



Product catalogue 2025

Innovating Safe and Reliable Energy Storage

Welcome to EnBrilion, a Swedish company revolutionizing energy storage with cutting-edge technology and an unwavering commitment to safety. As the first in Europe to offer immersion cooling technology, we empower the green transition and ensure reliable energy for critical functions. Discover how our innovative solutions can power your future with unmatched performance and peace of mind.



Safety Features:

- **Immersion Cooling:** Unique market-leading technology for maximum safety.
- **Liquid Plate Cooling:** Advanced cooling for efficient temperature management.
- **Active Cell Balancing:** Ensures even performance and long battery life.
- **Cell Monitoring:** Continuous temperature and voltage checks for each cell.
- **Fire Suppression:** Advanced fire safety systems at both pack and system levels.

Adaptable Solutions:

- **Plug and Play:** Easy to install and use.
- **Flexible Scalability:** Adaptable from small homes to large industrial setups.
- **Grid Stabilization:** Helps balance supply and demand, ensuring reliable electricity delivery.
- **Renewable Energy Integration:** Seamlessly connects with solar, wind, and other green energy sources.
- **Energy Management:** Advanced software for optimizing energy use and storage.



Comparison of our Battery Storage Systems:

Specifications and Performance

Parameters/Product	EnBreeze 60 kW	EnFlow 130 kW	EnAqua 130 kW	EnVault 5 MW	EnOceanus 5 MW
Rated AC Power (kW)	60	130	130	5,000	5,000
Storage Capacity (kWh)	205	261	261	10,000	10,000
Battery Type (V/Ah)	LFP 3.2/314	LFP 3.2/314	LFP 3.2/314	LFP 3.2/314	LFP 3.2/314
Cycle Life	≥6000 times (25°C ±5°C/100%DOD/80 % SOE)	≥6000 times (25°C ±5°C/100%DOD/80 % SOE)	≥6000 times (25°C ±5°C/100%DOD/80 % SOE)	≥6000 times (25°C ±5°C/100%DOD /80% SOE)	≥6000 times (25°C ±5°C/100%DOD/8 0% SOE)
Balancing Technology	Active battery cell balancing	Active battery cell balancing	Active battery cell balancing	Active battery cell balancing	Active battery cell balancing
Cooling Method	Air cooling (PCS); Liquid Plate Cooling (battery)	Air cooling (PCS); Liquid Plate Cooling (battery)	Air cooling (PCS); Immersion Cooling (battery)	Liquid Plate Cooling	Immersion Cooling
Dimension (W/D/H) (mm)	1450x1400x2200	1450x1400x2350	1450x1400x2500	(6058×2438×2896)×2 (2 Containers)	(6885×3000×3615)×2 (2 Containers)
Weight (tonne)	2.4	2.8	3.5	43×2 (2 Containers)	50×2 (2 Containers)
Operating Temperature Range (°C)	-30 to +50 (derating > 45). Extended temp. range on request	-30 to +50 (derating > 45). Extended temp. range on request	-30 to +50 (derating > 45). Extended temp. range on request	-30 to +50 (derating > 45). Extended temp. range on request	-30 to +50 (derating > 45). Extended temp. range on request
Communication Protocols	IEC 61850, Modbus, TCP/IP	IEC 61850, Modbus, TCP	IEC 61850, Modbus, TCP	IEC 61850, Modbus, TCP	IEC 61850, Modbus, TCP
Others	Support Diesel Generator	Support Off-grid	Support Off-grid	-	-
Certification	CE-LVD; TUV MARK; Euro Grid Connection; Germany Grid Connection; Sweden Grid Connection; CE-EMC	CE-LVD; TUV MARK; Euro Grid Connection; Germany Grid Connection; Sweden Grid Connection; CE-EMC	CE-LVD; TUV MARK; Euro Grid Connection; Germany Grid Connection; Sweden Grid Connection; CE-EMC	-	-
Test Standards	IEC/EN 62109-1:2010; IEC/EN 62109-2:2011; IP65; EN 50549-1+EN 50549-10; VDE 4105; VDE 0124; EIFS:2018 (Type A); EN IEC 61000-6-2; EN IEC 61000-6-4; IEC 62619; IEC 62610; IEC/EN 62109-1/2; IEC 62477; UN 38.3; IEC61000; IEC 60529; IP65	EC/EN 62109-1:2010; IEC/EN 62109-2:2011; IP65; EN/IEC 62477-1+A11:2014+A12; EN 50549-1+EN 50549-10; VDE 4105; VDE 0124; EIFS:2018 (Type A); EN IEC 61000-6-2; EN IEC 61000-6-4; IEC 62619; IEC 62610; IEC 62477; UN 38.3; IEC61000; IEC 60529; IP65	EC/EN 62109-1:2010; IEC/EN 62109-2:2011; IP65; EN/IEC 62477-1+A11:2014+A12; EN 50549-1+EN 50549-10; VDE 4105; VDE 0124; EIFS:2018 (Type A); EN IEC 61000-6-2; EN IEC 61000-6-4; IEC 62619; IEC 62610; IEC 62477; UN 38.3; IEC61000; IEC 60529; IP65	-	-



