LTO container energy storage system

Zero safety accidents
Assist in the transformation and construction of new energy power

Response in millisecond
instantaneous fast power response, improves AGC regulation

Safe and reliable
multi-level safety design, temperature difference between clusters ≤ 5 ℃

Economical and efficient
greatly increases space utilization, improves system's energy efficiency

Smart management
remote and precise management, real-time monitoring and early warning

*数据为与普通集装箱储能系统相比
The data is compared to ordinary container energy storage systems

LTO CONTAINER ENERGY STORAGE SYSTEM

Adopting an integrated container structure design and equipped with Gree Altairnano's self-developed batteries, it has significant advantages such as high safety, fast charging and discharging, wide temperature, long service life, and low full cycle cost. It supports flexible power and electricity configuration, suitable for wind and solar integrated energy storage projects in power grid frequency regulation and extremely cold high-altitude environments.

High integration
Modular design and flexible configuration, compatible with 1000V and 1500V systems; the multiple charging and discharging rate of the system covers 2P to 4P; equipped with a remote monitoring module to achieve remote monitoring and program upgrades.

High safety
The battery is intrinsically safe, and it will not precipitate metal lithium at high Li potential. In case of short circuit, the high resistance phase has self-protection; It has industrial leading design of multiple segment partition for battery systems, and can comprehensively ensures the safe and stable operation of the system through multiple protections such as parameter protection settings, logical control, electrical protection, and distributed fire protection systems.

Long life
The battery's material structure is stable, with a cycle life of up to 25000 times; adopting a distributed temperature control system and unique heat dissipation ducts, ensuring that the battery system is in the optimal working environment. It's durable, and has low maintenance costs.

Endurable in low temperature
The container adopts anti-corrosion and heat-insulation coatings with integrated heat preservation & insulation design, greatly reducing system energy consumption and the impact on the system from environmental temperature; LTO battery has excellent low temperature performance, and it is able to charge and discharge normally in an environment of -40℃.

产品型号 Product model	G-LTO-1.112MWh-E	G-LTO-630kW-1283.4kWh-C	G-LTO-4000kW-2053.44kWh-E
电芯规格 Cell specification	LTO66160H/40Ah	LTO71130205/155Ah	LTO71130205/155Ah
标称电量（kWh） Nominal Energy (kWh)	1112	1283.4	2053.44
额定输出电压（V） Rated output voltage (V)	1159.2	380 (AC)	1324.8
工作电压范围（V） Operation voltage range (V)	907.2~1335.6	550~870	1036-1500
最大充放电倍率（P） Maximum Charge/discharge P-rate (P)	3	0.5	2
最大输出功率（kW） Maximum Output Power (kW)	3000	630	4000
运行温度范围（℃） Operating temperature range (℃)	-20~40	-20~40	-20~40
冷却方式 Cooling mode	air cooling	Liquid cooling	Liquid cooling
通信接口 BMS communication interface	RS485, Ethernet, CAN	RS485, Ethernet	IRS485, Ethernet
防护等级 IP grade	IP55	IP55	IP55
尺寸（长x宽x高）（mm） Dimension (L×W×H) (mm)	12192×2438×3290	6200×2600×3110	9144×2600×3100
重量（t） Weight (t)	≤45	≤31	≤36
执行标准 Implementation standards	UL1973、UN38.3、GB/T 36276 IEC62619、UL9540A、ROHS	UL1973、UN38.3、ROHS	/

注 / Remark: Data is for reference only. Please refer to the product specifications for final confirmation.

LFP energy storage system

New generation’s outdoor liquid cooling energy storage cabinet

- 0.5P long-term charge-discharge
- BMS — Efficient battery management
- Adaptable to various complex working conditions
- IP55 protection rating

Data is from Gree Altairnano’s laboratory

磷酸铁锂储能柜

LFP ENERGY STORAGE CABINET

搭载格力钛大容量磷酸铁锂电池，高适配性电池管理系统，内部可选配集成储能变流器，配置高效热管理系统等热、电、气安全保护系统，实现一体化、可扩展、易管理、高安全的户外柜式储能系统。

This outdoor cabinet energy storage system is equipped with GREE Altairnano's high-capacity LFP batteries, a highly adaptable battery management system, and an internally selectable integrated energy storage converter. Further configured with efficient thermal management systems and other thermal, electrical, and gas safety protection systems, it forms an integrated, extendable, easy to manage, and highly safe outdoor cabinet energy storage system.

模块化设计

灵活配置、扩展性强，适用多种应用场景，易安装，易运输、易维护。

Modular design

Flexible configuration, strong extensibility, suitable for various application scenarios, easy to install, easy to transport and maintain.

高集成设计

高度集成一体化，标准对外充放电、通讯等接口，独立消防系统保护。

High integration design

Highly integrated, with standard interfaces for external charging and discharging, communication, protected by independent fire protection system.

