

EGS257 BESS CABINET

Liquid Cooled Energy Storage System



AC POWER / ENERGY CAPACITY

125 kW / 257 kWh

Key Specifications

AC OUTPUT POWER
125 kW @ 45 °C

CAPACITY
257.2288 kWh

NOMINAL BATTERY VOLTAGE
819.2 VDC

DIMENSIONS
1050 x 1800 x 2050 mm

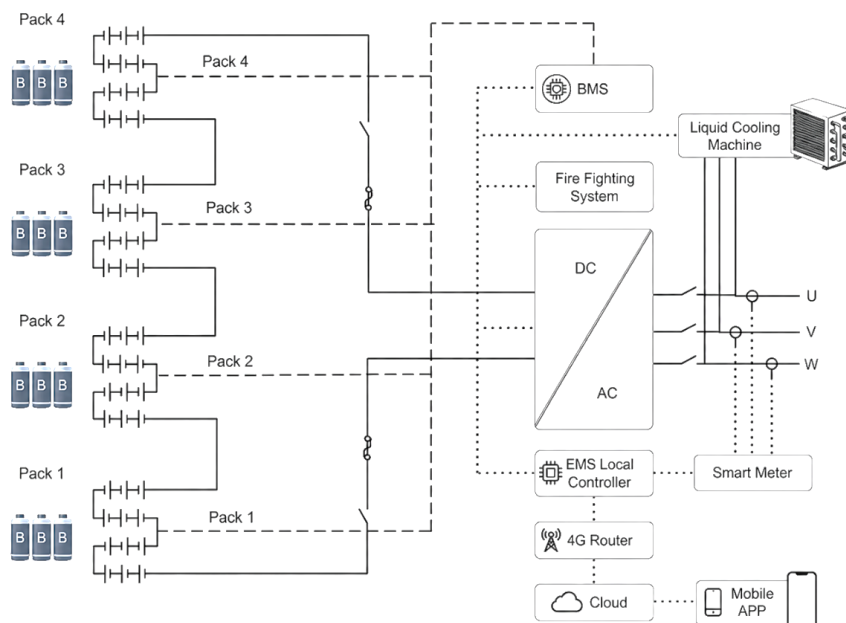
MAX. AC POWER
137.5 kW

BATTERY TYPE
LiFePO4 3.2 V / 314 Ah

PROTECTION
IP55

WEIGHT
approx. 2750 kg

System Overview



Technical Data

AC Side (Grid Tied Scenario)

AC Output Power	125 kW @ 45 °C
Max. AC Output Power	135 kW
Nominal AC Voltage / Range	230 V / 400 V
Nominal Grid Frequency / Range	50 / 60 Hz
Harmonic (THD)	< 3% (at Nominal Power)
Power Factor (Adjustable)	-1 to 1
Cooling Concept (PCS Chamber)	Air Cooling
Seamless Switching (Grid to BESS)	Optional

Batteries

Nominal Battery Voltage	819.2 VDC
Battery Type	LiFePO4 3.2 V / 314 Ah
Battery Pack Configuration	1P4S / 64.3024 kWh
Battery System Configuration	1P256S
Capacity	257.2288 kWh
Battery Voltage Range	716.8 to 921.6 VDC
Max Output Power	135 kW
Battery Disconnect	Integrated
Cooling Concept (Battery Chamber)	Liquid Cooling

AC Side (Microgrid Scenario)

Nominal AC Voltage	230 V / 400 V
Harmonic (THD)	< 2% (Resistance Load)
Nominal Frequency / Range	50 / 60 Hz
Max. AC Power	137.5 kW

General Parameters

Dimensions (W x D x H)	1050 x 1800 x 2050 mm
Charge / Discharge Rate	0.5 C
Depth of Discharge	95%
Life Cycle	6000
Degree of Protection	IP55
System Efficiency	>91% (Without Auxiliary Consumption)
Cooling Liquid	50% Ethylene Glycol + 50% Water
Fire Protection System	Aerosol
Allowed Ambient Temperature	-30 to 60 °C (45 °C Derating)
Allowed Relative Humidity	0 to 95%
Working Altitude	< 2000 m
Enclosure Corrosion Resistance	C3 / C4 / C5 (Optional)
Weight	approx. 2750 kg
SPD	DC TYPE II / AC TYPE II
Lifting Options	Fork / Crane
Scalability	Yes, units can be connected in parallel

Applications & Use Cases

Peak Shaving

Reduces peak demand by supplying stored energy during high consumption periods. Benefits: Lower grid fees, no grid upgrades required, reduced infrastructure strain.

Energy Trading (Arbitrage)

Stores energy when prices are low and uses or sells it when prices are high. Benefits: Financial returns, optimized energy procurement, participation in energy markets.

Self-Consumption & Energy Storage

Stores locally generated energy such as solar for later use. Benefits: Maximizes renewable usage, reduces grid dependency, avoids curtailment.

Backup Power

Ensures continuity during grid outages through seamless switching. Benefits: Increased reliability, protection of critical operations.

Grid Support & Frequency Regulation

Responds rapidly to grid fluctuations to stabilize power. Benefits: Improved power quality, supports grid operators.

Microgrid & Off-Grid

Integrates into local energy systems with or without grid connection. Benefits: Energy independence, integration of multiple energy sources

EV Charging Optimization

Supports EV infrastructure by managing peak loads. Benefits: Faster charging, lower connection costs, stable power delivery.

Key Benefits

- Reduced energy costs
- Increased reliability and resilience
- Maximized renewable energy usage
- Scalable and flexible deployment
- Supports electrification and energy transition