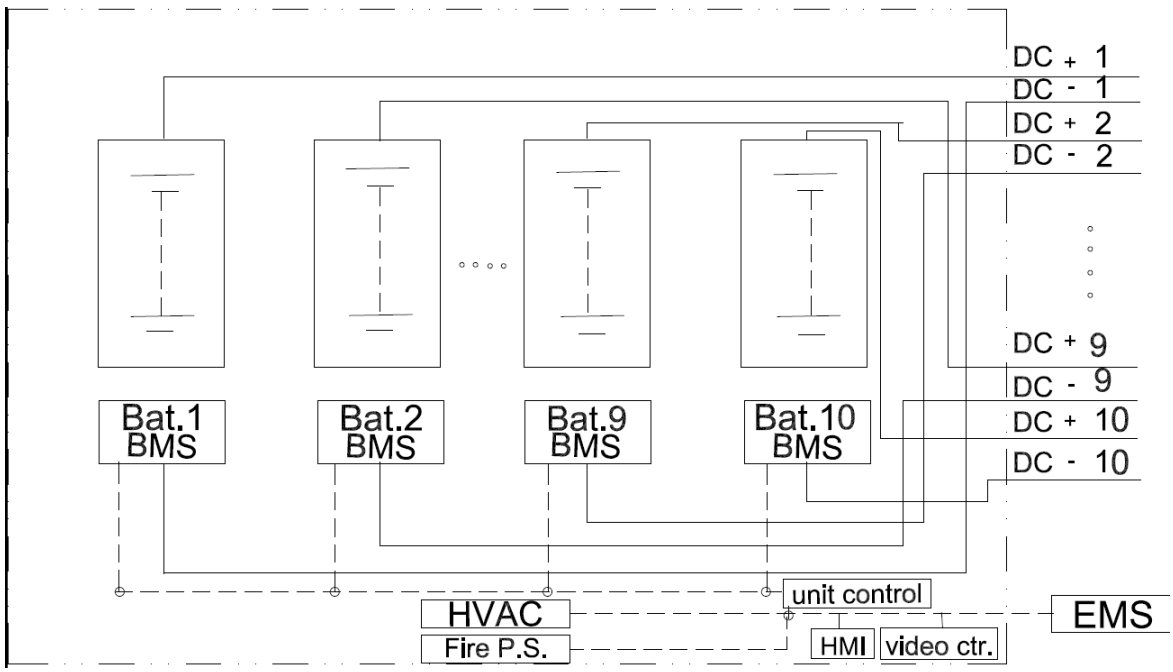
SPECIFICATION for 40″ BATTERY STORAGE CONTAINER

System Features

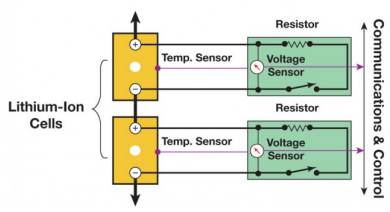
- Adopt 40 feet standard container design, easy to install and transport;
- Advanced lithium iron phosphate battery, high efficiency and safety;
- Integrated design, integrated energy storage battery, local controller, HVAC system, improve the efficiency of field installation;
- Automatic gas fire control system and combustible gas detection system are adopted to strengthen the active safety of the system;
- The system is used for peak trimming, valley filling, photovoltaic/wind power fluctuation, national grid frequency modulation and other scenarios;

System schematic diagram



Explanations :

BMS – Battery Management System (BMS)



HVAC – Heating,ventilation, Air-contioning

EMS – Energy managment system

Fire P.S. – Fire protection system

System Parameters

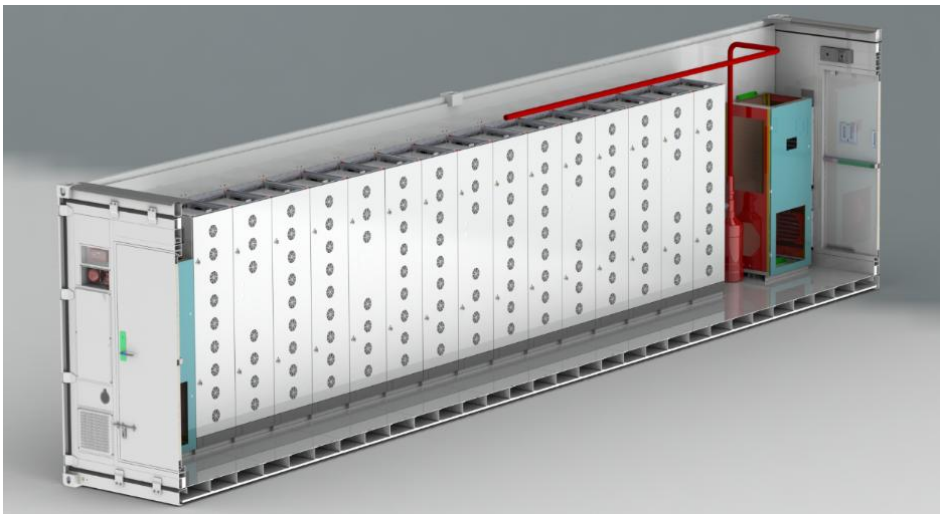
System Type	VL2300-H1	VL2300-H2
◎DC Parameters		
Type of cell	LFP-320Ah	
Cell model	LFP C15FHNE	
Modules model	1P9S	
Battery cluster	1P225S（25 pcs battery packs）	
System	10*1P225S	
Battery capacity （BOL）	2304kWh	
Battery voltage range	630V～810V	
Rated power	2040kW	1020kW
◎Specifications		
Size	12192×2438×2896mm	
Weight	28000kg	
IP Rate	IP55	
Container anticorrosion class	C2（OptionalC3/C4）	
Operating temperature range【1】	-20℃～55℃	
Relative humidity	0-95%（non-condensing）	
Maximum working altitude【2】	＜3000m	
Mode of cooling	HVAC	
Noise	≤75dB	
Efficiency of system	＞93%	＞95%
Cycle life	10 years or 6000 times	
Peak power consumption of auxiliary system	52.7kW	30.7kW
Line out mode	Side outlet line	
Fire protection system	Fire alarm system	Fire alarm system
Fire extinguishing mediu	heptafluoropropane	heptafluoropropane
Communication interface	Ethernet	Ethernet
Communication protocol	Modbus TCP/IP	Modbus TCP/IP
standard	IEC62933，GB/T36558、UN38.3、IEC62619	

◎Annotation:

【1】When the ambient temperature exceeds 40 ° C, the system derates.

【2】When the altitude ranges from 2000 to 3000m, the system derates.

Diagram of container interior



System Installation

To ensure the safe operation of the equipment, the technical requirements for container installation are as follows:

(1) The container installation site should not contain water, and the container placement plane should be higher than the local historical flood water level;

(2) The total weight of the container is about 27 tons. The container needs at least 6 supporting points for long-term placement, and the bearing capacity of each supporting point is not less than 7 tons.

(3) The middle two supporting bases need to be 13mm higher than the two ends of the supporting bases;

In the figure below, the installation foundation diagram is schematic diagram. The actual construction of the site requires specific construction drawings issued by the local civil engineering design department.