

ELS-5K Three-phase Power Grid Setup Function Introduction

Rev1.0.0 2024-09-24

NOTE: This feature is available for ELS-5K model in EMEA, AU, CN,
and ELS-5K-SG model in Latin America.

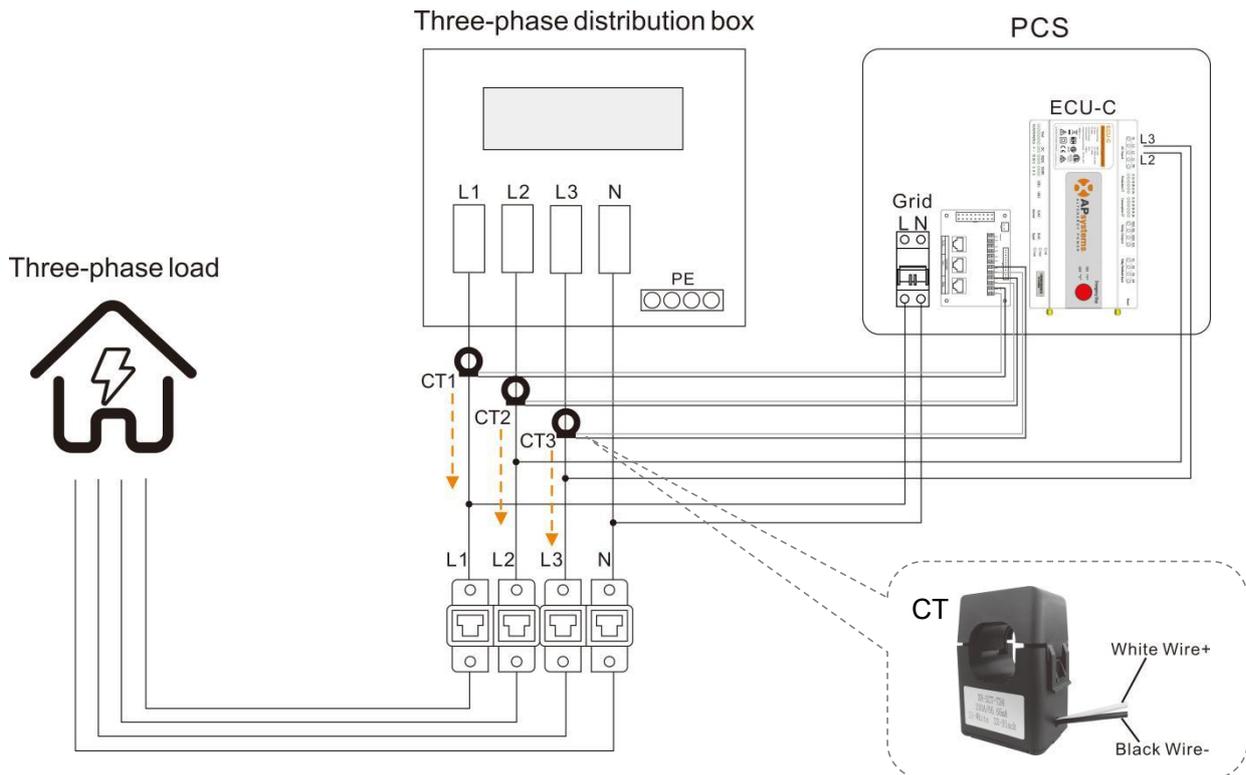
1.1 Summarize

Three-phase AC power network is a power system composed of three AC circuits with the same frequency, equal potential amplitude and 120° Angle of phase difference. ELS-5K PCS are single-phase systems. The function of the three-phase power grid setup is to change the single-phase connection to the three-phase connection, and then achieve the goal of detecting the total power of the household three-phase power and supporting the combination of three-phase power. In the case of sufficient battery power, ELS-5K can achieve zero loss of household power.

For example, if a household three-phase load uses 3kw of electricity, then the ELS-5K can release 3kw of power to the grid to achieve charge and discharge balance.

1.2 Three-phase power grid setup wiring diagram

Two wires are drawn from the L2 terminal and L3 terminal on the relay output panel of the ECU-C built-in in PCS, and connected to the L2 and L3 of the three-phase power distribution cabinet for detecting the voltage at the L2 and L3 side of the three-phase power distribution cabinet. (as shown in the picture below)



NOTES:

1. After adding two-phase Grid CT, the three-phase power data can be viewed on the data page.
2. The added two-phase Grid-CT is connected to the L2 and L3 lines of the distribution cabinet respectively, and the direction of the CT ring points to the electrical appliance side (current flow side).
3. To use this function, you need to purchase 2 additional 80A CT rings (CT ring line is 6 meters long). If you need to purchase, please contact the local seller or log in to the official website. The official website provides the contact information, email address and after-sales phone number of each region (Official website: APsystems.com, CT ring part number: 2077000117).

