

We want to make sure you get the training support you need to hit the ground running with the GivEnergy products.

Please attend the GivEnergy installation training.



Hybrids, AC Coupled, String and Batteries

'Low Voltage & 3Phase'

Tools and Equipment Required



VDE Screwdriver Set
Electrical Connections



Allen Keys
To remove battery front panels



Wire Stripper
Strip wire



Hammer Drill
Used to drill holes for mounting brackets



Cut Resistant Gloves
To protect hands from sharp edges



Level
To ensure mounting brackets are level



Multi Meter
Checking connections



Crimping Tools
For ferrules, ring terminals, and RJ45



Tape Measure
To ensure correct clearance



Marker Pen
To plot brackets

Additional Equipment



USB Stick
Update inverter and battery firmware



Laptop
Checking web portal

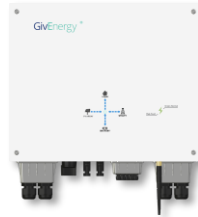


USB A to USB A LEAD
Used for GEN 2, GEN 3, AIO and Gateway.

Inverters



Inverter Specifications



	Hybrid Gen1 3.6 / 5.0	Hybrid Gen2 3.6 / 5.0	Hybrid Gen3 3.6 / 5.0	AC Coupled 3.0
Max DC Power	4.7 / 6.5kWp	4.7 / 6.5kWp	4.7 / 6.5kWp	No Direct PV Input
Min/Max DC Voltages	100 – 580v	130 – 600V	130 – 600V	
Start up Voltages	120v	130V	130V	
MPPT Voltage Range	120 – 550v	130 – 550V	130 – 550V	
Max Input Current Per String	11A / 11A	13A / 13A	15A / 15A	
Number of MPPT's	2	2	2	
Nominal AC Output	3680w / 5000w	3680w / 5000w	3680w / 5000w	3000w
Min/Max Battery Charge/Discharge	*1250w/2600w	*1250w/**2600w/3600w	*1250w/**2600w/3600w	*1250w/**2600w/3000w
IP Rating	IP65			IP65
Dimensions W/H/D (mm)	480 / 440 / 260	480 x 410 x 210	588 x 214 x 480	480 x 290 x 260
Weight	32Kg	27.5Kg	32Kg	19Kg
Connectivity	USB port for 4G or WiFi dongle	Built in WiFi, LAN or USB port for 4G and WiFi dongle	Built in WiFi, LAN or USB port for 4G and WiFi dongle	USB port for 4G or WiFi dongle

*A single 2.6kWh battery is limited to a maximum charge/discharge rate of 1250w on any inverter

**Total battery size of 5.2kWh battery is limited to a maximum charge/discharge of 2600w on any inverter

Inverter Specifications

COMING
SOON



	3 phase Hybrid 11	3 phase Hybrid 20	String Only 3.6 / 5.0 / 6.0
Max DC Power	15 kWp	30 kWp	600v
Min/Max DC Voltages	200 – 1000v	200 – 1000v	80 – 600v
Start up Voltages	200v	200v	80v
MPPT Voltage Range	120 – 550v	200V - 850V	90V - 550V
Max Input Current Per String	15A / 15A	30A / 30A	17A / 17A
Number of MPPT's	2	2	2
Nominal AC Output	11000w	20000W	3680w / 5000w / 6000w
Min/Max Battery Charge/Discharge	10000W / 10000W	20000W / 20000W	N/A
IP Rating	IP65		
Dimensions (mm)	658H x 214D x 480W	658H x 214D x 480W	583H x 205D x 480W (mm)
Weight	35Kg	40.5Kg	32Kg
Connectivity	Built in WiFi, LAN or USB port for 4G and WiFi dongle	Built in WiFi, LAN or USB port for 4G and WiFi dongle	Built in WiFi, LAN or USB port for 4G and WiFi dongle
	3 phase inverters work with HV Stackable batteries only		

Mounting

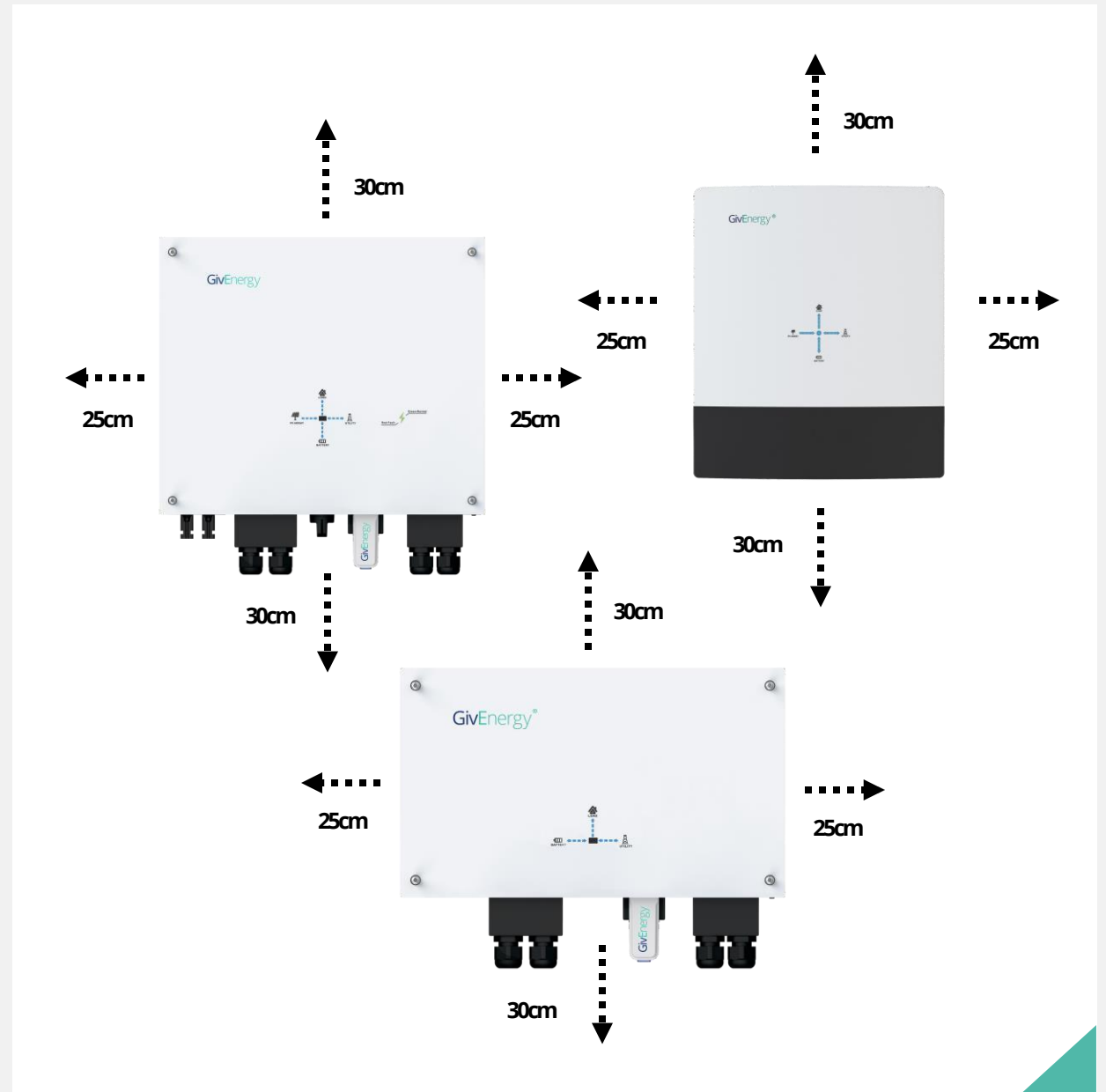
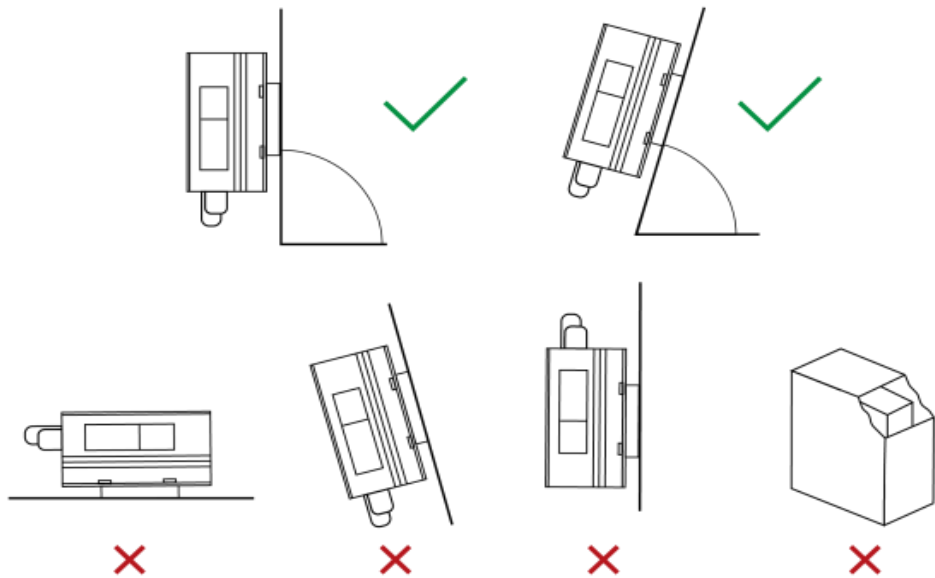
MINIMUM CLEARANCE

Systems must always be installed so that they are **accessible for future maintenance** as per BS7671

The inverter should be installed with the minimum clearances as shown.

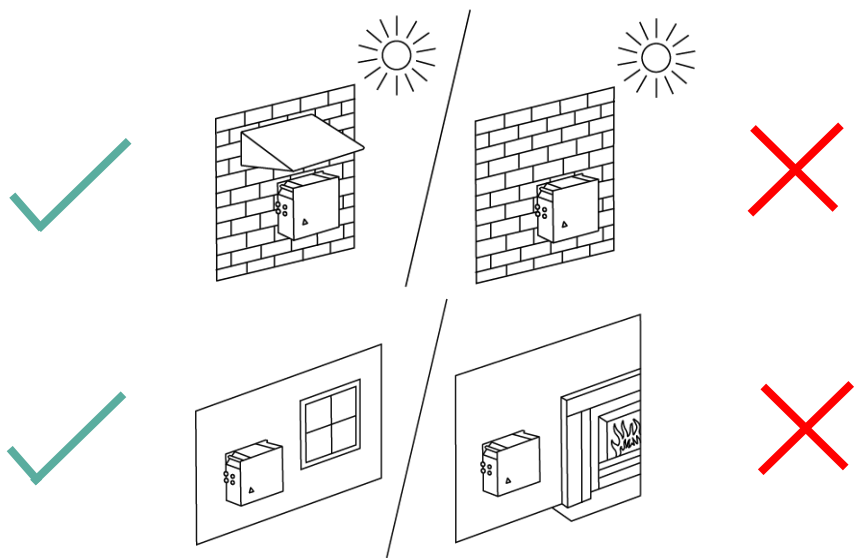
Inverters should be in a vertical position; a 50° backwards tilt is permitted if required.

tilt is permitted if required.

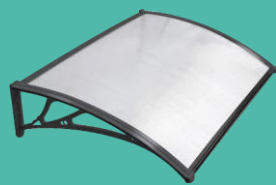


Mounting

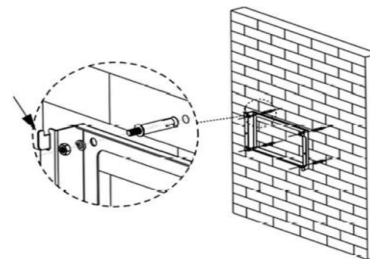
All systems are IP65, meaning they can be installed outdoors if required. When installing outdoors, Givenergy recommends a canopy to be installed to protect against extreme rain and snow. And the possibility of debris settling on top of the inverter and blocking the heat sink.



Canopy Example

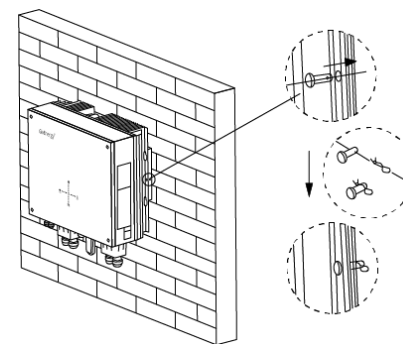


www.manomano.co.uk
(Search for 'canopy')



Brackets should be installed with the hooks pointing upwards and secured using the 4 fixings points provided.

Once the inverter is securely mounted onto the bracket, the locking pin should be installed on both sides.



The pin should be inserted from the front and then secured using the 'R clip' at the rear.

A set of long nose pliers may help with this.

Gen 1 Hybrid



A. 2 x MC4 inputs

B. Battery Terminals

C. PV DC Switch

D. CT, Meter and battery data connections PV DC Switch

E. USB port for WiFi/4G dongle

F. EPSterminals

G. Grid terminals

AC Coupled



B. Battery terminals

D. CT, Meter and battery data connections

C. USB port for WiFi/4G dongle

Ea. EPS terminals

Eb. Grid terminals

Gen 2 Hybrid



A. Battery Terminals

B. PV DC Switch

C. 2 x MC4 inputs

D. CT, Meter and battery data connections PV DC Switch

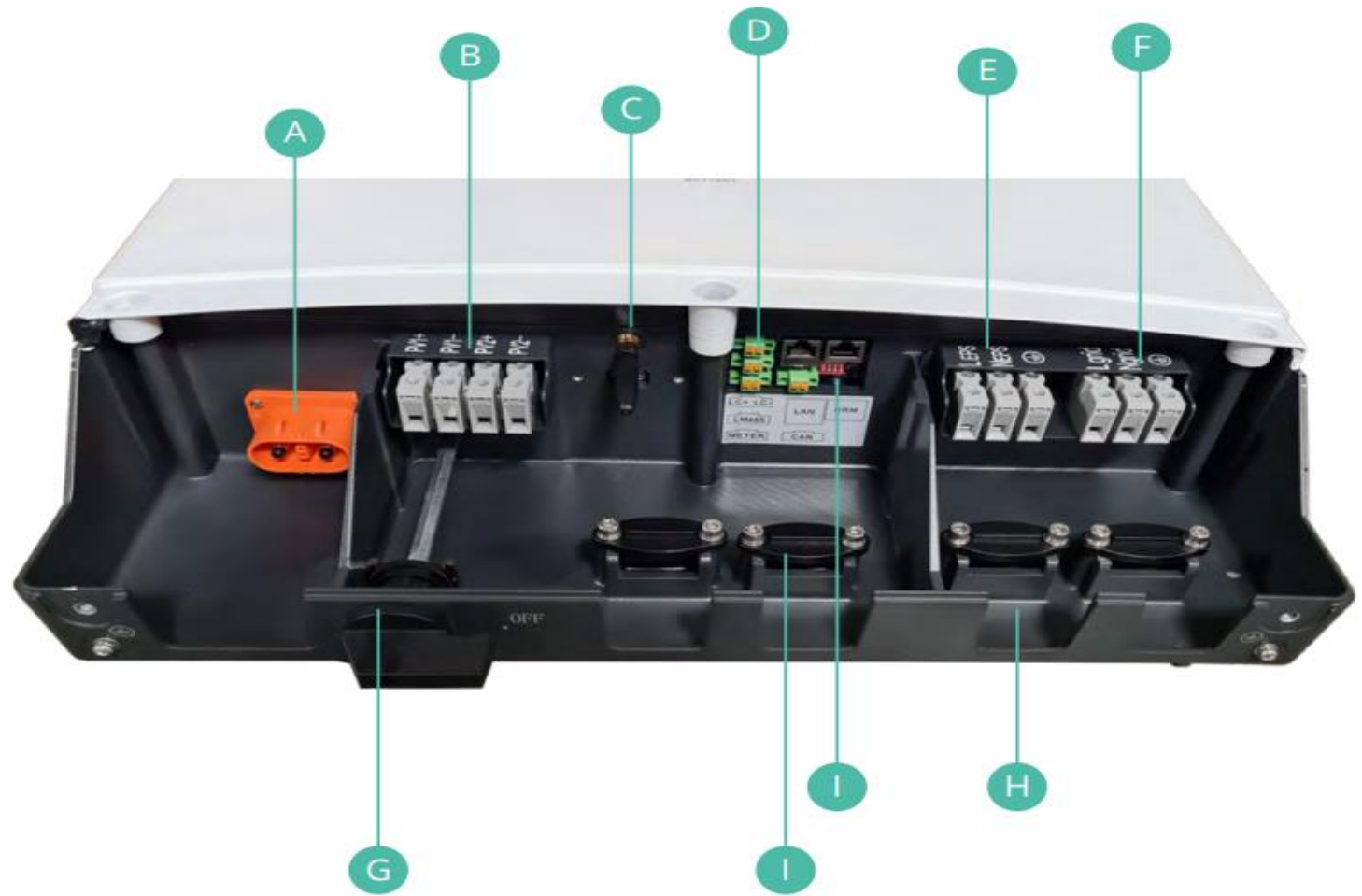
E. USB port for WiFi/4G dongle

F. WIFI Areal Connector

G. EPSTerminals

H. Grid terminals

Gen 3 Hybrid



A. All-in-One Battery Connector
(Battery Comms cable
integrated)

E. EPS Connection

B. PV input

F. AC Connection

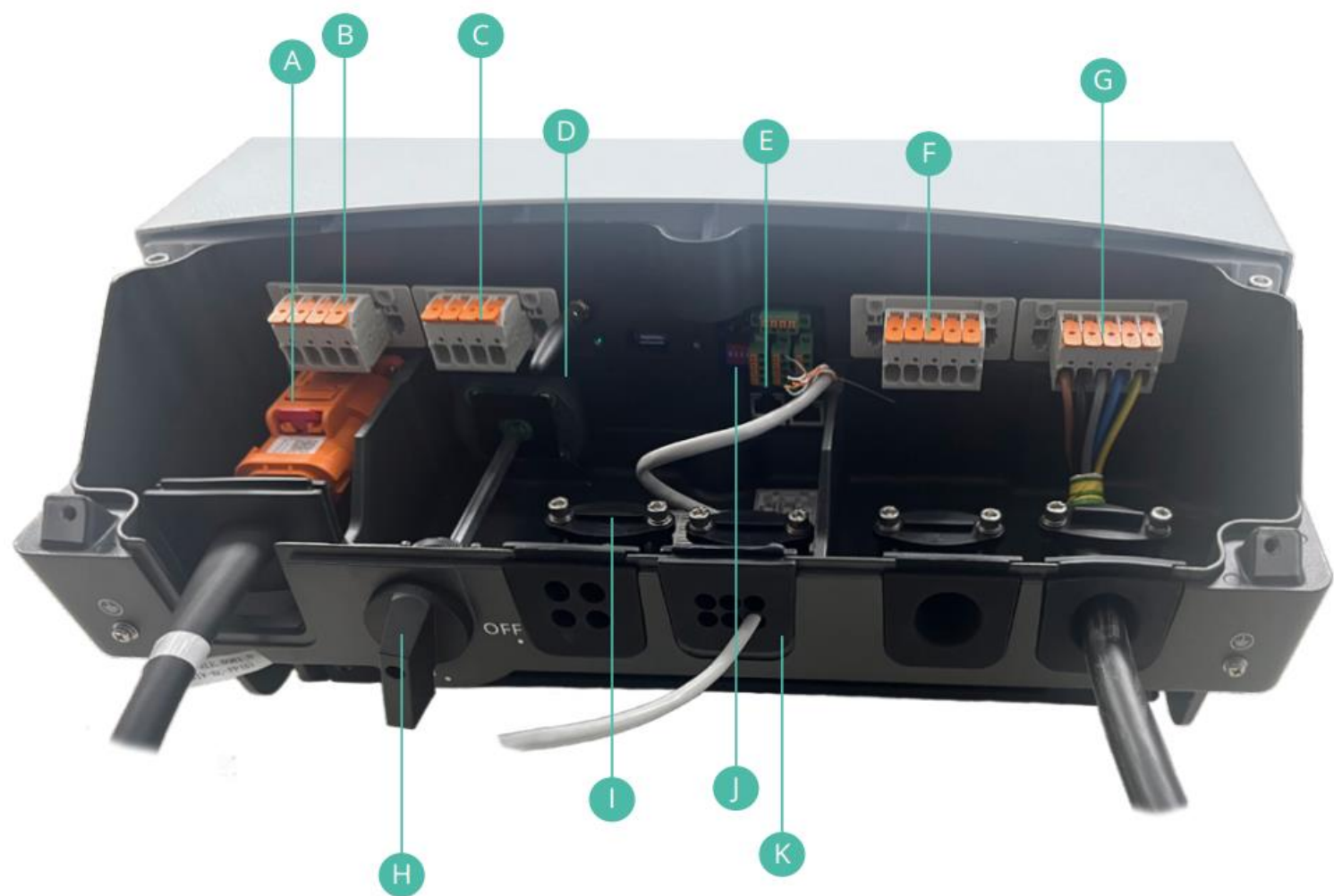
C. Built-in WiFi Aerial

G. DC Input Isolation
Switch

D. Meter Communication and LAN Connectors for
router

H&I. Cable Clamps

Gen 3 3-PHASE Hybrid



A. All-in-One Battery Connector
(Battery Comms cable integrated)

B&C. PV input

D. Built-in WiFi Aerial

E. Meter Communication and LAN Connectors for
router

F. EPS Connection

G. AC Connection

H. DC Input Isolation
Switch

I. Cable Clamps

J. Dipswitch

K. IP65 Cable Entry Glands

Electrical Connections - AC

Find our RCD declaration on our Knowledge Base

	Maximum Output	Overcurrent Protection	RCD Protection (if required**)	Minimum cable size*
Hybrid 3.6kW	16.4A	C20	Type A 30mA	2.5mm ²
Hybrid 5.0kW	22.8A	C25 or C32		4.0mm ²
AC Coupled 3.0kW	13A	C20		2.5mm ²
3Phase 11.0kW	18A	C20		6.0mm ²
3Phase 20.0kW	26A	C32		6.0mm ²

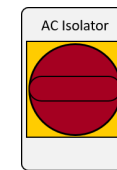
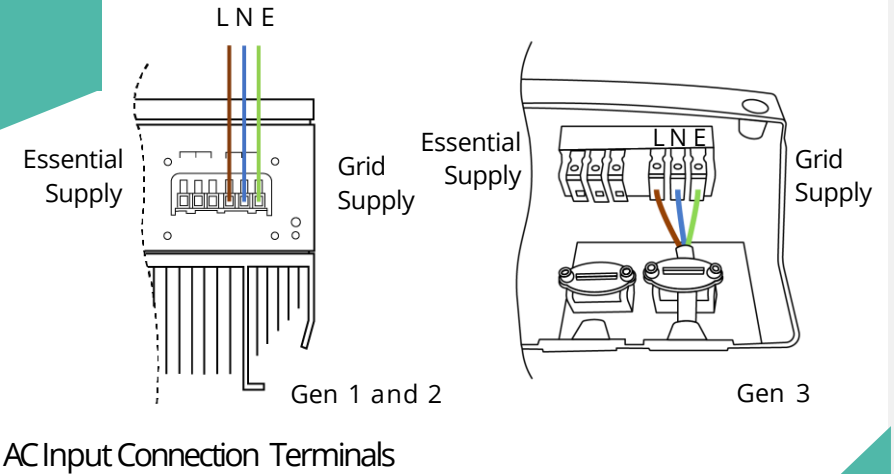
*This is the minimum size cable, large CSA may be required – Refer to BS7671
 **See separate RCD declaration

RCD's

If an RCD is required, all GivEnergy inverters must be on their own RCD that is not shared with any other circuits.

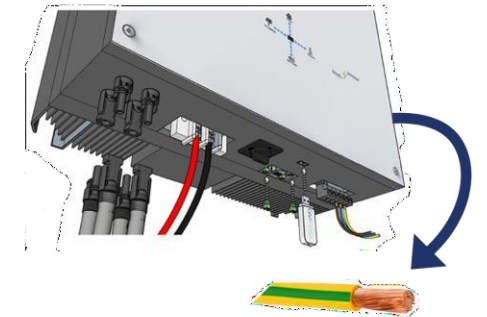
This applies to all points of the installation and special attention must be taken when installing in buildings remote from the incoming electrical supply.