EnBreeze 60kW All-in-One Hybrid BESS

Liquid Plate Cooling

Scalable | Reliable

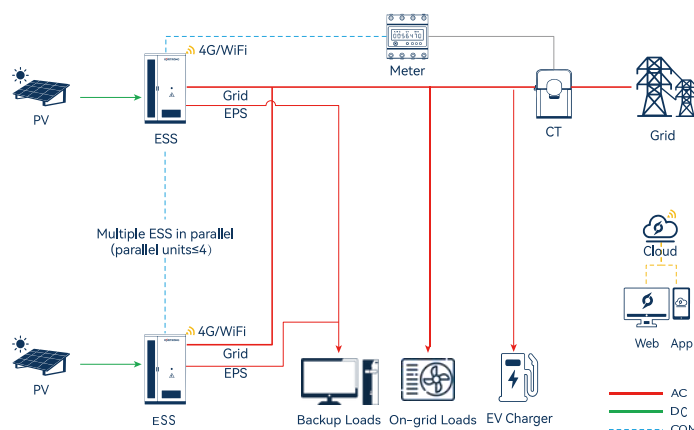
The EnBreeze 60kW Hybrid ESS ensures seamless power transitions with its hybrid inverter, supporting solar PV and diesel generator inputs. Designed for easy transport and maintenance, it's perfect for backup power in grid-limited areas.

Features:

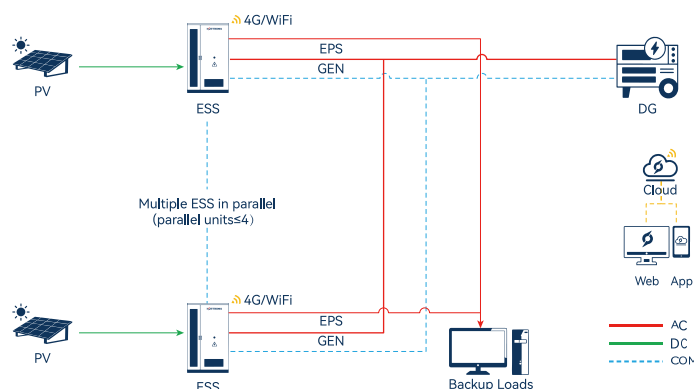
- The hybrid inverter ensures an uninterrupted power supply during grid outages or power shortages.
- Integrated design with a battery capacity of 208 kWh, offering flexible expansion and supporting up to 4 battery modules for connection.
- Suitable for a variety of applications, such as industrial parks, farms, hotels, resorts, islands, etc.

With advanced liquid cooling, EnBreeze 60kW delivers efficient, long-lasting performance for commercial and industrial needs.

