13. AC Couple Function Operation Guide

交流电偶功能操作指南

13.1 Introduction 概述

The hybrid inverter can support AC Couple function to retrofit exsiting grid tied PV inverter or micro inverters system.

混合逆变器可支持交流偶联功能，对现有并网光伏逆变器或微型逆变器系统进行改造

In a stand-alone offgrid system or during grid outage, the hybrid inverter of the system will maintain the stand-alone system’ s voltage and frequency to allow the PV inverter or micro inverters to continue powering the load or charging the battery, and automatically adjust the frequency upwards from 60 Hz rated frequency to as much as the 64.5 Hz trip frequency to make to prevent the excess power of the PV inverter or micro inverters from overcharging the battery(Frequency Shift Power Control (FSPC) technology). The PV inverter or micro inverters(IEEE 1547-compliant inverters) will incrementally reduce its output power(Freq/Watt compliant inverters) or disconnect itself from the hybrid inverter .

在独立离网系统或电网中断期间，系统的混合逆变器将维持独立系统的电压和频率，以允许光伏逆变器或微型逆变器继续为负载供电或为电池充电。并自动将频率从 60hz 额定频率向上调整到 64.5 Hz 脱扣频率，以防止光伏逆变器或微型逆变器的多余功率对电池过度充电(频移功率控制(FSPC)技术)。光伏逆变器或微型逆变器(符合 IEEE 1547 标准的逆变器)将逐渐降低其输出功率(符合频率/瓦特标准的逆变器)或与混合逆变器断开连接。

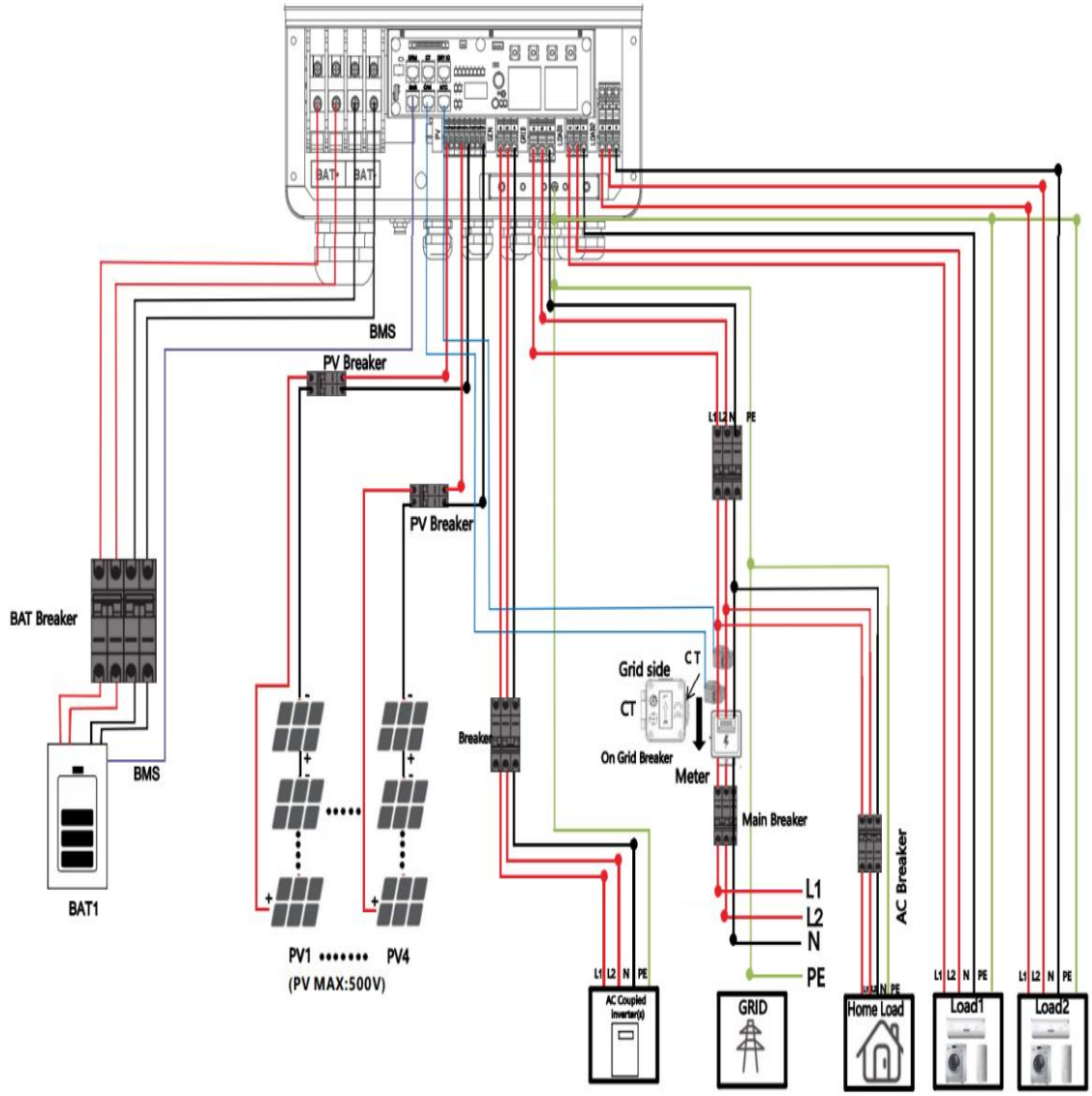
The PV inverter or micro inverters can be connected to the hybrid inverter’ s generator terminal or load2 terminal. Please notice that the generator can not be used with AC Coupled PV inverters or micro inverters at the same time because of the possible uncontrolled feedback power to the generator.

