Fault code and troubleshooting steps of 1-phase string inverters

Applicable to: **1-phase string inverters**

Off-grid load overpower (Code 051)

Fault name	Load overpower of Back-Up port (fault code: 051)
Fault type	Malfunction
Fault condition	The power required for the load of the Back-Up port is greater than the power can be provided by the PV or the batteries.
Steps and method of troubleshooting	Reduce the load power of the Back-Up port, refer to corresponding paragraph (The Compatibility for Backup under Off-grid Scenario) in the [user manual](#).

Off-grid load low voltage (Code 052)

Fault name	Off-grid load low voltage (fault code: 052)
Fault type	Fault
Fault condition	The effective value of inverter voltage is lower than the protection value under off-grid normal operation
Steps and methods of troubleshooting	Use a multimeter to measure the off-grid port voltage and compare it with the displayed value. If there is a big difference, it is judged that the sampling is abnormal, and it is recommended to replace the inverter.

For further information, please download the user manual [here](#).

This manual is intended for professional technicians who are responsible for installation, operation, maintenance and troubleshooting of inverters, and users who need to check inverter parameters. The inverter must only be installed by professional technicians.

The professional technician is required to meet the following requirements:

- Know electronic, electrical wiring and mechanical expertise, and be familiar with electrical and mechanical schematics.
- Have received professional training related to the installation, commissioning and troubleshooting of electrical equipment.
- Be able to quickly respond to hazards or emergencies that occur during installation, commissioning and troubleshooting.
- Be familiar with local standards and relevant safety regulations of electrical systems.
- Read this manual thoroughly and understand the safety instructions related to operations.