

# NEBG-31 Series

Data sheet

neb energy®

12V 150Ah

12V 130Ah

24V 72Ah

48V 36Ah



## Model Included:

- **NEBG31-12150** 12V 150Ah LiFePO4 Battery
- **NEBG31-12130** 12V 130Ah LiFePO4 Battery
- **NEBG31-2472** 24V 72Ah LiFePO4 Battery
- **NEBG31-3650** 36V 50Ah LiFePO4 Battery
- **NEBG31-4836** 48V 36Ah LiFePO4 Battery

| neb energy®                       |                      | Model  |              |                 |             |             |
|-----------------------------------|----------------------|--|--------------|-----------------|-------------|-------------|
|                                   |                      | NEBG31-12150   | NEBG31-12130 | NEBG31-2472     | NEBG31-3650 | NEBG31-4836 |
| <b>Electrical Specifications</b>  | Nominal Voltage      | 12.8V  | 12.8V        | 24V             | 36V         | 48V         |
|                                   | Nominal Capacity     | 130Ah  | 150Ah        | 72Ah            | 50Ah        | 36Ah        |
|                                   | Parallel Connection  | Max. 6units  | Max. 6units  | Max. 6units     | Max. 6units | Max. 6units |
|                                   | Serial Connection    | Max. 4units  | Max. 4units  | Max. 2units     | No          | No          |
|                                   | BMS                  | 4S150A   | 4S150A       | 8S80A           | 12S50A      | 16S45A      |
|                                   | Circuit Protection   | Over charge, Over discharge, Over current, Over temp, Short, Balance |              |                 |             |             |
|                                   | Cycle Life           | 3000times Cycles @100%DOD and 6000times @80% DOD                     |              |                 |             |             |
|                                   | Self Discharge       | Less than 3% per month   |              |                 |             |             |
|                                   | Charge Efficiency    | 100% @0.2C   |              |                 |             |             |
|                                   | Discharge Efficiency | 98-100% @1C  |              |                 |             |             |
| <b>Charge Specifications</b>      | Charge Voltage       | 14.4±0.2V  | 14.4±0.2V    | 28.8±0.4V       | 43.2±0.6V   | 57.6±0.8V   |
|                                   | Standard Current     | 26A  | 30A          | 14A             | 10A         | 7A          |
|                                   | Fast Current         | 65A  | 75A          | 36A             | 25A         | 18A         |
| <b>Discharge Specifications</b>   | Standard Current     | 26A  | 30A          | 14A             | 10A         | 7A          |
|                                   | Max. Con. Current    | 130A   | 150A         | 72A             | 50A         | 36A         |
|                                   | Peak Current         | 800A(300ms)  | 800A(300ms)  | 400A(300ms)     | 200A(300ms) | 180A(300ms) |
|                                   | Cut-off Voltage      | 10V  | 10V          | 20V             | 30V         | 40V         |
| <b>Mechanical Specifications</b>  | Dimensions (mm)      | 330×173×216mm (Group 31)   |              |                 |             |             |
|                                   | Approx Weight(KG)    | 15   | 15.5         | 14.5            | 15          | 14.5        |
|                                   | Terminal Type        | M8   |              |                 |             |             |
|                                   | Case Color/material  | Black Plastic case (ABS)   |              |                 |             |             |
|                                   | IP Rating            | IP65   |              |                 |             |             |
|                                   | Cell Type            | Cylindrical LiFePO4 cell   |              |                 |             |             |
|                                   | Cell holder          | Yes  |              |                 |             |             |
| <b>Temperature Specifications</b> | Charge Temp          | 0°C to 55°C  |              | (32°F to 131°F) |             |             |
|                                   | Discharge Temp       | -20°C to 60°C  |              | (-4°F to 140°F) |             |             |
|                                   | Storage Temp         | -5°C to 45°C   |              | (23°F to 113°F) |             |             |

