



FLEX-233L05/M5

Product specification of the battery cabinet



Documentation Edition	VA0	
Authorized strength		
Examine and verify		
Ratify		

POWEROAD (Xiamen) Renewable Energy Technology Co., Ltd.
Shenzhen branch
<http://www.poweroad-ess.com>

Change history			
Change date	Change person	Change content	After the change version
2023.11.21	Lin Zenan	Initial issue	VA0

Catalog

1. Summary.....	4
2. Functional characteristics	4
3. Product presentation.....	5
3.1 Product appearance.....	5
3.2 Electrical principle.....	6
4.Specification parameters	6
5.Interface specification	7
6.Installation size	8

1. Summary

Liquid cooling outdoor energy storage cabinet consists of liquid-cooling battery module, control box, fire control system, distribution system, lighting system, thermal management system, dynamic environment monitoring module. It is with high environmental adaptability, short construction period, support parallel expansion, facilitate installation and transportation. It can be used for load shifting, distribution expansion, demand response scenario. It can be widely used in shopping malls, communities, schools, factories, farms and other applications.

2. Functional characteristics

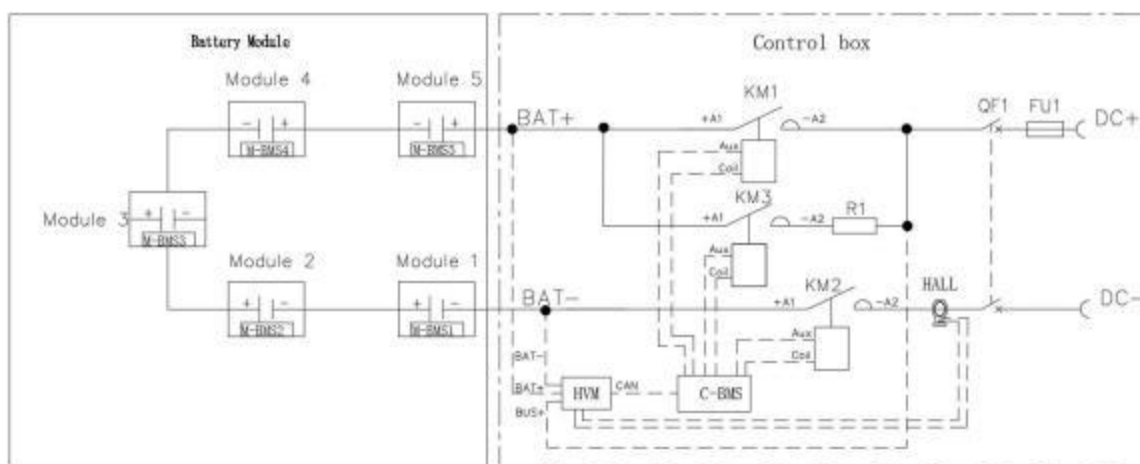
- Standardized design, modular assembly, simple and quick installation, easy to maintain;
- Small footprint, short construction period, strong environmental adaptability;
- Efficient liquid cooling temperature control design, improving the consistency of the working temperature of the cell, increasing the service lifetime of the system;
- The multi-level cascade protection mechanism of software and hardware combination to ensure the system security;
- Adopt efficient balanced design to increase the depth of the system;
- Comprehensive environmental monitoring system to improve the safety of the system;
- With the platform can realize the whole life cycle data and event records, do traceability, can be queried;
- Support EMS scheduling, can participate in the formation of the energy Internet;
- With remote real-time monitoring interface, it can monitor the system running status anytime and anywhere through the web page or mobile APP;
- Support system self-inspection and protection, with remote upgrade ability;
- Select an intelligent cloud platform system to support cloud sharing, power station management, big data analysis and report statistics;

3. Product presentation

3.1 Product appearance



3.2 Electrical principle



4. Specification parameters

Category	Performance index	Parameter specifications
	Product model	FLEX-233L05/M5
DC side parameters	Nominal energy	233kWh
	Rated voltage	832V
	Maximum charging voltage	936V
	Minimum discharge voltage	676V
	Rated charging current	140A
	Rated discharge current	140A
	Maximum continuous charging power	116kW(0.5P)
	Maximum continuous discharge power	116kW(0.5P)
AC side parameters	Output rating	100kW
	Rated voltage	AC400V
	Communication access mode	Three phases four lines
	Power grid voltage range	400V (-20%~+15%)

	Power grid frequency range	50Hz/60Hz $\pm$ 2.5Hz
	Power factor	-0.99 $\sim$ +0.99
Others	Working temperature	-30 $\sim$ 50°C
	Energy storage temperature	-30 $\sim$ 60°C
	Communication mode	Ethernet
	Relative humidity	5%~95% no condensation
	Height (m)	<2000m
	Cooling method	Liquid cooling
	Temperature difference between cells	$\leq$ 5°C
	Level of protection	IP55
	Weight	About 2.3t
	Product size	Length: L 1350 $\pm$ 3mm
		Width: W 1300 $\pm$ 3mm
		Height: H 2050 $\pm$ 3mm (Including hanging ring) 1965 $\pm$ 3mm (Without hanging ring)

5. Interface specification

	Description	Reference diameter	Remarks
DC power cable	Battery Output DC +	70mm ²	
	Battery Output DC-	70mm ²	
AC380V AC power input molded case circuit breaker QF1	L1	50mm ²	
	L2	50mm ²	
	L3	50mm ²	
	N	50mm ²	
	PE	25mm ²	
Communication cable	Ethernet communication	CAT 5, shielding through the network cable	
PE cable	Ground lead	25mm ²	

6. Installation size