1.3 Set the function operation entrance of the three-phase power grid

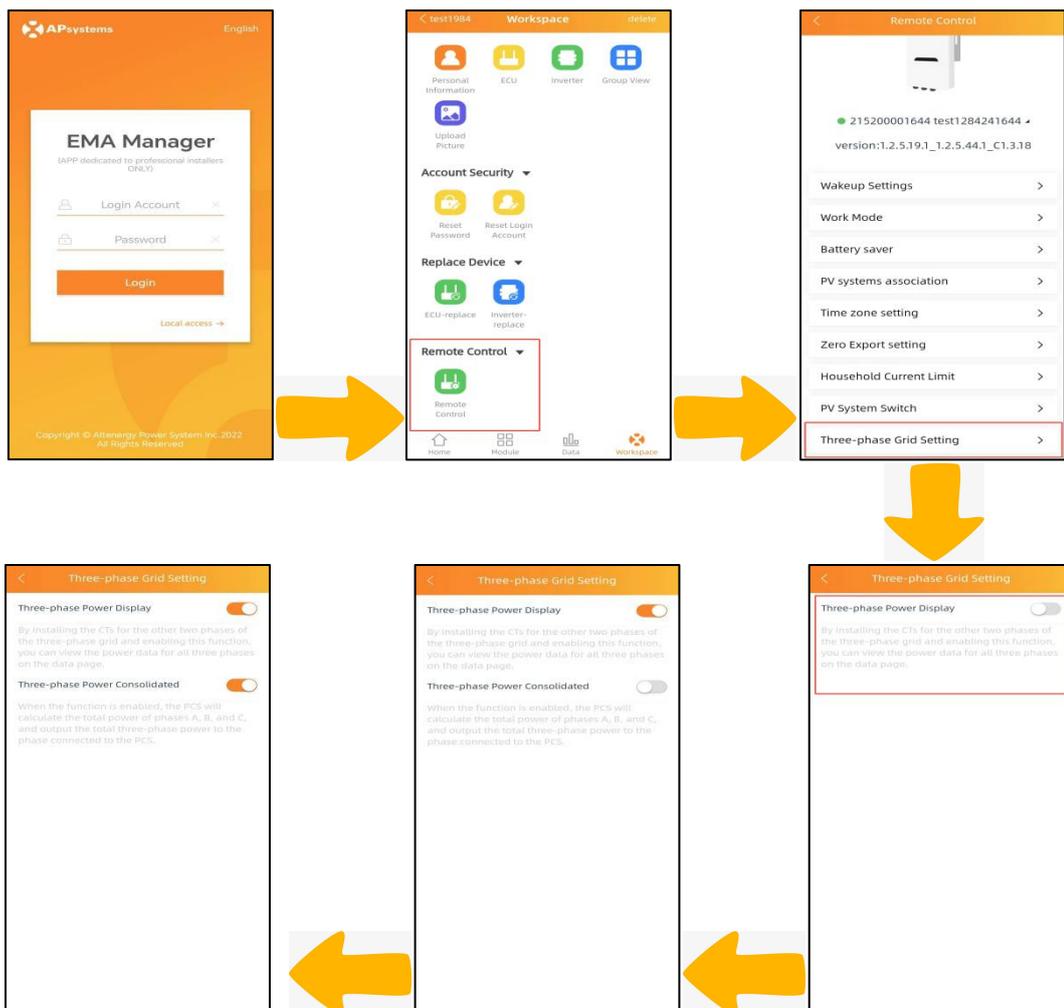
Three-phase power grid setting function Enable mode:

Remote configuration: You can log in to the authorized account in the APP "EMA Manager" or log in to the web page "Energy Monitoring and Analysis (EMA) Platform" for remote control. (see below for detailed steps)

NOTES: This function is only applicable to "EMA Manager" user accounts and "Energy Monitoring and Analysis(EMA) Platform" user accounts to log in to remote control. EMA Manager does not support this function for local access.

1.3.1 "EMA Manager" details about how to enable the function:

APP "EMA Manager" login authorized account Password -> User -> Workspace -> Remote Control -> Three-Phase Grid Setting



NOTES: Only when the three-phase data display is turned on, the three-phase power combination can be turned on.

1.3.2 Detailed steps for enabling the Energy Monitoring and Analysis (EMA) Platform:

EMA web login account granted user rights password -> User List -> Remote Control Energy Storage -> Three-Phase Grid Setting

