

Document version 01
Release Date 2025-06-30

Parallel Configuration Guide by Solarman App for SiH-10PRO~50kW-TH Inverter Models

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About

This manual introduces how to set the Parallel Configuration Guide by Solarman App for SiH-10PRO~50kW-TH Inverter Models with explanations for you to understand and use this system flexibly and effectively.

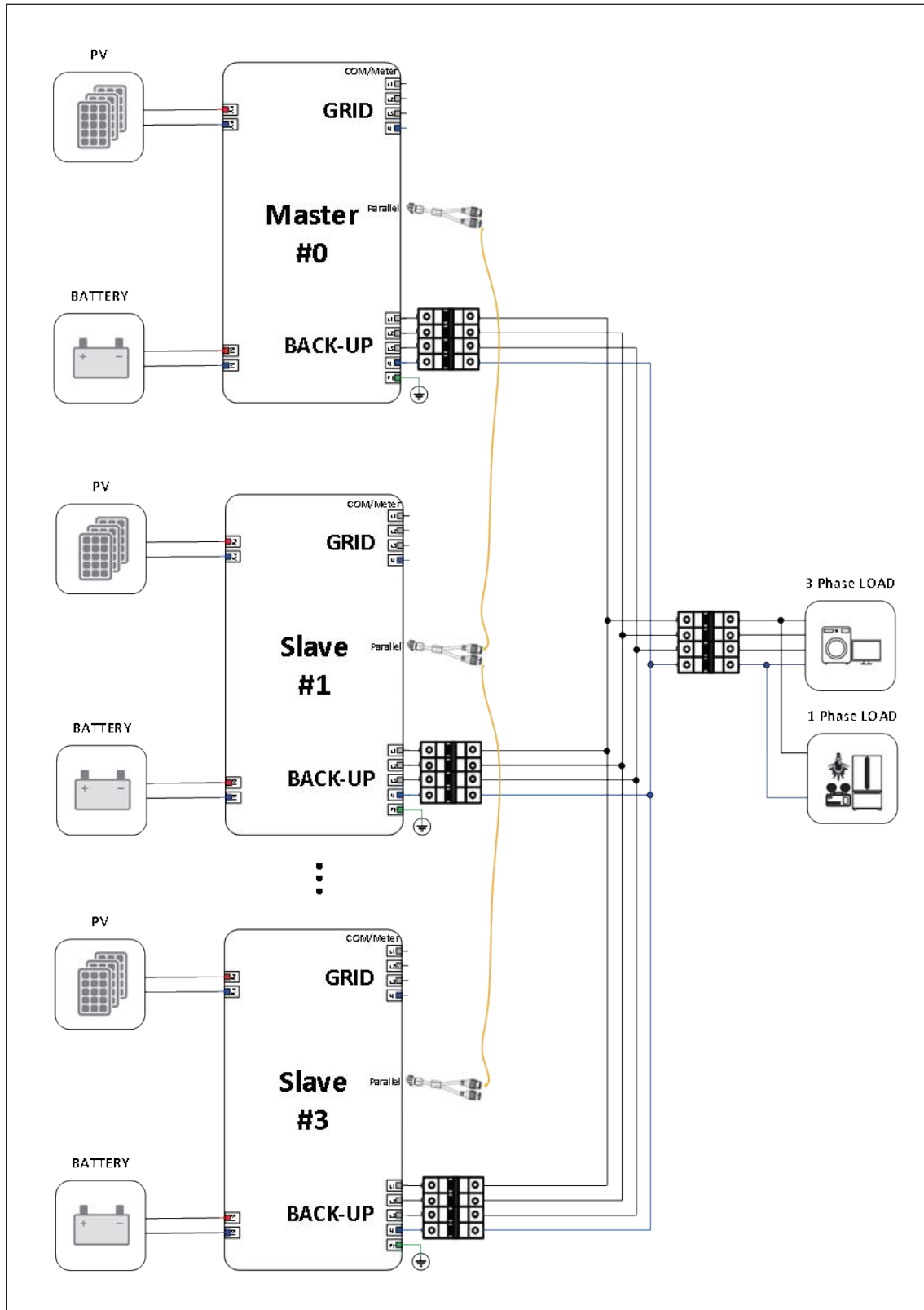
Target Group

This manual is intended for professional technicians who have responsibilities for the installation, operation, and maintenance of inverters, as well as users who need to check inverter parameters.