光伏逆变器或微型逆变器可以连接到混合逆变器的发电机终端或负载 2 终端。请注意，发电机不能与交流耦合光伏逆变器或微型逆变器同时使用，因为可能会对发电机产生不受控制的反馈功率

13.2 Diagram

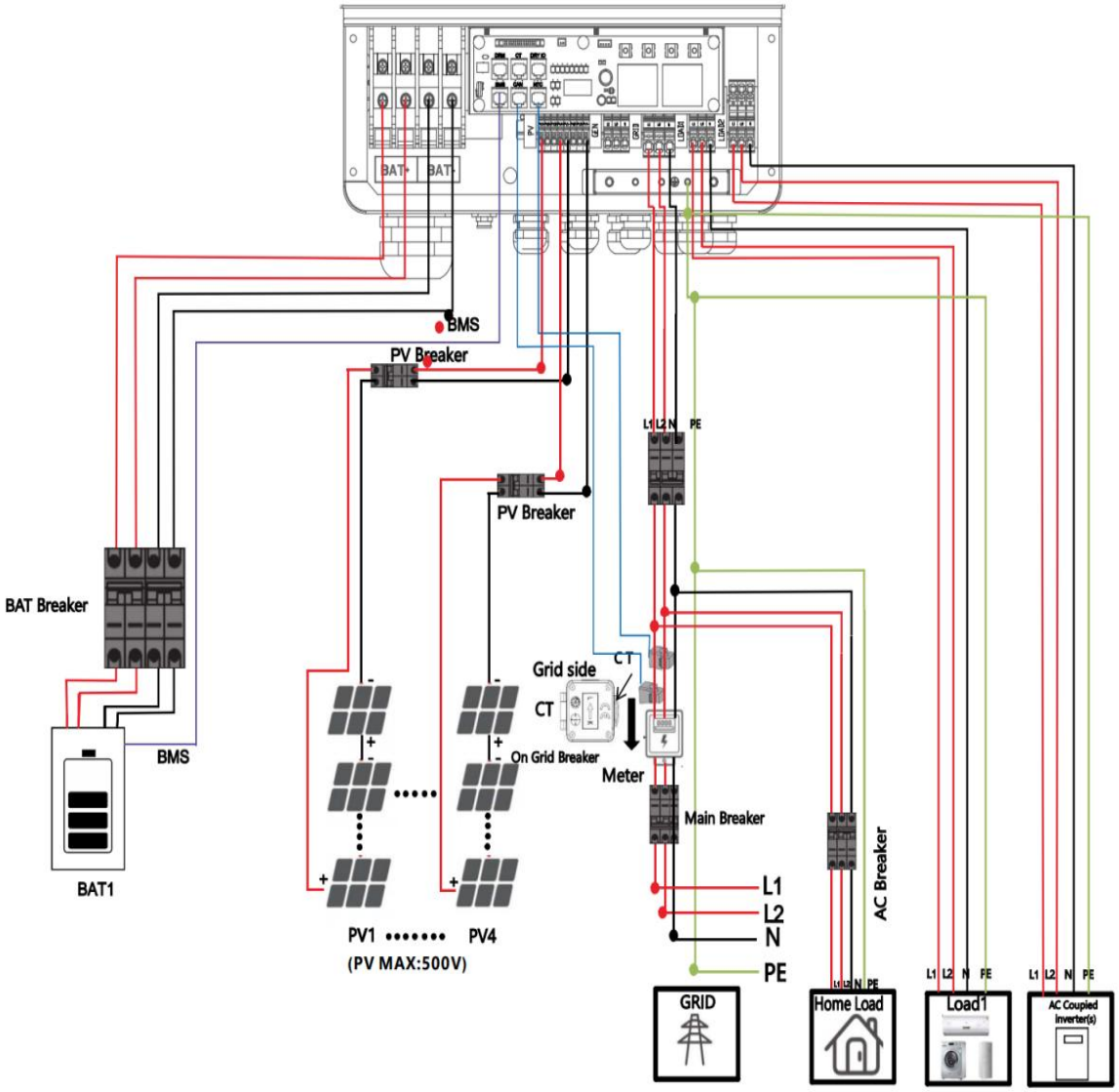
Note that when there is no grid outage, the hybrid inverter will no longer adjust its own frequency (it will return to the standard grid frequency); only when there is a grid outage, the hybrid inverter's own frequency adjustment will take effect.

