



BESS



Arenq Series



BESS

Liquid Cooled Integrated Cabinet Energy Storage System AQ125KW522KWH -M

AQ125KW522KWH -M is a newly developed commercial & industrial energy storage product specifically designed for daily one-charge-one-discharge application scenarios. The product highly integrates lithium iron phosphate batteries, BMS, PCS, EMS, fire protection system and liquid cooling system with an innovative all-in-one design, achieving small footprint and large energy capacity, and providing customers with low-carbon and high-return energy storage solutions.



High Integration

- Fully integrates energy storage unit, PCS, BMS, EMS, fire protection and thermal control systems.
- Equivalent to 2 sets of 261 kWh liquid-cooled cabinets and 1 combiner cabinet, with a smaller footprint.



High Efficiency

- 4-hour rate system with 95 % DC efficiency
- Intelligent liquid-cooled thermal management strategy reduces power consumption
- System conversion efficiency reaches up to 90%



High Safety

- Three-level protection system precisely monitors and guards against short circuit, overcurrent, overvoltage, overtemperature and other abnormalities Modular, cluster and fire protection three-level safety design, with dual anti-explosion design for modules and cabinets



Intelligent Management

- Built-in EMS, with the ARENQ cloud platform to achieve remote monitoring, remote setting, revenue calculation, remote upgrade, data analysis, cloud warning and other functions.
- Mobile APP function and local web function, convenient on site operation and maintenance



Liquid Cooled Integrated Cabinet Energy Storage System

AQ125KW522KWH -M



Technical Parameter	
System	
Rated Capacity	314 Ah
Rated Energy	522 kWh
Usable Energy	≥ 485 kWh
Rated Output Power	125 kW
Protection Degree	IP55
Operating Temperature	-20 °C ~ +55 °C
Cooling Method	Liquid cooling
Fire Protection	Aerosol
Altitude	3000 m (derating above 2000 m)
Cycle Life	≥ 8000 cycles
Dimensions (W×D×H)	1150 × 2400 × 2350 mm
Weight	~ 4000 kg
Certification	GB/T 36276
AC (on-grid)	
Rated AC Voltage	400 V
Rated Output Current	180 A
AC Connection Type	3L+N+PE
Allowed Grid Voltage Range	400 V (-20 % ~ +15 %)
Grid Frequency Range	50 Hz/ 60 Hz ÷ 2.5 Hz
Power Factor	-0.99 ~ +0.99
Charge-Discharge Switching Time	< 100 ms
DC	
Voltage Range	728 V ~ 949 V
Max DC Current	180 A
Rated DC Power	125 kW
Battery Type	Lithium Iron Phosphate (LFP) Battery
PACK Configuration	5 liquid-cooled modules