How to Use This Manual


- Please carefully read this manual before utilizing the product and store it in a readily accessible location.
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- In order to offer customers the optimal usage experience, the contents of this manual may be periodically updated or revised, and the specifications of the actual product purchased should take precedence.

1. Setting up in an “Off-Grid Energy Storage System” scenario



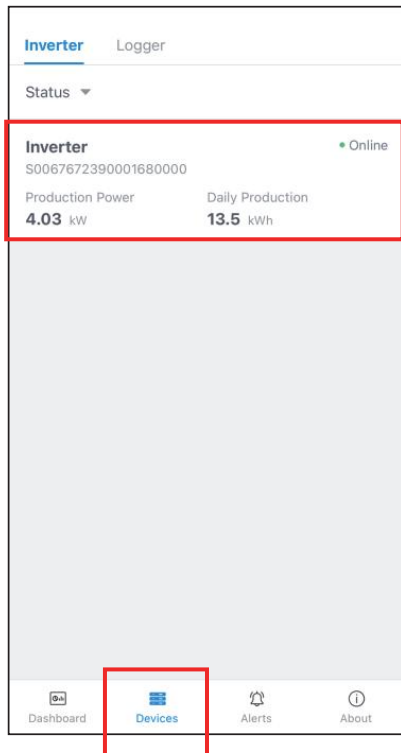
Before initial setup, please ensure that:

- Please strictly follow the steps in the Quick Start Guide and wiring diagrams for standardized operations.
- All cables, PV panels, Battery, and Backup port, connecting to the inverter are connected correctly, and the wiring sequence is consistent; Communication cables are connected properly
- All circuit breakers, system main switches, “DC Switch” on the left side of the inverter, are in the “OFF” position.
- A stable and fast 2.4G WiFi network is available.
- If a wireless network is not available, please prepare two phones: one as a WiFi hotspot (ensure good signal and “Mobile data” is turned on), and the other phone for configuring the parallel system.

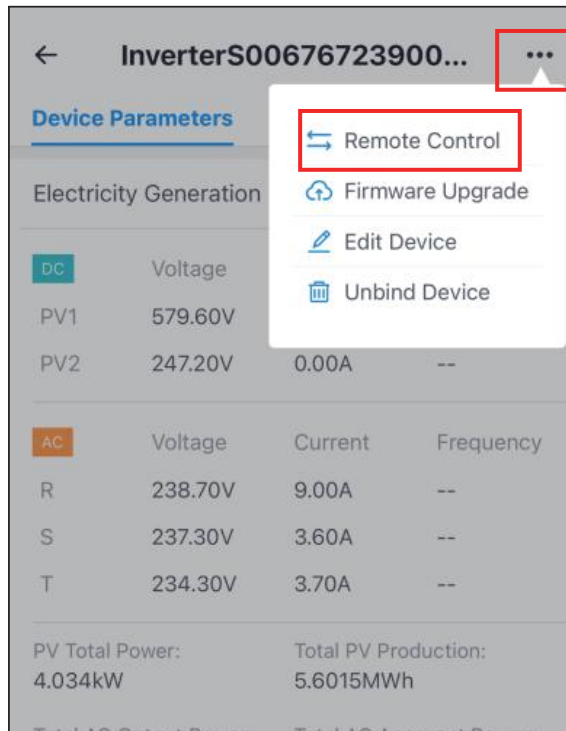
 **After confirming that all circuit breakers, switches, and inverters is in “OFF” status. Power on one inverter for setting, after this one inverter’s settings are completed, then power on the next inverter for setting until all inverter’s setting is completed.**

