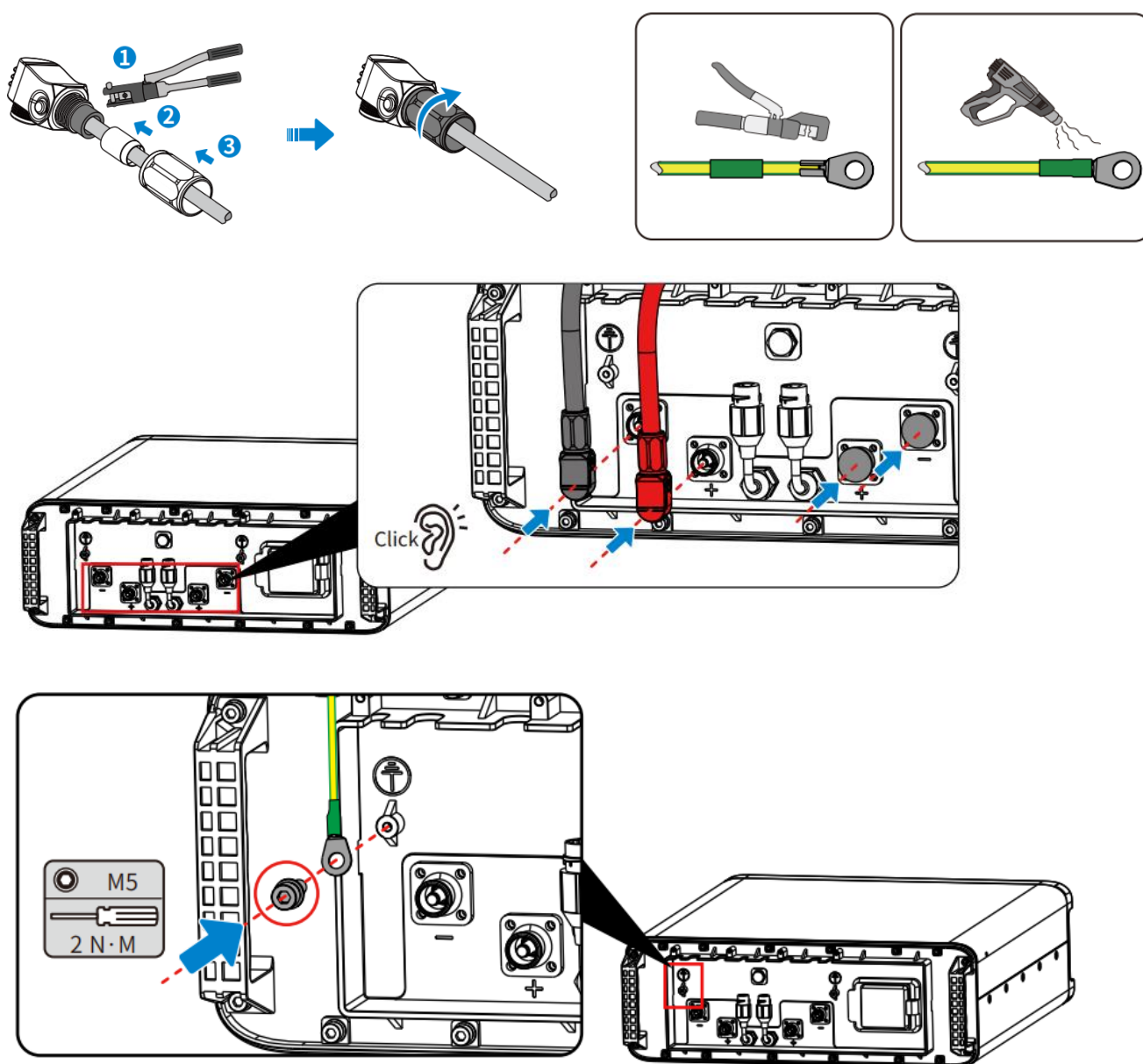
Warning: Ensure in-built DC isolator is switched OFF prior to wiring.