12V 150Ah

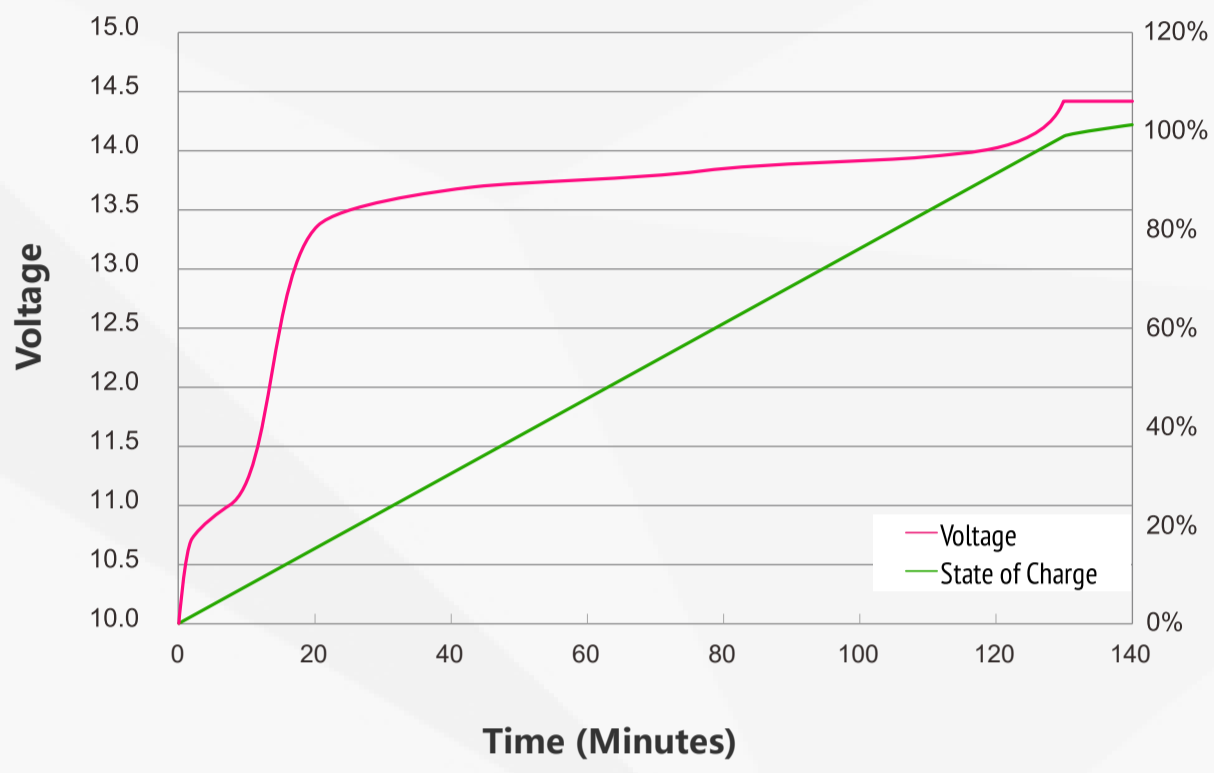
12V 130Ah

24V 72Ah

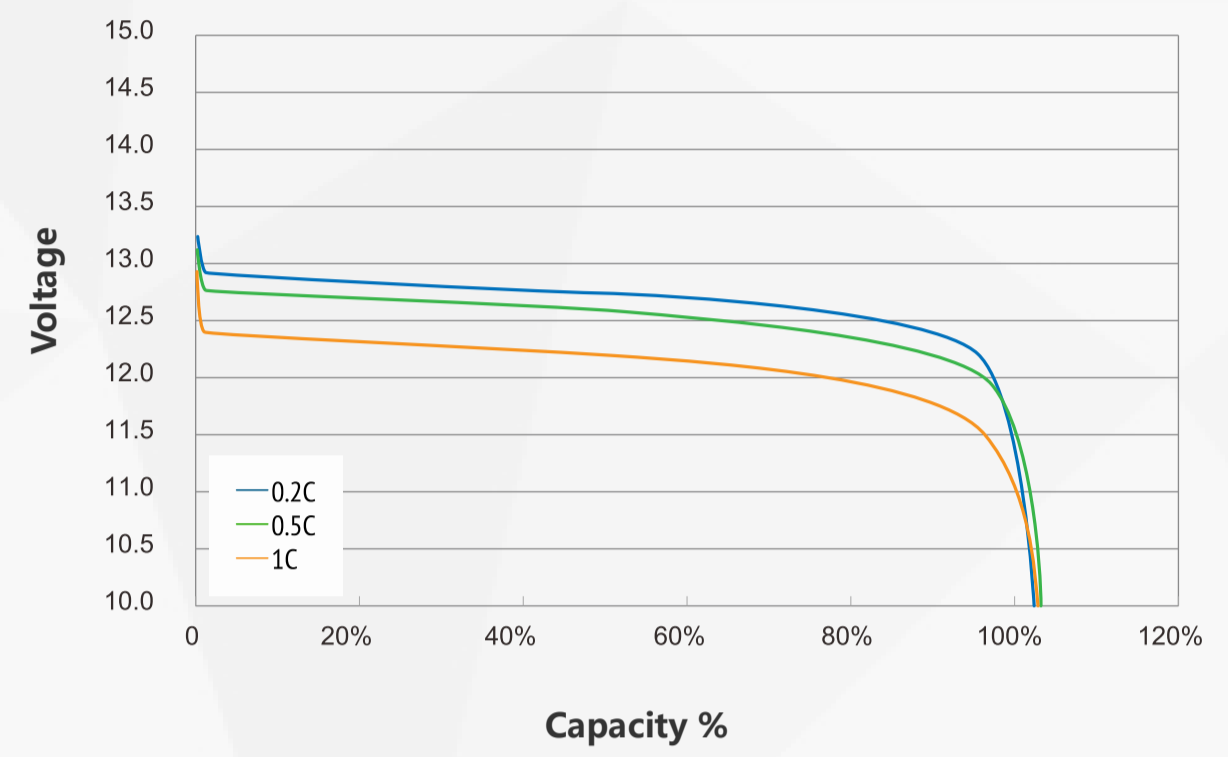
