

# Quark-B417-L

## Outdoor Cabinet Liquid-cooled Battery System

Quark-B417-L is a new outdoor cabinet liquid-cooled battery system developed by LEOCH. The system adopts modular design and integrates battery energy storage units, BMS, temperature control system and fire protection system and other equipment. As a DC side product, Quark-B417-L features efficient thermal management, multiple safety designs, compact structure (small footprint), and convenient transportation, installation, and maintenance. Equipped with external communication interfaces, it can connect external PCS and EMS. This product is widely used in industrial, commercial, and large-scale energy storage scenarios, such as peak shaving and valley filling, photovoltaic energy storage, peak shaving and frequency regulation, microgrids, and emergency backup power applications.



\*The appearance of the product is for reference



### Complete certification

System: IEC61000, IEC62619, UL9540A, UN38.3  
Cluster: UL1973



### Safe And Reliable

Multiple fire protection design, cell level temperature detection + cabinet level aerosol fire extinguishing + explosion-proof pressure



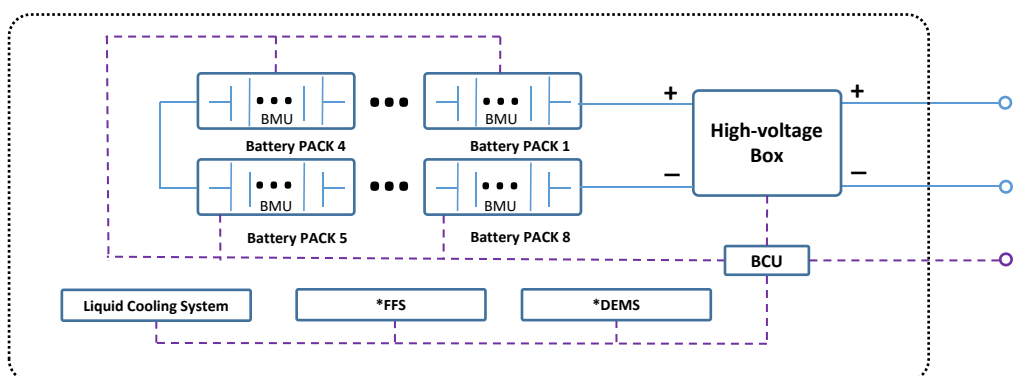
### Flexible Configuration

Modular design, flexible expansion, multi machine parallel design, supporting rapid expansion to megawatt level DC systems



### Extreme Temperature Control

Precise liquid cooling temperature control, system temperature difference  $\leq 3 \pm 1.5$  °C. The system has higher efficiency and longer service life.



..... Leoch Equipment

- - - - - Communication Line

————— DC Power Line

\*DEMS: Dynamic Environment Monitoring System; \*FFS: Fire Fighting System

# Outdoor Cabinet Liquid-cooled PV Energy Storage System



System model	Quark-B417-L
Battery Parameters	
Cell Type	LFP3.2V/314Ah
Battery PACK Type	1P52S
Cluster Configuration	1P416S
Nominal Energy	417.99kWh
Nominal Voltage Range	1331.2V
Battery Voltage Range	1164.8V~1476.8V
System Parameters	
Dimensions (W*D*H)	1350*1350*2400 (mm)
Weight	About 3900kg
IP Level	IP55
Corrosion protection Level	C3
Altitude	2000 meters (>2000m derate for use)
Operating Temperature	-20°C~50°C
Relative Humidity	0~95% (no condensation)
Operating Noise	≤75dB
Balancing Mode	Passive Balancing
Cooling method	Intelligent liquid cooling
Fire Fighting System	Cabinet level aerosol fire extinguishing + explosion- proof pressure relief
Communication Interface	RS485, CAN, Ethernet
Certifications	System: IEC61000, IEC62619, IEC62477-1, UL9540A, UN38.3; Cluster: UL1973