

8. After the battery production test is completed, at least 50% SOC should be replenished before storage.

Expired storage criteria

In principle, it is not recommended to store batteries for a long period of time. Dispose the stored batteries as follows.

Table 7-3 Battery recharge period description table

Storage temperature requirement	Actual storage temperature	Recharge period	Remark
-10°C~55°C	≤-10°C	Not allowed	Recharge period: No need to handle, use as soon as possible Supplementary power time: The total storage time of supplementary power processing should not exceed the maintenance period
	-10°C~25°C	15 months	
	25°C~35°C	9 months	
	35°C~55°C	6 months	
	>55°C	Not allowed	

1. Battery deformation, damage, leakage, directly scrapped, regardless of storage time.
2. The storage time is calculated from the last charge time marked on the supplementary charge label on the battery package. After the battery is properly charged, the latest charge time and next charge time are updated on the supplementary label (next charge time = latest charge time + supplementary charge period).
3. The maximum allowable period and times of storing supplementary power is 3 years or 3 times. For example, once every 8 months, the maximum allowable time is 3 times. Recharge once every 12 months,



maximum allowed 3 times; It is recommended that the battery be discarded if the maximum allowed period and times are exceeded.

4. Long-term storage of lithium battery will cause capacity loss. After storage at the recommended storage temperature for 12 months, the irreversible capacity loss of lithium battery is generally 3% to 10%. If you perform a discharge test according to the specifications, the battery may fail the test if its capacity is less than 100% of the rated capacity after storage.

Check the battery before recharge

1. Before replenishing batteries, the batteries need to be inspected for appearance. Only qualified batteries can be replenished for the next step. Unqualified batteries can be scrapped.
2. If the battery does not appear as listed below, it is judged to be qualified for appearance inspection.
 - Battery deformation
 - Battery case damaged
 - Battery leakage

Battery recharge operation

Because the battery module cannot be charged and discharged independently, it is necessary to combine the BCU and the base together to charge and discharge normally. Therefore, the battery charging system needs to be assembled first, and then the charging and discharging equipment can be connected to recharge the battery.

1. Assembly of battery system refer to Chapter 4 "[System installation](#)";
2. After the battery system is assembled, refer to Chapter 5



"Electrical Connection" for Electrical connection.

3. Battery system storage and power supply Description For details, see the [Lithium Battery Storage and Power Supply Guide](#).

7.5 Battery system disposal

The disposal of the battery system must comply with local regulations on waste e-waste and used batteries.

- Do not dispose of the waste battery system with your household waste;
- Avoid exposing waste batteries to high temperature or direct sunlight;
- Avoid exposing waste batteries to high humidity or corrosive environment;
- For more information, please contact Tecloman.

Français

Élimination du système de batterie

L' élimination du système de batteries doit être conforme à la réglementation locale sur les déchets électroniques et les piles usagées.

- Ne jetez pas le système de batterie des déchets avec vos déchets ménagers ;
- Évitez d' exposer les piles usagées à des températures élevées ou à la lumière directe du soleil ;
- Évitez d' exposer les batteries usagées à l' humidité élevée ou à l' environnement corrosif ;
- Pour plus d' informations, veuillez contacter Tecloman.

8 Technical Data

Table 8-1 Battery system parameters

Item	Parameter					
System model	<u>Firefly Pro-H3</u>	<u>Firefly Pro-H4</u>	<u>Firefly Pro-H5</u>	<u>Firefly Pro-H6</u>	<u>Firefly Pro-H7</u>	<u>Firefly Pro-H8</u>
Battery system	BH-2.5 (51.2V/2.5kWh/30kg/ LiFePO4)					
	3pcs	4pcs	5pcs	6pcs	7pcs	8pcs
Rated capacity	7.5kWh	10.0kWh	12.5kWh	15.0kWh	17.5kWh	20.0kWh
Available electricity ¹	7.5kWh	10.0kWh	12.5kWh	15.0kWh	17.5kWh	20.0kWh
DOD	Maximum 100%, recommended 90%; adjustable					
Maximum working voltage	175.2Vdc	233.8Vdc	292.4Vdc	351.0Vdc	409.6Vdc	468.2Vdc
Nominal voltage (operating voltage range)	153.6Vdc	204.8Vdc	256.0Vdc	307.2Vdc	358.4Vdc	409.6Vdc
	134.4~175.2Vdc	179.2~233.8Vdc	224.0~292.4Vdc	268.8~351.0Vdc	313.6~409.6Vdc	358.4~468.2Vdc
Nominal charge and discharge current	25A					
Maximum continuous charge and discharge current	50A					
Maximum charging and discharging power	7.5kW	10.0kW	12.5kW	15.0kW	17.5kW	20.0kW
Charge and discharge mode	CC/CV/CP					
Over voltage category	OCV II					
External communication	CAN/RS485/Enernet/WIFI					
Self-consuming	≈14W	≈14W	≈15W	≈15W	≈16W	≈16W
Short-circuit current						

Operating ambient temperature ²	Charge: 0~50°C; Discharge: -20~50°C					
Storage ambient temperature	-10~55°C					
Ambient humidity	5%~90%RH, without condensation					
Heat-dissipating method	Natural heat dissipation					
Protection level	IP 55 indoor & outdoor (Ground installation, no rain, no snow, no direct sunlight)					
Dimensions (W*D*H±2mm)	580×36 4×775m m	580×36 4×942m m	580×36 4×1110 mm	580×364 ×1278 mm	580×36 4×1446 mm	580×36 4×1614 mm
Weight (±0.2kg)	110kg	143kg	175kg	207kg	239kg	271kg
Certification & Standard	CB/RCM/CE/ UN38.3/ RoHS & IEC62619/IEC62477/UL1973					
Warranty ³	10 Years					

1. Test conditions: ambient temperature $25\pm5^{\circ}\text{C}$, relative humidity $60\pm25\%\text{RH}$, atmospheric pressure $86\text{kPa}\sim106\text{kPa}$, 100%DOD, 0.2C charging and discharging mode CC-CV/CC; The actual available power of the system is affected by the system connection and the efficiency of the inverter.
2. Under extreme ambient temperature, module charging and discharging will derate. The corresponding relationship between charging and discharging current value and temperature range is shown in the following table.

	Battery temperature range	Maximum continuous operating current (A)
Charge	$T < 0$	0
	$0 \leq T < 5$	0.1C/5
	$5 \leq T < 10$	0.2C/10
	$10 \leq T < 15$	0.4C/20
	$15 \leq T < 20$	0.6C/30
	$20 \leq T < 35$	1C/50
	$35 \leq T < 40$	0.8C/40

	$40 \leq T \leq 45$	0.5C/25
	$45 \leq T \leq 50$	0.3C/15
	$50 \leq T < 54$	0.2C/10
	$T \geq 54$	0
Discharge	$-20 < T$	0
	$-20 \leq T < -10$	0.2C/10
	$-10 \leq T < -5$	0.3C/15
	$-5 \leq T < 0$	0.4C/20
	$0 \leq T < 5$	0.5C/25
	$5 \leq T < 10$	0.6C/30
	$10 \leq T < 15$	0.8C/40
	$15 \leq T < 35$	1C/50
	$40 \leq T \leq 45$	0.8C/40
	$45 \leq T < 50$	0.5C/25
	$50 \leq T < 54$	0.3C/15
	$T \geq 54$	0.2C/10

3. For details about the battery warranty, see [Firefly Pro battery system warranty manual](#).



9 FAQs