48V 36Ah

## Characteristics Curve:

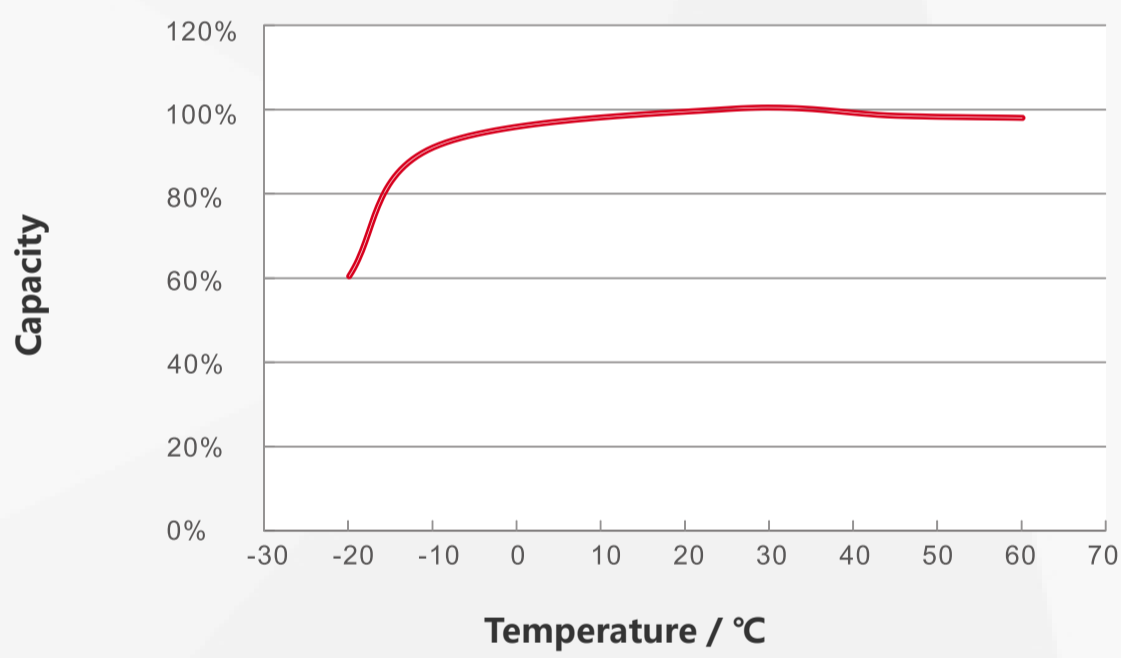
Charging Characteristics (0.5C @25°C)