If RCBOs are used, inline with BS7671 Amendment 3, they must be bidirectional



All inverters must have local AC isolation for maintenance purposes

Local Isolation



Earth all GivEnergy casing to each other. Recommended minimum 2.5mm earthing cable

Electrical Connections - EPS

All inverters come with the option for an emergency power supply (EPS). This can be used to provide power in the event of a grid outage. The EPS terminals are powered from the grid supply whenever it is available, when the inverter detects a grid outage it will automatically switch to take power from the batteries and solar (Hybrid only).

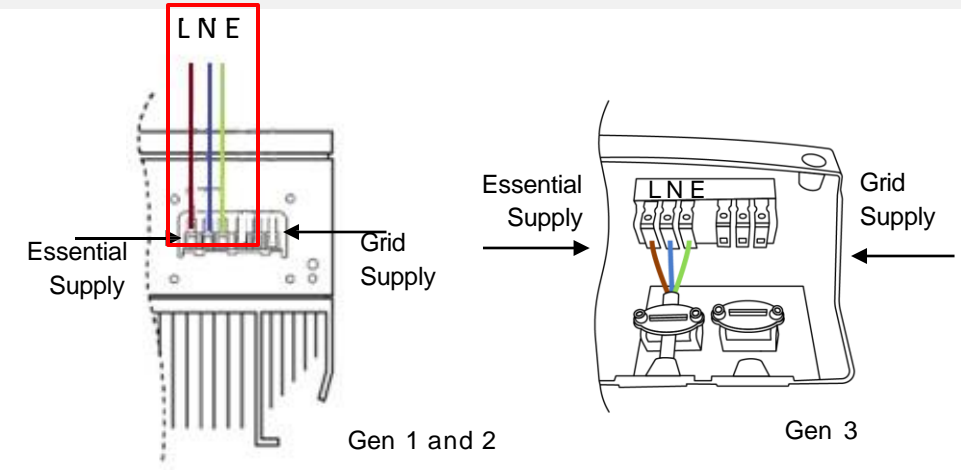
Electrical Connections

The EPS connection can be found under the same cover as the AC input terminals, the output cable must be protected as close as possible to the inverter with;

- Double pole RCD protection at a maximum of 30mA
- Overload protection between 6 – 25A

Earthing

- The back-up supply must not rely on earthing provided by the grid
- An earth rod should be installed to protect the backup circuits
- The earth electrode resistance should be lower than 200Ω
- If using an existing earth rod this should be checked for its suitability



Output Connection Terminals

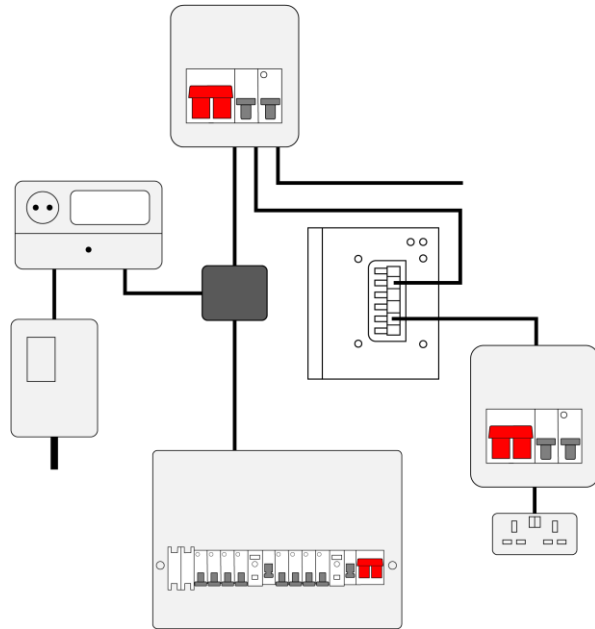
	Gen 1 Hybrid 3.6 / 5kW	Gen 2 & 3 Hybrid 3.6 / 5kW	AC Coupled 3 kW
Maximum Output (kW)			
2.6kWh battery only	1.25	1.25	1.25
All other batteries	2.6	3.6	3.0
All batteries with solar	3.6 / 5	3.6 / 5	-
3-Phase Hybrid 11.0 / 20.0kW			
All batteries with/without solar	20000W		

More information is available on our Knowledge Base

Specific Circuit Backup

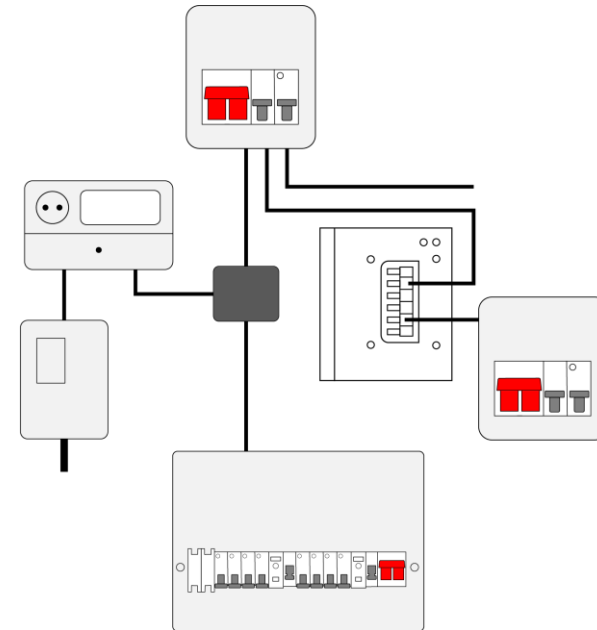
INVERTERS

More detailed
information and
diagrams are
available on our
Knowledge Base



Method 1

Single / Double socket connected to EPS
output terminals via consumer unit or
RCD protected circuit



Method 2

Dedicated consumer unit
supplying essential circuits only

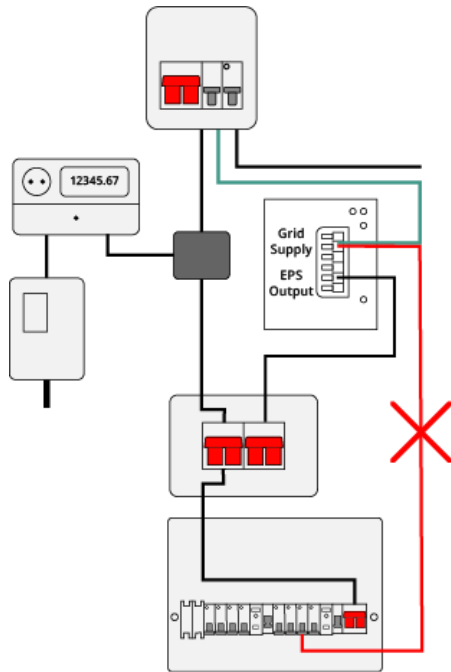
Full Property Backup

INVERTERS

More detailed information and diagrams are available on our Knowledge Base

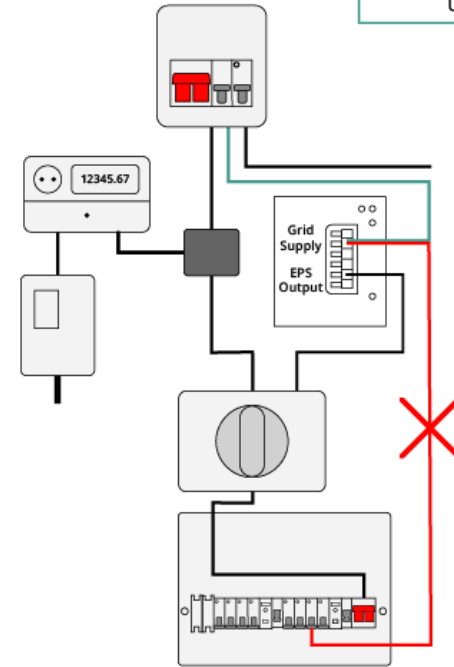
Important

- The grid supply to the GivEnergy inverter must come from the grid side of the changeover switch
- On AC Coupled systems, no source of generation may be connected to the EPS output



Method 3

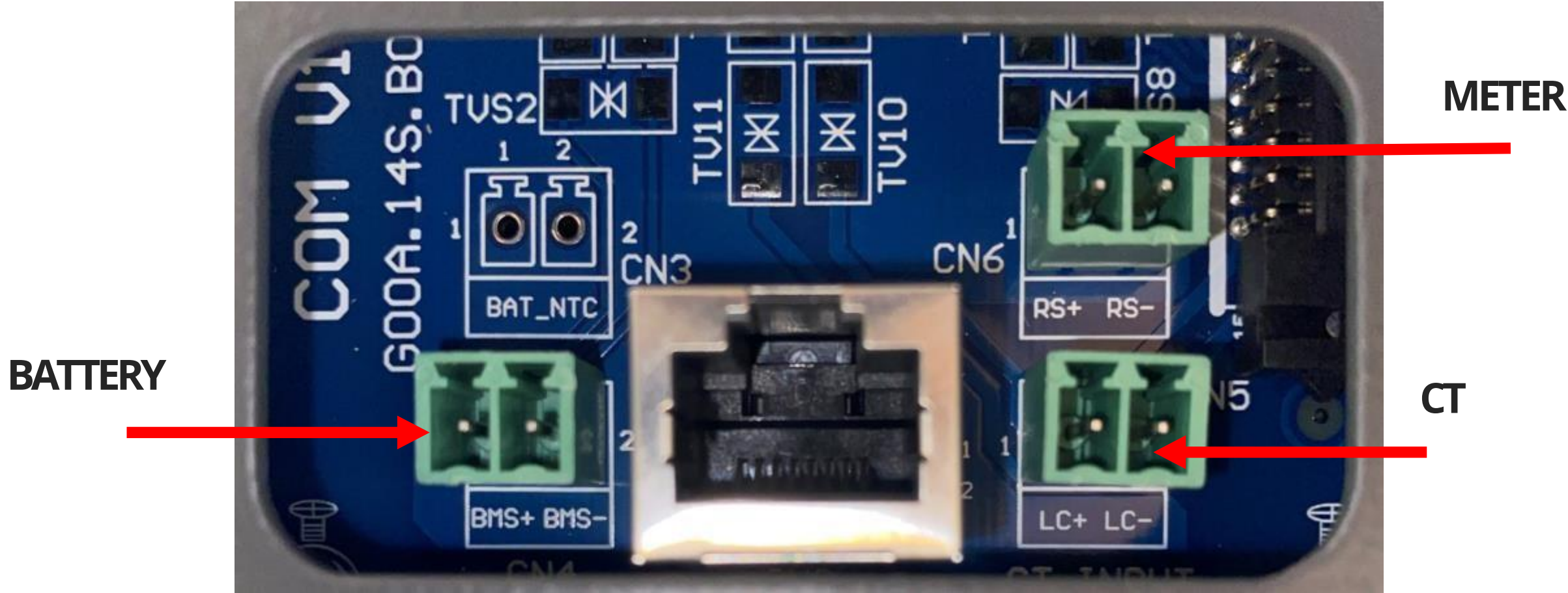
Full property backup with manual changeover switch



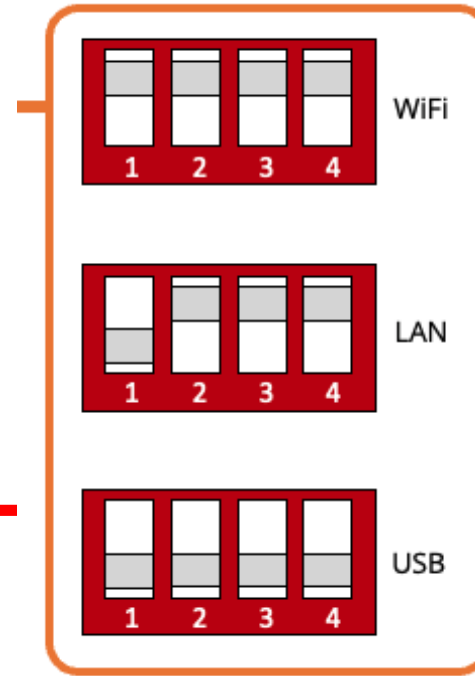
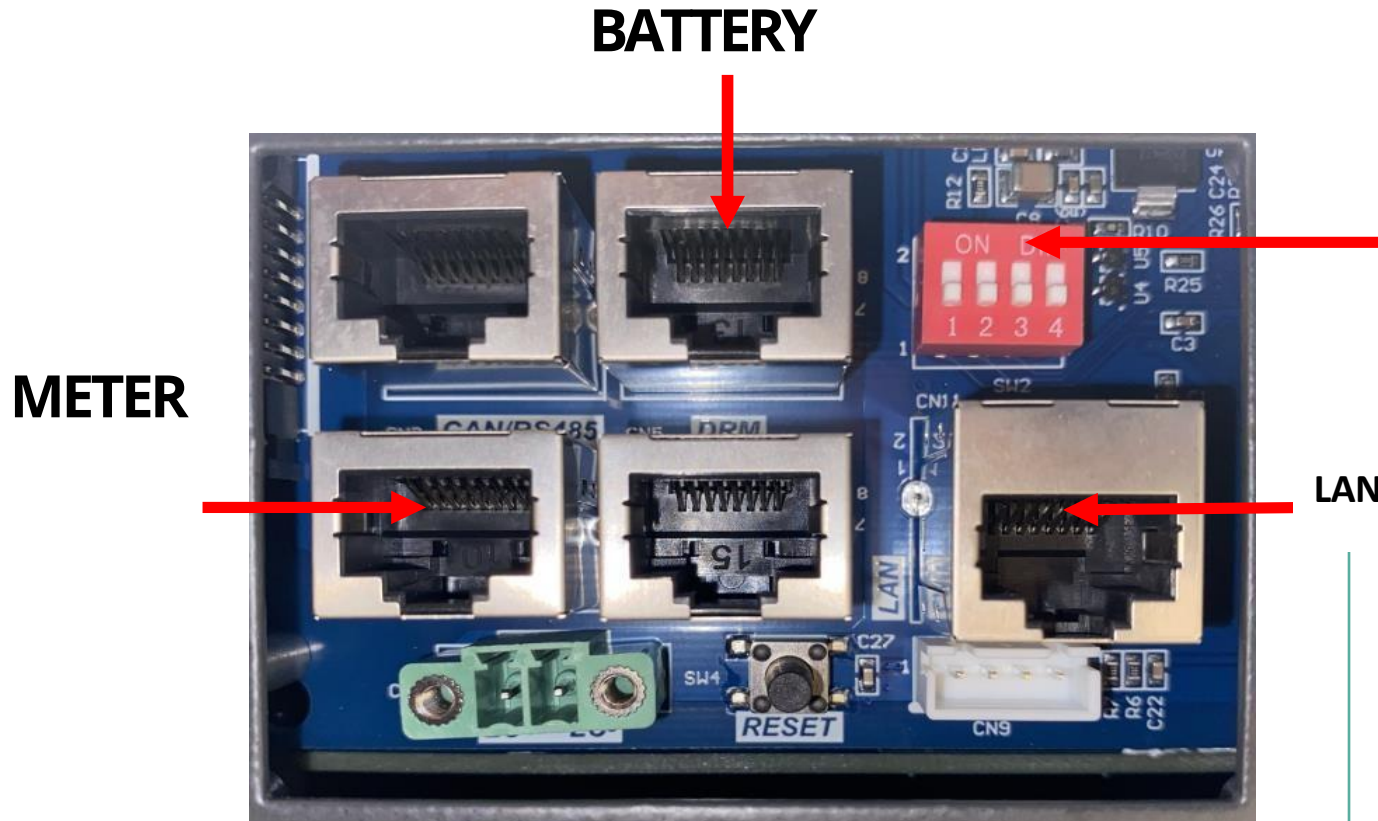
Method 4

Full property backup with auto changeover switch

GEN 1 Hybrid & AC coupled data connections

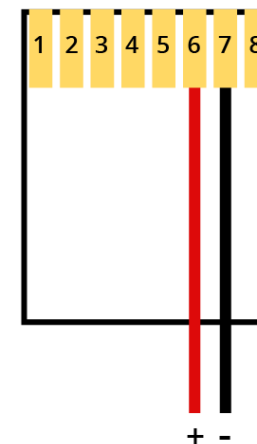


GEN 2 data connections



GEN 2/GEN 3
Internet
connection
interface

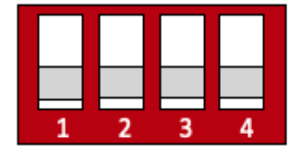
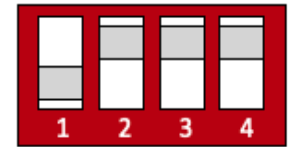
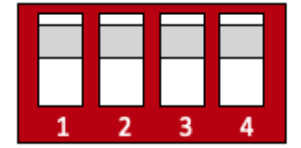
GEN 2 data connections



Data connections are identified by holding the locking tab of the RJ45 plug facing away from you and the terminals labelled 1 - 8 from left to right as pictured above.

GEN 3 data connections

LAN



Internet
connection
interface

METER

Monitoring Communications

LAN

Our Gen 2/3 Inverters include a LAN port to allow hard-wired data connections. No additional set up is required.

Built-in WiFi / WiFi Dongles

The GivEnergy App will take you through the steps required to set up the WiFi connection to the customers' network.

If the App isn't available, please follow the WiFi Comms Guide attached with your training certificate, or on the Knowledge Base.

4G Dongles

Ensure the Sim Card is inserted correctly into the dongle.



Important note on WiFi set up

- Note that the Inverters' WiFi network must be password protected to ensure the security of the clients WiFi.
- Most dongles are 2.4GHz only
- A signal strength of 60% or greater is recommended for a reliable connection

Dongle available in WiFi or 4G versions



Batteries

LV Battery Specifications

**COMING
SOON**



	Gen 1 - 2.6kWh	Gen 1 - 5.2kWh	Gen 1 - 8.2kWh	Gen 2 - 9.5kWh	Gen 3 - 5.12kWh	Gen 3 - 9.5kWh
Nominal voltage	51.2V					
Max charge/discharge rate (Hybrid)	1250w*/2600w	2600w	2600/3600w**			
Max charge/discharge rate (AC Coupled)	1250w*/3000w	2600w	3000w			
Maximum DOD	80%	80%	100%			
IP rating	IP65					
Operating temperature	-10 – 50 °C				-10 – 55 °C	
Dimensions (W x H x D) (mm)	480 / 300 / 235	480 / 515 / 205	480 / 620 / 198	480 / 800 / 223	480 / 338 / 242	480 / 576 / 225
Weight	30Kg	54Kg	94Kg	110Kg	48Kg	85Kg

*A single 2.6kWh battery is limited to a maximum charge/discharge rate of 1250w on any inverter

**With Gen 2 OR Gen 3 Hybrid inverters only

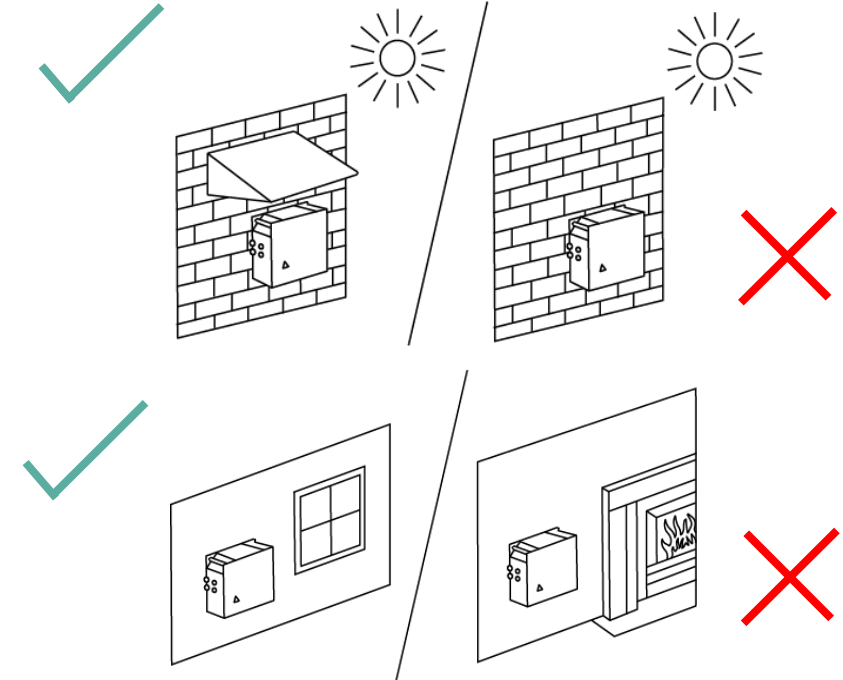
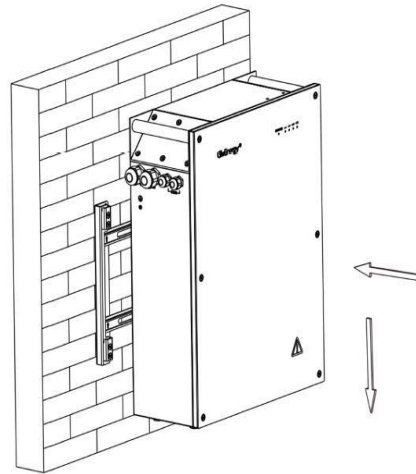
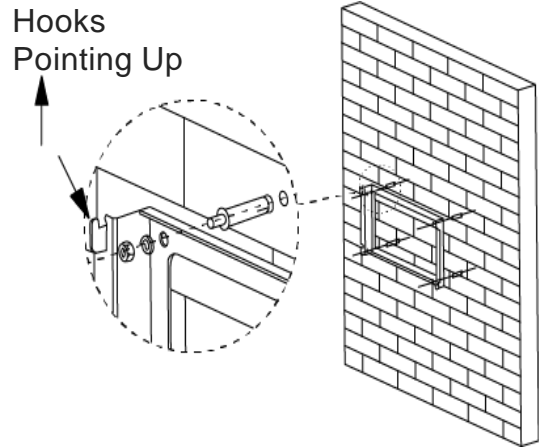
HV Stack Battery Specifications



	Stack-3 10.2 kWh	Stack-4 13.6 kWh	Stack-5 17.0 kWh	Stack-6 20.4 kWh
Nominal voltage	262V			
Max charge/discharge	25A / 25A			
Maximum DOD	100%			
IP rating	IP65			
Operating temperature	-10 – 55 °C			
Dimensions (mm)	635H x 380D x 480W	785H x 380D x 480W	935H x 380D x 480W	1085H x 380D x 480W
Weight	119.8Kg	155.3Kg	190.8Kg	226.3Kg

Mounting

BATTERIES



All batteries must be secured to the wall using the fixings provided, even if the weight of the battery is on the floor.

Wall depth should be at least 80mm.

Batteries should not have their weight hung on a wall bracket when fixing to plasterboard or Thermolite blocks.

Batteries must be mounted at least 50mm from ground level when outside or in areas at risk of flooding.

A DC MCB is required between the inverter and (master) battery, this will be rated at 100A.

Tight and sound connections are vital to ensure correct operation and reliability of the installation.

The ferrules provided must be used to ensure that the cable doesn't end up clamped on its outer insulation.

Connection should be tightened to 4Nm.

An enclosure will need to be provided that is suitably IP rated for the installation environment.



DC MCB

A separate DC MCB is not required when installing a Gen 2 or 3 battery

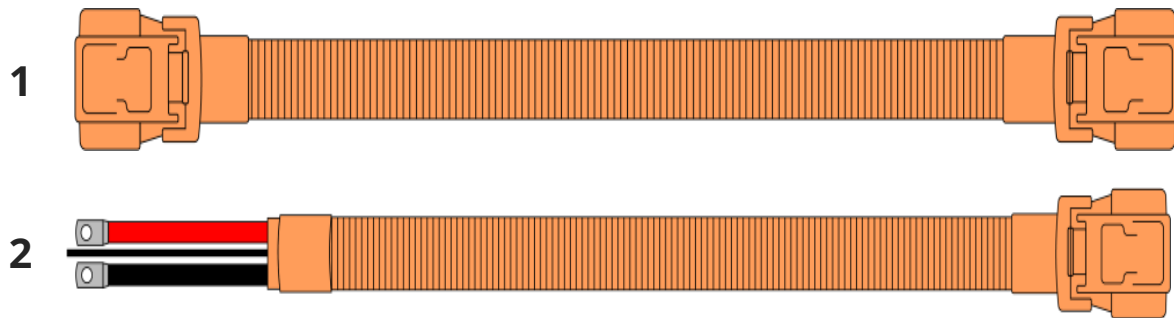


Gen 2 & Gen 3 Batteries

(ROUND CORNER)

- No need to remove the front cover
- All-in-one connector for combined DC and data connection
- Built in DC MCB

All GivEnergy batteries must be installed in size order, with the largest wired closest to the inverter.



