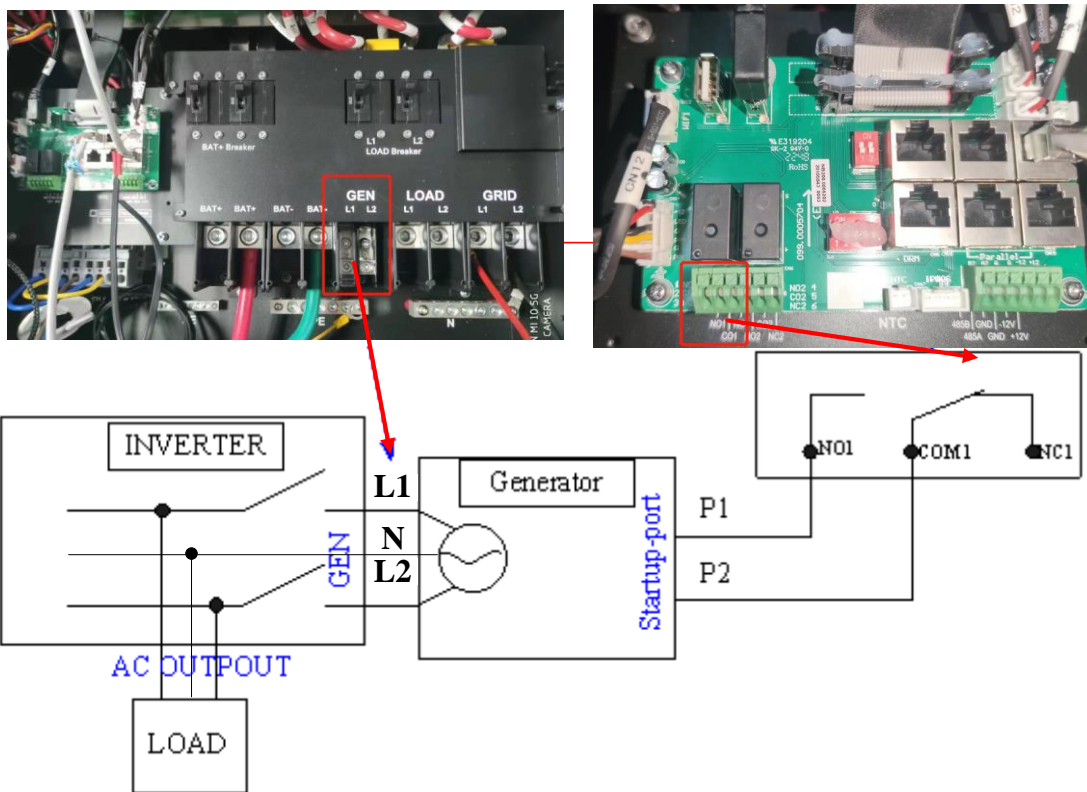


LXP-LB-US 12K Generator Auto start guideline

1. Wiring diagram



Specification of Generator input port and generator dry-contact port

Port	Max Voltage	Max Current
Gen input port: GEN(L1-L1 and N)	280Vac	30A.rms
Dry-contact port:GEN(NO1-COM-NC1)	250Vac/30VDC	5A

Note: The generator dry-contact port is a relay output, the relay specification is shown in the above table. Do not connect a load that exceeds the specification in the table to this relay output. GEN NO1-COM is suggested

2. Parameter setting

- **Generator-starting condition:**

The generator dry-contact will close to start generator when battery is discharged to **Battery off-grid cut-off Voltage** or **SOC**(depending on whether you have chosen Discharge

according to Voltage or Discharge according to SOC). Also the inverter will respond to battery charge request , battery stop discharge flag and Generator start charge voltage or SOC and start up the generator.

The image shows two configuration panels. The top panel, 'Discharge Setting', includes fields for System Discharge Power Rate(%) [0, 100], Discharge Current Limit(A) [0, 250], On-Grid Cut-Off SOC(%) [0, 90], On-Grid Cut-Off Volt(V) [40, 56], Off-Grid Cut-Off SOC(%) [0, 90], Off-Grid Cut-Off Volt(V) [40, 52], and Start Discharge P_import(W) [50,]. The 'Batt Discharge Control' is set to 'SOC'. The bottom panel, 'Generator Charge', includes fields for Batt Charge Current Limit(A) [0, 250], Charge Start Volt(V) [40, 59], Charge End Volt(V) [40, 59], Gen Rated Power(kW) [0, 25.5], Charge Start SOC(%) [0, 90], and Charge End SOC(%) [20, 100]. 'Charge Start Volt(V)' and 'Charge Start SOC(%)' are highlighted with red boxes.

When grid is present, the inverter won't start generator.

When grid power is lost, and Generator starting conditions are met , the Gen dry contact of inverter will take action and generator will be started up .

● **Generator capacity setting:**

Set “Gen Rated Power(kW)” to avoid generator being overloaded. And charge power will be adjusted according to load consumption , Charge power = Gen rated power - Load power.

You can also use “Batt Charge Current limit (A)” to limit the charge current.

This screenshot shows the 'Generator Charge' panel with 'Batt Charge Current Limit(A)' [0, 250] and 'Gen Rated Power(kW)' [0, 25.5] highlighted with red boxes.

If it is the parallel system with multiple inverters , charge current limit here is just for one inverter and the real charge current and rated power should take charge current limit *N into consideration . And Gen rated Power limit is for total of the parallel system.

Also “Charge current limit(A)” will take effect when working with the generator , if you just want the generator to charge the battery based on “Generator charge current limit”, then you can keep “ “Charge current limit(A)”as default setting.

The 'Charge Setting' panel shows 'Charge Last' with 'Enable' selected, 'Charge Current Limit(A)' [0, 250], and 'Batt Charge Control' set to 'SOC'. 'Charge Last' and 'Charge Current Limit(A)' are highlighted with red boxes.

Please note: Generator settings have no relation to grid charging settings. If you need battery to be charged by generator power when generator is on, please set Generator Charge parameters rather than AC Charge parameters. AC charge function means charge from grid , and setting AC Charge parameters won't cause generator to charge

battery.

- **Setting for Stopping Generator :**

The generator will stop working when the battery voltage or SOC reaches the charge end limit and at the same time battery discharge is allowed ,also battery stops requesting charge .

Parameter	Range	Action
Batt Charge Current Limit(A)	[0, 250]	Set
Gen Rated Power(kW)	[0, 25.5]	Set
Charge Start Volt(V)	[40, 59]	Set
Charge Start SOC(%)	[0, 90]	Set
Charge End Volt(V)	[40, 59]	Set
Charge End SOC(%)	[20, 100]	Set

3. Other things to notice

If the generator doesn't support auto-start function and you start the generator manually , then the battery will get charged until the battery voltage or SOC is higher than charge end limit .Also If the grid power is on , the inverter will cut off the relay of generator input circuit.

4. FAQ

Q1: Generator frequently starts and stops.

A1: Check if Input current is too high to the generator capacity, or generator capacity is too small and causes high voltage fluctuation

A2: Check if the charge current is too big for the battery capacity .

Q2: