

IMPORTANT !

This document is designed as a quick setup guide.

The full instructions are available using the QR code below and must be read in it's entirety before installing or using the ICSESS. Failure to follow any of the instructions or warnings in this document can result in fire, electrical shock, serious injuries or death.

The ICSESS must be installed by a qualified electrician.

The entire installation must comply with the latest BS7671 Regulations and any other applicable regulations.

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FURTHER INFORMATION AND HELP

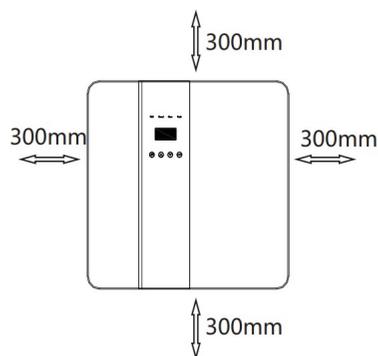
If you require further information or technical assistance please visit our support portal by scanning the QR code below, it contains helpful videos as well as setup guides and FAQs.



MOUNTING THE INVERTER

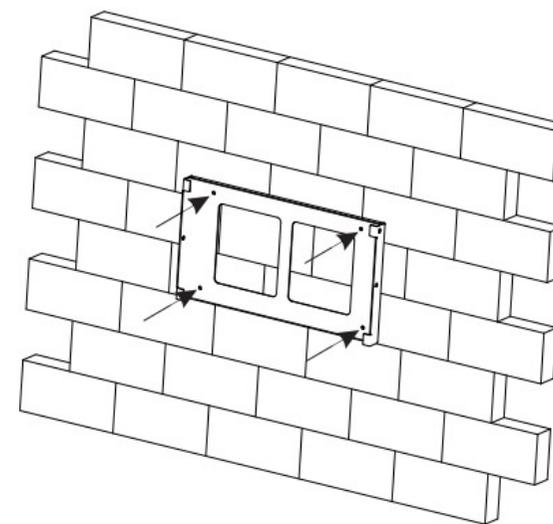
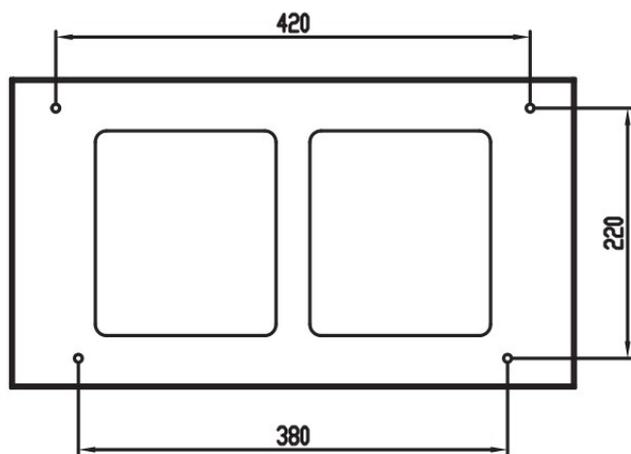
SPACE REQUIREMENTS

Please choose a suitable location to mount the inverter. It should have a minimum spacing of 300mm from each side of the inverter as per the diagram below.



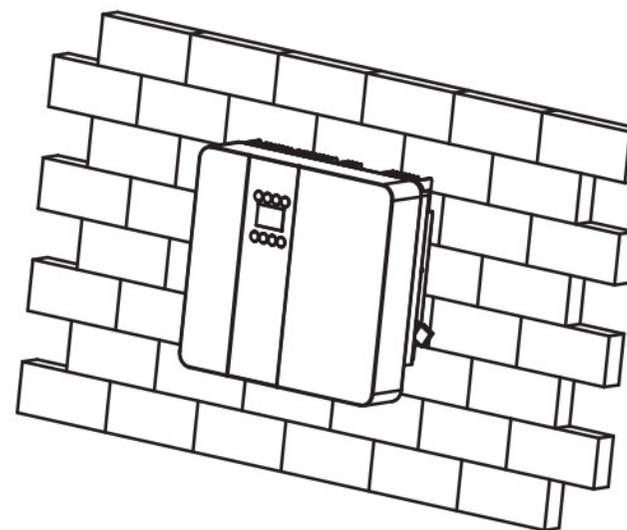
INSTALLING THE WALL BRACKET

- Hold the wall bracket to the wall and mark the 4 holes required.
- Drill the holes to the required depth for the anchor bolts (minimum 60mm deep) and screw the wall bracket to the wall using the fixings provided.



SECURE THE INVERTER TO THE WALL BRACKET

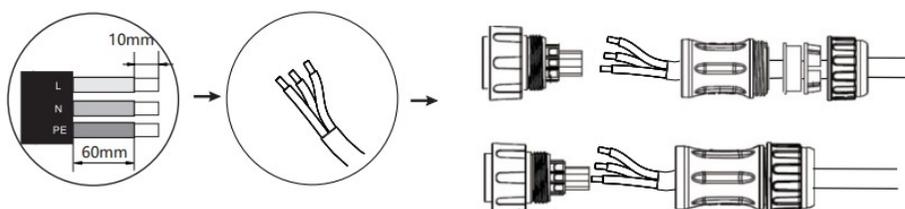
Slot the inverter onto the wall bracket and secure with a screw on each side. The end user may install a lock if they require.



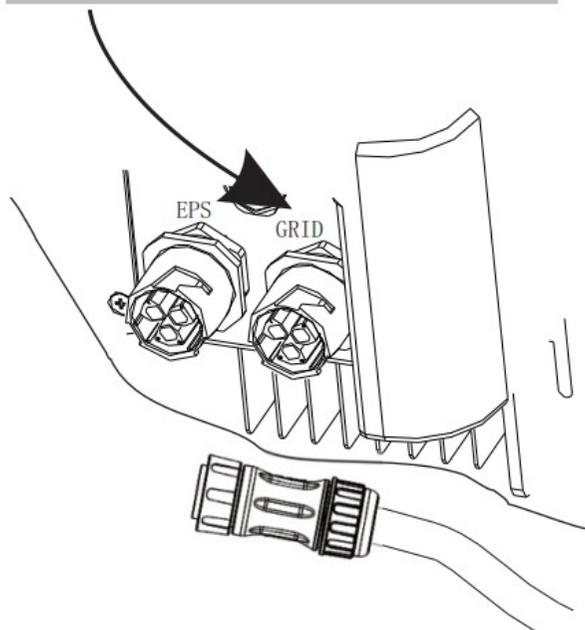
ELECTIRCAL CONNECTION— INVERTER

AC CONNECTION—GRID

The ICSESSH5K has quick release AC connectors for both the Grid, and EPS Output. Assemble the AC connector as shown below. Ensuring you use cable of the correct thickness and protection upstream depending on the installation and requirements in the regulations.



Note: Connect the AC connector to the GRID into grid interface.



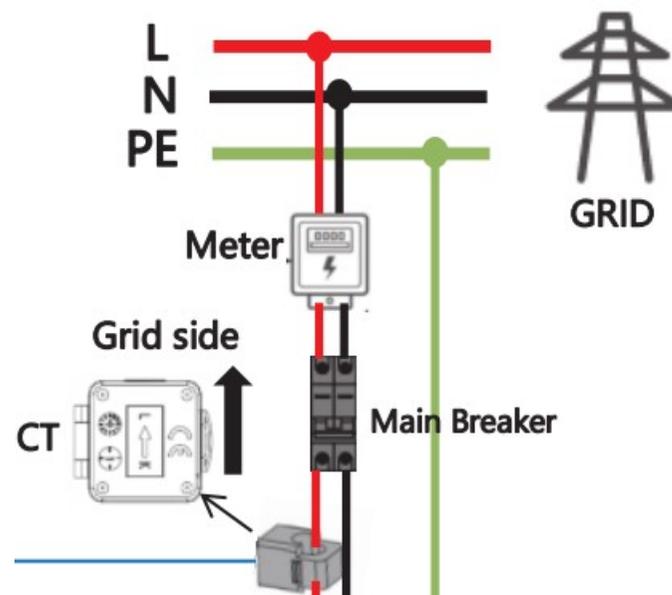
AC CONNECTION—EPS

The ICSESSH5K has an EPS output which remains live if the grid connection is lost. This is designed to power appliances in the event of a power cut.

CT CLAMP LOCATION

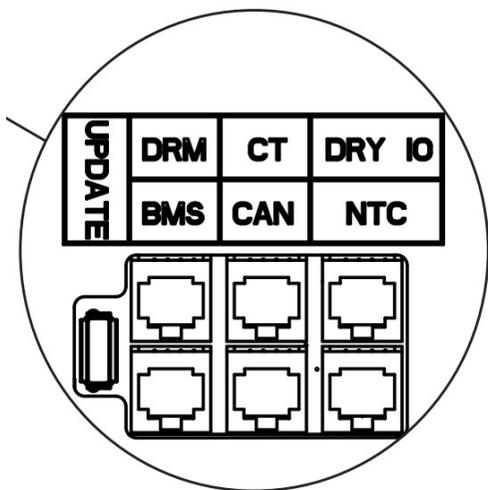
The ICSESSH5K includes a CT Clamp, this MUST be fitted to the inverter so it knows what the demand of the house is.

The CT Clamp should be fitted near the house electricity meter and the arrow should point towards the grid.



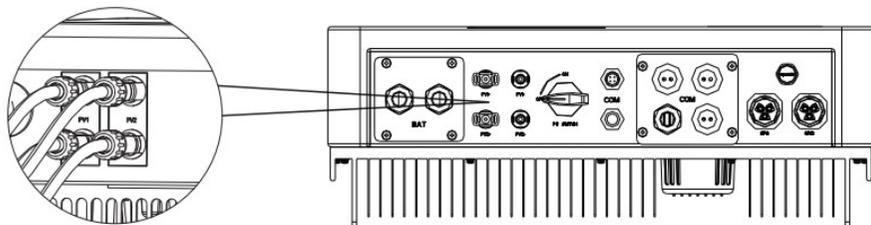
CT CLAMP CONNECTION

The CT Clamp should then be wired to the CT RJ45 port located behind the gland plate labeled 'COM' on the inverter.



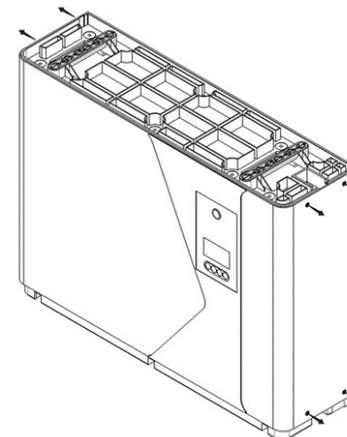
PV WIRING

Connect the PV to the inverter using the 4 MC4 connectors. Ensure that the voltage of the PV does not go out of tolerance from the values listed on the sticker on the side of the inverter.

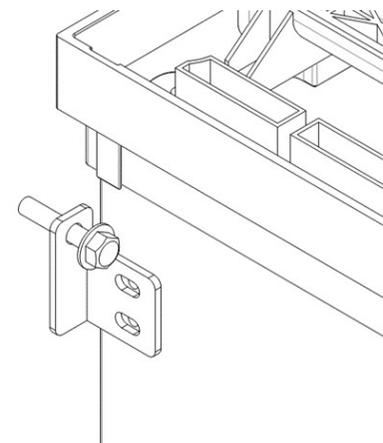


ICSESS1 MOUNTING

- Remove the 8 screws holding on the front cover of the battery module.



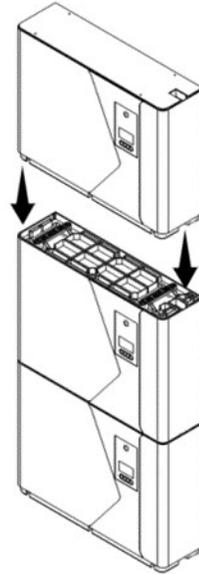
- Using the drill template included within the packaging, mark the required holes.
- Drill the holes using the correct size bit for the included wall anchors.
- Align the holes and mount the batteries using the wall anchors provided.



ICSESS1 MULTIPLE BATTERIES

The ICSESS1 can be paralleled up to a maximum of 8 battery modules. These battery modules slot onto each other and then can be secured to the wall as before.

Please note there is a maximum of 3 battery modules per stack.



ICSESS1 DC WIRING

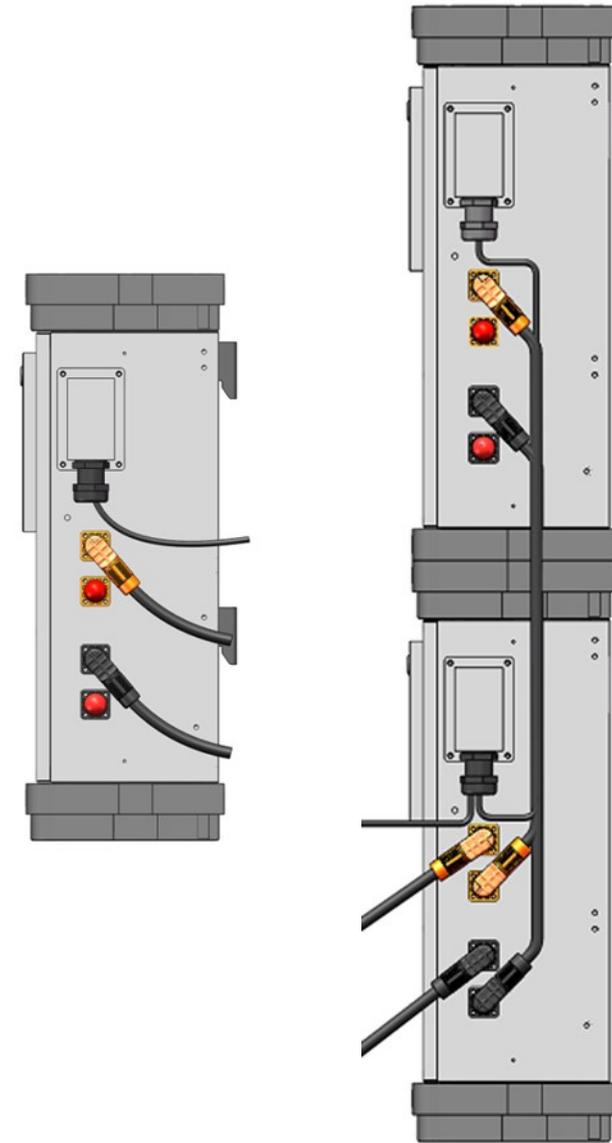
The ICSESS1 uses quick connectors which means the DC wiring is simple to connect.

ICS have pre made cable kits available which allows the installer to simply push the connectors onto both the battery and inverter. Included within the box are quick connectors should you choose to make your own cables.

To parallel connect batteries simple join the batteries by going from positive of one battery, to positive of the next battery, as shown in the diagram on the next page.

The ICSESSH5K also has the same quick connectors. Connect the positive from the Master battery (battery configuration in next step), to the positive on the inverter, and the negative from the battery to the negative of the inverter.

The outer casing of the batteries and inverter must also be earthed.



