Operation mode description of 1-phase residential storage inverter

Applicable to: SHxxRS series

1 Production for self-consumption

The inverter is set to the mode of production for self-consumption, and the control supplies power to the load first (including the backup port load).

1.1 Daytime PV power ≥ load power

As shown in Figure 3-3 below, when the battery SOC is lower than 100%, after the PV input power meets the load power supply, the remaining energy charges the battery and still delivers the remaining energy to the power grid. When the battery SOC is 100%, after the PV input power meets the load power supply, the surplus electric energy is transmitted to the power grid.

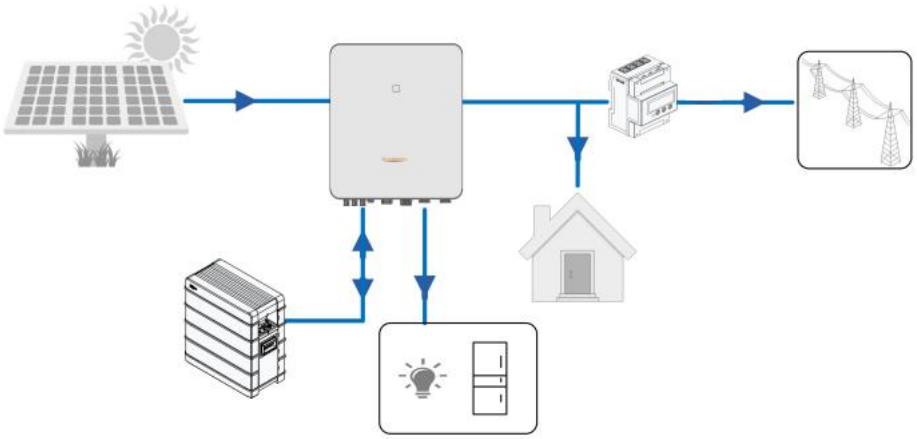
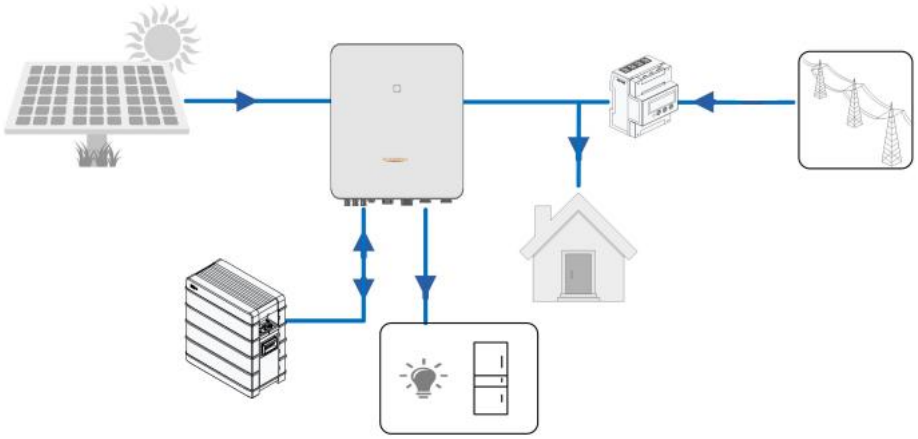


Figure 3-3 Daytime PV power ≥ load power

1.2 Daytime PV power < load power

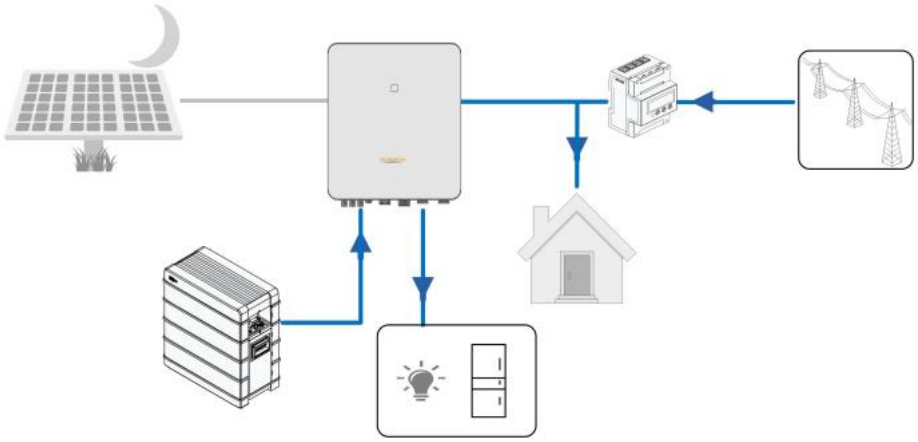
As shown in figure below, when the battery is fully charged, the battery discharges to the load, and the insufficient part is supplied by the power grid. When the battery power is insufficient, the load consumption is supplemented by the power grid.



Daytime PV power < load power

1.3 No-light scenario at night

Under no-light scenario at night, PV power is 0. As shown in figure below, when the battery is fully charged, the battery discharges to the load first. If the battery discharge cannot meet the load consumption or the battery power is insufficient, the required electric energy is provided by the power grid.