Cables

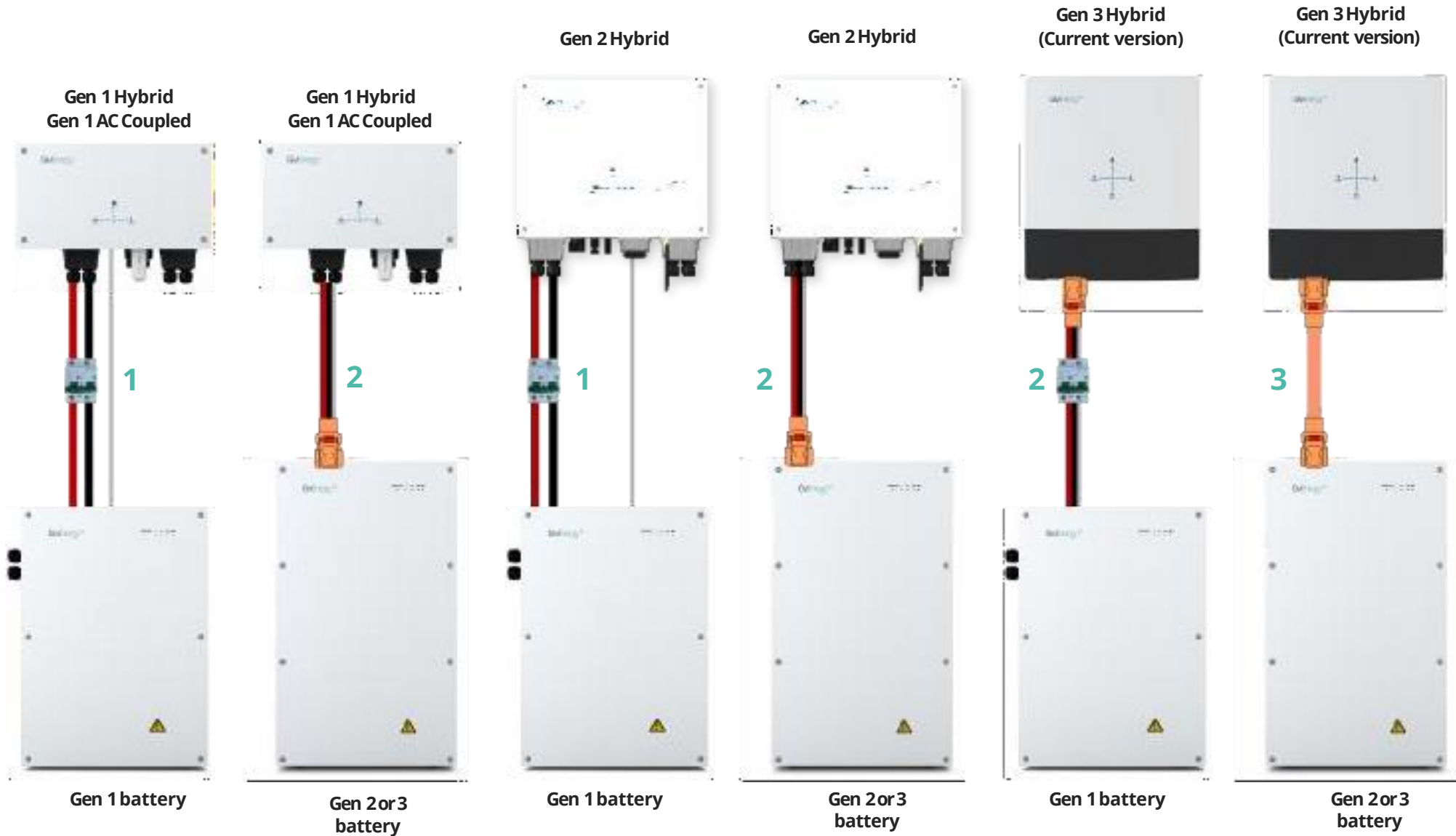
Cables are not currently provided with the batteries and two different types are available;

1. All-in-one to All-in-one
2. All-in-one to Ring Terminal



When connecting a GEN 2 or 3 battery, always ensure the ring connectors are attached before connecting the commando plug!

Battery to Inverter Wiring



Battery to Battery Wiring

- 1 - Cable pack (In battery packaging)
- 2 - All-in-one to Ring Terminal (not included)
- 3 - All-in-one to All-in-one (not included)

**5m maximum length
(Inverter to master battery)**

**2m maximum length
(Between batteries)**

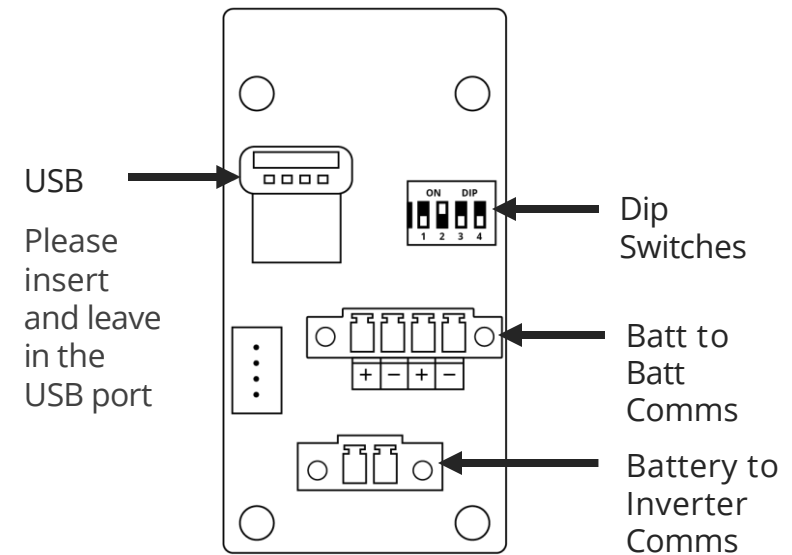
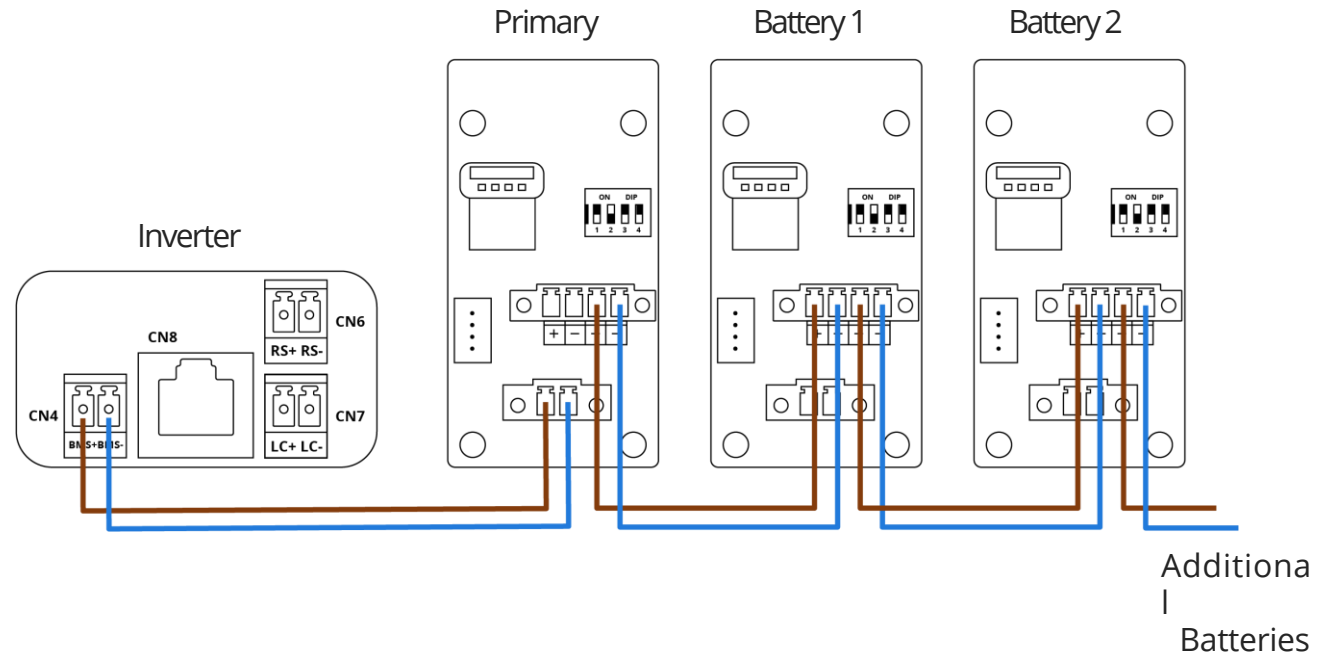


Gen 1 Data Connections

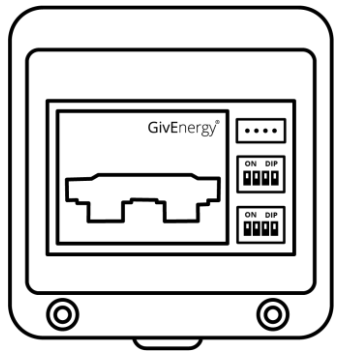
Battery	ID	Description
Primary		0, 0, 0, 0
Battery 1		1, 0, 0, 0
Battery 2		0, 1, 0, 0
Battery 3		0, 0, 1, 0
Battery 4		0, 0, 0, 1

Size of batteries

When installing multiple batteries, the largest must be closest to the inverter



Gen 2 Batteries



Gen 2 batteries have 2 sets of dipswitches.

- SW1 (Top) sets the battery ID
- SW2 (Bottom) sets Primary or secondary



Blanks

Please make sure the blanking plugs are inserted in any un-used All-in-One sockets!

Battery	ID	Description
Primary		0, 0, 0, 0
		1, 1, 0, 0
Battery 1		1, 0, 0, 0
		0, 0, 1, 1
Battery 2		0, 1, 0, 0
		0, 0, 1, 1
Battery 3		0, 0, 1, 0
		0, 0, 1, 1
Battery 4		0, 0, 0, 1
		0, 0, 1, 1

Gen 3 Batteries



Gen 3 batteries have 4 sets of dipswitches and an external USB Port.

- SW4 (Top) Master/Slave Dip Switch
- SW3 Address Dip Switch
- SW2 Address Dip Switch
- SW1 (Bottom) Address Dip Switch



USB Mode

The USB of the battery can only be used for firmware upgrades. Please do not plug your phone or other electronic products into the USB of the battery for charging, otherwise the battery may be damaged.

You will need to change the dipswitches to USB External mode before using it for a firmware update and then back to USB Internal mode afterwards.



Blanks

Please make sure the blanking plugs are inserted in any un-used All-in-One sockets!

Master

Dip switch name	ID	Description
SW4		V V V V V
SW3		V V ^ ^
SW2		^ ^ V V
SW1		V V V V

Slave 1

Dip switch name	ID	Description
SW4		V V V V V
SW3		V V ^ ^
SW2		V V ^ ^
SW1		^ V V V

Slave 2

Dip switch name	ID	Description
SW4		V V V V V
SW3		V V ^ ^
SW2		V V ^ ^
SW1		V ^ V V

Slave 3

Dip switch name	ID	Description
SW4		V V V V V
SW3		V V ^ ^
SW2		V V ^ ^
SW1		V V ^ V

Slave 4

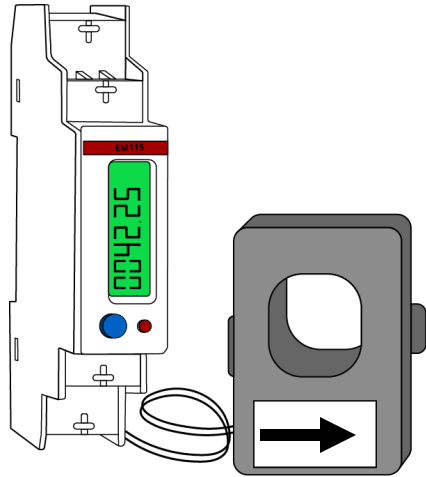
Dip switch name	ID	Description
SW4		V V V V V
SW3		V V ^ ^
SW2		V V ^ ^
SW1		V V V ^

Metering and CTs



Metering

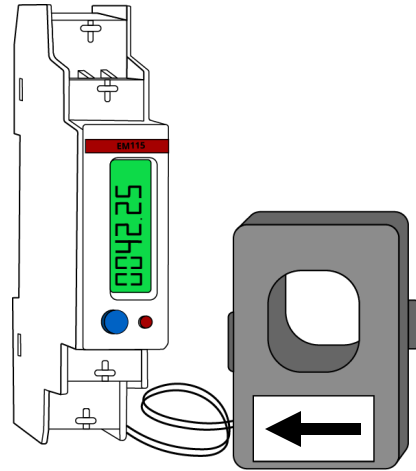
Every system will need at least one ID1 meter installing to monitor the import and export of the building.



ID1

Grid - Import/Export meter

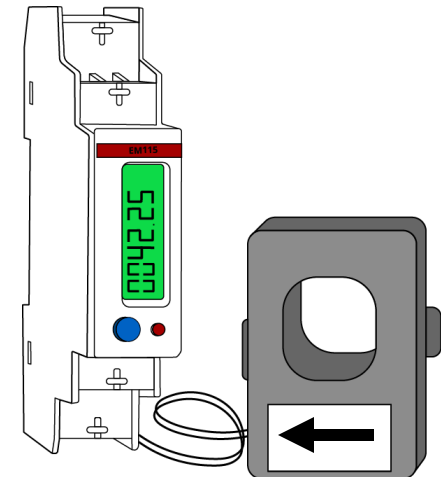
Used for all systems to monitor Import/export



ID2

PV monitoring meter

Used for AC Coupled systems, when the Blue CT clamp is not a viable option



ID3

PV monitoring meter

Used for AC Coupled systems to monitor a second source of generation

Metering

EM115, GEM120

Every system will need at least one ID1 meter installing to monitor the import and export of the building.

Every meter installed needs a power supply or voltage reference point.

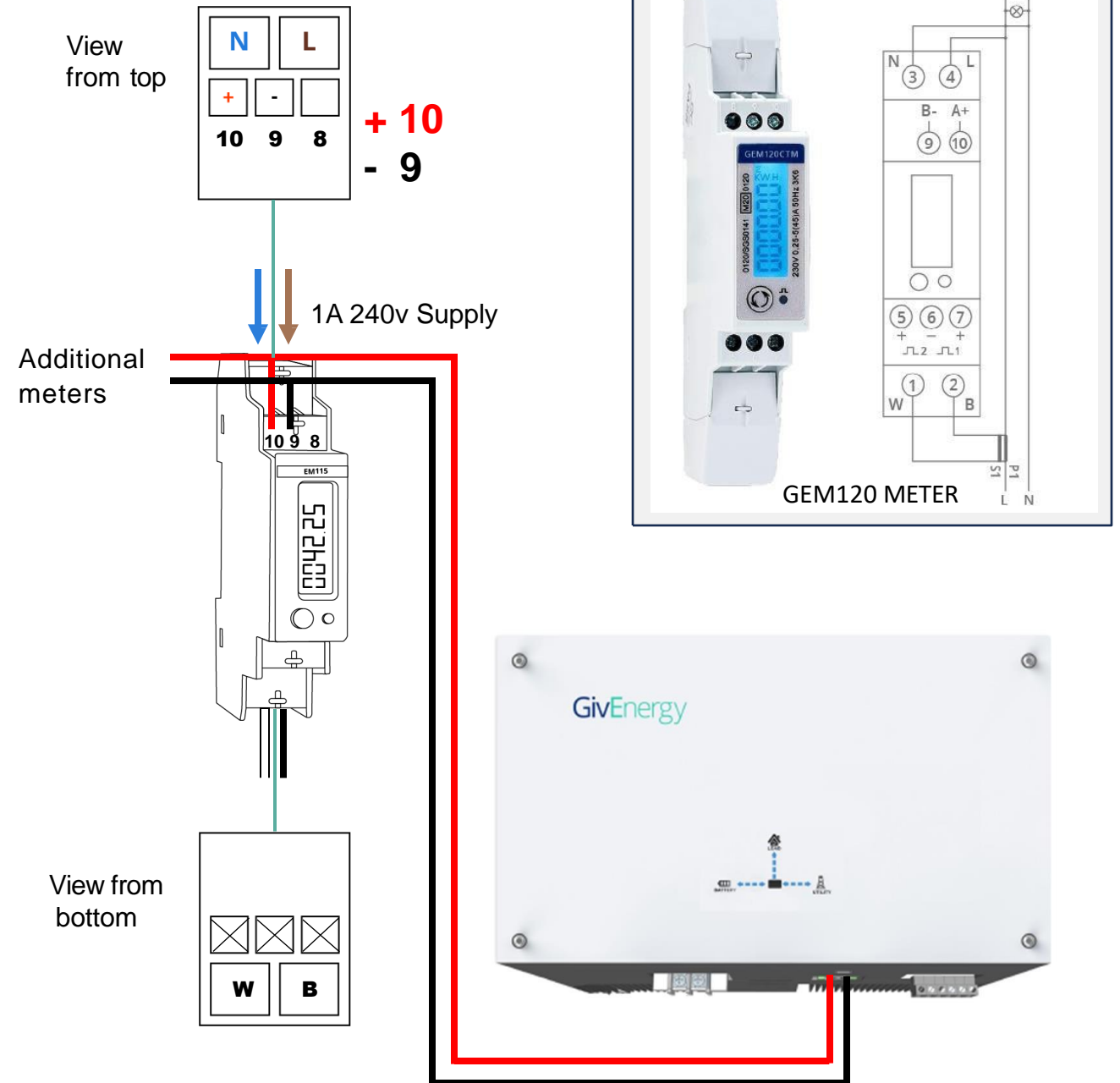
This could be a dedicated supply from a 6A MCB, for example.

Every meter will need a data connection back to the inverters meter communication port.

Data connection should be twisted pair cable, for example, Belden multi-stranded cable. Cat5/Cat6 cable can be also used.

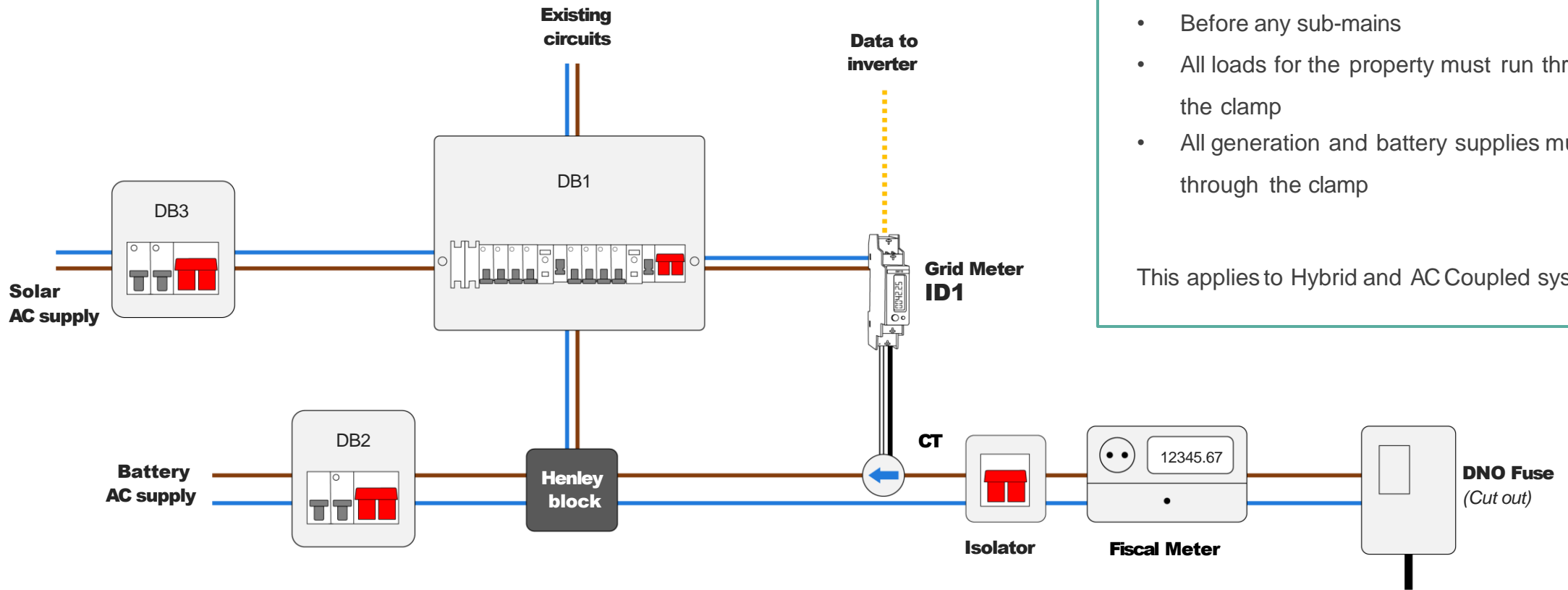
If installing multiple meters both the data and power supply can be linked together in series.

EM115 meters come with a split core CT that has a 2m cable
Gem120 meters come with a split core CT that has a 2m cable
This must not be cut down or extended



ID1 Grid (Import/Export) Meter

CT CLAMP POSITIONING



Clamp Location

- Next to the incoming supply
- Before any Henley blocks
- Before any sub-mains
- All loads for the property must run through the clamp
- All generation and battery supplies must run through the clamp

This applies to Hybrid and AC Coupled systems.

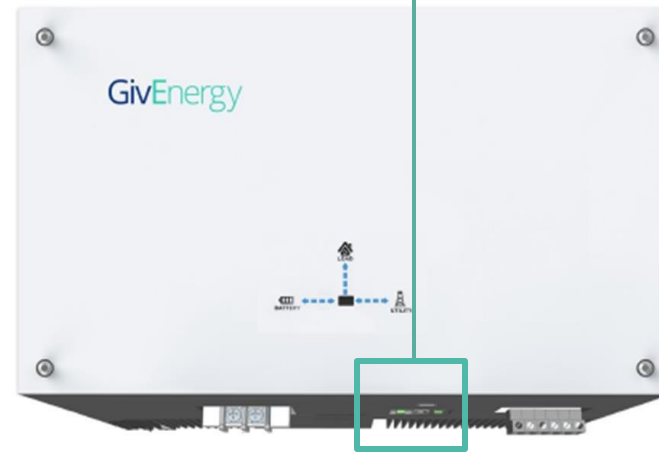
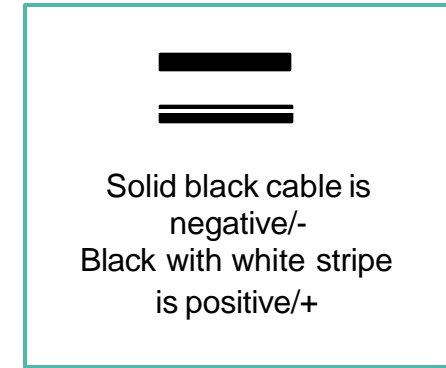
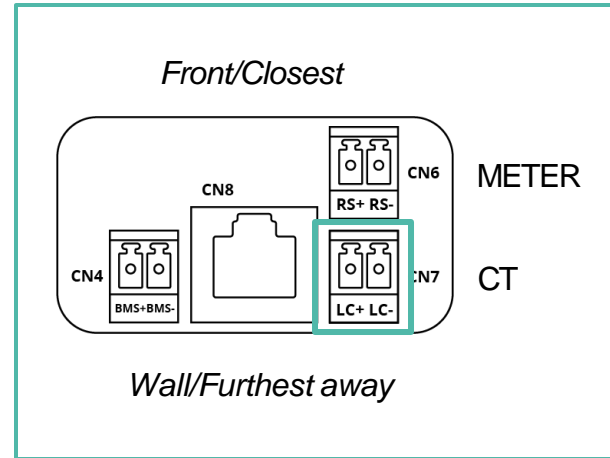
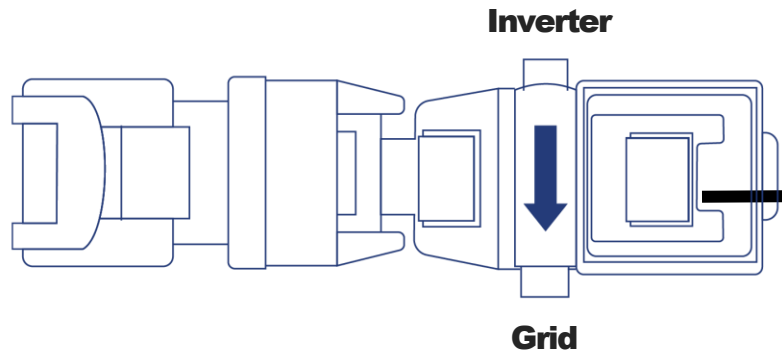
AC Coupled Inverters

BLUE CT CLAMP

The Blue CT clamp allows one source of generation to be monitored, it can be found in the box with all AC Coupled inverters and comes with a 5m cable.

This clamp does not require a meter and wires directly back to the inverter.

The 5m cable must not be cut down or extended!



Metering

EM115 IS2 AND ID3 (PV) METER

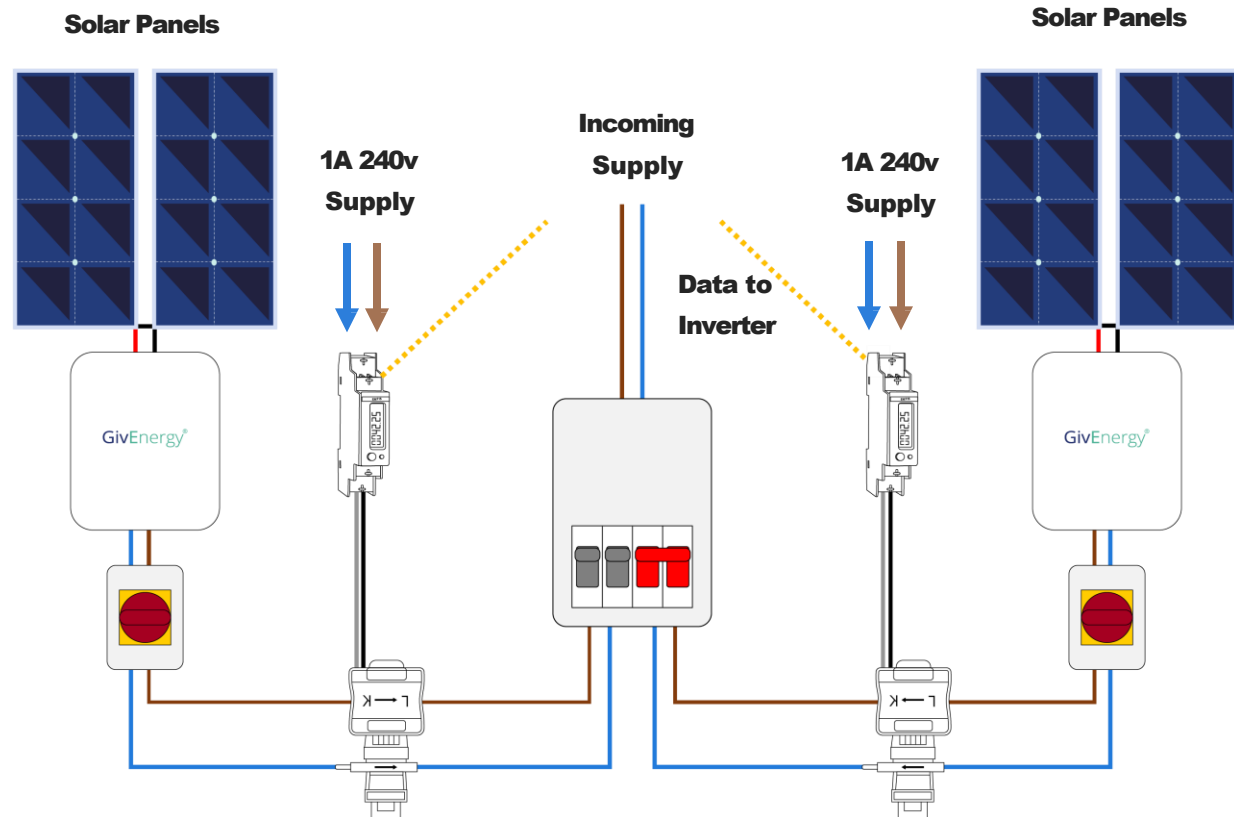
When the Blue CT clamp is not suitable or multiple generation sources need to be monitored, an ID2 EM115 meter can be installed.

An ID3 EM115 meter can be used to monitor a second source of generation.

These are exactly the same meter as the EM115 ID1 grid import/export meter but with a different ID number.

Note: To change the ID of the meter, a laptop with the correct software, and a RS485-USB adapter will be required.

The new GEM120 meter ID can be changed on the meter itself by press and holding the select button on the front.



Metering

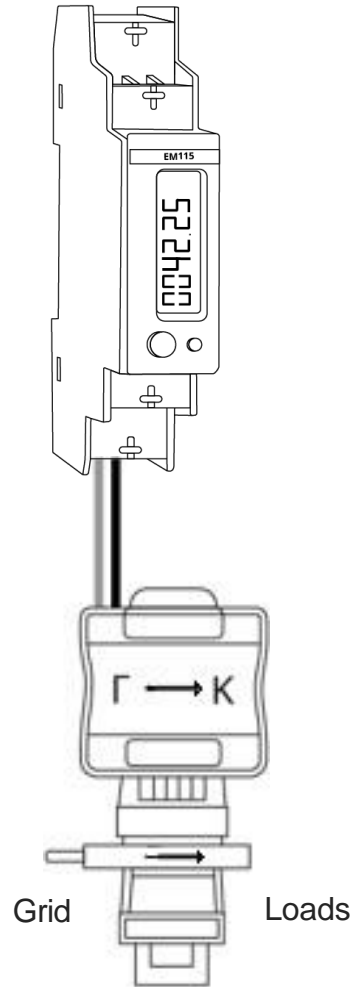
CT CLAMP DIRECTIONS



Arrow always points towards load

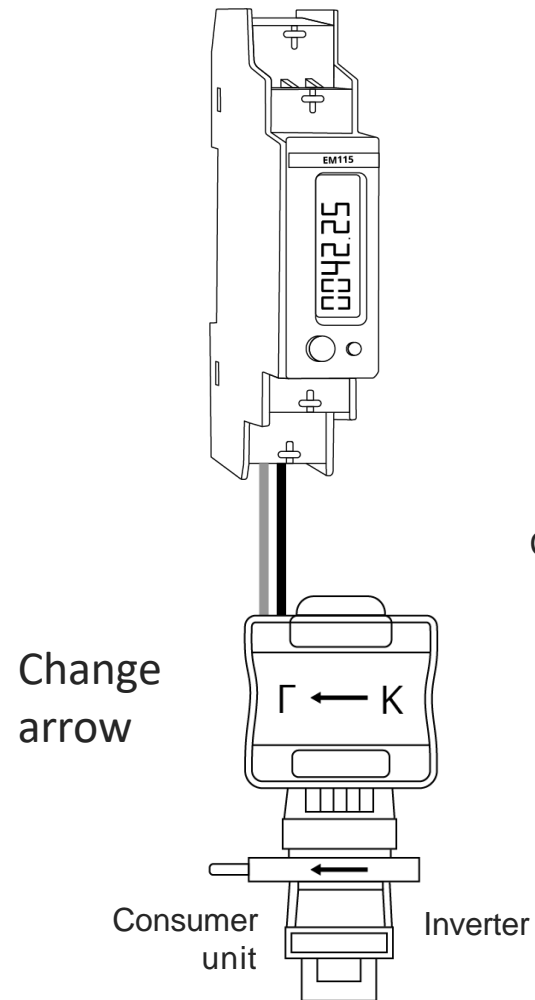
CT clamp cables must not be cut down or extended!

Grid (ID1)



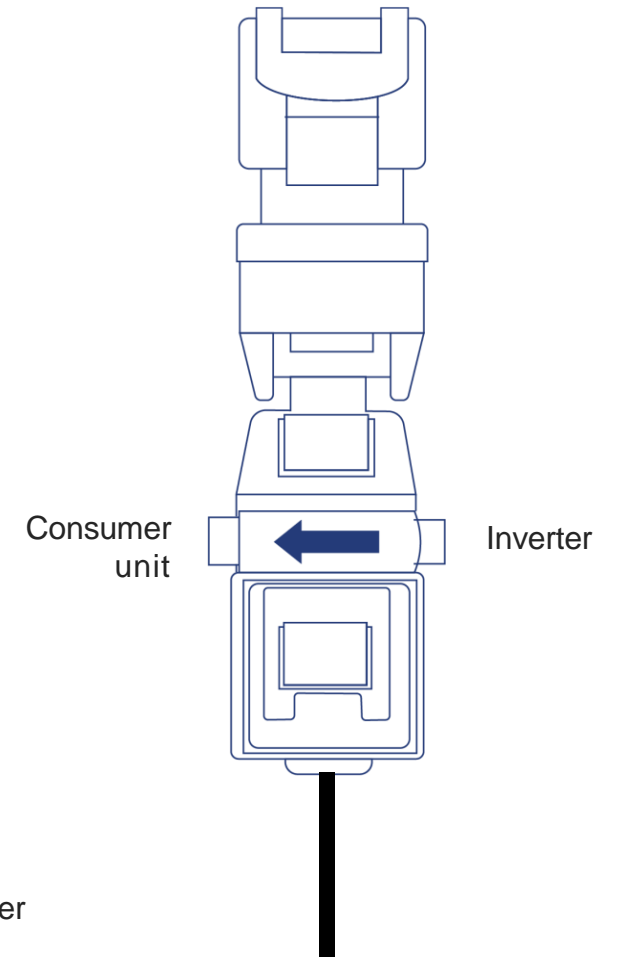
ID1 follows flow of import

PV (ID2 & 3)



ID2&3 and Blue CT follow flow of generation

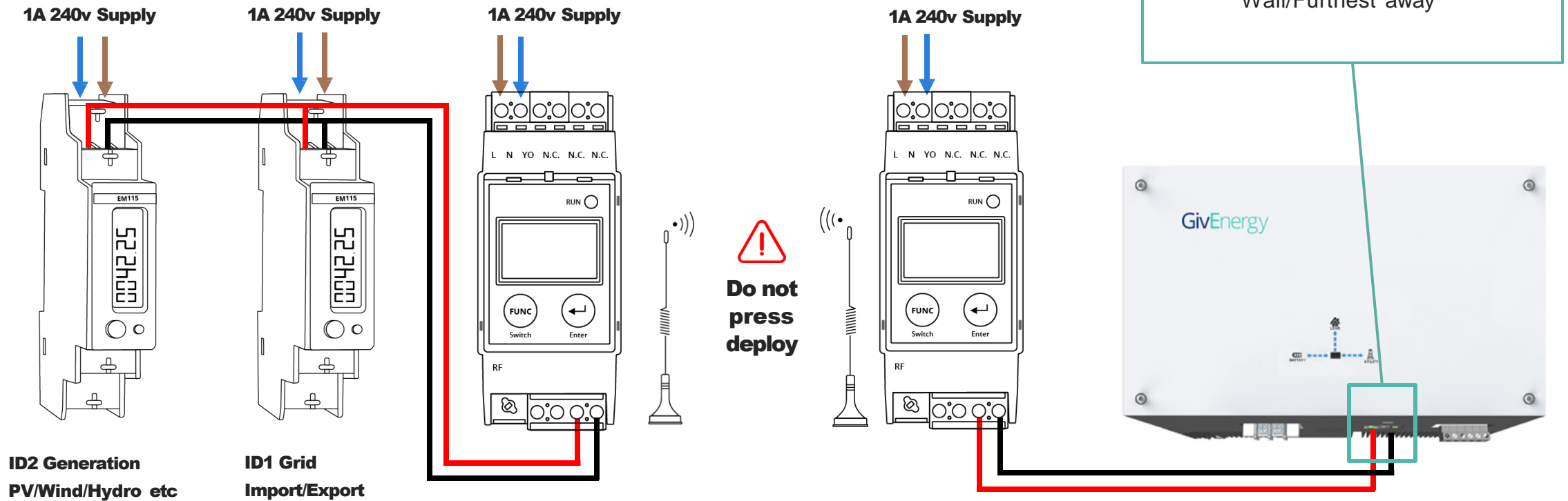
Blue CT (PV)



Metering

LoRa DEVICES

- LoRa units come in pairs and are pre-tuned to each other
- 1 LoRa sender can send multiple meters data to a single receiver
- Wireless frequency can be altered if receiver has interference





Account and Support



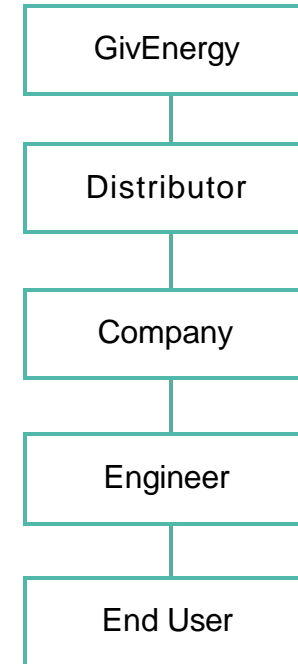
Setting up a GivEnergy Cloud Account

To be able to commission a system, you will need an account on the GivEnergy Cloud.

You can request a company account to be setup via your distributor. From this company account, you will need to create an Engineer Account for each of your Installers / on-site Engineers.

Note: *If you are purchasing from **Segen, CCL, BEW or Rexal** you will need to get an account directly from us, please send an email to support@givenergy.co.uk with your company information for us to create you an account.*

Portal Hierarchy



GivEnergy

Meet the GivEnergy installer loyalty scheme

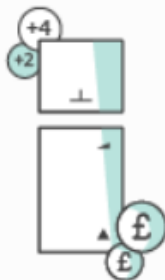
Extra earnings made easy

You're not just getting a cut of a lucrative opportunity as a GivEnergy installer. You're also getting rewards for choosing us.



Install

Every time you successfully commission a GivEnergy system, we'll assign points to your cloud account. Quick, easy, and automatic.



Earn

Your points will add up fast. Each individual point you earn is worth £1, and each GivEnergy installation can earn you multiple points.



Redeem

Track, manage, and redeem your points via your cloud account. Spend the points through Amazon, or claim free GivEnergy kit.

A points breakdown

You'll earn different points based on which products you're fitting.

Each point = £1

Products (Core GivEnergy products only):



AC coupled inverter

5 POINTS 



Hybrid inverter

13 POINTS 



All in One

35 POINTS 



Giv-Gateway

2 POINTS 



2.6kWh

8 POINTS 



5.2kWh

13 POINTS 



8.2kWh

9 POINTS 



9.5kWh

20 POINTS 

The GivEnergy installer loyalty programme allows you to earn rewards for choosing us. It's a points-based system automatically tracked in your GivEnergy cloud account.

With the points you've earned from installing GivEnergy equipment, you can treat yourself to items you'd like from Amazon. Or, if you prefer, you can build up your points over time to earn free GivEnergy kit.

So, you're not only making money from fitting GivEnergy systems. You're also pocketing high-value treats of your choice for your loyalty.

Only approved GivEnergy installers are eligible for the loyalty programme. This covers approved, advanced, and platinum GivEnergy installer statuses alike.

The ability to start earning points began on 23/11/2023. The option to redeem those points began on 22/1/2024.

You can redeem those points via Amazon...



With a few clicks inside the GivEnergy portal. You can select how many points you'd like to redeem, and select options to either convert to Amazon vouchers, or to claim a GivEnergy prize.

When you opt to redeem a GivEnergy item in the portal, this will trigger an email to the GivEnergy team. We'll then issue a credit note which you can take to your wholesaler of choice.

100 POINTS

200 POINTS

500 POINTS

1000 POINTS

Or accumulate them for GivEnergy Kit

From individual products, to full systems, to pallets and more



EV charger

400 POINTS



2.6kWh battery

800 POINTS



5.2kWh battery

1000 POINTS



5.2kWh battery + hybrid inverter

2000 POINTS



9.5kWh battery + hybrid inverter

3000 POINTS



All in One + Giv-Gateway

5000 POINTS



Pallet of 9.5 kWh batteries

10,000 POINTS



SME unit (64kWh)

20,000 POINTS

Commissioning and Setup

Before commissioning a system, the end user account must be set up on the GivEnergy portal. This can be done via the Account List on the Portal, or during the commissioning process on the GivEnergy App when logged in as an Engineer.

We will not be able to offer commissioning support unless the end user account is created, and a commissioning process has been started.

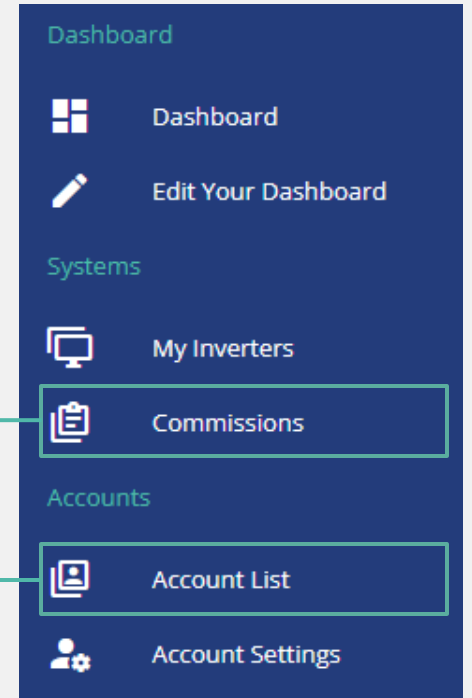
All systems **MUST** be commissioned before leaving site to ensure correct operation.

If a system is part installed (i.e. Hybrid without a battery) then this should still be commissioned.

If for any reason a commission cannot be completed, then please turn the batteries off.

Click here to create or view existing commissions. The commissioning process will take you through a step-by-step process to ensure the system is operating correctly. This can also be done via the GivEnergy App when logged in as an Engineer.

Click here to create or view existing accounts.

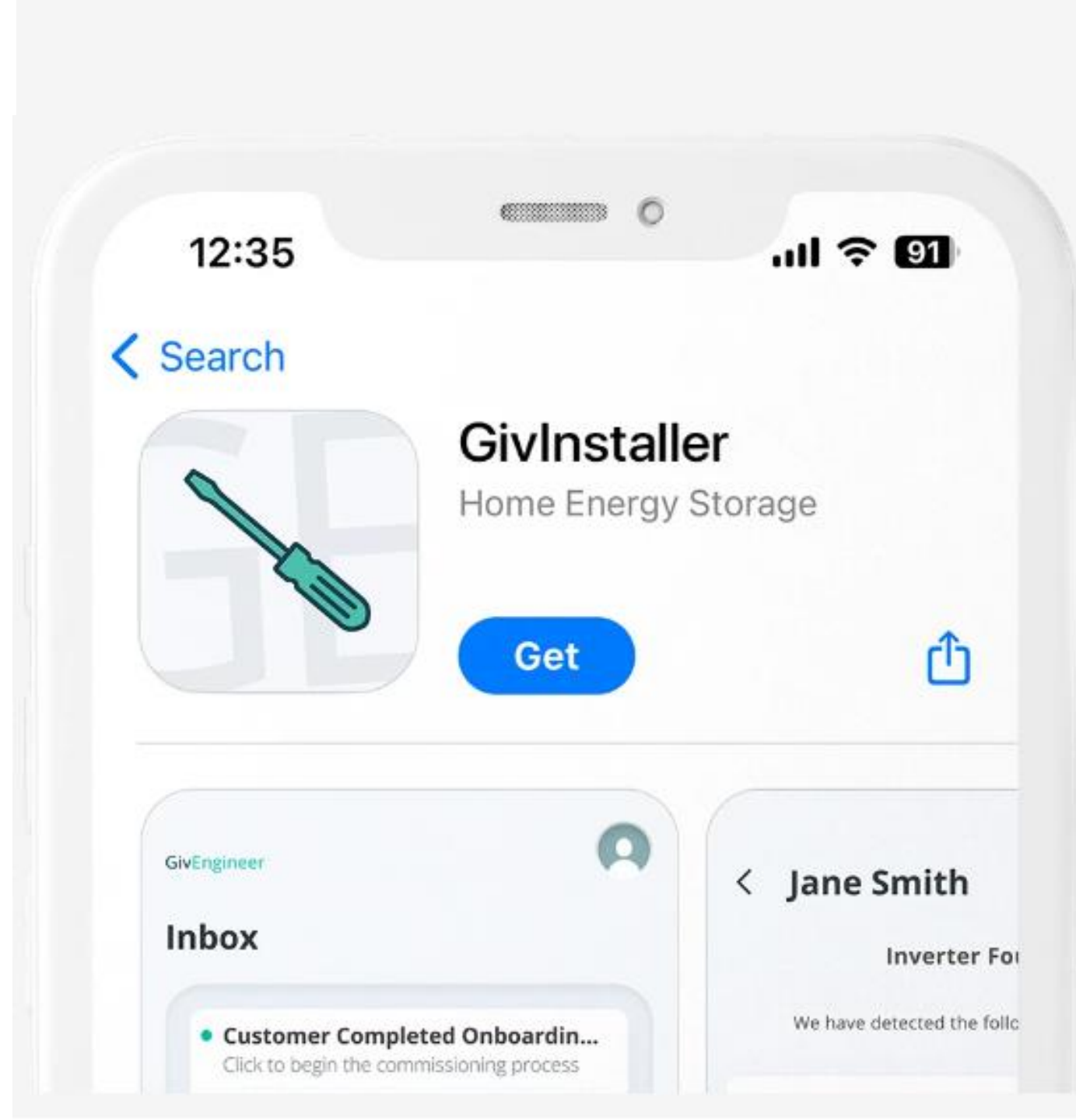


GivInstaller App (OPEN BETA)

Our new GivInstaller app **revolutionises** the commissioning process for installers. You get a **super-simple** experience coupled with **super-fast commissioning** speeds. Let's take a closer look.

**Find out more about the
GivInstaller OPEN BETA**

<https://givenergy.co.uk/givinstaller-app/>





Find out more about the GivInstaller OPEN BETA: <https://givenergy.co.uk/givinstaller-app/>

Need Help?

Need some help? Information we will need from you:

- 🗨 Username of the customers GivEnergy account
- ↩ Metering configuration
- 📦 Amount and size(s) of batteries
- ⚡ If the EPS is being used
- ⚡ How is the EPS being used?

For Hybrid inverters

- + Make/Model/Wattage and quantity of panels

For AC Coupled

- + How many panels per string and number of strings
- + Size of new/existing PV inverter(s)



SUPPORT LINE

01377 252 874

OPERATING HOURS

Mon - Fri	8:30am – 7pm
Sat	9am – 5pm
Sun	Closed



Installer Training

Morning Break

Agenda

09:30 - Arrival

10:00 - Start Time

11:00 - Approximate Break Time

13:00 - Approximate Lunch Time

14:30 - Approximate Finish Time

GivEnergy®

LIMITED TIME SPECIAL OFFER



Buy a battery, get your inverter half price
on all low-voltage GivEnergy batteries and inverters

**Ts and Cs apply*



All in One and Giv-Gateway

'High Voltage'



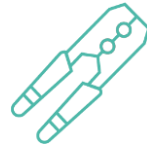
Tools and Equipment Required



VDE Screwdriver Set
Electrical Connections



Allen Keys
To remove battery front panels



Wire Stripper
Strip wire



Hammer Drill
Used to drill holes for mounting brackets



Cut Resistant Gloves
To protect hands from sharp edges



Level
To ensure mounting brackets are level



Multi Meter/Ethernet tester
Checking connections



Crimping Tools
For ferrules, ring terminals, and RJ45



Tape Measure
To ensure correct clearance



Marker Pen
To plot brackets

Additional Equipment



USB Stick
Update firmware



Laptop
Checking web portal



DC Clamp Meter
Testing



USB A to USB A LEAD
Used for GEN 2, GEN 3, AIO and Gateway.