精准热管理

监测电芯级散热，高效液冷温控系统，精准温度控制，温差控制≤3℃。

Precise thermal management

Battery cell level heat dissipation with sensors, efficient liquid cooling temperature control system, precise temperature control, temperature difference control ≤3℃.

高安全保护

IP55防护及靶向消防，多级熔断保护，智能预警保护，单体/模块/系统三级防爆设计。

High safety protection

IP55 protection and targeting fire protection, multilevel fuse protection, intelligent early warning protection, and battery cell/module/system three level explosion proof design.

产品型号 Product model	G-LFP-100kW-215kWh-C	G-LFP-100kW-232kWh-C
电芯规格 Cell specification	LFP71173207/280Ah	LFP71173207/280Ah
标称电量（kWh） Nominal energy (kWh)	215	232
额定输出电压(V) Rated output voltage (V)	380	380
最大充放电倍率（P） Maximum charge/discharge p-rate (P)	0.5	0.5
最大充放电功率（kW） Maximum Charge-Discharge Power (kW)	100	100
运行温度范围（℃） Operating temperature range (℃)	-20~40	-20~40
冷却方式 Cooling mode	液冷 Liquid cooling	液冷 Liquid cooling
通信接口 BMS communication interface	RS485，CAN	RS485，CAN
防护等级 IP grade	IP55	IP55
尺寸（长x宽x高）（mm） Dimension (L×W×H) (mm)	1335x1278x1993	1335x1358x1993
重量（t） Weight (t)	≤2.5	≤2.6
执行标准 Implementation standards	GB/T 36276	GB/T 36276

注 / Remark：参考数据，最终请以产品规格书为准。
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磷酸铁锂集装箱式储能系统

LFP CONTAINER ENERGY STORAGE SYSTEM

采用标准化储能电池模组，兆瓦级高效均衡管理，可满足风光消纳、工商业调峰、减容增配、应急备电、电能质量改善等不同需求，适用于电力系统发、输、配、用、储各环节能源一体化需求调配。

Adopting standardized energy storage battery modules and megawatt-level's active balance management, it can meet different needs such as optimization of wind solar energy's utilization, peak regulation in industry and commerce, electric consumption reduction and configuration increase, emergency power supply, and energy quality improvement. It is suitable as integrated energy solution for power system in various stages such as power generation, transmission, distribution, use, and storage.

模块化设计

标准模块化产品，生产制造周期短，运维成本低；兼容1000V和1500V，搭载远程监控模块，安装、运输、维护方便。

Modular design

Standard modular products, short production and manufacturing cycles, and low operation and maintenance costs; compatible with 1000V and 1500V, equipped with remote monitoring modules, easy to install, transport, and maintain.

精准热管理

定制化温控逻辑，矩阵式散热，提高散热效率，降低温控系统使用能耗；支持多类型温控方式配置，适用多类型应用场景。

Accurate thermal management

Customized temperature control logic and matrix heat dissipation to improve heat dissipation efficiency and reduce energy consumption of temperature control system; Supports configuration of multiple temperature control methods, suitable for various application scenarios.

多重安全保护

电池系统采用独立分区阻燃和防爆检测泄压设计，可快速阻断隔离连锁事故；具有多种安全防护系统，全面保障系统安全稳定运行。

Multiple safety protection

Battery system adopts independent partitions for flame retardant and explosion-proof detection with pressure relief design, can quickly block and isolate chain accidents; It has multiple safety protection systems to comprehensively ensure the safe and stable operation of the system.

产品型号 Product model	G-LFP-500kW-1066.24kWh-C-X	G-LFP-1863kW-3.727MWh-E-X	G-LFP-2500kW-5015.96kWh-E
电芯规格 Cell specification	LFP71173207/280Ah	LFP71173207/280Ah	LFP71173207/314Ah
标称电量（kWh） Nominal Energy (kWh)	1066.24	3727	5015.96
标称电压（V） Nominal voltage (V)	400（AC）	1331.2（DC）	1331
工作电压范围（V） Operation voltage range (V)	600~868	1040~1500	1040-1500
最大充放电倍率（P） Maximum Charge/discharge P-rate (P)	0.5	0.5	0.5
最大输出功率（kW） Maximum output power (kW)	500	1863	2500
运行温度范围（℃） Operating temperature range (℃)	-20~40	-20~40	-20~40
冷却方式 Cooling mode	风冷 aircooling	液冷 Liquid cooling	液冷 Liquid cooling
通信接口 BMS communication interface	RS485，Ethernet	RS485，Ethernet	RS485，Ethernet
防护等级 IP grade	IP55	IP55	IP55
尺寸（长x宽x高）（mm） Dimension (Length×Width×Height) (mm)	6058×2438×2896	6058×2438×2896	6058×2438×2896
重量（t） Weight (t)	≤18	≤38	≤43
执行标准 Implementation standards	GB/T 36276、UN38.3、UN3536	IEC62619; IEC63056; UL9540A; EN62477-1 EN61000-6-2/4; EN62933-5-2; EN63056 UN38.3; GB/T 36276; Gost; UN3536; AK证书	GB/T 36276

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