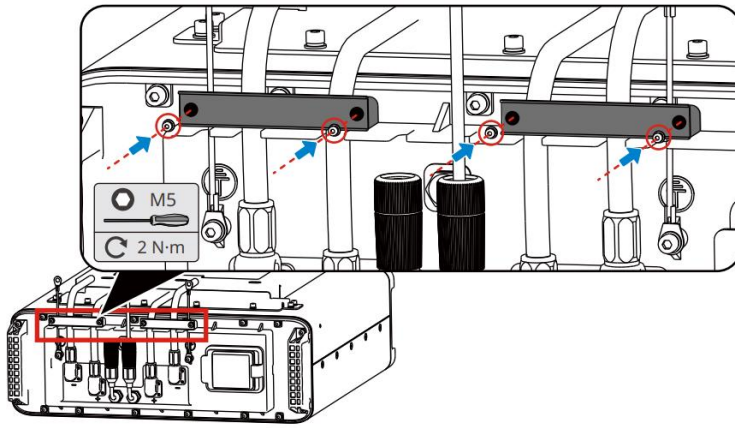
Note: Ensure the conductors on all cable ends are consolidated (e.g. using bootlace) before termination.

BATTERY

Connect DC cable and earthing wire according to the instructions in GoodWe Lynx U-Series Operating Manual.

Ensure each conductor is stripped and exposes appropriate amount of copper. Crimp the cables to the terminal lugs using mechanical hydraulic press pliers. All crimping shall be performed by an appropriately qualified technician.





Cover an unused power supply ports with protective covers. Ensure the polarity of the cables is correct to prevent any fuses from blowing.

Place wiring harness bar over the communication and power cables to protect them from damage. Install with M5 fasteners.

NOTE: A DC circuit breaker is 'in-built' within the Battery unit.

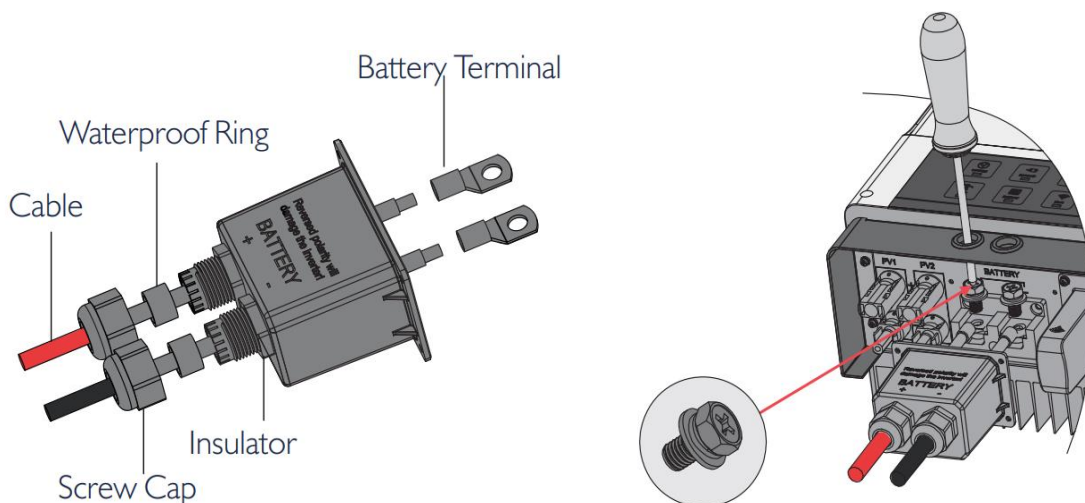
Warning: Ensure all cable entries on the Battery are adequately sealed and the Battery IP rating is maintained.

INVERTER

Follow instructions from GoodWe EM User Manual to correctly connect the DC and AC power cables to the Inverter.

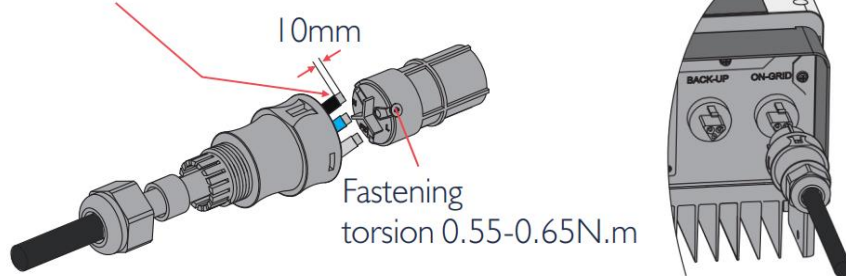
Warning: Ensure Battery DC cable polarity is correct. Reverse polarity may cause damage to the Battery.