Stage 1 - Master Inverter’s Parallel Mode Setup

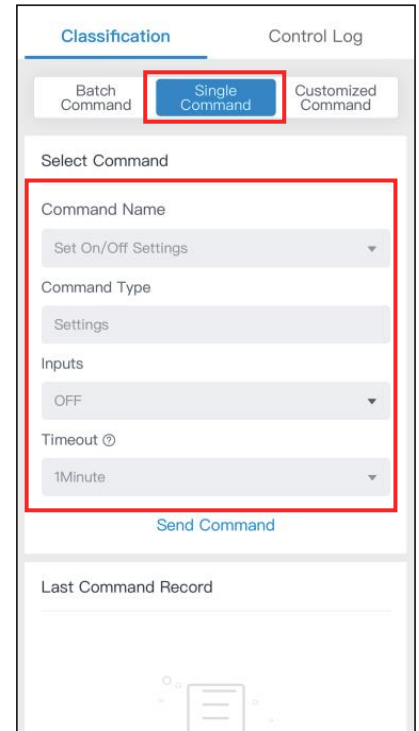
1. Power on the inverter: Turn on the PV circuit breaker, “DC Switch” on the left side of the Master Inverter, and battery circuit breaker in sequence. Once the inverter and battery indicator lights are on, it indicates that the inverter is powered on normally.
2. Add inverter information to the App: Download and register for a Solarman account, add a plant, and then scan the WiFi logger’s QR code to add the logger. Within about 5 minutes, the inverter information will be added to the plant. (For detailed operations, refer to the Solarman Instruction Document for adding power stations), and contact distributors to get the parallel configuration’s authorization.
3. Remotely control the inverter to “OFF” state: Choose the Master Inverter, select “Remote Control” - “Single Command”,
 - Choose “Set On/Off Settings” in “Command Name”.
 - Choose “OFF” in “Inpus”.
 - Click “Send Command” to confirm the settings. No need to modify other settings.



Step 1

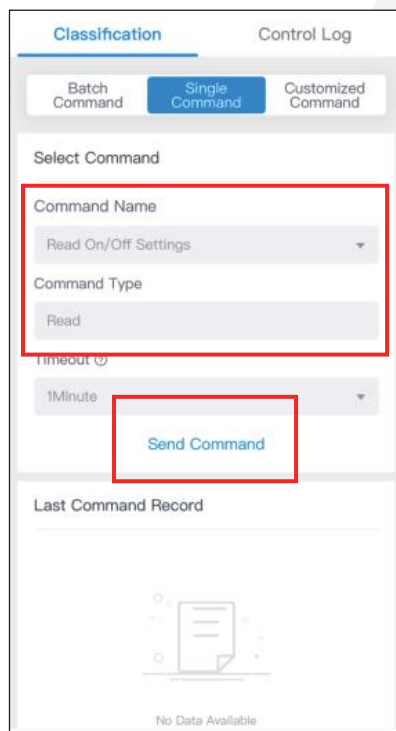


Step 2

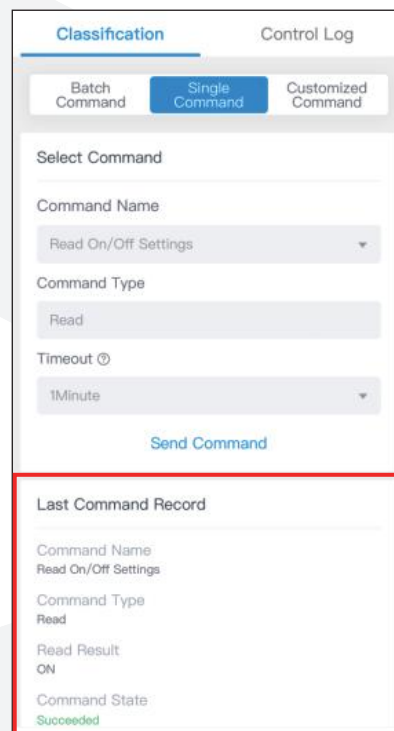


Step 3

- Choose "Read On/Off Settings" in "Command Name".
- Click "Send Command" to confirm the Master Inverter is in the "OFF" state.



Step 1



Step 2

4. Set the Master Inverter's Parallel mode: After hearing a "clicking" sound from the Master Inverter, select "Batch Command", find the "Parallel operation".
- Click "Read" to get the current settings and confirm that there are currently no settings.
 - Choose "Enable" in "MultiParallel enabled".
 - Choose "Master" in "MultiParallel role".
 - Fill in the number of units to be Parallel .
 - Choose "Parallel" in "load type".
 - Click "Setup" to confirm the settings. No need to modify other settings.
 - Click "Read" to get the current settings and confirm that the settings have been applied successfully.

Classification Control Log

Batch Command
Single Command
Customized Command

Parallel operation ^

Manually read at 2024/10/16 23:43:24 UTC+11:00

Read Successfully

MultiParallel enabled

Disable ▼

MultiParallel role

Master ▼

Number of parallel

2

load type

unParallel ▼

unbalanced control enable

Enable ▼

Read
Setup

Classification Control Log

Batch Command
Single Command
Customized Command

Parallel operation ^

Manually read at 2024/10/16 23:43:24 UTC+11:00

Read Successfully

MultiParallel enabled

Enable ▼

MultiParallel role

Master ▼

Number of parallel

2

load type

Parallel ▼

unbalanced control enable

Enable ▼

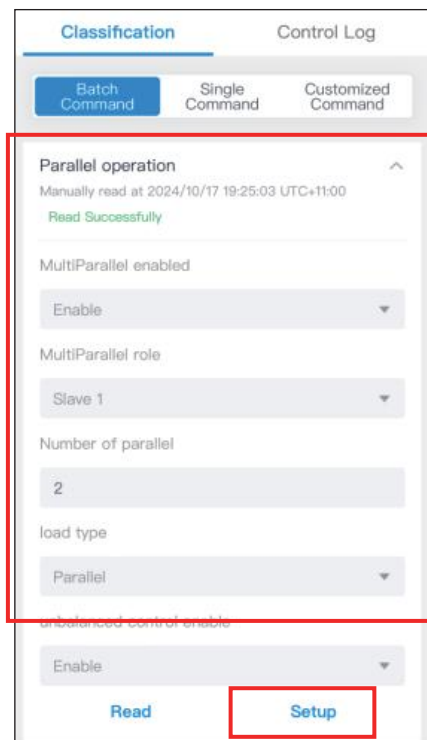
Read
Setup

Step 1

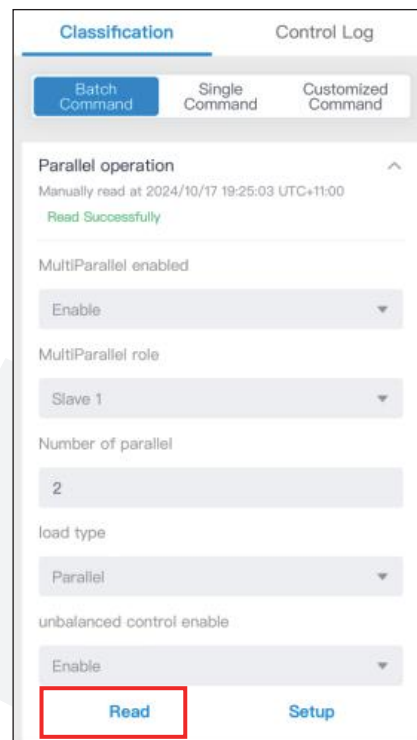
Step 2

Stage 2 - Slave Inverter's Parallel Mode Setup

- 1.Repeat steps 1-3 of the Master Inverter Parallel Setup.
- 2.Set the Slave Inverter's Parallel mode: After hearing a “clicking” sound from the Slave Inverter, select “Batch Command”, find the “Parallel operation”.
 - Click “Read” to get the current settings and confirm that there are currently no settings.
 - Choose “Enable” in “MultiParallel enabled”.
 - Choose “Slave 1” in “MultiParallel role”.
 - Fill in the number of units to be Parallel .
 - Choose “Parallel” in “load type”.
 - Click “Setup” to confirm the settings. No need to modify other settings.
 - Click “Read” to get the current settings and confirm that the settings have been applied successfully.



Step 1

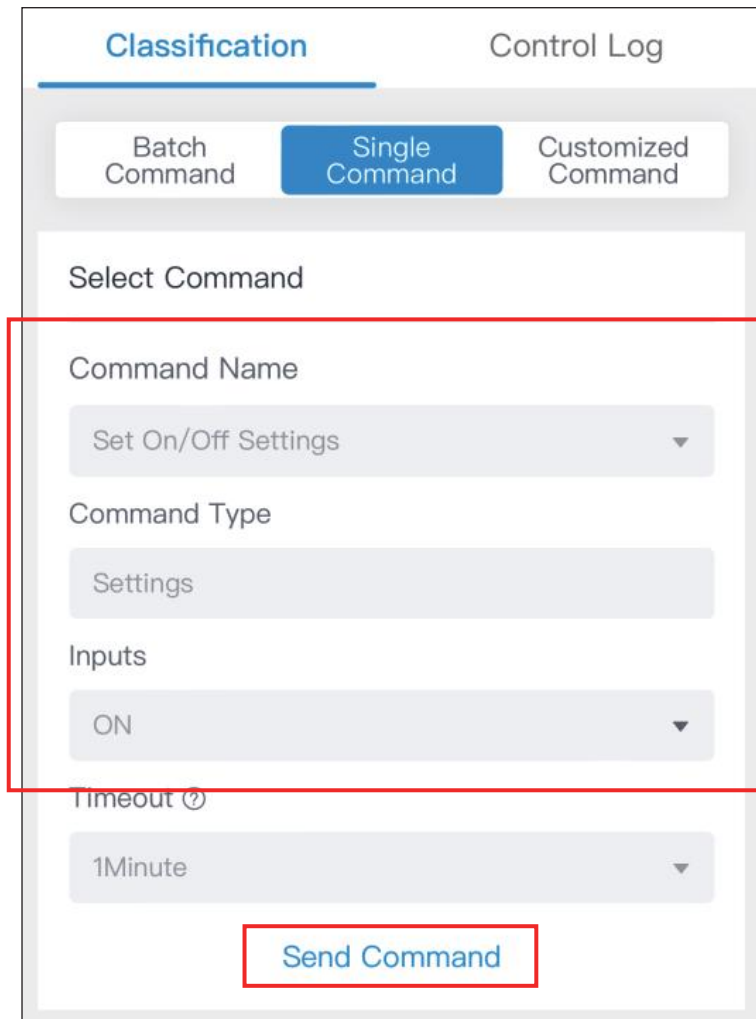


Step 2

- 3.If there are more Slave Inverters, repeat the steps 1-2 in this Stage .
- 4.Turn the circuit breaker of the BACKUP end of each inverter to “ON” position after completing the Parallel settings for Master and all the Slave Inverters.

Stage 3 - Remotely control the Parallel system to start

1. Remotely control the Master Inverter to start: Choose the Master Inverter, select "Remote Control" - "Single Command",
 - Choose "Set On/Off Settings" in "Command Name".
 - Choose "ON" in "Inputs".
 - Click "Send Command" to confirm the settings. No need to modify other settings.



The screenshot displays the 'Classification' tab of the remote control interface. Under the 'Single Command' button, the 'Select Command' section is highlighted with a red box. This section contains three dropdown menus: 'Command Name' (set to 'Set On/Off Settings'), 'Command Type' (set to 'Settings'), and 'Inputs' (set to 'ON'). Below these, the 'Timeout' is set to '1Minute'. A 'Send Command' button is located at the bottom of the form, also highlighted with a red box.

- Choose "Read On/Off Settings" in "Command Name".
- Click "Send Command" to confirm the Master Inverter is in the "ON" state.

