

LiFe Series Battery Settings for Deye Inverters

OVERVIEW

Settings listed are only applicable to battery charge and discharge. All other settings are the responsibility of the integrator.

It is the responsibility of the integrator to have a full understanding of the connected PCE prior to programming, and it is preferred that they have attended the manufacturer's training or integration course should they be available.

SoC Drift

State of Charge ("SoC") drift happens when the product that is calculating SoC builds up an accumulative error. This error is generally due to tolerance of components that measure voltage and current, and algorithms used to calculate the SoC. Most products will reset its accumulative error when the system gets to 100% SoC or Float.

It is important that a well-designed battery storage system reaches Float stage as regularly as possible, preferably every one to two days to rest SoC drift.

SoC drift can be addressed in many ways.

Examples:

1. Sufficient solar sized to charge batteries to float on the winter equinox
2. Backup source installed (grid or generator) to allow charging of batteries during extended bad weather or high load events.

How many batteries do I need?

Minimum battery size should be greater than the rated peak output of the inverter.

Battery to PV ratio is no less than 2.5kWh (battery) : 1kw (PV).

The battery quantity is not compulsory, however it's highly recommended as a minimum to reduce possible battery trips due to over current

Always consult and read the manufactures documentation before designing, installing and programming their devices.

Important: LiFe4838P batteries are not compatible with PWM charge controllers

Please Note: These settings are for LiFe4838P batteries with serials after LXXXX6000 only, please contact PowerPlus Energy support for legacy settings.

LiFe4838P batteries with serials prior to LXXXX6000 are not compatible with LiFe4838P batteries with serials after LXXXX6000.

These settings are for using the LiFe4851 in self-managed mode and for confirming operational parameters in managed mode.

Recommended Minimum Battery Modules

| | LiFe4833P | LiFe4838P | LiFe4851 |
|------|-----------|-----------|----------|
| 5kW | 3 | 3 | 2 |
| 8kW | 5 | 5 | 3 |
| 10kW | 6 | 6 | 4 |
| 12kW | 7 | 7 | 4 |
| 16kW | 8 | 8 | 5 |

Battery Settings for Inverters

| | LiFe4833P | LiFe4838P | LiFe4851 |
|-----------------------------|--|-----------|----------|
| Battery Type | Batt-V mode | | |
| Battery capacity | Total Ah Capacity of PowerPlus Energy Battery Bank Installed | | |
| Float Voltage | 57.6V | 55.7V | 56V |
| Absorption Voltage | 57.6V | 55.7V | 56V |
| Equalization Voltage | 57.6V | 55.7V | 56V |
| Equalization cycle | 0 Days | | |
| Equalization Operating Time | 0h/2 | | |
| Battery Empty Voltage | 50.2V | | |
| Battery resistance | 0 mΩ | | |
| Battery charge efficiency | 96% | | |
| Temperature compensation | 0 | | |
| Max A Charge | Max - 0.5 (C2) - 50% of the total Ah Capacity Installed | | |
| Max A Discharge | Continuous dsicharge rating of the installed battery modules | | |
| Battery Shutdown Voltage | 50.20V | | |
| Battery Restart Voltage | 51.2V | | |
| Battery Low Voltage | 51.2V | | |
| Activate Battery | Enable | | |
| Disable Float Charge | Disable | | |

Installers should ensure an adequate system design is carried out at all times. PPE accepts no responsibility for underperforming system designs. As part of our continued improvement process, settings are subject to change without notice and are correct at time of publishing.