Ensure each DC conductor is stripped and exposes appropriate amount of copper. Prepare DC cables and accessories and place through battery cover, then crimp to battery terminals. Connect battery terminals to the inverter



For all AC connections (both On-grid and Back-up), prepare the terminals and AC cables. Place the AC cable through the terminal cover and screw the three cables tightly on the connectors. Lock the terminal cover and screw up the terminal cap. Connect the assembled AC terminals onto the inverter.

Copper Conductor Material



INVERTER AC ISOLATOR (IF REQUIRED)

Wire the AC power cable from the Inverter to the Inverter AC Isolator in accordance with AS/NZS 3000.

MAIN SWITCH (INVERTER SUPPLY)

Wire the AC power cable from the Inverter AC Isolator (if present) or the Inverter, to the Main Switch (Inverter Supply) in accordance with AS/NZS 3000 and the manufacturer's instructions.



Battery & Inverter Operating Parameters

GOODWE LYNX U-SERIES BATTERY MAX CONTINUOUS DISCHARGE CURRENT

LX U5.4-L	2*LX U5.4-L	3*LX U5.4-L	4*LX U5.4-L	5*LX U5.4-L	6*LX U5.4-L
50A	100A	100A	100A	100A	100A

GOODWE LYNX U-SERIES BATTERY USABLE / RATED ENERGY CAPACITY

LX U5.4-L	2*LX U5.4-L	3*LX U5.4-L	4*LX U5.4-L	5*LX U5.4-L	6*LX U5.4-L
4.8/5.4kWh	9.6/10.8kWh	14.4/16.2kWh	19.2/21.6kWh	24/27kWh	28.8/32.4kWh

GOODWE BATTERY RATED VOLTAGE: 51.2V

GOODWE INVERTER MAXIMUM CHARGING/DISCHARGING CURRENT: 100 A

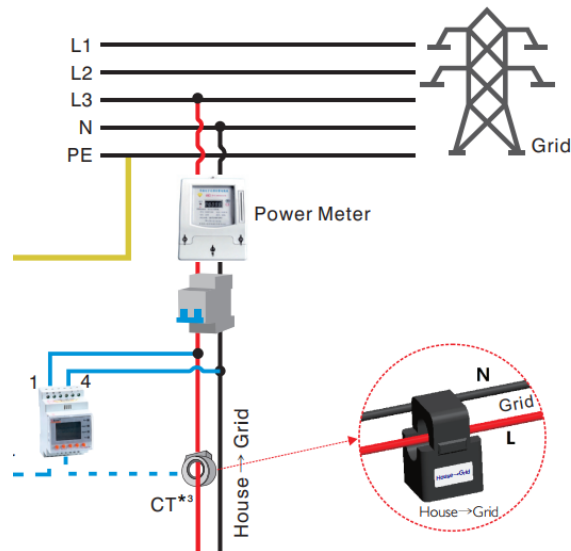
GoodWe EzMeter Setup

7



Warning: Meter wiring and location must satisfy the requirements of the GoodWe EM User Manual and AS/NZS 3000.

Refer to wiring diagram below for Goodwe EzMeter wiring.



The GoodWe EzMeter is compulsory for system operation, used to detect grid voltage and current direction and magnitude, further to instruct the operating conditions of the inverter via RS485 communications. The meter shall be used to monitor the net import and export of the household which will enable the Solahart Battery System to maximise the savings from the system.

METER

Follow the steps below to wire the Goodwe EzMeter:

1. Install cabling for line voltage to the appropriate phase.
2. Install cabling for voltage of neutral conductor.
3. Install supplied current transformer (CT) around the active conductor to be measured. Ensure CT is facing the correct direction as indicated on the labels (house -> grid).

Note: Check the CT cables and RS485 communication cable to ensure all the insulations are rated for the highest voltage present inside the switchboard. Additional insulation may be required.

Note: A single-phase GoodWe EzMeter with 1 x pre-wired CT is provided with each GoodWe single-phase Storage Inverter.

Note: Direction “House -> Grid” is marked clearly on the side of the CT. Ensure it is installed correctly.

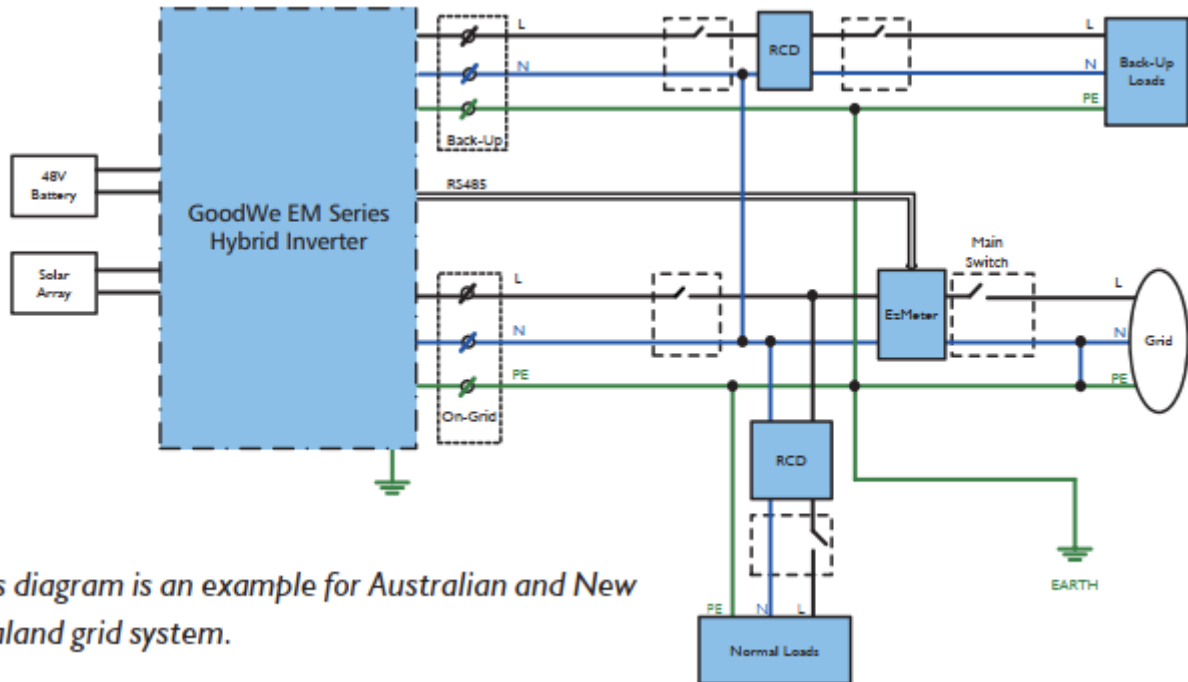
Note: Existing PV system(s) cannot be monitored separately on GoodWe monitoring portal.

Note: The GoodWe EzMeter is considered as a final sub-circuit and RCD shall be installed as required in AS/NZS 3000.

Note: Any voltage measurement should correspond to the same phase in which the CT is mounted.

Configuration of Backup Loads Panel (Optional)

If Backup functionality is required, follow the instructions below to configure the backup circuit distribution board.



This diagram is an example for Australian and New Zealand grid system.

Size any AC Circuit breakers and Backup Load panel based on the following table:

Inverter Model	Max. Backup Power Output	Peak Backup Power Output (<10secs)	Backup Max. AC Output Current
GW3048-EM	2.3 kW	3.5 kW	10 A
GW5048-EM	5.0 kW	5.3 kW	10 A



Warning: Backup neutral must be connected to Grid neutral to maintain the MEN connection.

Note: Ensure the customer understands the backup supply power capabilities as shown in the table above.