System Diagram

Note: An earthing rod MUST be installed. As per IEC62109-2

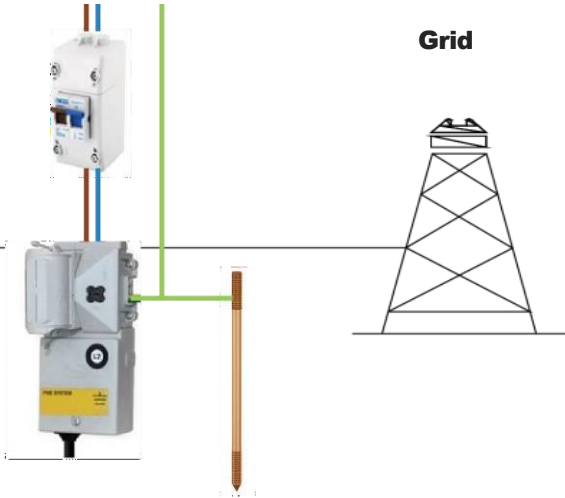
All in One



Giv-Gateway



Grid



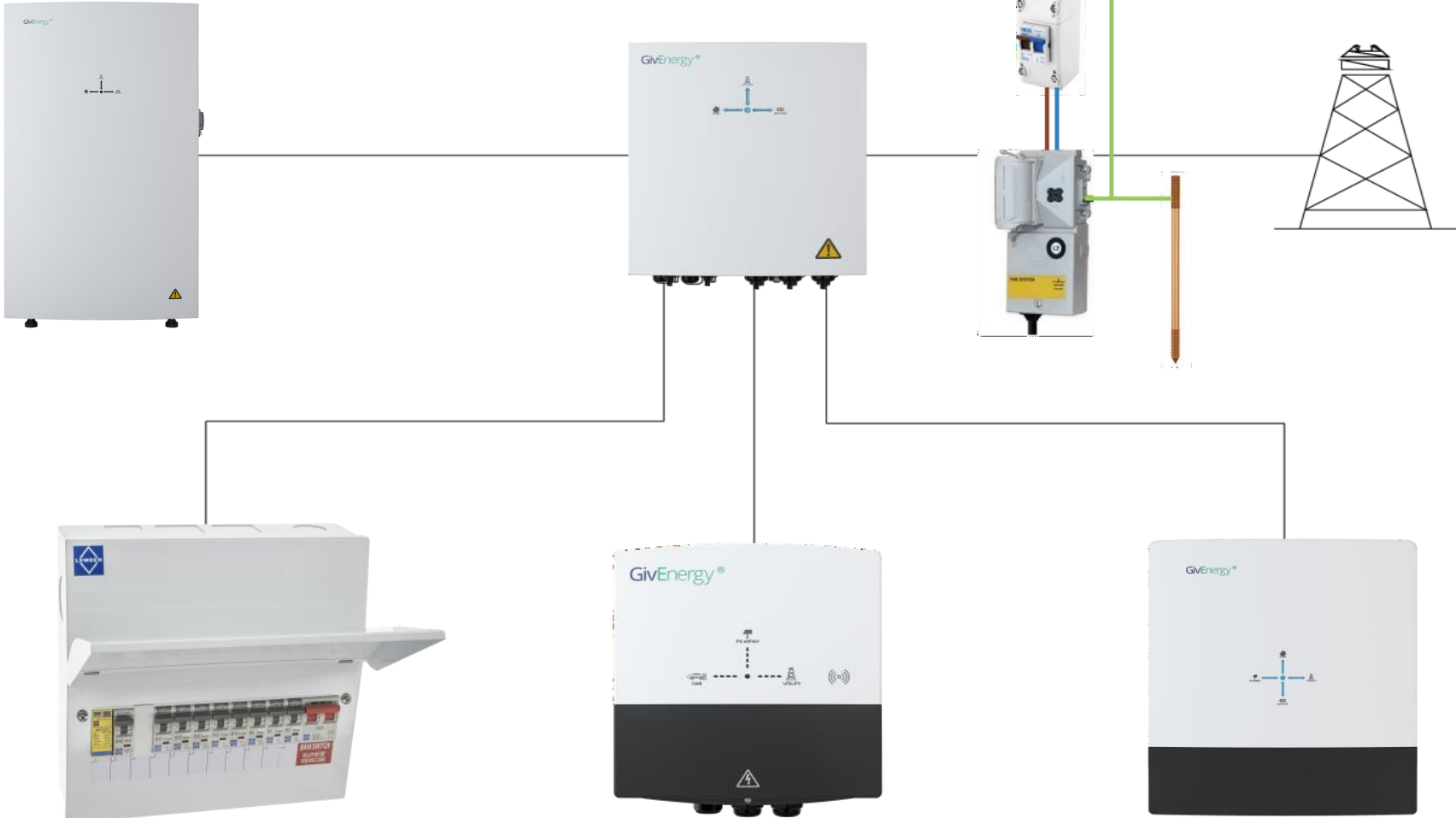
Load



EV charger

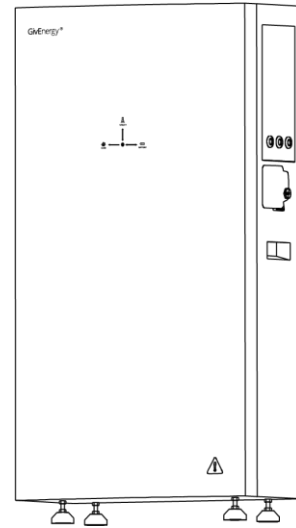


PV inverter

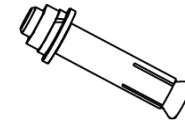


Crate Contents

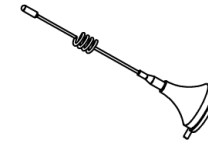
ALL IN ONE



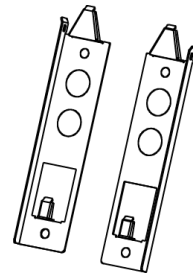
All in One



Expansion bolts



WiFi antenna



Brackets

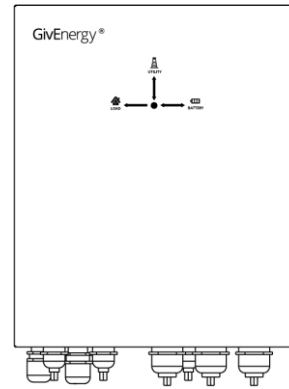
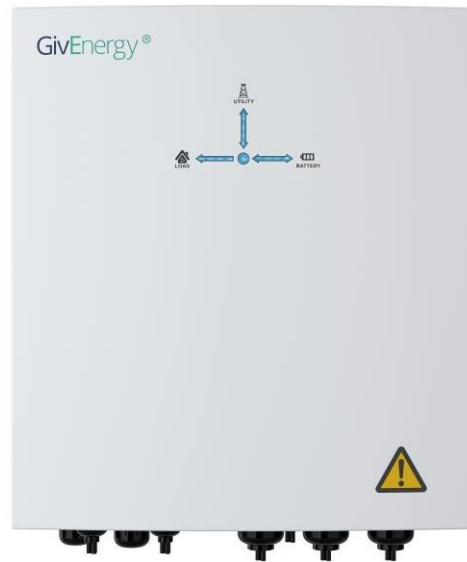


Spirit level

06

Box Contents

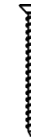
GIV-GATEWAY



Giv-Gateway



Bracket



Mounting screw



Wall plug



Antenna



**M6 x 12
Bracket screw**



Key

System Specifications

	All in One 13.5
Nominal AC Power	6kW continuous
Peak Power	7.2kW peak
Rated Grid Voltage (AC Voltage Range)	230v (180 to 270)
Rated Grid Frequency	50Hz
Nominal AC Current	26A
Maximum AC Current	32A
IP Rating	IP65
Dimensions H/D/W (mm)	1100 / 280 / 600
Weight	173.7Kg
Connectivity	WiFi, LAN and 4G
Battery Capacity	13.5kWh
Communication Interfaces	CAN
Nominal Voltage	307V
Maximum Charge/ Discharge Current Battery	25A
Battery Voltage Range	260-346V
Depth of Discharge	100%
Warranty	12 Years

	Giv-Gateway
Nominal AC Power	18.4kW
Max. AC Current	100A
Rated Grid Voltage (AC Voltage Range)	230v (180 to 270)
Rated Grid Frequency	50 - 60Hz (±5Hz)
IP Rating	IP65
Dimensions W/H/D (mm)	410 / 190 / 370
Weight	12.75Kg
Communication	RS485/LoRa inside (optional) CanBUS
Connectivity	WiFi, LAN and 4G
Warranty	12 Years

AIOs can only be installed as a single unit out of the box. You can talk to GivEnergy and be able to parallel up to 3 units.

GivEnergy are working towards and testing 6+ units in parallel.

External installation



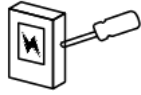



All systems are IP65, meaning they can be installed outdoors if required. When installing outdoors, systems must be protected against direct sun, and extreme rain and snow.











www.manomano.co.uk
(Search for 'canopy')

IP (Ingress Protection) Ratings Guide

Solids

- 1  Protected against a solid object greater than 50 mm, such as a hand.
- 2  Protected against a solid object greater than 12.5 mm, such as a finger.
- 3  Protected against a solid object greater than 2.5 mm, such as a screwdriver.
- 4  Protected against a solid object greater than 1mm, such as a wire.
- 5  Dust Protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to eight hours.
- 6  Dust tight. No ingress of dust. Two to eight hours.

Water

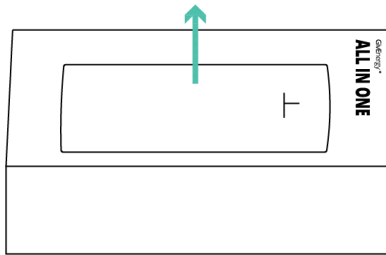
- 1  Protected against vertically falling drops of water. Limited ingress permitted.
- 2  Protected against vertically falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.
- 3  Protected sprays of water up to 60 degrees from the vertical. Limited ingress permitted for three minutes.
- 4  Protected against water splashed from all directions. Limited ingress permitted.
- 5  Protected against jets of water. Limited ingress permitted.
- 6  Water from heavy seas or water projected in powerful jets shall not enter the enclosure in harmful quantities.
- 7  Protection against the effects of immersion in water between 15 cm and 1 m from 30 minutes.
- 8  Protection against the effects of immersion in water under pressure for long periods.

Rating Example:

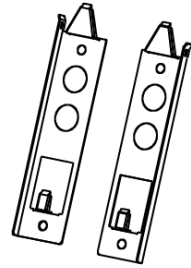
IP65

Ingress Protection

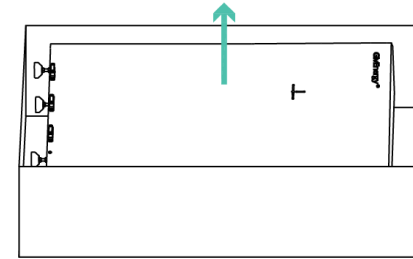
Unboxing the All in One



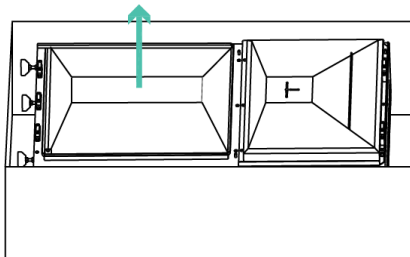
1. Remove top cover from the wooden crate



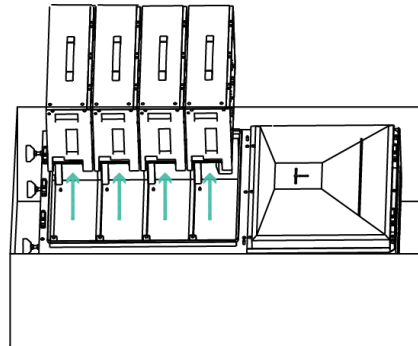
2. Remove the All in One brackets and place to one side



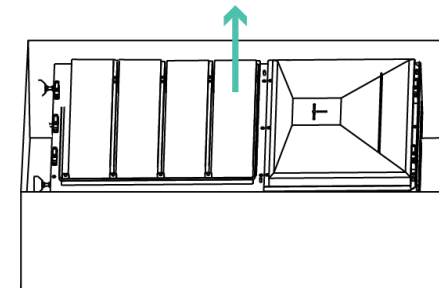
3. Remove front cover of the All in One



4. Remove bottom waterproof cover of the All in One



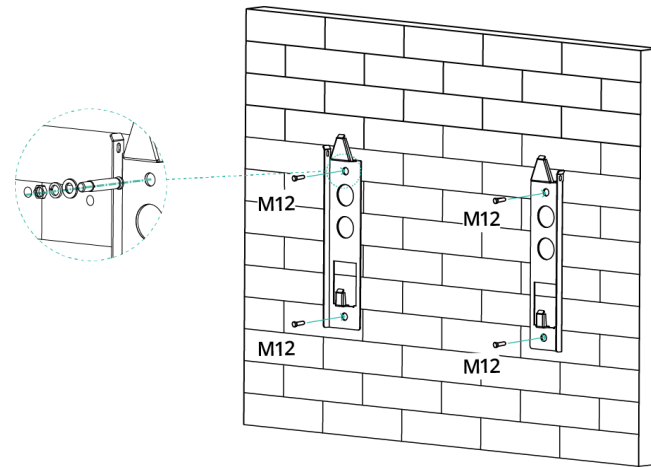
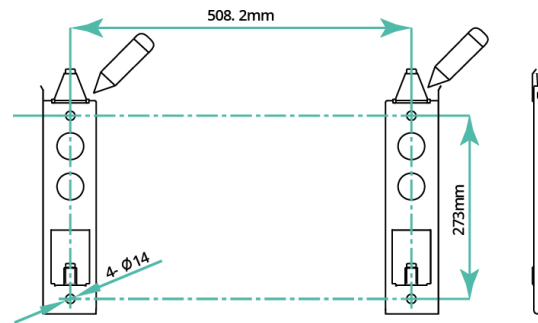
5. Remove battery packs, leave to one side



6. Remove All in One case from wooden crate (2 person lift)

Mounting

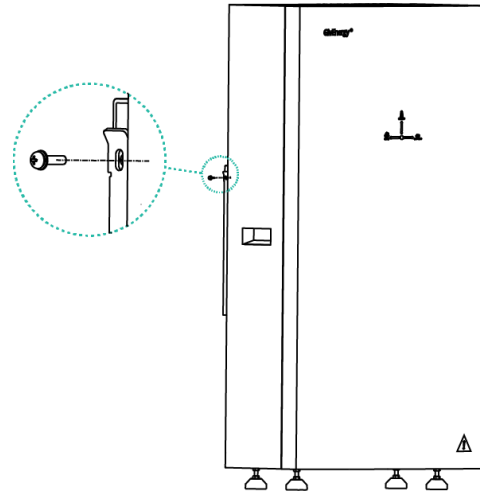
ALL IN ONE



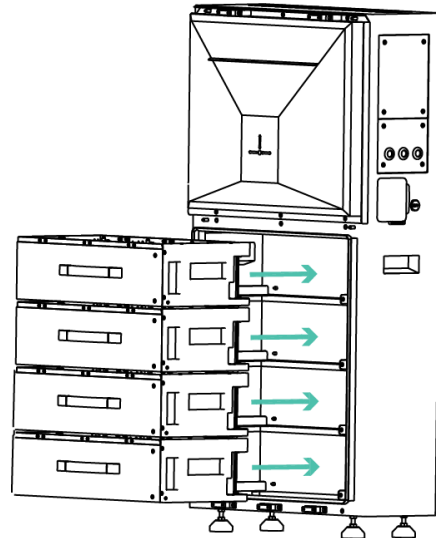
1. Place the wall mounting bracket horizontally onto the wall and mark the position of the bracket holes. Drill 4 holes at the marked positions, at least 75mm deep.
2. Fix the mounting bracket to the wall using the expansion bolts. Please note that the brackets are sided.

Mounting

ALL IN ONE



3. Mount the All in One onto the mounting bracket. Adjust the height of the supporting feet to ensure the unit is level and attach the securing screws to the brackets.



4. Re-insert the battery modules into the shelves of the All in One battery compartment. Secure the battery modules using the fixings provided. Re-attach waterproof cover.

12

Clearance

REQUIREMENTS

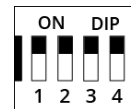
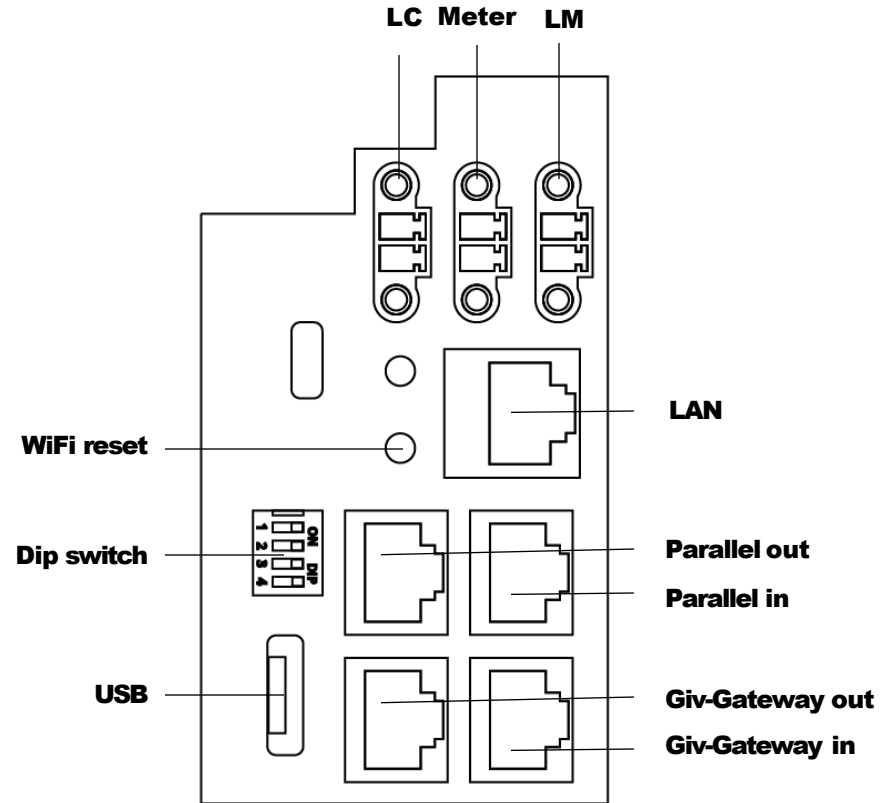
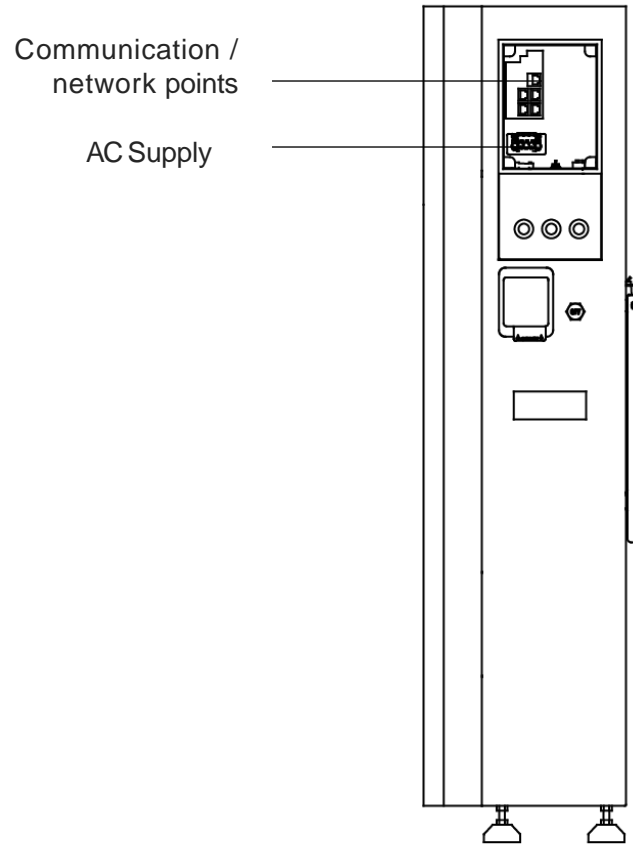
Systems must always be installed so that they are accessible for future maintenance as per BS7671

The system should be installed with the minimum clearances as shown. The All in One and Gateway should be in a vertical position.



Connections

ALL IN ONE



WiFi



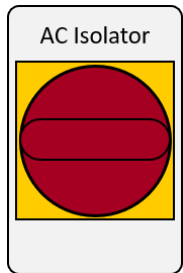
LAN



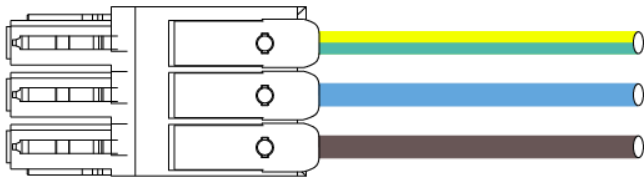
USB
(Dongle
Mode)

AC Connection

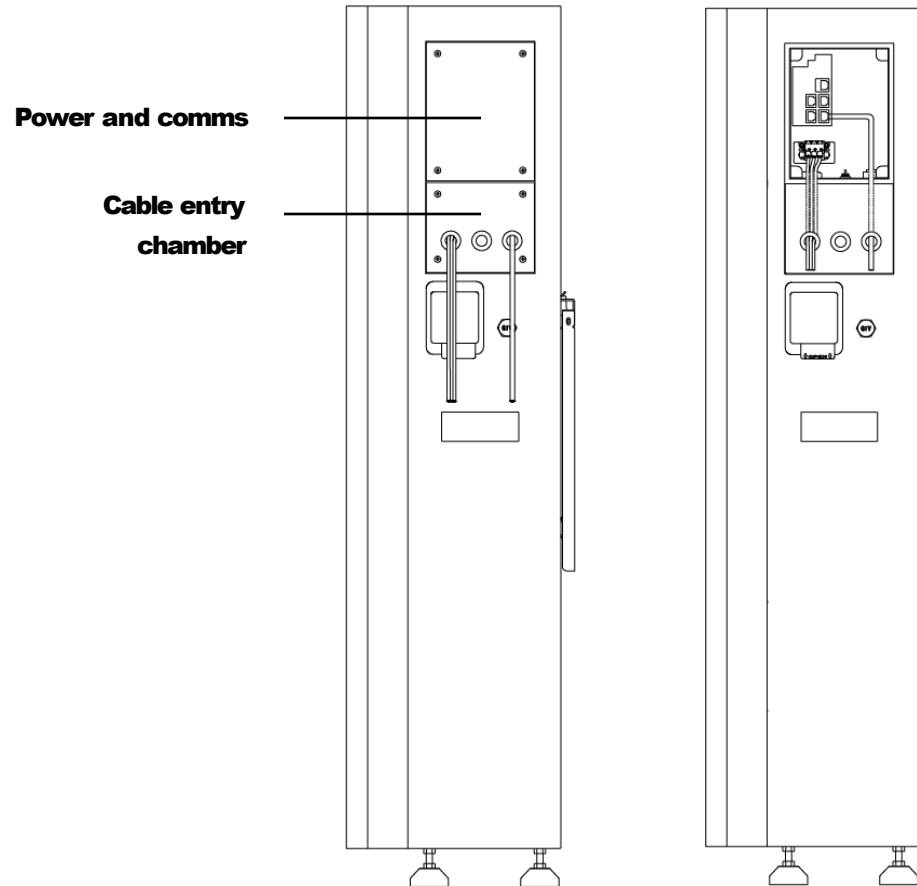
ALL IN ONE



All in One must have local AC isolation for maintenance purposes



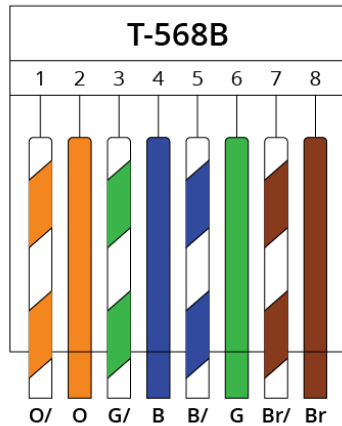
Cable size requirements for the All in One are 6mm²



The recommended maximum cable length should not exceed 50m as the resistance of the cable will consume inverter output power and reduce the inverter efficiency.