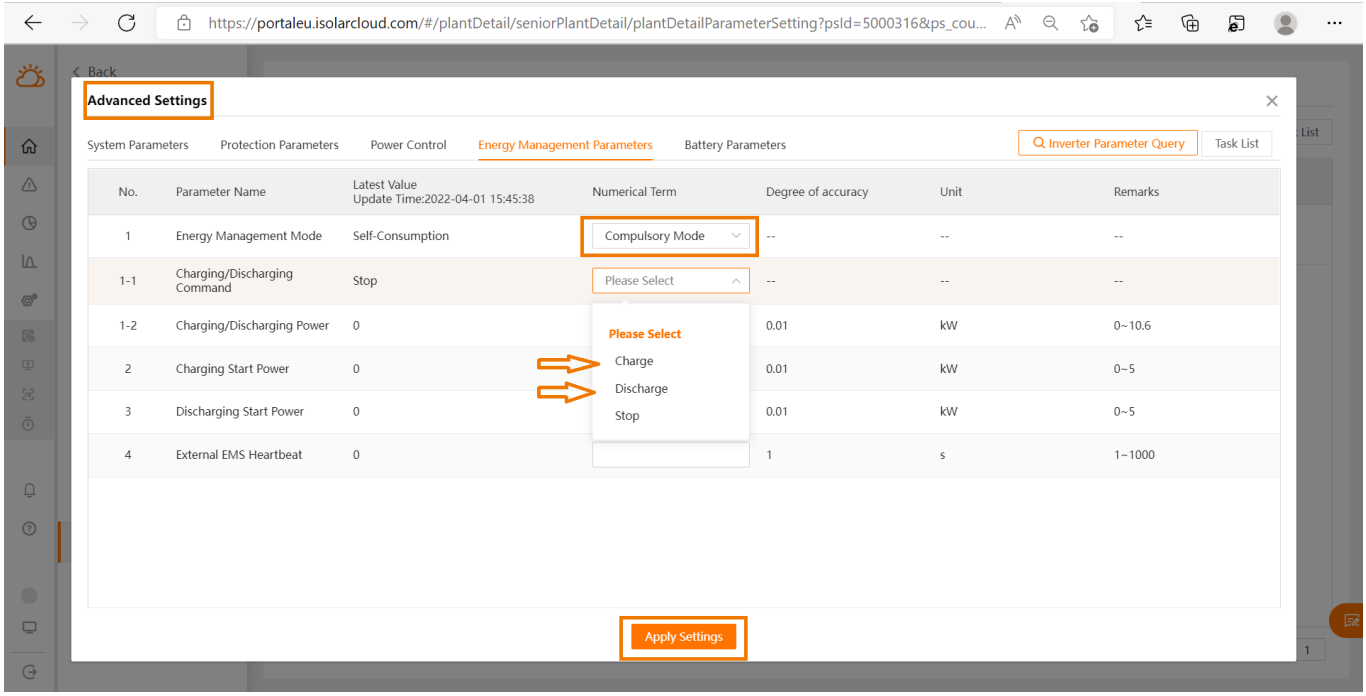


No-light Scenario at Night

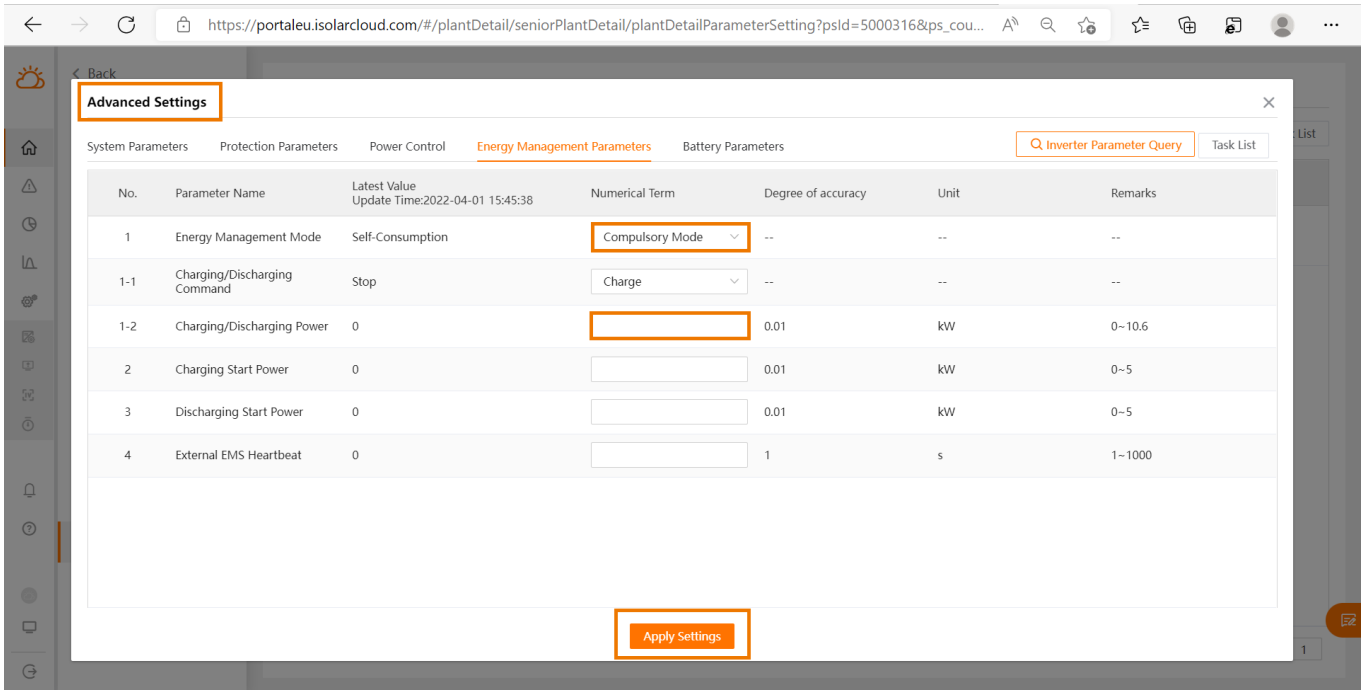
2 Compulsory mode

Two instruction values are issued locally through iSolarCloud APP:

2.1 Control instruction charging, discharging or stop.



2.2 Power instruction charging and discharging power value.



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.

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