Design Checklist for backup circuits:

- The circuits must not be overloaded.
- Ensure correct polarity of all battery conductors
- AC breakers should be sized in accordance with AS/NZS 3000.
- Backup panels and circuits must be labelled in accordance with AS/NZS 3000.
- Inductive loads should not be connected to backup circuits.
- Backup circuits are not supplied if the inverter fails, a two-way changeover switch is recommended to be installed between inverter backup supply and grid supply. Refer to AS/NZS 3000 for switching of alternative supply.



Warning: Before turning on the battery, please ensure that:

1. The equipment is levelled and installed firmly in a place where is convenient for operation and maintenance. The installation place is clean and well ventilated.
2. The ground cable, power cables, communication cables and terminal resistance are connected correctly and securely. Ensure that the polarity of all conductors is correct.
3. The Goodwe EzMeter and associated CT is installed on and monitoring the appropriate active conductor and is correctly orientated.
4. The cable ties meet the cabling requirements and are reasonably distributed. No cables or ties are broken.
5. Unused ports are sealed.
6. The Goodwe EM inverter is correctly commissioned following the EM user manual.

Follow steps below to commission the Battery System:

1. Turn ON the Inverter AC Isolator at the Inverter (if installed) and the Solar Supply Main Switch at the AC switchboard.
2. Turn ON PV Array DC Isolator(s) located adjacent to inverter.
3. Turn ON DC circuit breaker between the battery and inverter.
4. Turn ON Battery DC Isolator(s) integrated within the battery unit.
5. Press the switch button on the battery within 30s otherwise an alarm will sound.
6. Download the 'PV Master' App from Google Play or Apple Store on your phone or tablet.



7. Connect to the GoodWe Inverter Wi-Fi network, "Solar-WiFi" using the password "12345678".
8. Open Mobile App "PV Master" and click on "Overview".
9. Click on the Inverter icon to verify Inverter serial number.
10. Click "Set", then "Basic Setting". Enter the installer password "goodwe2010".
11. Select "Safety Area" (grid setting) based on your DNSP. If your DNSP is not listed as an option, select "Australian". Then click "Next".



Warning: Do not select "AustraliaL".

12. Select "Work Mode" based on customer requirement:
 - choose "General Mode" if customer wants to maximise self-consumption (recommended);
 - choose "Backup Only" mode if the battery is only required for backup purposes;
 - choose "Economic Mode" to apply a Time of Use (TOU) profile.



Warning: Do not select "Off-Grid" mode. It is not supported in Australia.

13. Select "Battery Model" to be "GoodWe", then confirm the Battery model / capacity is correctly displayed.

Note: The Inverter should display the correct model based on the Battery DC input voltage.



Warning: Choosing the wrong battery model / capacity may result in system operation error and damage to equipment. The error message 'Battery Selection Abnormal' or 'Fault Code 37 – BMS Warning' will be displayed if you select the wrong battery model / capacity.

14. Click "Exit", then click "Yes" to restart the Inverter.
15. After the inverter has restarted, connect the smart device back to the Inverter Wi-Fi as in Step 5.
16. Open the 'PV Master' App. Click on "Param". If the "BMS status" is "Fault", check all cable connections and repeat from Step 5.

17. Click "Overview" and check if the battery charges and discharges according to power production and usage.
18. If there are any problems commissioning the system, contact a local Solahart Dealership immediately.



Warning: If the battery system is not commissioned immediately after installation, turn off the Battery Internal Circuit Breaker to avoid over-discharge and permanent damage to the Battery cells.

Note: Ensure firmware is updated as part of commissioning process of the Battery.

10

Monitoring Setup (Recommended)

Connect the inverter to the customer's Wi-Fi network, following the steps below:

1. Follow GoodWe "Wi-Fi Configuration guide" to connect the Inverter to the customer's Wi-Fi Network.
2. Download GoodWe App "SEMS Portal" and login using credentials provided by the local Solahart Dealership.
3. Create new plant and enter Battery system information.
4. Enter customer's email address as "Owner's E-mail".
5. Upload a photo of installation as the system profile picture.
6. Click "ADD". Scan the Inverter QR code to register the Inverter, or manually enter the Inverter serial number and Check Code as displayed on the rating label.
7. Verify system registration is completed.
8. Provide monitoring access information to the customer.

It is recommended to connect GoodWe Battery to the PV Master app for service and firmware upgrades. Refer to GoodWe EM User Manual for details.

