ballastIQ_HV Series

High Voltage Rack Mount LiFePO4 Battery Pack

- Modular Power System Platform with a stable discharge platform, excellent safety performance and long cycle life.
- The BMS battery management system supports overcharge, over-discharge, over-voltage and other functional protections.
- Modular design supports expansion and maintenance.
- Equipped with ballastIQ_integrate which can remotely view and manage system parameters.
- Optional with EMS (Customized microgrid energy management system, including energy storage, photovoltaic, grid, load, generator, video monitoring, etc.).

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MODULE	100kWh	114kWh	129kWh	143kWh	157kWh	172kWh	186kWh	200kWh	215kWh
Battery module									
Configuration	1P16S								
Rated capacity	280Ah								
Rated energy	14.336kWh								
Rated voltage	51.2V								
Voltage range	44.8-56.8V								
Rated charge/discharge	0.5C								
AC internal resistance	≤5mΩ								
Dimension (W/D/H)	376*885*238.5 (±5) mm								
Weight	108kg								
Battery rack									
Configuration	$7_{modules}+1_{BPU}$	$8_{modules}+1_{BPU}$	$9_{modules}+1_{BPU}$	$10_{modules}+1_{BPU}$	$11_{modules}+1_{BPU}$	$12_{modules}+1_{BPU}$	$13_{modules}+1_{BPU}$	$14_{modules}+1_{BPU}$	$15_{modules}+1_{BPU}$
Rated capacity	280Ah								
Rated energy	100kWh	114kWh	129kWh	143kWh	157kWh	172kWh	186kWh	200kWh	215kWh
Rated voltage	358.4V	409.6V	460.8V	512V	563.2V	614.4V	665.6V	716.8V	768V
Voltage range	313.6-397.6V	358.4-454.4V	403.2-511.2V	448-568V	492.6-624.8V	537.6-681.6V	582.4-738.4V	627.2-795.2V	672-852V
Rated charge/discharge	0.5C								
Display	7"Touch screen								
BMS	Included								
Communication	CAN								
Monitoring	RS485								
Dimension(W/D/H)(mm)	900*950*1100	900*950*1350	900*950*1350	900*950*1600	900*950*1600	900*950*1850	900*950*1850	900*950*2100	900*950*2100
Weight	875kg	1075kg	1200kg	1325kg	1450kg	1575kg	1700kg	1825kg	1950kg
Protection degree	IP20								
BMS Parameters on LCD									
Cell voltage	Yes								
Cell hight voltage	Yes								
Cell low voltage	Yes								
Cell temperature	Yes								
Charge and dicharge current	Yes								
Total battery voltage	Yes								
Battery SOC	Yes								
Fault warning	Yes								
Protection									

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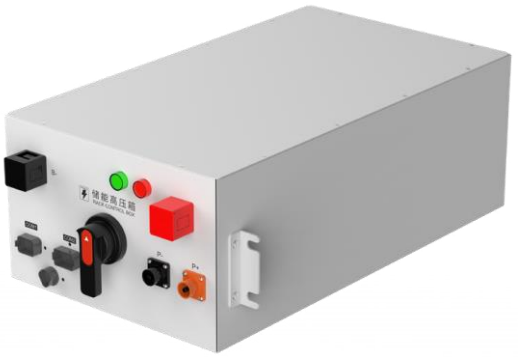
Short circuit protection	Yes
Over current protection	Yes
Over charge protection	Yes
Over discharge protection	Yes
Cell over voltage protection	Yes
Cell under voltage protection	Yes
Over temperature protection	Yes

Battery Pack

MODULE	51.2V 280AH
Basic Parameters	
Capacity(kWh)	14.336
Nominal Voltage(Vdc)	51.2
Nominal Capacity(AH)	280
Voltage Range(Vdc)	44.8~56.8
Depth of Discharge	90%
Dimension(W* D*H,mm)	885mm*434mm*238.2mm(+5)
Design Life	15+ years (25°C)
Cycle Life	>8000 (25°C)
Communication	CANBUS/Modbus RTU/TCP/IP
Protection Class	P20
Weight(kg)	108kg+3kg
Operation Temperature	0~50°C
Storage Temperature	-20~60°C
Product Certificate	UN38.3

Main Controller

MODULE	1500V 200AH
Basic Parameters	
Related Product	1500V 200A
AC Supply	/
System Operation Voltage (Vdc)	0~1500
Operation Current (Max.)(A)	200
Self-consumption Power(W)	8
Dimension(W* D*H,mm)	85mm*434mm*238.2mm (±5)
Communication	MODBUS RTU/CAN
Protection Class	IP20
Weight(kg)	20
Operation Life	15+
Operation Temperature	-20~+65°C
Storage Temperature	-40~+80°C



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Battery Cabinet

The battery cabinet is the dc side bus control unit of the energy storage battery system, which is connected with the high voltage box and storage intermediate unit capable of converter;

The power pool system (stack) is installed in the bus cabinet, Switch off/circuit breaker (optional). Three-level BMS (ESMU) ,UPS power supply, confluence ark, the electrical characteristics, heat dissipation performance and safety performance of each component have been fully considered in the design.

And operation and maintenance, reasonable space layout, with compact structure, flexible configuration, security. Full reliability and other characteristics. Three stage BMS module (ESMU) in the bus cabinet, with CAN, Rs-485, RJ45 Ethernet communication interface, can be realized with high voltage box, PCS/UPS or the communication function between EMS realizes the data communication and control of the energy storage battery management system and protection.

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NO.	Item	Para Range	Function	Remark
1	DC Breaker	630/1000/1250A	Main loop protection	Customization
2	BMS	ESMU-10 II	Display communication control	
3	Switching power supply	35W/75W 24V	Power Supply	
4	Miniature circuit breaker	S202-C64/20/10	Switch	
5	Emergency stop switch	LA38-22ZS	scram protection	
6	Repeaters	CR-MX024DC2L	Signal control and conversion	
7	LED instruction	ED16-22DSR(G/Y/R)	status indicator	
8	Surge protective devices(spd)	Ex9UEP 20 3	Lightning protection bus	
9	Fuse	DC1500/1000V 300A	protection	
10	Terminal strip		Communication power signal conversion	