Communication wires

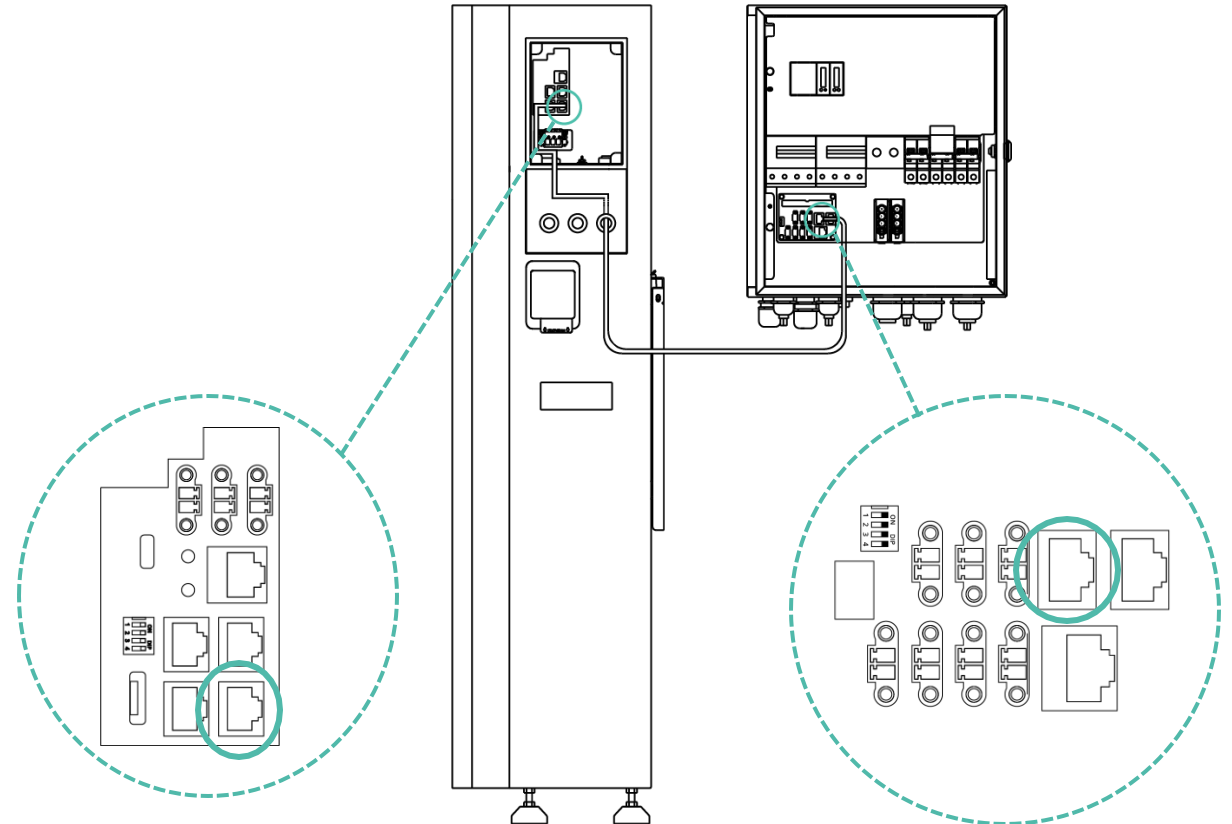
ALL IN ONE



Please note:
The communication cable must be terminated with a RJ45 plug at either end to connect the All in One to the Giv-Gateway. Ensure the wiring configuration into the RJ45 is the same ends, a cross-over cable will not work. A standard Ethernet Cat5/6 cable will suffice here wired to T-568B standard.

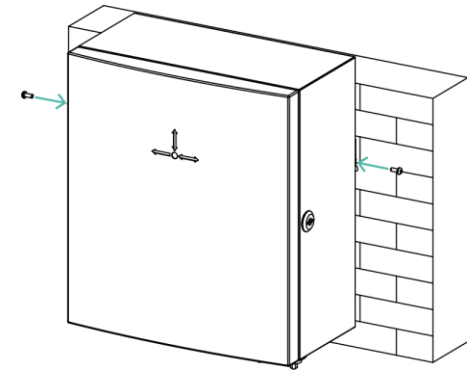
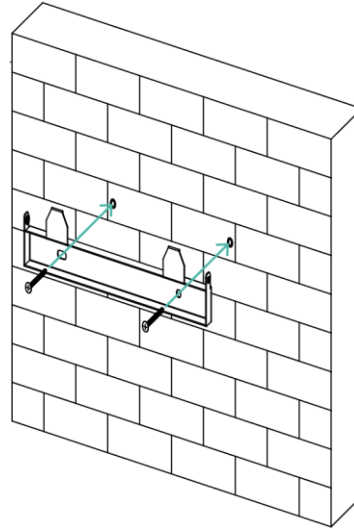
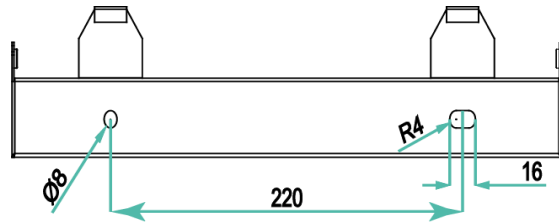
NOTE.
RJ45 Plugs are not supplied

To install a single All in One connect the communication wire to the Socket D in the wiring compartment of the All in One.



Mounting

GIV-GATEWAY



Place the wall mounting bracket horizontally onto the wall and mark the position of the bracket holes. Drill 2 holes at the marked positions, at least 75mm deep.

Fix the mounting bracket to the wall using the fixings provided, or other suitable fixings.

Fix the Giv-Gateway to the mounting bracket and secure with the fixings provided. Ensure there is adequate clearance space.

Connections overview

GIV-GATEWAY

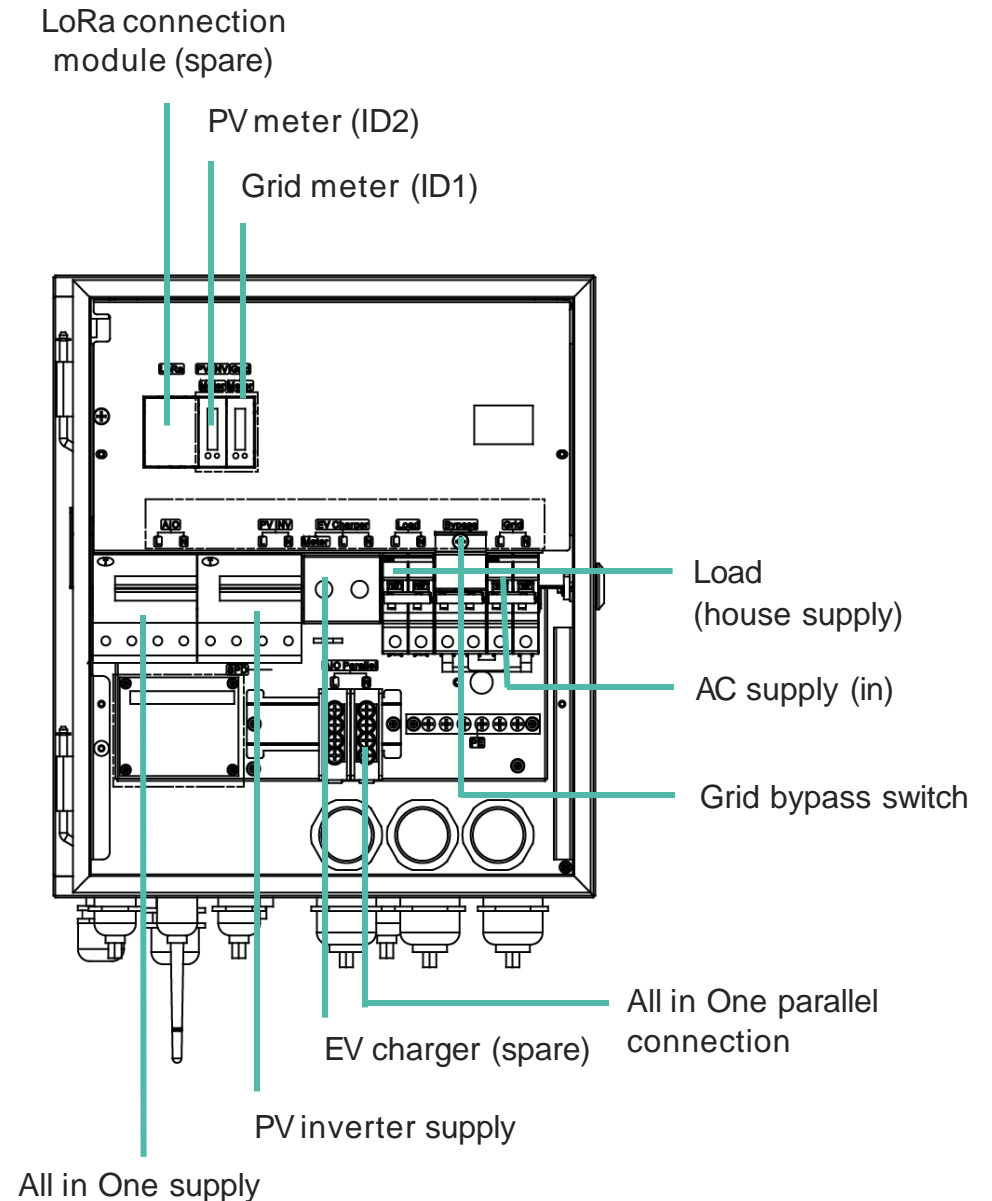
Before installing the Giv-Gateway, ensure the whole house is isolated from the main supply.

If a double-pole isolator is not present at the main incomer, one must be installed before proceeding.

Once isolated, please test to ensure no voltage is present before disconnecting the main supply cable from the consumer unit.

The Giv-Gateway should be installed between the customer's supply meter, after the double-pole isolator, and before the consumer unit.

The meter tails between the meter position and GivGateway should be a maximum of 3 metres. If the length is over 3 metres, install an additional protective device at the nearest point to the supply inside the customer's premises, as specified in the current IEE Wiring Regulations.



Bypass Switch

GIV-GATEWAY

To meet current regulations you may only use the Bypass switch when instructed to do so by GivEnergy or

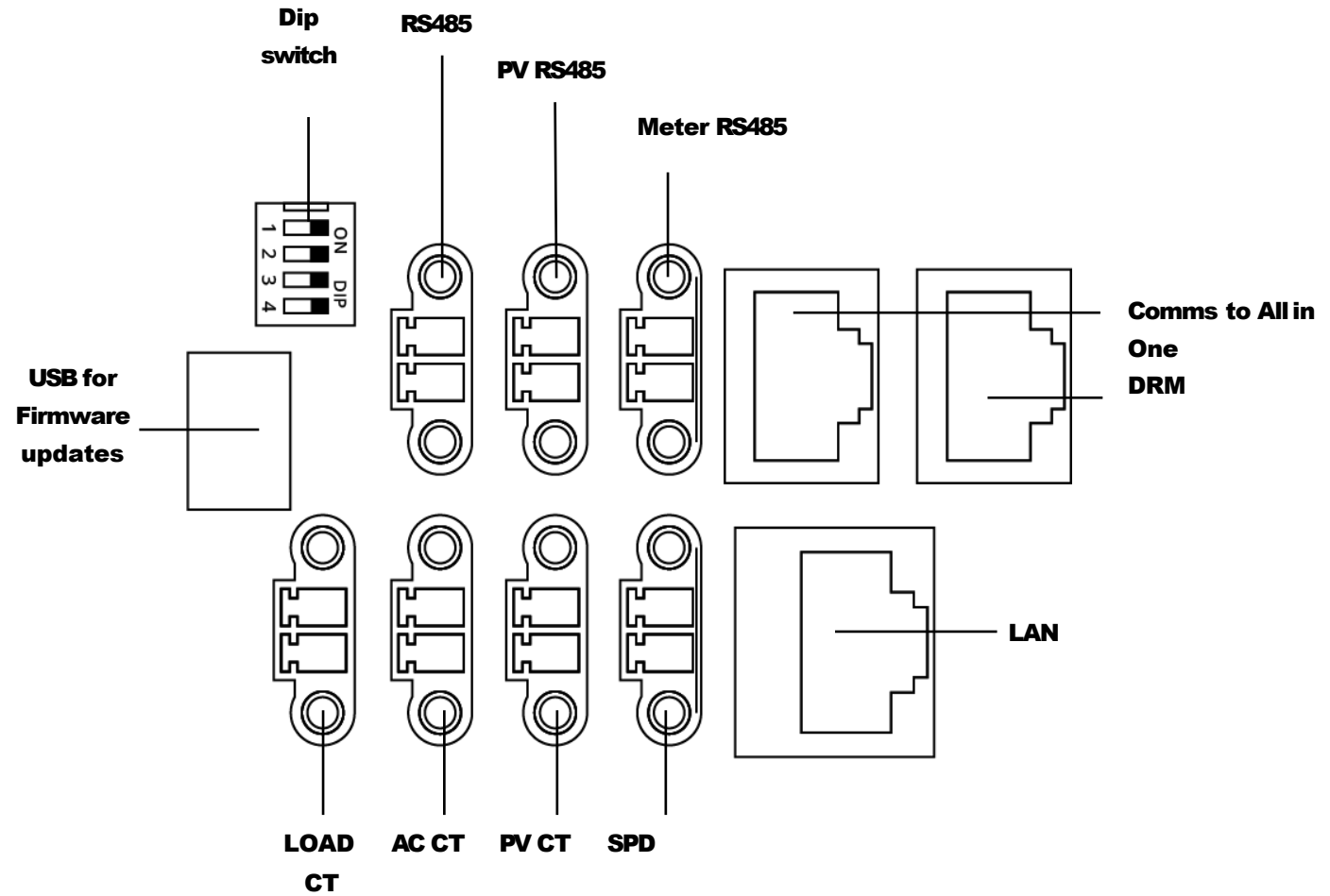
- The GIV-GATEWAY is faulty, and AIO must be locked off and isolated via the DC MCB
- The GIV-GATEWAY is good, but AIO has not yet been installed

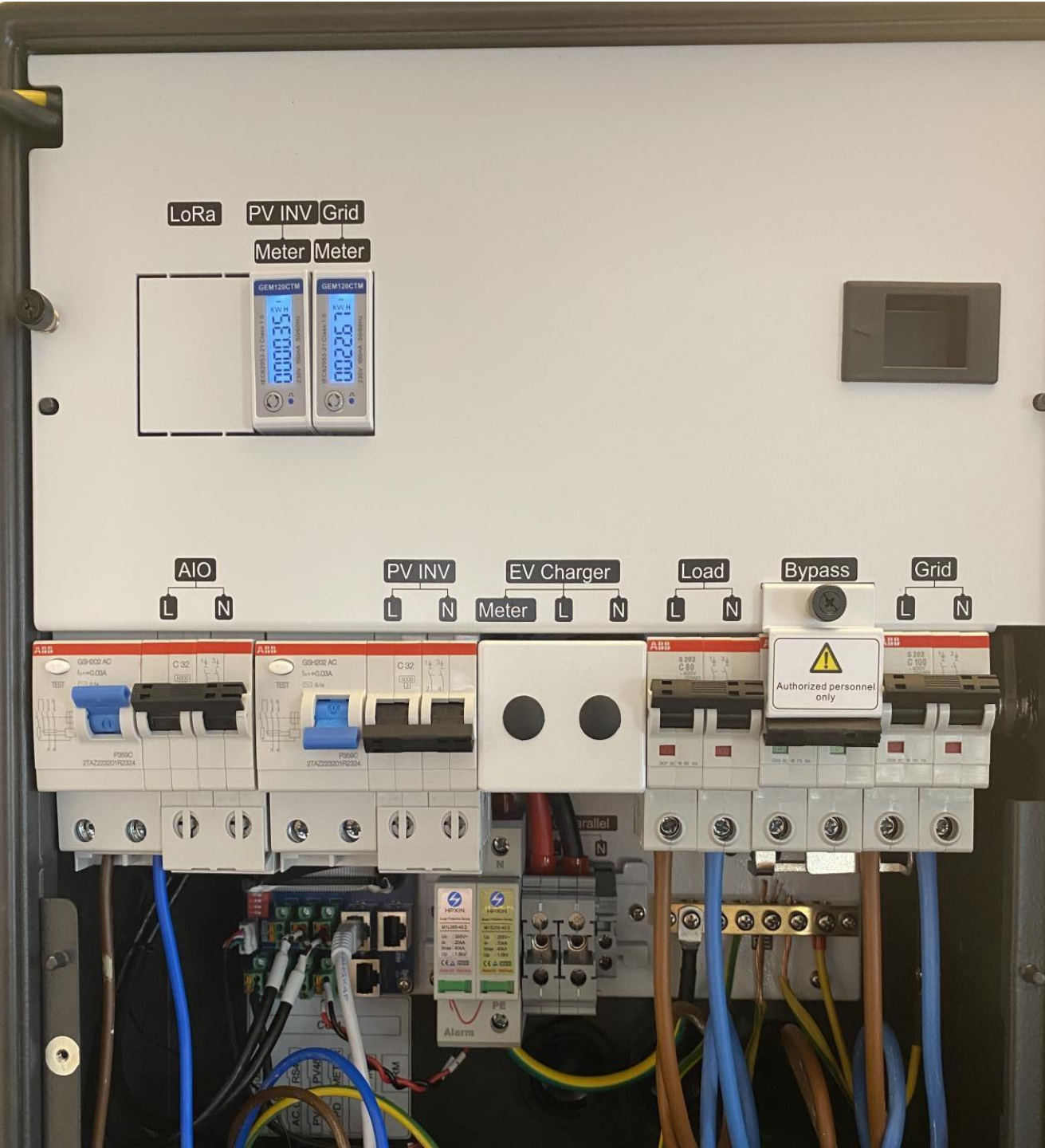
Once the system is back in full working order, you must ensure the bypass switch is then locked back in the OFF position



Communication connection

GIV-GATEWAY





AC utility grid connection

GIV-GATEWAY

Breaker A – Single All in One connection

The power wires for All in One connection should be at least 6mm².

Breaker B – PV inverter connection

32a Type C MCB. Meaning a maximum PV system of 7.5kW.

Breaker C – EV charger connection

The maximum load current is 32A, so the load wires should be at least 6mm².

Breaker D – Loads connection

The maximum load current is 80A, so the load wires should be at least 16mm².

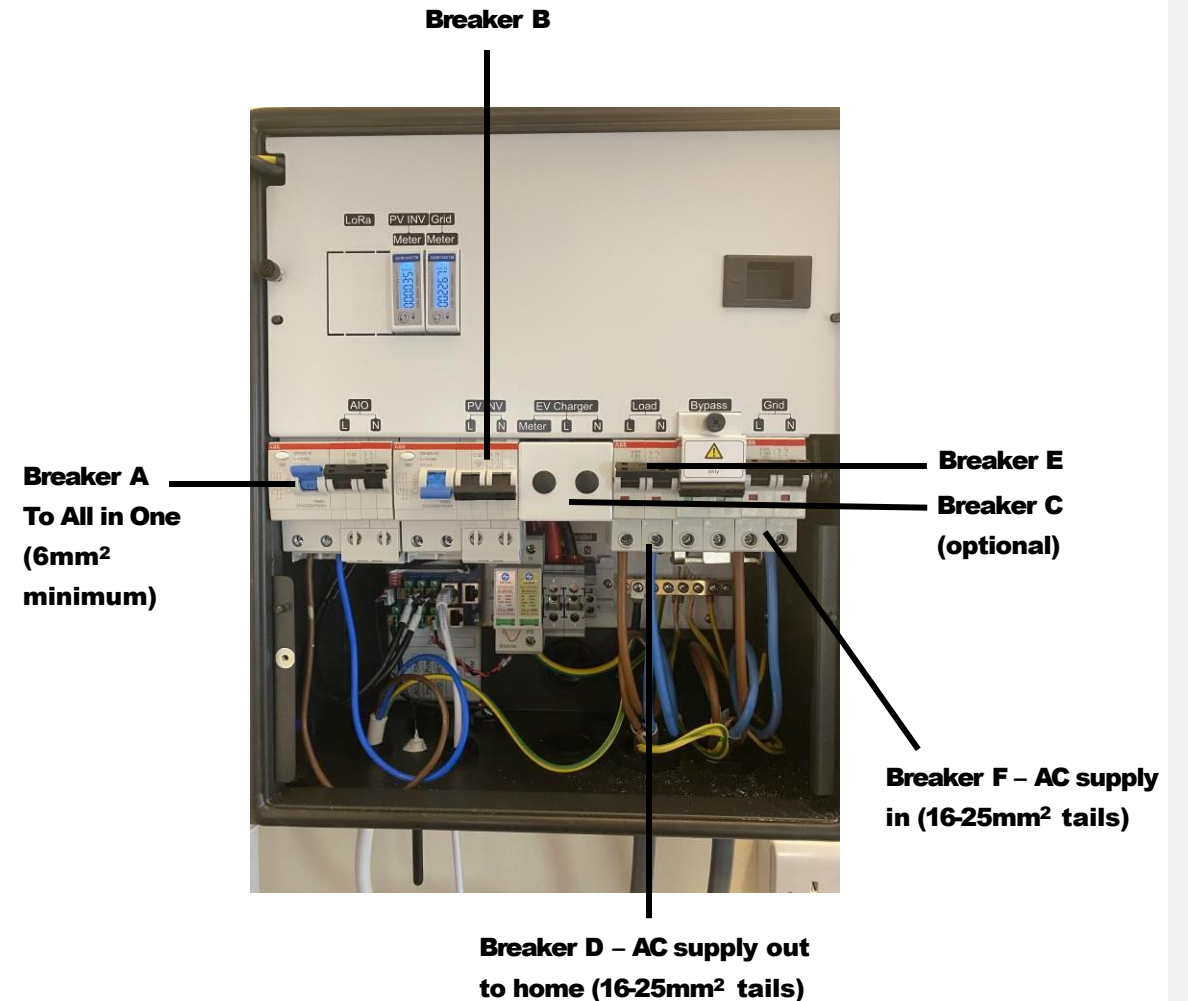
Breaker E – Loads connection

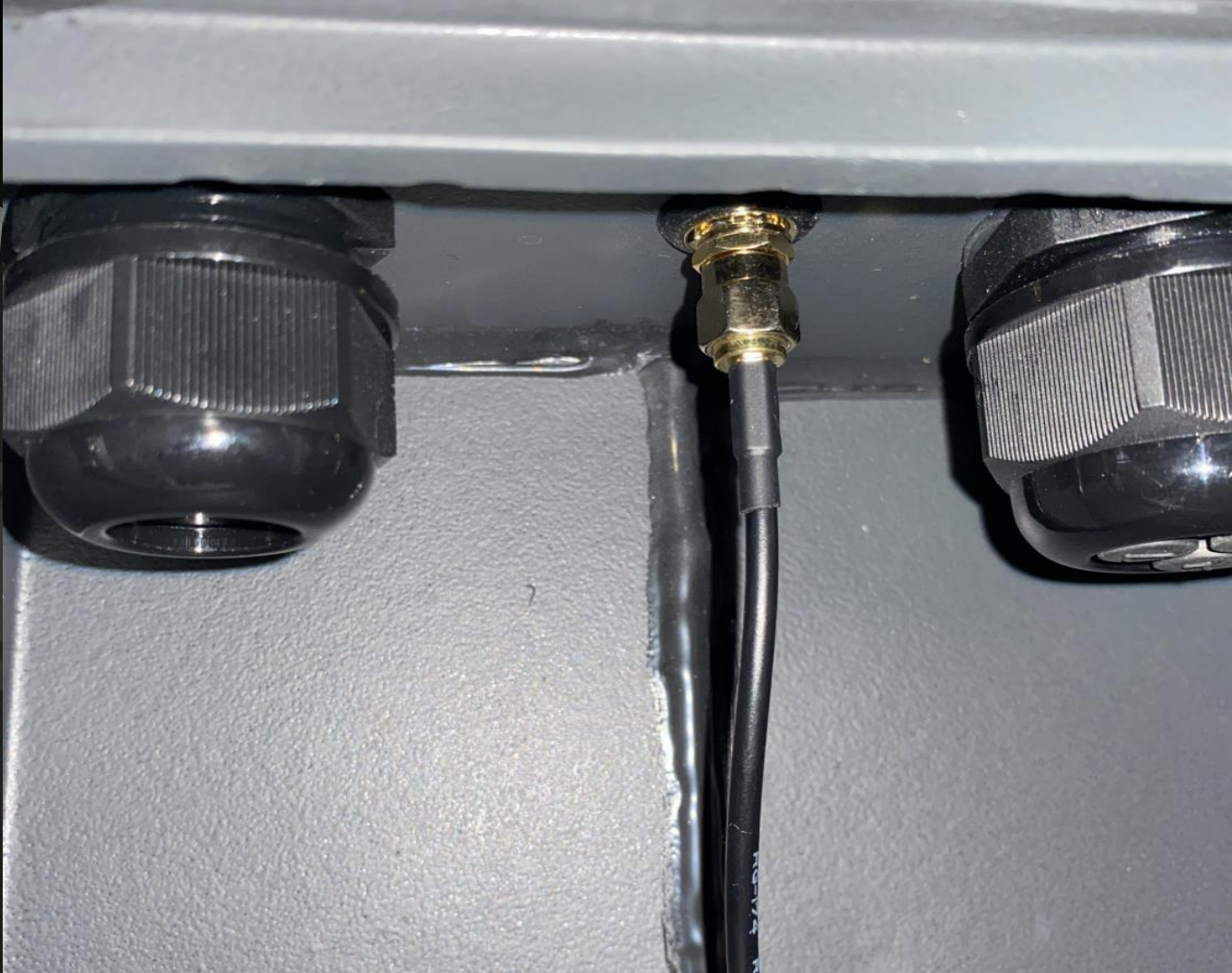
The bypass switch redirects grid power directly to the house, bypassing the Giv-Gateway.