Classification
Control Log

Batch Command
Single Command
Customized Command

Select Command

Command Name

Read On/Off Settings ▼

Command Type


Read

Timeout ⌚

1Minute ▼

Send Command

Last Command Record



No Data Available

Classification
Control Log

Batch Command
Single Command
Customized Command

Select Command

Command Name

Read On/Off Settings ▼

Command Type

Read

Timeout ⌚

1Minute ▼

Send Command

Last Command Record

Command Name
Read On/Off Settings

Command Type
Read

Read Result
ON

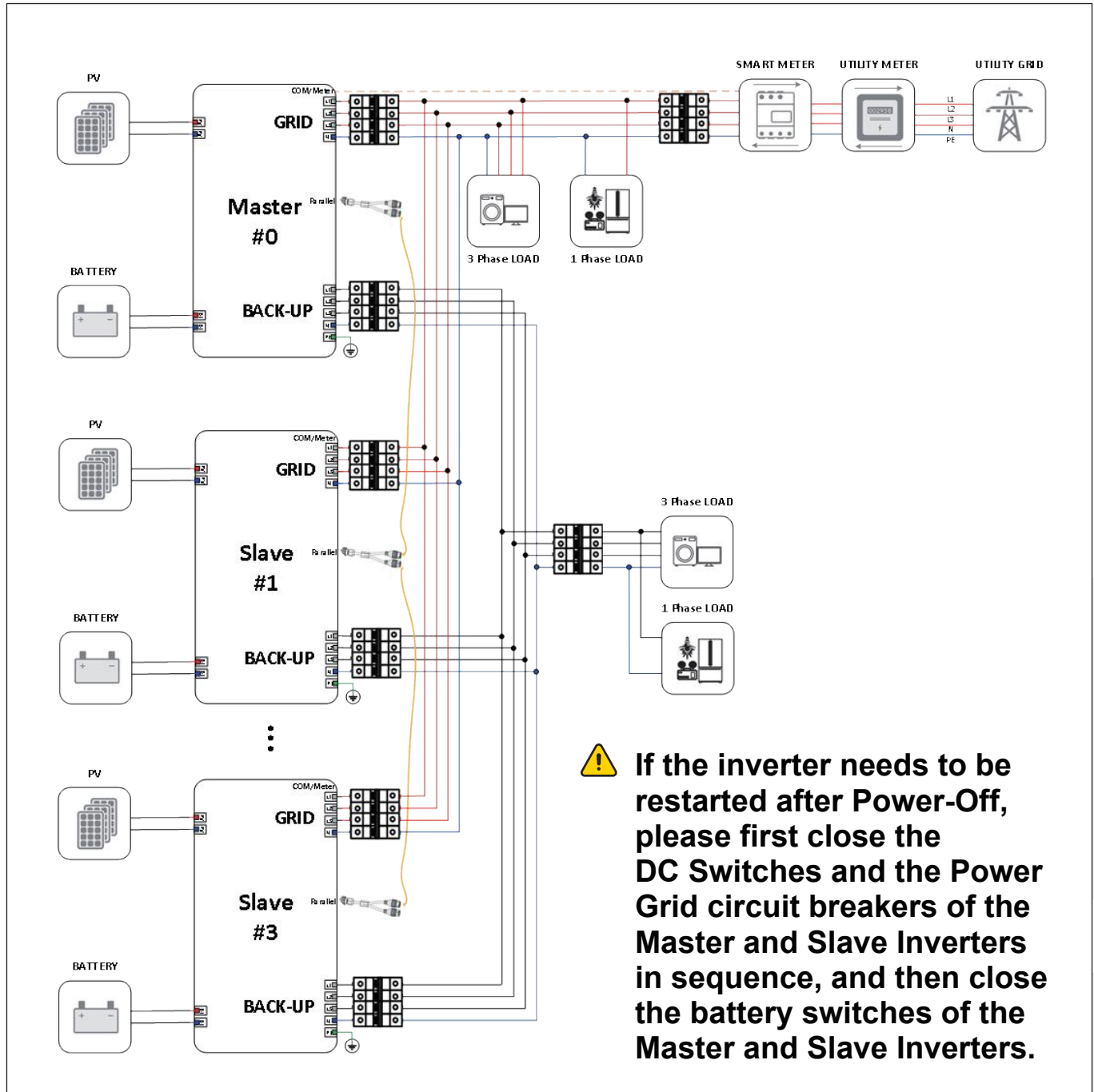
Command State
Succeeded

Step 1

Step 2

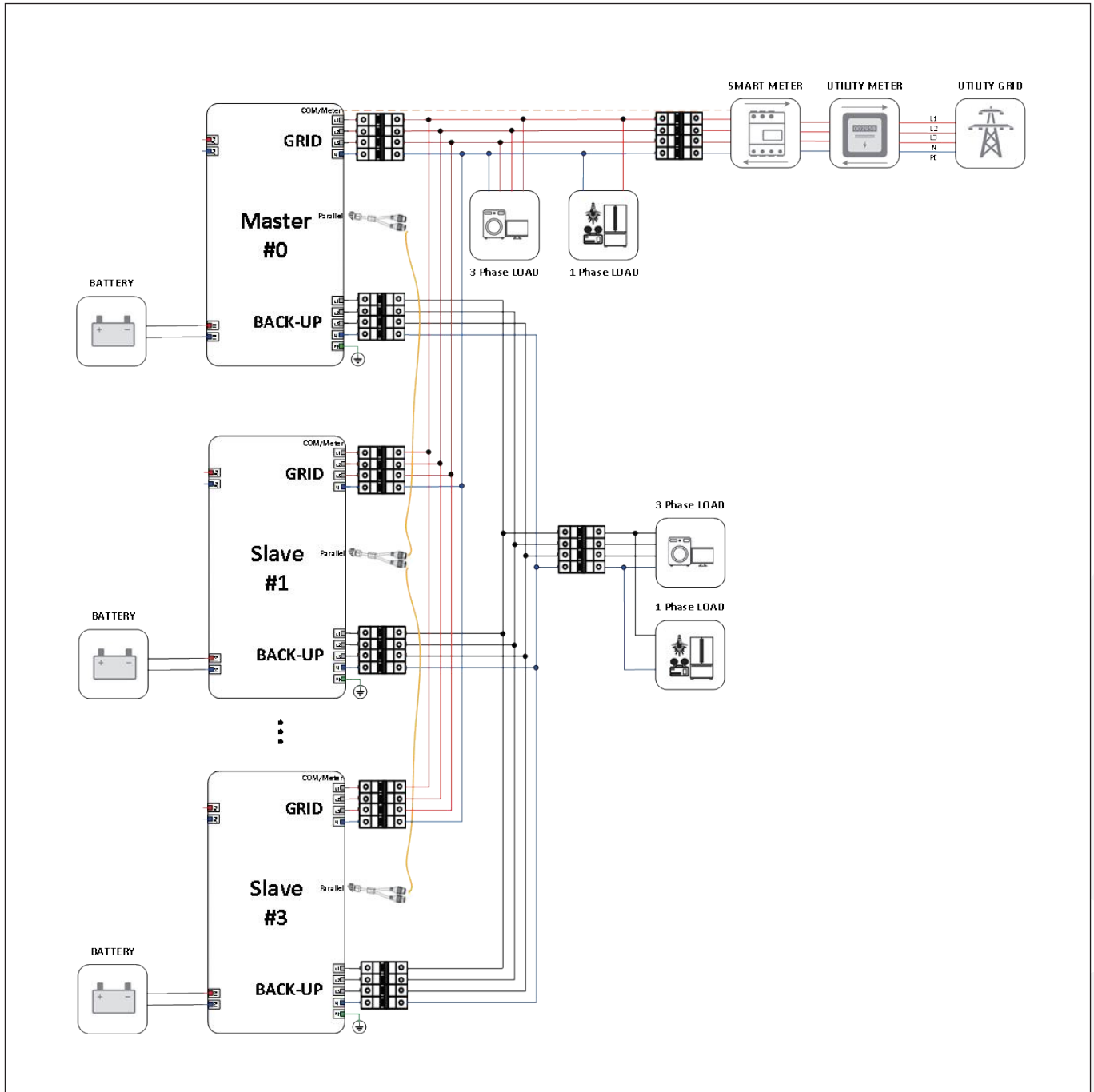
2. Remotely control Slave Inverter to start running: Click on Slave Inverter, select "Remote Control" - "Single Command",
 - Choose "Set On/Off Settings" in "Command Name".
 - Choose "ON" in "Input".
 - Click "Send Command" to confirm the settings. No need to modify other settings.
3. If there are more Slave Inverters, repeat step 2.
4. Turn the main switch of the parallel system to "ON" position after completing the Startup Settings for all inverters, then the Parallel System can be used normally.

2. Setting up in an “On-Grid Energy Storage System” scenario



The Parallel Mode Configuration of On-Grid ESS is almost the same as the Off-Grid ESS. It only requires closing the circuit breakers of the Power Grid in sequence after the completion of the Parallel Mode Configuration and before issuing the Power-On command. After the completion of closing the Power Grid circuit breakers of all machines, issue the Power-On commands to the inverters in sequence.

3. Setting up in an “Grid Energy Storage System(without PV input)” scenario



Before the Parallel Mode setup, first close the circuit switch of the Power Grid. And the rest of the operation is the same as the scenario of “Off-Grid Energy Storage System”.