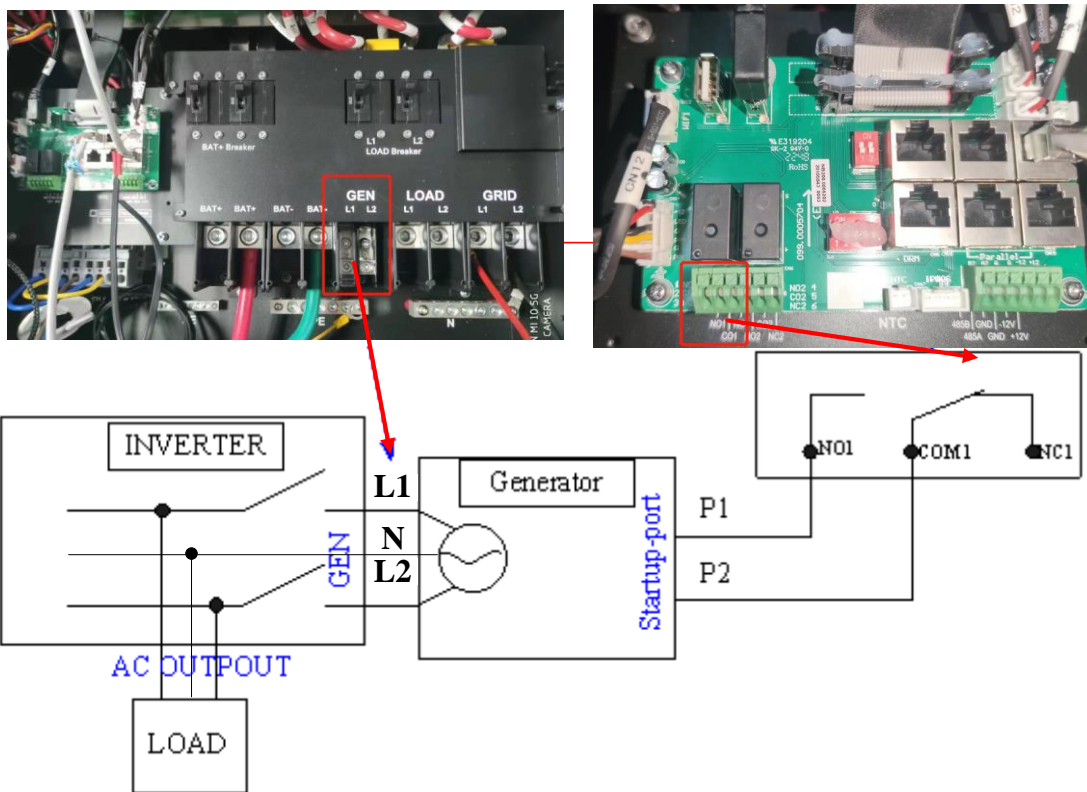# LXP-LB-US 12K Generator Auto start guideline

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.

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.

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.

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 fucntion 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 .

∨ Generator Charge					
generator					
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: