

SH5K-30 connection and settings to enable the Backup function

Disclaimer

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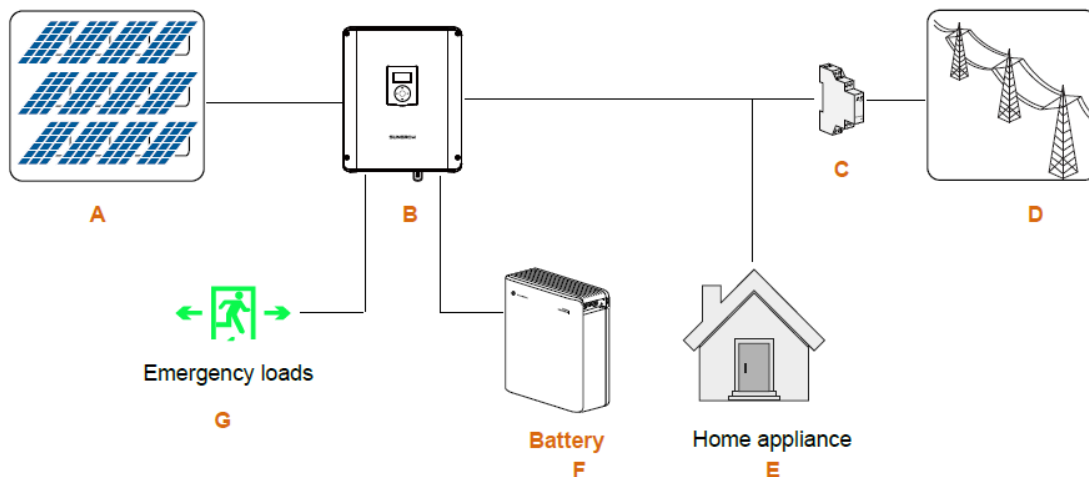
The purpose of the Backup (EPS) Function is to enable certain house circuits to remain on in the event of a power failure. **Built-in EPS function is for SH5K-30.**

It is necessary first to decide which household appliances should be included in the EPS circuit and carry out any required re-wiring. For example, the customer may want the lights, fridge and Internet to remain on.

Please bear in mind that:

- the maximum power from the battery in the off-grid mode is 3000 Watts, and
- there must be PV and/or Battery energy available.

The switchboard must be split between 'Essential' and 'Non-Essential' loads.



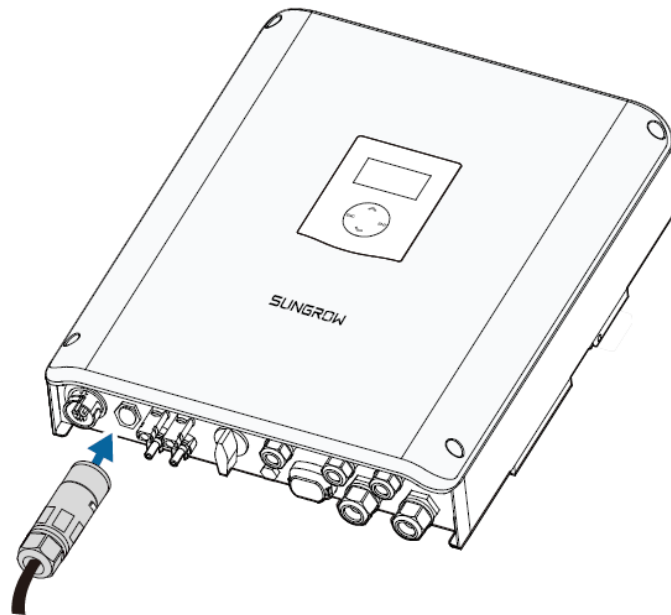
When the grid fails, the SH5K-30 decouples from the grid, switches over into off-grid mode in 20 ms, and will then supply the emergency loads from the PV / Battery

The inverter will then power the emergency loads from the PV and/or battery.

When the grid comes back on, the inverter will go into standby, then go through the start up. During this time, the emergency loads will be connected to grid.

Wiring:

The backup circuits plug directly into the inverter with the supplied AC plug.



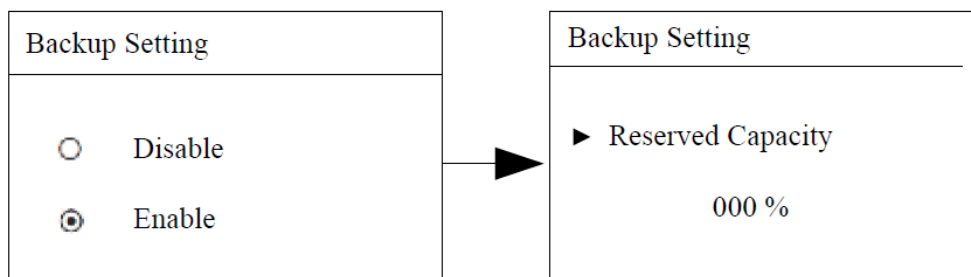
The energy meter must be correctly connected for this operation to function correctly.

The Energy Meter must be located in the main switchboard to enable proper Grid sensing.

Always install an AC Isolator beside the inverter to disconnect the emergency circuits from the inverter 240V AC if the main switch is off (i.e. off-grid mode).

Menu settings:

During the initial commissioning, the backup setting is disabled by default. Enable the Backup if required and set the reserved capacity of the battery.



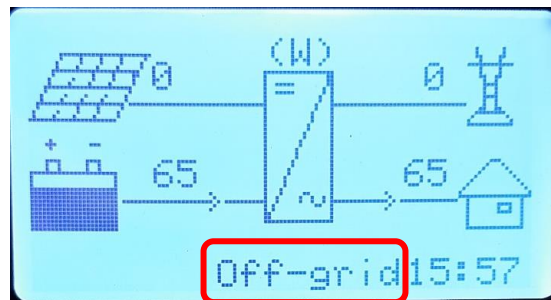
The “Reserve Capacity” will quarantine a set amount of battery charge to be only available in off-grid mode. **Default is 000% which means all available capacity is used for normal cycle.**

If it is important to the customer to always have energy available, set to desired %.

Testing the Backup function:

Open the main switch at the consumer switchboard.

After 20 ms, the changeover switch will operate, and the inverter will go into off-grid mode (an alarm will briefly sound). This will prove that the everything has been correctly connected, set, and is working properly.



If it does not go into off-grid mode or cycles between the two, there is likely a wiring issue with the energy meter. This could be the reference voltage of the meter is connected to the wrong part of the live circuit and picking up 240 V (probably the EPS circuit) and sending signals to the inverter that grid is on. Re-check the connections of the energy meter.

If the issue persists, please take photos testing on site and contact Sungrow Service Department on 1800 786 476.