

Fault 106 Earth fault

Fault 106 indicates that the inverter is not grounded.

If the fault persists, restart the inverter. The restart procedure is as follows for the SH5K+:

1. Turn off the solar supply main switch or the AC isolator. The solar supply main switch is usually in the switchboard. The AC isolator is between the inverter and the switchboard.
2. Turn off the DC PV array isolator (which is located next to the inverter) and turn off the battery circuit breaker and battery.
3. Wait until the inverter shuts down completely (there will be no LEDs lit up and no display). Once the LED and LCD turn off, wait for a further 30 s to allow the energy in the inverter's capacitors to dissipate.
4. Turn on the DC PV array isolator and turn on the battery circuit breaker and battery.
5. Turn on the solar supply main switch or the AC isolator (whichever was turned off in step 1).

Wait a few minutes for inverter recovery (the LEDs go from flashing green and red indicating standby and starting up, then if the inverter works fine it will change to a green light). Make sure that the primary earth connection and secondary earth connection are correctly installed.

For an off-grid system (where there is no grid line at the house), if fault 106 occurs, Try connecting the earth to the neutral bar.

The following is more commonly applicable for permanently off-grid systems: there may not be a connection to earth via the main earth to neutral (MEN) bar through the load connection. Do not use a generator and make sure that the main-earth-to-neutral (MEN) bar is connected properly, so that the inverter is earthed properly, and connect it to an earth pole that is firmly embedded into the ground. If unsure where the earth fault is, measure the earth voltage until you find where the earth voltage drops to zero.

Check the AC side connection. Check that the 3 lines are correctly connected (PE, L and N). Check that the connector of the 2nd PE connection is fine, with the wire connected and a screw on it. Check the country setting of the LCD is set to AU. Measure the voltage between the AC L and PE pins, and the voltage of the 2nd PE connection, and take photos. Take the inverter cover off and measure the internal AC voltage and take photos.

If the fault persists, please contact Sungrow Service Department and send photos.