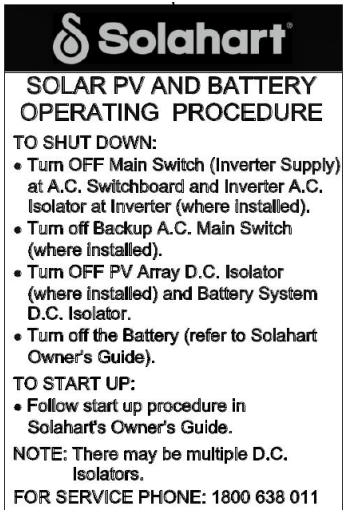
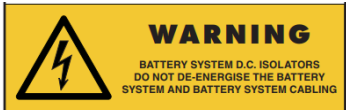
If there are any problems commissioning the system, contact Solahart immediately.

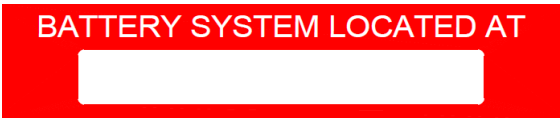
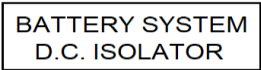
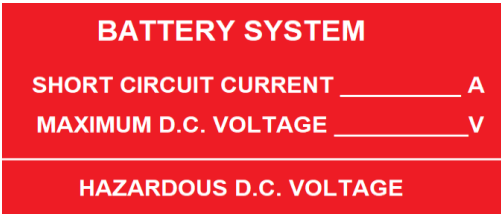
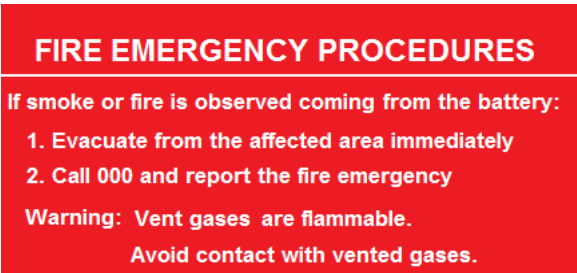
This information is supplied here as a guide only. Additional labels may be required depending upon the installation and local requirements. Labels must be constructed to AS 1319 and installed according to AS/NZS 3000, AS/NZS 5139, AS/NZS 4777.1 and any local regulations. Refer to aforementioned standards for more information.

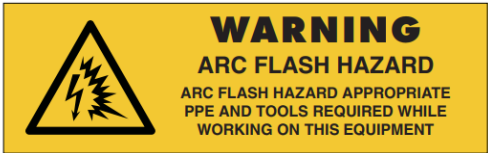
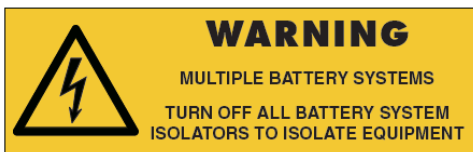
Battery cables must be labelled according to AS/NZS 5139, section 7.

When segregation of circuits occurs, these circuits must be labelled according to AS/NZS 5139, section 7.

The purpose of labelling is to clearly indicate that the electrical installation has multiple supplies and which circuits are affected by these supplies. Labelling also identifies the components that isolate the various supplies. The following table details labels that are supplied for Solahart Battery Systems.

Item	Description	Location
Battery Safety Datasheet (SDS)- provided with the Battery	Provided with the Battery	Place in document holder at the main switchboard or meter box
	White text on green background	On or immediately adjacent to the meter box and main switchboard
	Black and white	Prominent position adjacent to the GoodWe EM Inverter
	Black text on yellow background	Directly below "Solar PV and Battery Operating Procedure" label
	White text on red background	Prominent position on main switchboard Note: This label replaces the DUAL SUPPLY label for PV systems.