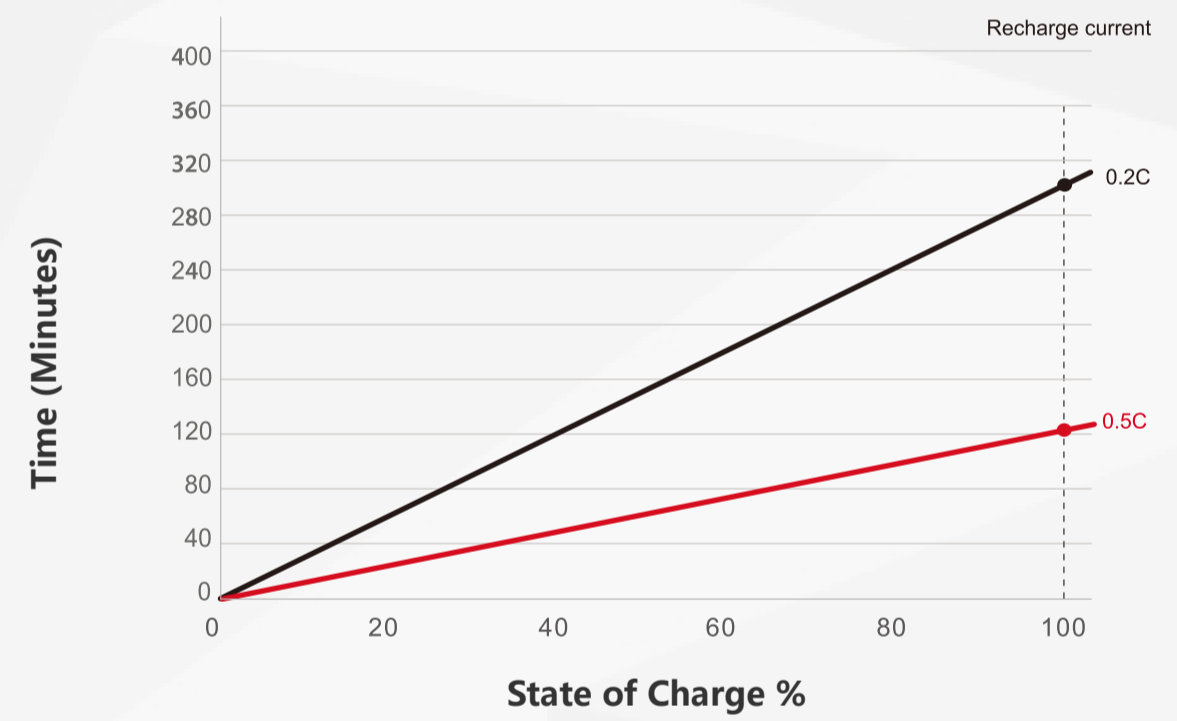
Discharging Characteristics (0.2C, 0.5C, 1C @25°C)



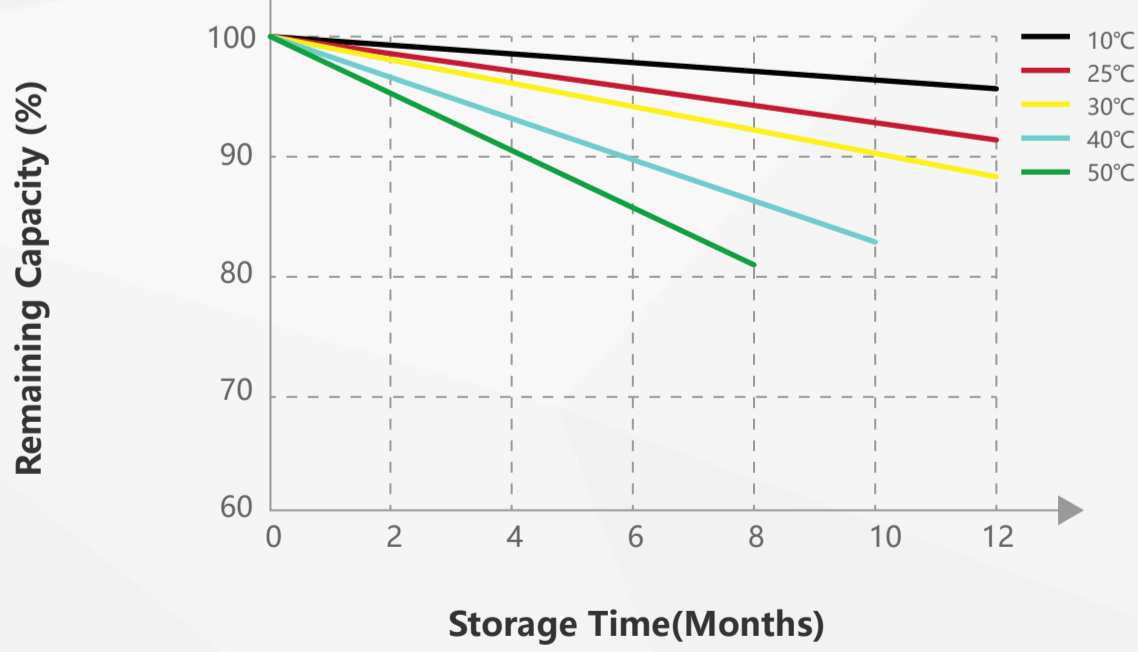
Different Temperature Capacity Curve



Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve

