3-phase String Inverter-FAQ

Fault code and troubleshooting steps of 3-phase string inverters

Applicable to: 3-phase string inverters

Module overtemperature (Code 036)

Fault name	Module temperature is too high (fault code: 036)
Fault type	Fault shutdown
Fault condition	The temperature of power module sampled by NTC exceeds 94℃ for 1s;
Steps and methods of troubleshooting	1. Check, if the internal fan is normal. If the fan is abnormal, please replace the fan. 2. Check, if the inverter power module is normal. If it is abnormal, please replace the inverter.

High ambient temperature (Code 037)

Fault name	High ambient temperature (fault code: 037)
Fault type	Failure shutdown
Fault condition	The ambient temperature exceeds 89°C for 1s
Steps and method of troubleshooting	1. Check whether the fan is normally working and free from dust. If the fan is abnormal, please clean or replace the fan. 2. The ambient temperature is 10°C lower than the protective value for 10s. 3. Check whether the inverter power IGBT module is normal. If it is abnormal, please replace the power board.

Line-side relay fault (Code 038)

Fault name	Line-side relay fault (fault code: 038)
Fault type	Failure shutdown
Fault condition	Contact adhesion and disconnection frequently occur on the relay; There is a fault of low phase-to-ground resistance in external grid.
Steps and method of troubleshooting	1. Use a multimeter to measure the voltage to ground of inverter phases. If the voltage to ground is low, a relay fault will be reported. Check whether any external cables are broken and grounded. 2. If the voltage appears in the correct range, please replace the inverter.

Low ISO resistance (Code: 039)

Fault name	Low ISO resistance (fault code: 039)
Fault type	Failure shutdown
Fault condition	The resistance to ground is less than the set value (default value: 40kΩ).
Steps and method of troubleshooting	1. External PV panel grounding check: Remove all the PV strings connected to the inverter and use a multimeter to measure the voltage to ground of the positive and negative electrodes of the strings and determine whether there is a grounding fault of the PV panel. 2. Use proper electrical measurement device for troubleshooting.

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.