	White text on red background	Prominent position on main switchboard adjacent to Inverter location label
	Black text on white background	GoodWe EzMeter
	Black text on white background	Battery D.C. Circuit Breaker
	Black text on white background	Inverter AC isolator (If required)
	White text on red background	Inverter main switch in switchboard
	White text on red background	Inverter AC backup load switch in switchboard
	White text on red background	Prominent position adjacent to the Battery
	White text on red background	Prominent position adjacent to the Battery
	Black and white text with symbols on white background	Prominent position adjacent to the Battery

 DANGER  TOXIC FUMES FIRE WILL CAUSE TOXIC FUMES	Black and white text with symbols on white background	Prominent position adjacent to the Battery
SPILL CONTAINMENT In the event of spillage or leak, refer to the Battery Safety Datasheet in the switchboard for further actions.	Black text on white background	Prominent position adjacent to the Battery
 WARNING ARC FLASH HAZARD ARC FLASH HAZARD APPROPRIATE PPE AND TOOLS REQUIRED WHILE WORKING ON THIS EQUIPMENT	Black text on yellow background	Prominent position adjacent to the Battery
 WARNING DO NOT DISCONNECT UNDER LOAD	Black text on yellow background	On every single Battery Module
 WARNING MULTIPLE MODE IES CONNECTED NEUTRAL AND EARTH CIRCUITS MAY BE LIVE UNDER FAULT CONDITIONS FOLLOW SHUTDOWN PROCEDURE	Black text on yellow background	In the main switchboard
 WARNING MULTIPLE BATTERY SYSTEMS TURN OFF ALL BATTERY SYSTEM ISOLATORS TO ISOLATE EQUIPMENT	Black text on yellow background	Beside one of the PCEs (Application only when multiple Battery systems are installed)
 RESTRICTED ACCESS AUTHORIZED PERSONNEL ONLY 	Black and white text with symbols on white background	Adjacent to the battery or on all doors to the room where the battery is located

Final Checklist

- ☐ Ensure the Battery is installed level and secured to the wall.
- ☐ Ensure the Battery is installed in a suitable location and not subject to excessive temperatures. Failure to do so will result in power derating under charging / discharging operations.
- ☐ Ensure each Battery maintains adequate clearance requirements in order to dissipate any heat
- ☐ Restricted access or mechanical protection of any Battery Module/s is provided as per manufacturers' instructions, CEC Battery Installation Guidelines and AS/NZS 5139.
- ☐ Ensure all Battery Module/s are fastened on both sides with screws provided.
- ☐ Ensure the Battery Internal DC Circuit Breaker and Inverter AC circuit breaker(s) are turned on.
- ☐ Check that all cable entries maintain an appropriate IP ratings (water / dust)
- ☐ Verify the following on the "Param" page in "PV Master" App:
 - Inverter serial number is correct
 - Safety Country is selected correctly based on DNSP
 - Communication between Inverter and Battery—check "Battery BMS Status" is "normal"
 - Communication between Inverter and Meter—check "Import Power" is correct
 - Correct battery make/model/reserve energy is selected
 - State of charge (SOC) is more than 5%
- ☐ Take a screenshot of the "Param" page in "PV Master" for record keeping.
- ☐ Ensure the CT clamps are measuring correct circuits and are facing the correct direction.
- ☐ Ensure all wiring is in accordance with AS/NZS 3000 and local service regulations.
- ☐ Ensure Circuit Breakers and Isolators are sized in accordance with AS/NZS 3000.
- ☐ Ensure communication with GoodWe monitoring server (refer to GoodWe "Wi-Fi Configuration" manual). Verify Wi-Fi communication by checking Inverter "com" LED light.
- ☐ Ensure the customer's site is set up on GoodWe monitoring portal.
- ☐ Ensure the customer has access to monitoring portal.
- ☐ Complete the Solahart Warranty Registration and Installation Checklist and submit to Solahart.

If Backup loads are connected:

- ☐ Inform the customer if an AC changeover switch is installed on the Backup panel and demonstrate its functions.
- ☐ Ensure backup circuit neutral is linked to grid neutral.
- ☐ Verify the backup reserved % setting of the GoodWe Battery in "Advance Setting" in "PV Master" App and ensure it is set in accordance with customer expectations.
- ☐ Ensure the backup circuit is configured according to design guidelines and tested to confirm correct operation.
- ☐ Ensure the customer understands the limitations of backup functions and load limitations.
- ☐ In the event of a fault, contact Solahart for assistance.

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