Breaker F – Loads connection

The maximum load current is 80A, so the load wires should be at least 16mm².

The Giv-Gateway has a built in SPD

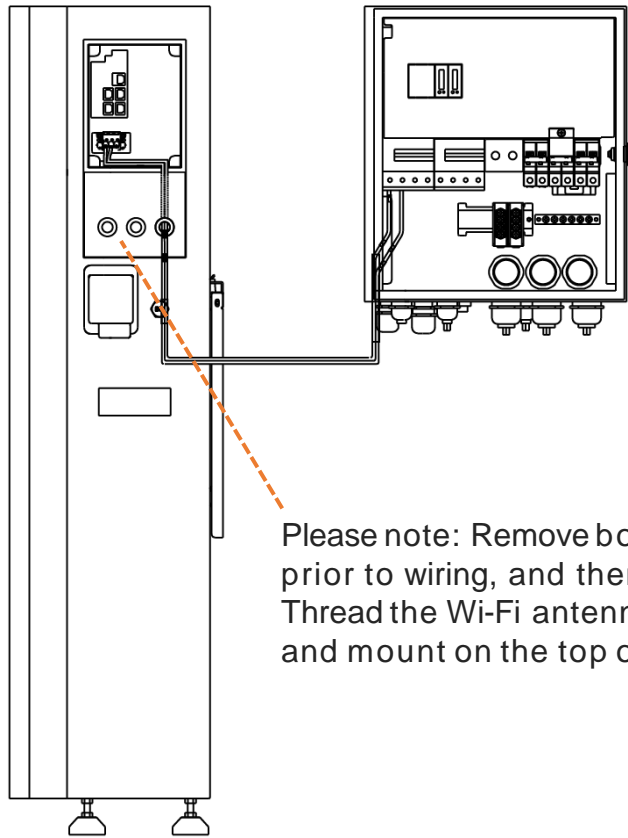




Please note. Please ensure the Wi-Fi antenna is connected when installing the All in One. Take the cable through the cable gland and attach it to the outside of the All-in-One.

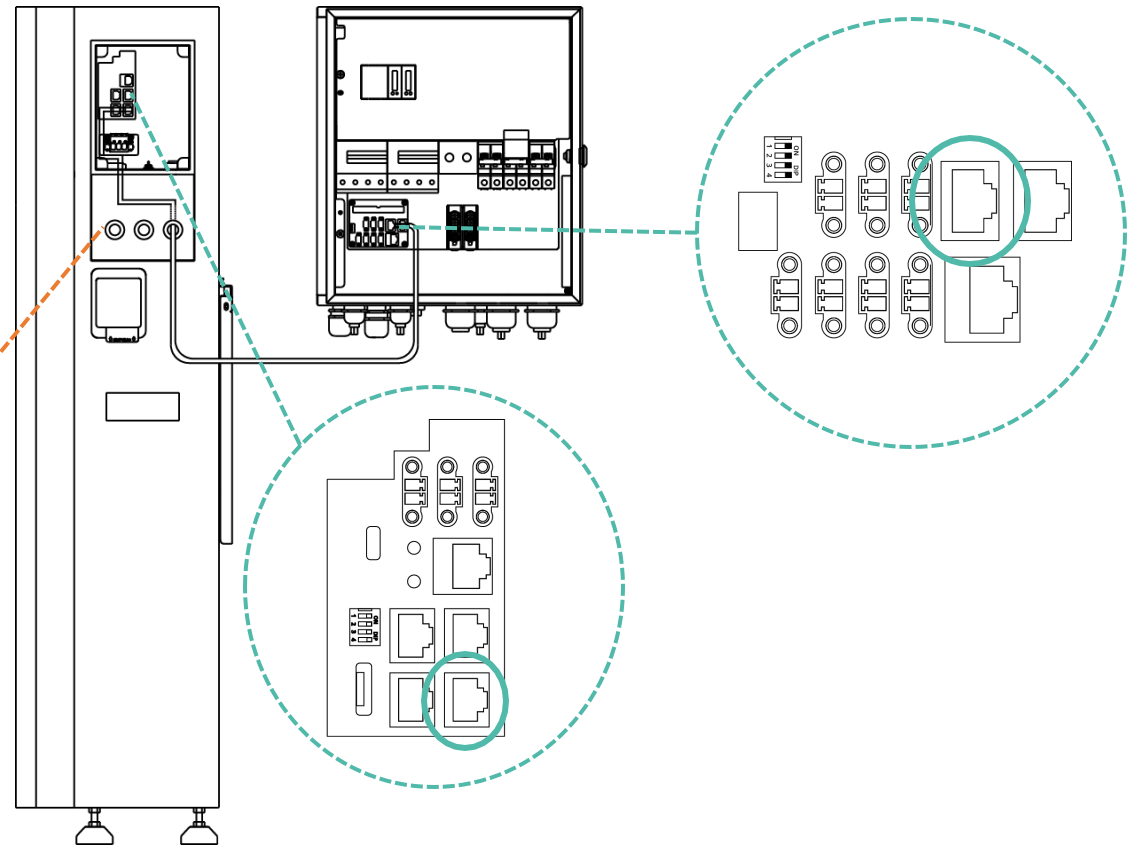
Connecting All in One to Giv-Gateway

AC supply wiring



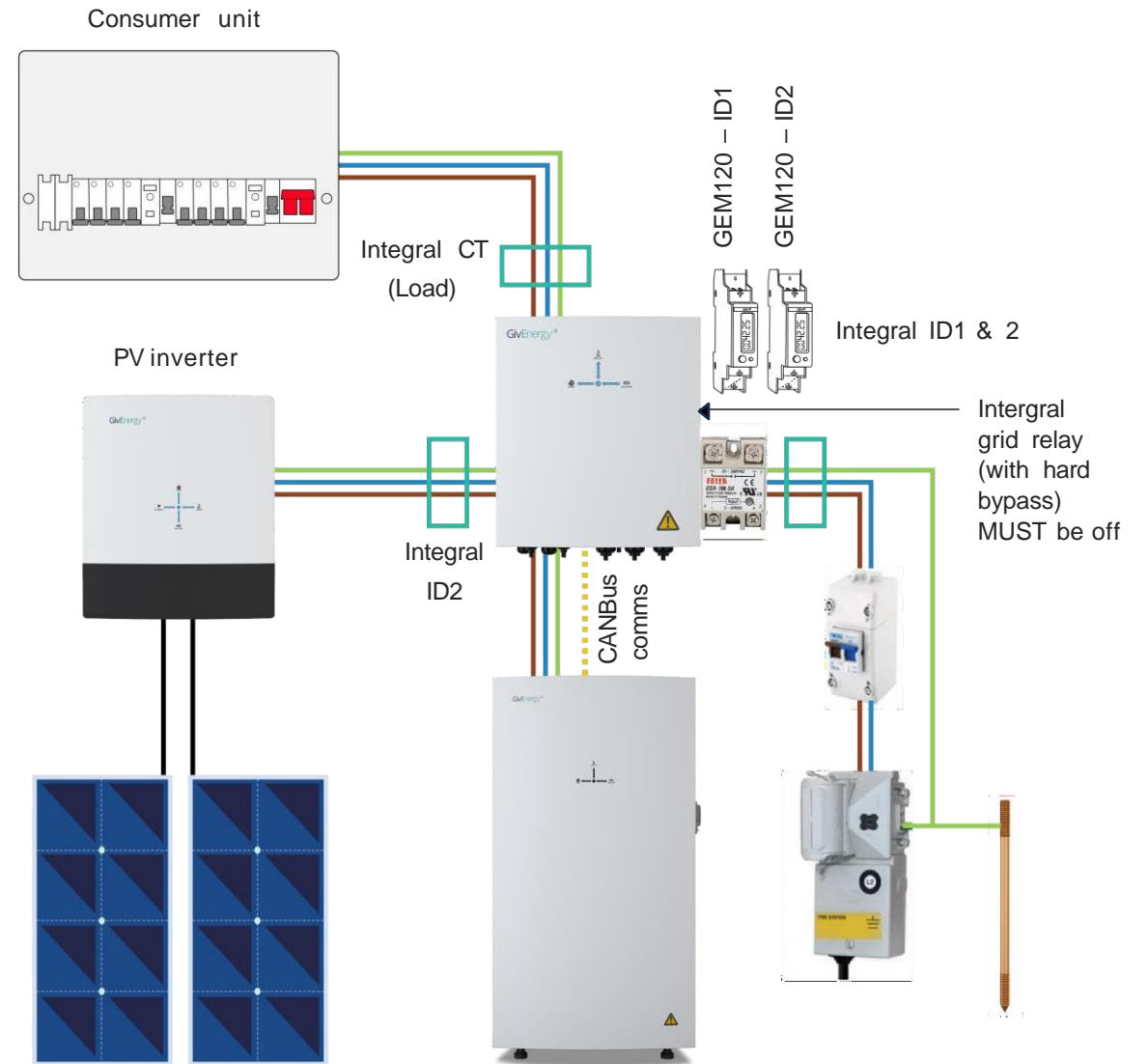
Please note: Remove bottom connections cover prior to wiring, and then replace once complete. Thread the Wi-Fi antenna through the cable gland and mount on the top or side of the All in One

Communication wiring



Example default wiring configuration

Note: An earthing rod MUST be installed. As per IEC62109-2



Lights and Operation

ALL IN ONE and GIV-GATEWAY



Home demand

This is a calculation made by our smart energy management system and is lit up when a load is detected within the property.

Grid



When energy is being imported from the grid the arrows pointing toward the centre will be lit. When energy is being export to the grid the arrows point toward the grid will be lit.



Device status

- Green (solid)
Normal
- Green (flashing)
The system is in waiting
- Yellow
Charging or discharging error
(reboot the unit)
- Red
Fault (contact GivEnergy)
- Green/Red (flashing)
Firmware upgrade



Battery



When the battery is being charged the arrows will point toward the battery pack.

When the battery is discharging the arrows will point towards the inverter.



Commissioning

ALL IN ONE & Gateway

NOTE. If you do not complete the commission, YOU MUST power off the AIO and leave the GW in bypass. This includes both AC and DC isolators in the OFF position.

We have seen examples of AIOs left un-commissioned until a few days later, and their batteries have run flat. This requires a GivEnergy engineer visit and the replacement of all 4 battery modules, potentially at the installer's cost.

1. Using your engineer account, create a user account.
2. Commission the Gateway, then commission the AIO like a normal inverter.
3. We have seen issues with the AIO BMS firmware. You can contact support for assistance, who can help format the dongle, erase the corrupted previous attempt, and then send it manually.
4. Once commissioning is complete, the battery calibration will commence.

Start up and shutdown Instructions

ALL IN ONE

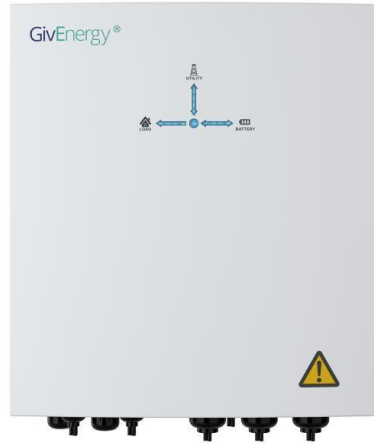
Start-up procedure

- 1.** Ensure connection covers are in place
- 2.** Connect the AC circuit breaker, ensure that the system is powered and commissioned using the portal/App. Ensure that the grid power is reading identical to that of the mid approved meter (this can be found on the screen of the grid meter)
- 3.** Turn on the battery breaker (DC MCB)
- 4.** Turn on the battery (On/Off switch)
- 5.** The inverter will start automatically when the battery voltage is higher than 270V DC or the Giv-Gateway provides AC voltage to the All in One

Shutdown procedure

- 1.** Turn off the battery (On/Off switch)
- 2.** Turn off the battery breaker to prevent it from being reactivated (DC MCB)
- 3.** Turn off the AC circuit breaker to prevent it from being reactivated (AIO MCB)
- 4.** Check the inverter operating status
- 5.** Wait until all LEDs have gone out. The All in One is now shut down

Q&A



SUPPORT LINE

01377 252 874

OPERATING HOURS

Mon - Fri	8:30 – 7pm
Sat	9am – 5pm
Sun	Closed

GivEnergy®



EV Charger





FAST AND RELIABLE

A great addition to any smart home

The EV charger is a new member of the GivEnergy family. Compatible with most plug-in electric cars, the EV charger is a great addition to your smart home system and GivEnergy ecosystem. Its compact and waterproof design allows for installation in tight spaces both indoors and outdoors. Integrated WiFi allows for easy control of your vehicle's charge via the GivEnergy monitoring portal or app.

Dimensions

288H x 112D x 260W (mm)

Weight

4.5 Kg

AC Input nominal voltage

230 V

AC Input voltage range

207 - 253 V

AC Output Rating

7.2 kW / 32 A

Warranty

3 years

Operating temperature

-30°C to 55°C

Charging cable length

5m

Connectivity

LAN (RJ-45), WiFi

Connector type

IEC 62196-2 (Type 2)

Configuration settings available with the GivEnergy EV Charger

Configuration A: Basic installation with no solar installed.

Summary of installation:

- EVC installed with internet connectivity and mains supply only
- Charge modes available: Grid, Schedule
- Controlled by: RFID Tag, App (iOS / Android)

Supply cable run between the consumer unit and the EV charger. A Cat 5/6 cable runs between the router and the EV charger if using LAN.

Configuration B: Installation with third party solar with no grid meter installed.

Summary of installation:

- EVC installed with internet connectivity and mains supply only
- Charge modes available: Grid, Schedule
- Controlled by: RFID Tag, App (iOS / Android)

Supply cable run between the consumer unit and the EV charger. A Cat 5/6 cable runs between the router and the EV charger if using LAN.

Configuration C: Installation with third-party solar inverter and has a dedicated EV charger grid meter

Summary of installation:

- EVC installed with internet connectivity, mains supply, wired comms cable, and compatible meter
- Charge modes available: Grid, Schedule, Hybrid, Solar
- Controlled by: RFID Tag, App (iOS / Android)

Supply cable run between the consumer unit and the EV charger. A Cat 5/6 cable runs between the router and the EV charger if using LAN.

Appropriate meter (EM115/GEM120) sited near the consumer unit or cut out.

EM115/GEM120 meter CT clamp attached to the live supply tail with the arrow pointing towards the consumer unit grid feed cable (to monitor export).

Data/comms cable from the EM115/GEM120 meter to the charger RS485 port (Cat 5/6 cable)

Configuration D: Installation with GivEnergy inverter (cloud-based control)

Summary of installation:

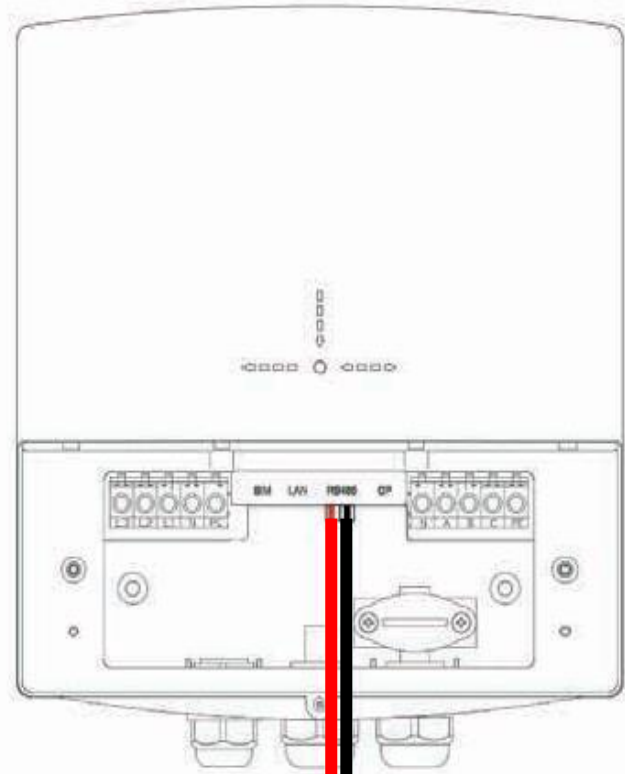
- EVC installed with internet connectivity, mains supply, and compatible GivEnergy PV inverter associated with the same 'givenergy.cloud' account
- Charge modes available: Grid, Schedule, Hybrid, Solar (cloud control)
- Controlled by: RFID Tag, App (iOS / Android)

Supply cable run between the consumer unit and the EV charger. A Cat 5/6 cable runs between the router and the EV charger if using LAN.

Appropriate meter (EM115/GEM120) sited near the consumer unit or cut out.

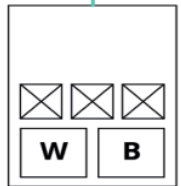
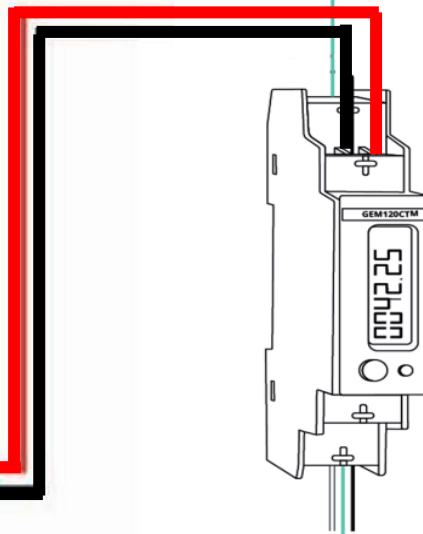
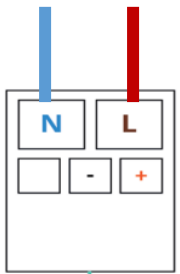
EM115/GEM120 meter CT clamp attached to the live supply tail with the arrow pointing towards the consumer unit grid feed cable (to monitor export).

Data/comms cable from the EM115/GEM120 meter to the charger RS485 port (Cat 5/6 cable)

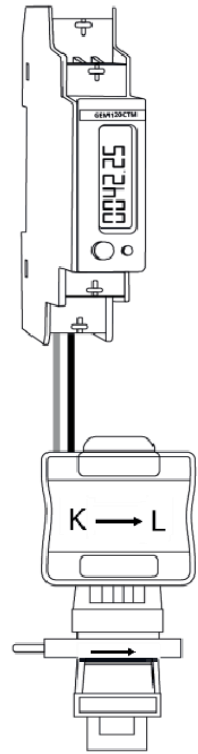


RSJ45 to EV charger

1A 240v Supply



Grid (ID1)



Grid

Loads

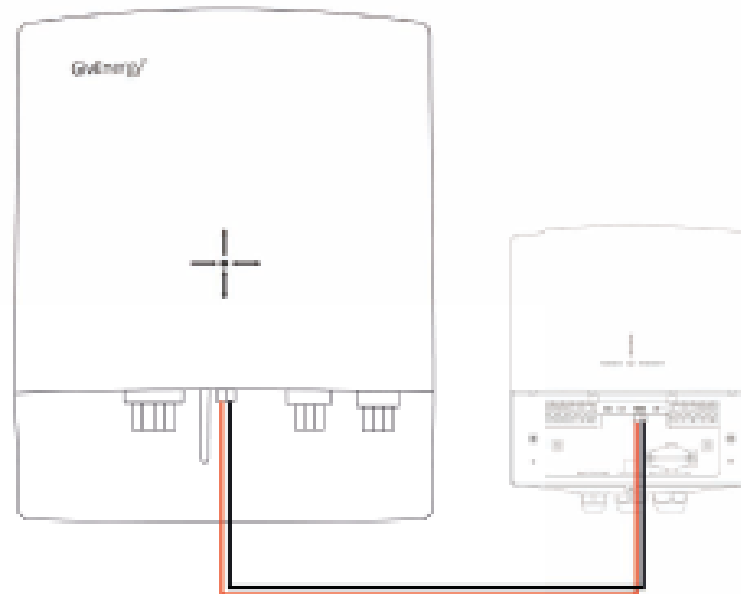
ID1 follows flow of import

Configuration E: Installation with a compatible GivEnergy inverter (wired control) (Coming soon)

Summary of installation:

- EVC installed with internet connectivity, mains supply, and compatible GivEnergy PV inverter wired into charger comms port
- Charge modes available: Grid, Schedule, Hybrid, Solar (local control)
- Controlled by: RFID Tag, App (iOS / Android)

*Supply cable run between the consumer unit and the EV charger. A Cat 5/6 cable runs between the router and the EV charger if using LAN.
Data/comms cable from the GivEnergy inverter RS485 port to the charger RS485 port (Cat 5/6 cable)*



Check network

If WiFi is weak at the charger location, consider running a CAT5/6 cable to the site for LAN or installing a WiFi repeater to aid with signal strength.

A WiFi connection is **mandatory** for app setup. In the scenario where home WiFi is weak or missing at the charger's location, use a phone hotspot or wireless repeater to perform the first setup. After the first setup, the charger will use LAN and the hotspot/repeater can be removed. If using LAN to set up, a WiFi password is not required during the setup process and can be left blank during this step.