注意，当没有电网停电时，混合逆变器将不再调整自身频率(它将返回到标准电网频率);只有当电网停电时，混合逆变器自身的频率调整才会生效。



In the occasion without generator use, we recommend the user to use the generator terminal to be connected. The power of PV inverters or micro inverters can be measured by the internal sensor of the hybrid inverter.

在不使用发电机的场合，我们建议用户使用发电机端子进行连接。混合逆变器的内部传感器可以测量光伏逆变器或微型逆变器的功率。



In the occasion with generator use, we recommend the user to use the load2 terminal to be connected. The hybrid inverter may not able to show the load power correctly in this case.The hybrid inverter will automatically switch off the AC Coupled inverters while the generator needs to be used.

在使用发电机的场合，我们建议用户使用 load2 端子进行连接。在这种情况下，混合式逆变器可能无法正确显示负载功率。当发电机需要使用时，混合逆变器将自动关闭交流耦合逆变器

13.2 AC Couple Function Setting 交流偶功能设置

The Advanced Mode Settings page can be accessed through the following steps on the screen:

高级模式设置”界面可通过以下步骤进入：

USER->1. SETUP->PASSORD CHECK->17.AC Couple SET

13.2.1 Setting

Interface	Description
--AC Couple SET-- -- >1.Connect Terminal 2.Trip SOC 3.RespondTime 4.Trip Freq	This interface displays AC Couple mode settings. 1.->Connection mode setting. 2.->When the battery SOC > the setting value, the PV inverter or micro inverters will be cut off. This option only takes effect in the event of a grid outage（If there is no power outage on the grid to which the hybrid inverter is connected, the set SOC does not take effect）. 3.->This setting is used to increase or decrease delay in the frequency steps between the rated frequency and trip frequency. 4.->The Trip Freq. In US, it is 64.5Hz by default.

13.2.1.1 Connenct Terminal

Interface	Description
--Conn Ter-- -- > 0.Disable 1.Load2 2.Generate	This interface is used to select the AC Couple access method. 1. -> This option turns off AC Couple. 2. -> If AC Couple is connected to load2, select this. 3. -> Select this if AC Couple is connected to a GEN. (When using AC Couple, it is necessary to turn off all settings related to the diesel generator (or cancel all enabling). It is recommended to select “Generate”)

13.2.1.2 Trip SOC

Interface	Description
--Trip SOC-- INPUT： 090 %	The actual battery SOC should be less than this SOC (when in use, the actual SOC should not be less than 90%, otherwise the AC Couple will not be started).

13.2.1.3 RespondTime

Interface	Description
--Resp Coef-- INPUT： 060	If you find that the AC Couple is easy to be disconnected after it is connected, you can reduce this value.

13.2.1.4 Trip Freq

Interface	Description
--Trip Freq-- INPUT： 65.0 UNIT： Hz	This function is reserved.