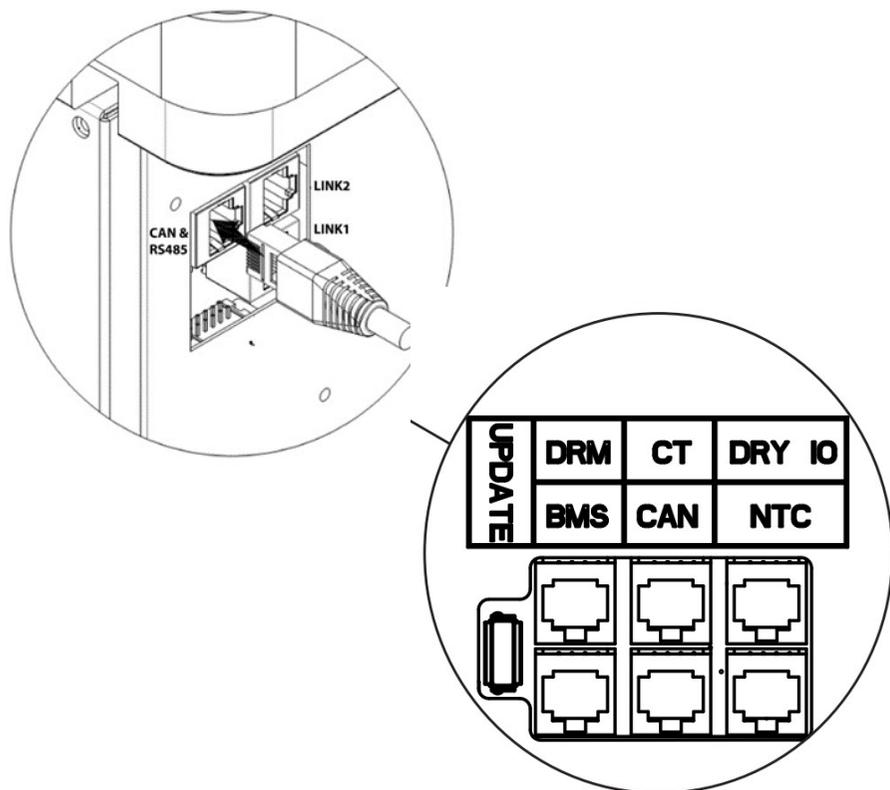
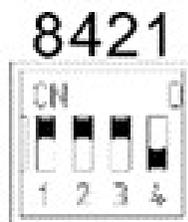
ICSESS1 DIP SWITCH SETTINGS AND COMM CABLE

1 BATTERY MODULE

If the system you are installing has only one battery module, this will need to be set up as module number 1 (Master Battery).

This is achieved by pushing down DIP 1 (Labelled as DIP 4).

Once this is done, an ethernet cable must be run from the CAN & RS485 port to the BMS port of the inverter.



MULTIPLE BATTERY MODULES

If the system you are installing has multiple battery modules, then you must assign the battery that has been DC connected with the inverter as module 1, follow the 1 battery module settings to do this.

On the parallel connected batteries, you must run an ethernet cable from Link 2 of module 1, to Link 1 of Module 2. This is the same for all other parallel batteries—Link 2, to Link 1.

All parallel batteries must be assigned a module number using the DIP switches.

The DIP switches use a BCD number system and should be set up as below: 0 = Up, 1 = Down

Once configured, reinstall the front cover on the battery modules.

DIP SWITCH LABEL	1	2	3	4
Module 1	0	0	0	1
Module 2	0	0	1	0
Module 3	0	0	1	1
Module 4	0	1	0	0
Module 5	0	1	0	1
Module 6	0	1	1	0
Module 7	0	1	1	1
Module 8	1	0	0	0

ICSESSG SETUP

The ICSESSH5K requires the use of the ICSESSG to pair the unit to the internet to then be able to use the iCS2.0 Lite app.

1. Connect the gateway using the cable provided to the COM connector on the inverter.
2. Power on the grid to the inverter and then turn on the battery modules.
3. Make sure the light on the front of the ICSESSG illuminates.
4. Go to the Wi-Fi settings of your smart device (Phone, or Laptop)
5. Find the Wi-Fi hotspot name which is given on the sticker on the side of the gateway, An example being AP_ICSG-12321
6. Connect to this network using the password ics654321
7. Once connected navigate to 192.168.10.1 using a browser.
8. It will ask for a username and password which is below:

Username: admin Password: icspass01
9. Once logged in, follow the setup wizard to enter the Wi-Fi details of the property where the inverter is installed.

iCS2.0 Lite App Configuration.

The free iCS2.0 Lite app enables the end user of the inverter to monitor and control their battery system.

The user needs to create an account on the app. Once created they will be greeted with a screen that says add device, click that button and type in the serial number of the ICSESSG, e.g. ICSG1001

OPERATING MODES

Once paired to the app, the end user is able to change the modes of the inverter:

Self Consume When the inverter is set in self consume mode, it will power the house using solar power, if there is excess solar power, this will charge the battery. If there is no solar available, the battery will provide power to the household loads.

Bat Priority when this mode is selected, the battery will charge at the maximum rate using all of the solar and grid if needed.

Peak Shift with this mode set, the inverter will switch between Self Consume, and Bat Priority on a timed schedule.



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