Mount bracket

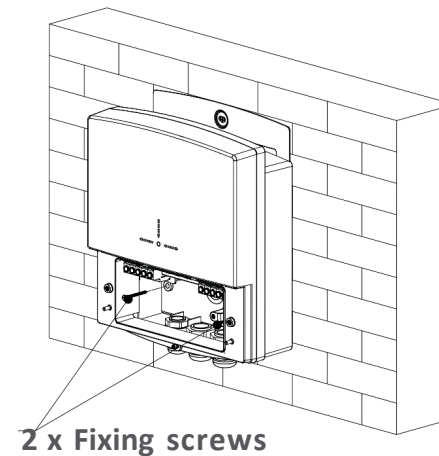
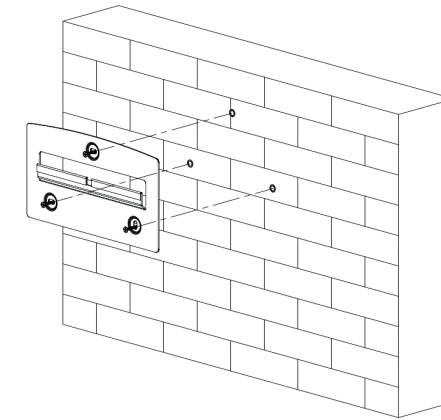
Place the wall mounting bracket horizontally onto the wall and mark the position of the bracket holes. Drill 3 holes at the marked positions, at least 75mm deep. Fix the mounting bracket to the wall using the fixings provided

Mount charger

Remove the decorative cover and the sealing cover from the charger, retaining all screws. Mount the charger onto the mounting bracket. Drill 2 holes at the marked positions, at least 75mm deep. Secure the charger to the wall using wall screws.

Wire charger

Pass the power cable through the rubber grommet. Insert the wire into the corresponding terminals. Tighten the screws to ensure there is a stable connection. Attach any RS485 and/or LAN cable as required for the installation configuration selected (see Installation Configuration section).

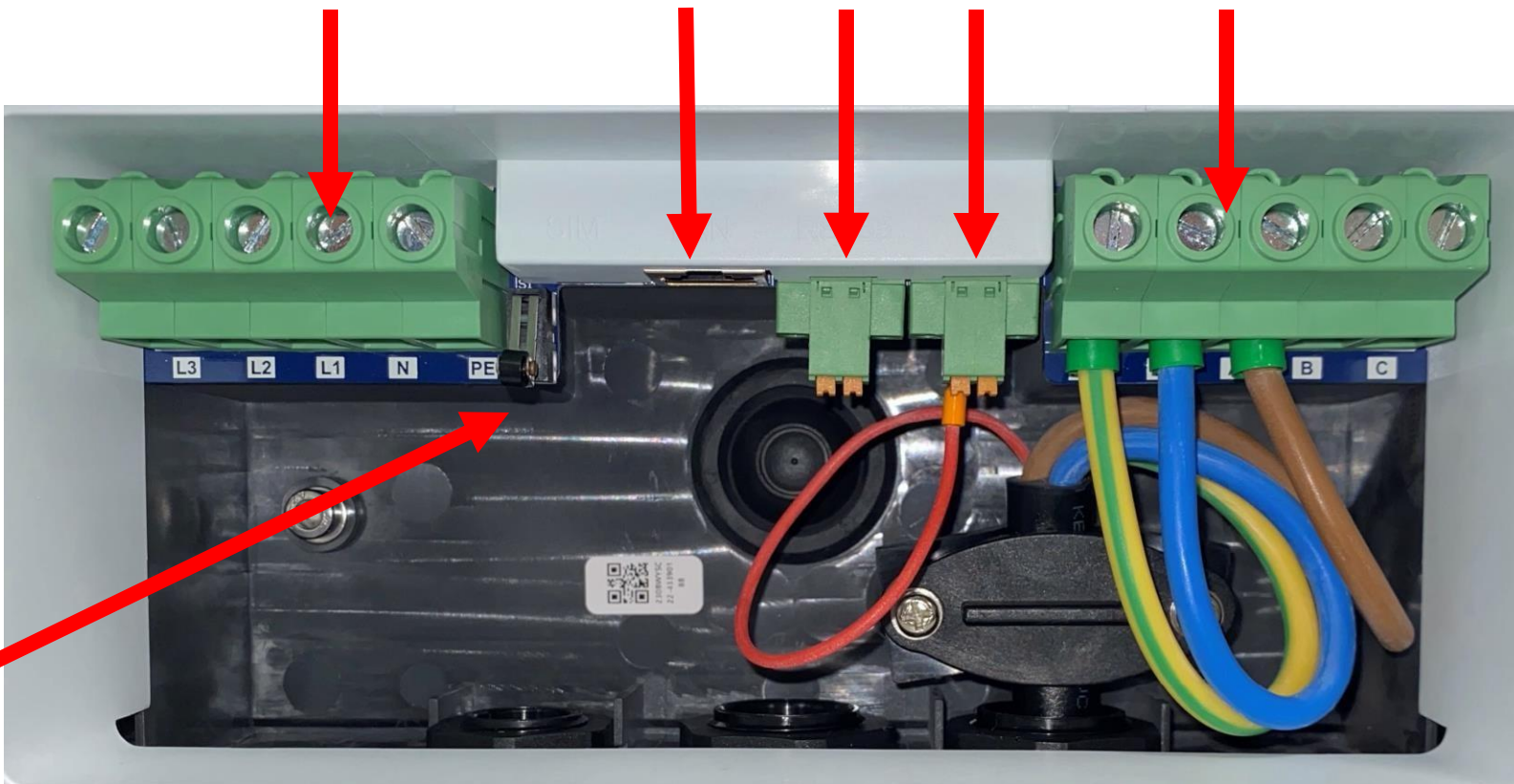


AC Supply

LAN PORT

RS485 CP

EV Supply



Tamper Switch

Cable entry from the back or via the cable glands pre-installed on the bottom of the Charger

Finalise installation

Fix the sealing cover to the charger with the previously removed screws. Attach the outer cover to the charger, ensure that it locks into place. Secure outer cover with the previously removed security torx screw.

Whilst securing the sealing cover, please ensure that the tamper switch is securely pressed down into position. The tamper proof switch is included to comply with the smart charging regulations and must be engaged.

If the tamper switch disengages, the charger will stop charging and the user will be notified of a tamper event.

User handover

Prompt the customer to finalise setup in the GivEnergy app.

The homeowner should be present at the end of installation so that:

They can log in to their GivEnergy account on their mobile device (in order to associate the charger with their account) The installer can walk them through the app setup and advise/assist if technical parameters require adjustment.

Confirm that the customer can access the new charger in the GivEnergy app

Provide a walkthrough on the app to inform the customer of the charger features that will be available to them (see Installation Configuration section).

Charging

Ensure the vehicle is turned off and that the EV charger is switched on.

Plug the charging cable into the charging socket on the electric vehicle.

Charging can be started by swiping the RFID card across the RFID reader on the charger unit, or via the GivEnergy app. The EV charger will automatically stop when the electric vehicle is fully charged.

Stopcharging

To stop charging the electric vehicle, swipe the RFID card across the RFID reader on the charger unit while it is charging. The process can also be stopped by pressing 'Stop Charging' on the GivEnergy app.

Remove the charging cable from the charging socket of the electric vehicle and replace the cable back onto the unit.

RFID cards

The EV charger comes supplied with two RFID cards that can be used to start and stop a charge. The RFID cards are online cards, meaning that they will only work if the charger is connected to the home network. To use the cards in offline mode, the card number must be added to the charger via the GivEnergy app.



Beepcodes

When powering up the EV charger for the first time, the charger will beep a number of times before switching to normal operation.

- **1 beep** means no meter / comms detected - If you have a meter connected, please check the communication cable and connections between the grid meter and the EV charger. Power down the charger and switch it back on. If the connection to the meter can be seen, you'll hear 2 beeps.
- **2 beeps** means active meter / comms detected - Okay

LED status

Turn on the EV charger and the display will light up. The LED indicators on the display reflect the status of the charger:

GREEN	CHARGING
GREEN, FLASHING	READY
YELLOW	COMMUNICATION ISSUE
BLUE	CONNECTED TO WIFI
BLUE, FLASHING	NOT CONNECTED TO WIFI
RED	FAULT

Error codes

- 11 CP voltage abnormal
- 12 Emergency stop status (Tamper Switch)
- 13 Under voltage
- 14 Over voltage
- 15 Over temperature
- 16 Electric meter fault
- 17 Leakage protection

- 18 Output shortage
- 19 Over current
- 21 EV response timeout
- 22 EV not supported
- 23 Relay sticking
- 24 Internal RCD failure
- 25 Ground fault
- 26 PEN leakage protection activated

- CP Voltage out of range
- Tamper switch released
- Grid voltage too low (<161v continuous over 5 seconds)
- Grid voltage too high (>270v continuous over 5 seconds)
- Mainboard too hot(>80°C)
- N/A
- AC current leakage detected (>20mA)
- DC current leakage detected (>6mA)
- Charging current 10A greater than maximum output current
- Charging current 10% greater than maximum output current
- N/A
- N/A
- AC Relay not functioning
- Internal type B RCD not functioning
- Internal type B RCD not functioning
- The voltage between the line and neutral conductor being greater than 253V or less than 207V.
- Current detected on the earth conductor



Restart

1. Press the restart charger button inside the GivEnergy app
2. Turn off the AC supply to the charger, wait until the LEDs are off, and then turn on the AC supply to restart

Factory reset

1. Power the charger down
2. Remove the decorative cover and tamper proof cover
3. Turn on AC supply to the charger
4. In quick succession press the tamper switch 10 times to carry out a factory reset
5. The charger will beep and automatically restart
6. Power down the charger
7. Reinststate both covers
8. Turn on AC supply to the charger

Meet Polar ESS from GivEnergy.



WHO ARE POLAR ESS®?





ORUA

MEM

POLAR ESS



POLAR ESS

POLAR ESS

GivEnergy

GivEnergy





Installer Training

Lunch Break

Agenda

09:30 - Arrival

10:00 - Start Time

11:00 - Approximate Break Time

13:00 - Approximate Lunch Time

14:30 - Approximate Finish Time

GivEnergy®

LIMITED TIME SPECIAL OFFER



Buy a battery, get your inverter half price
on all low-voltage GivEnergy batteries and inverters

**Ts and Cs apply*

Basic Fault Finding



Meter comms fault

When the inverter reports that it has a meter comms fault this means that the inverter is not communicating with the EM115/Gem120 meters.

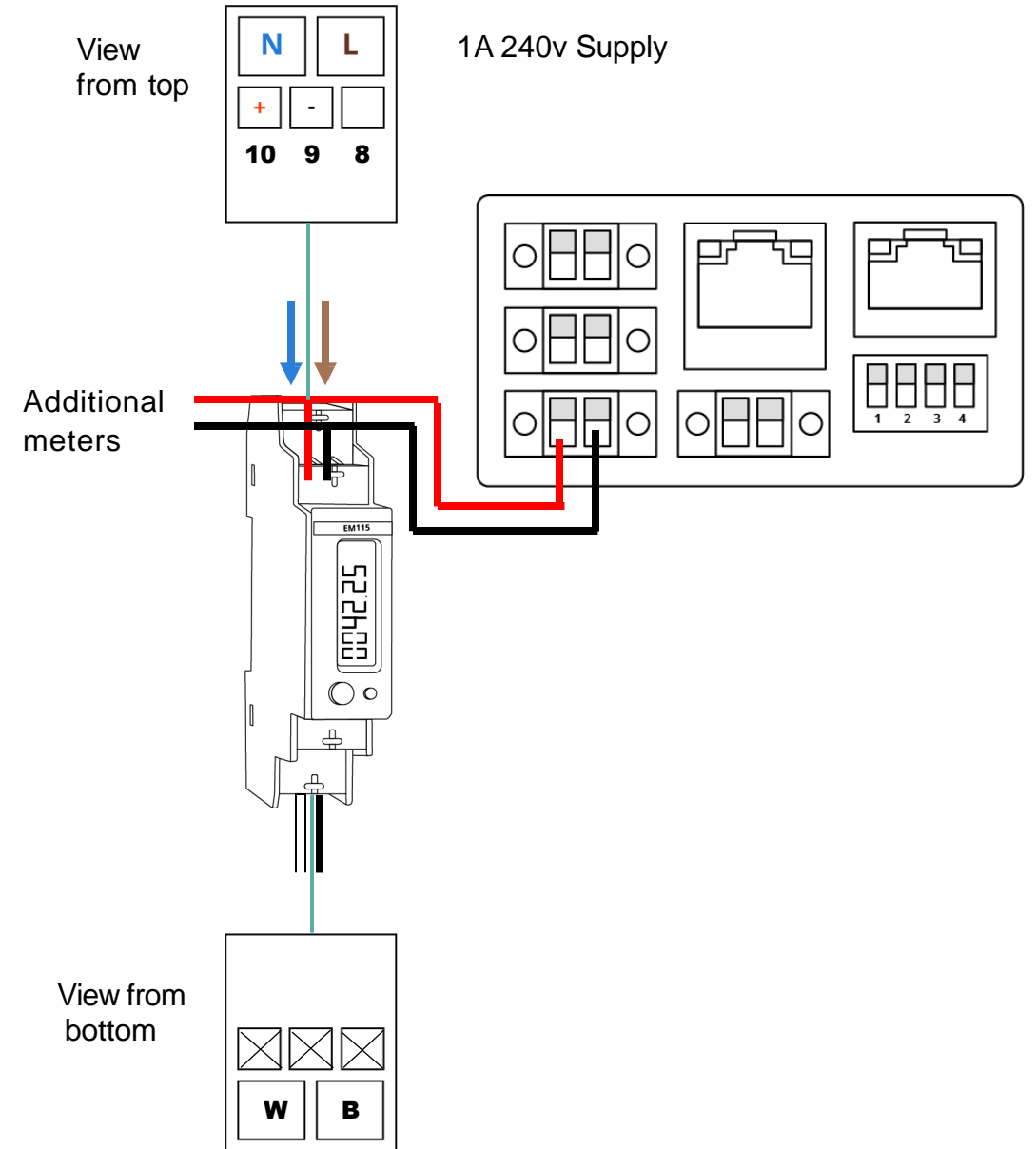
Please note, the comms cable should run from A to B without any joints and be run separate to AC power cables unless screened cable is used.

Please carry out the following checks.

1. Please check that the comms cable is plugged into the inverter in the correct port.
2. Check that the polarity of the comms cable is correct at the inverter and at the meter. On the meter Terminal 10 is + and terminal 9 is -.
3. Check you have continuity on the comms cable.
4. Try re-terminating the comms cable.

If after carrying out these tests and you still have the comms fault, then please contact Tech support.

NOTE, If installed on a 3-phase supply then the phase the inverter is installed on must also be the same for the meter. i.e Inverter supplied on L2, the meter must also be supplied on L2, and the CT clamped around L2 phase cable.



Battery comms fault

All Givenergy batteries have a BMS inside them, this is what the inverter communicates with via a comms cable. When the inverter can't see the battery, it will read the battery as a LEAD ACID battery and report a negative temperature on the portal. It will also read as 125Ah no matter what size the battery installed.

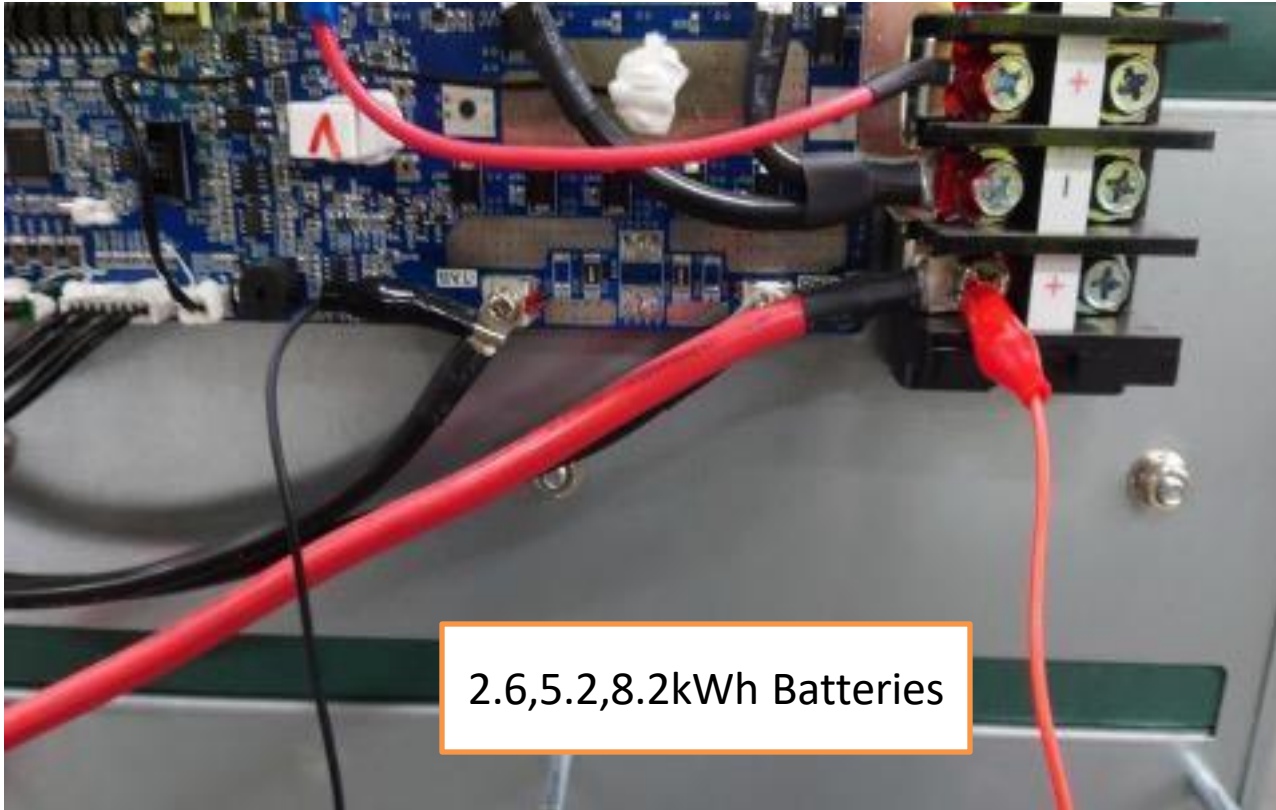
Please carry out the following checks.

1. Make sure the battery firmware is up to date.
2. Check the dip switches are correct on the master battery.
3. Please check that the comms cable is plugged into the correct ports, refer to installation guide.
4. Check the polarity of the comms cable.
5. Check you have continuity on the comms cable.
6. When using the Gen 2 battery cables (Orange Plug), make sure the plug is pushed all the way in so there are no gaps between the socket and plug.
7. Turn the system off for 2 minutes then power back up.

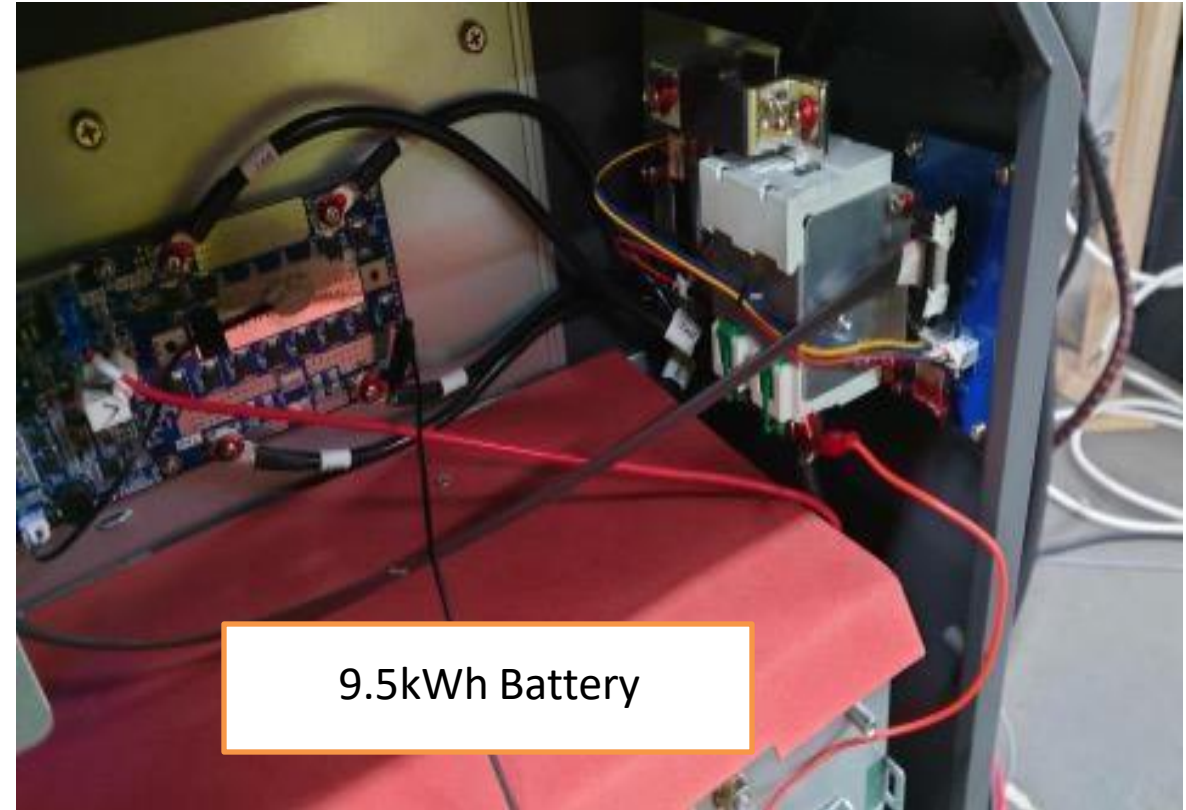
Low voltage Battery

If the battery does not turn on, then please measure the voltage of the battery. If you have a DC power supply, then please use this to recover the voltage of the battery pack. Power down the system by isolating all DC inputs, Turn the DCMCB off then solar and then AC grid. Turn off any other battery that is on, off by press and holding the switch on the right side of the battery.

- Remove the front cover of the battery and if the battery has the red protective card fitted, then please remove this to reveal the BMS.
- Using the DC power supply connect the red crocodile clip to the main positive terminal. Then connect the black crocodile clip to the black negative terminal on the bottom of the BMS.



2.6,5.2,8.2kWh Batteries



9.5kWh Battery

- Turn the DC power supply on and turn the voltage and current to around 60v @ 5a. This will start the recovery of the battery voltage. (This will turn the battery on)
- Once the voltage has reached between 46v then turn the DC power supply off and disconnect the crocodile clips from the terminals.
- Replace the red card and front cover.
- Repeat this process with any other batteries that need to be recovered.
- When all batteries that need recovering are recovered then turn the whole system back on. You should here the relay click inwhen the inverter and batteries tie together.
- Check the portal that the inverter is reading the battery correctly.
- Contact Tech Support to assist in the balancing/recovery of the battery packs.

Wi-Fi Dongle not connecting

- When connecting the Wi-Fi dongle/built in Wi-Fi to the end user's router please ensure that the router is broadcasting a 2.4Ghz signal. When searching for local connections the signal strength should be greater than 60% for a reliable connection. If you are having issues with the router not broadcasting a 2.4Ghz signal or the signal is poor, then I would recommend the customer purchasing a cheap TP-Link Wi-Fi extender. You can get these for around £20 or less. This TP-Link broadcasts a 2.4Ghz signal and will boost the signal strength for a reliable connection.
- If you are still having trouble connecting the dongle, then please use your mobile phone as a Hotspot and set the dongle to link to your phone. This should then connect and start sending data to the portal.
- If the dongle has connected to the router and you are able to connect to it with your laptop or phone via a connection to the Dongle but it's not showing on the portal, then please power the system down for 2 minutes and then power the system back up. If after this the system is still not reporting data to the portal, plug the dongle into a laptop and check that it has only got a single file on it. This should be a MSN.txt file. Open this file and it should read the serial number of the Dongle. If it doesn't then insert the serial number back in.



Stuck Firmware

If when updating the inverter or battery remotely then there is a risk that this wont Go through properly.

If this happens then you will need to plug the dongle into a laptop and delete the files

from the dongle or on a Gen 2, Gen 3 and the All in One and gateway you will need a USB A to USB A lead.

1. Turn off the system so no lights are lit.
2. Set the dip switches to USB
3. Plug the lead into the laptop and then into the inverter USB port.
4. This should open a USB drive window. It should have the MSN.txt file. If it has any other files, then these will need to be deleted.
5. Copy and paste the MSN file to the desktop
6. Format the USB drive.
7. Once formatted copy and paste the MSN file back onto the USB drive.

This has now deleted the unwanted corrupt files. Either load the firmware files onto this USB drive (if you have the correct files) or contact tech support for them to update remotely.