On-grid, output power, $\leq 60\text{kW}-240\text{kW}$



Solar-Storage-DG forming an off-grid system, output power $\leq 60\text{kW}-240\text{kW}$



EnBreeze 60kW All-in-One Hybrid BESS

PV Input

Max. DC Input Power (kW)	90
MPPT Voltage Range (V)	180~900/630
Max. Input Current (A)	4×30
No. of MPP Trackers	4 / 2

Battery Parameters

Battery Type (V/Ah)	LFP 3.2/314
Battery Voltage Range (V)	DC 200~850
Battery Module (kWh/V)	52/166.4
Number of Battery Module	4
Battery Capacity (kWh)	208
Max. Charge/Discharge Current (A)	100/100
Cycle Life	≥6000 times (25°C±5°C/100% DOD/80% SOE)

AC Input/Output

Rated Power (kW)	60
Rated Apparent Power to Grid (kVA)	66
Rated Voltage (V)	3/N/PE; 220/380 3/N/PE; 230/400
Rated Frequency (Hz)	50/60
Rated Current to Grid (A)	87
Power Factor	-1~+1
THDi (%)	< 3

EPS Output

Rated Power (kW)	60
Rated Apparent Power (kVA)	66
Rated Voltage (V)	3/N/PE; 220/380 3/N/PE; 230/400
Rated Frequency (Hz)	50/60
Rated Current to Grid (A)	104
THDv (%)	<3
Switch Time (ms)	<20

DG Input

Rated Power (kW)	60
Rated Apparent Power (kVA)	66
Rated Voltage (V)	3/N/PE; 220/380 3/N/PE; 230/400
Rated Frequency (Hz)	50/60

Efficiency

PCS Max. Efficiency (%)	98.5
PCS Europe Efficiency (%)	97.5

General Data

Dimension W*D*H (mm)	1450×1400×2200
Weight (kg)	2400
Operating Temperature Range (°C)	-30 to +50 (derating > 45)
Relative Humidity (%)	0~95
Altitude (m)	≤2000
Ingress Protection	IP54
Cooling Method	Air cooling (PCS); Liquid Plate Cooling (Battery)
Diesel Generators	Support



EnFlow 130kW/261kWh BESS

Liquid Plate Cooling

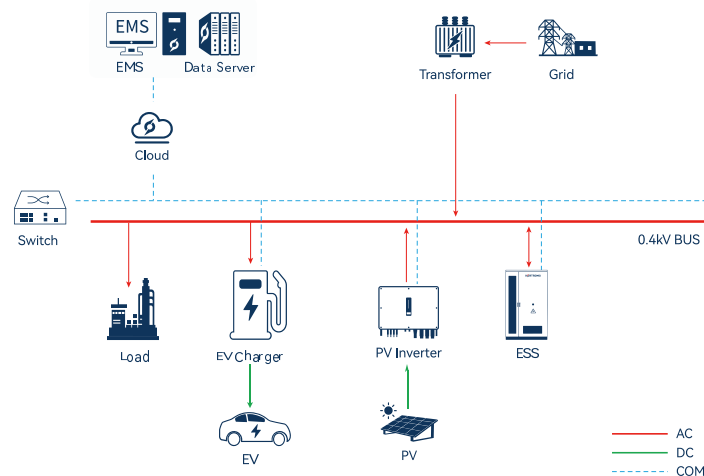
Compact | Scalable

The EnFlow 130kW/261kWh BESS is a compact, integrated energy storage solution that combines various components like batteries, thermal management, and fire protection for easy installation. It improves battery performance, extends lifespan, and enables seamless scalability through parallel cabinet connections.

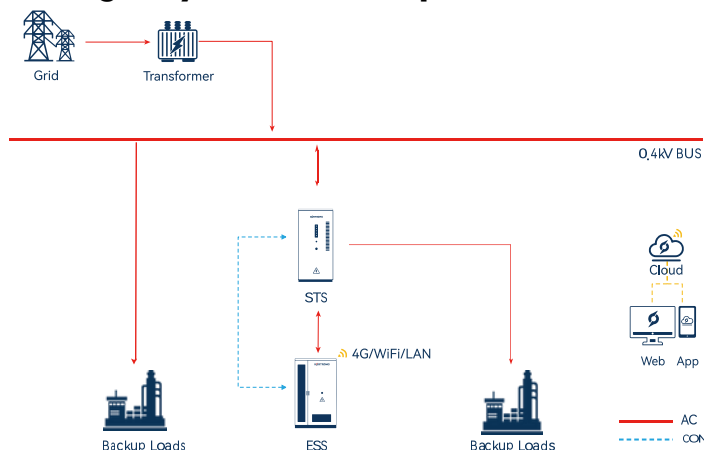
Features of EnFlow 130kW:

- **Precision Liquid Cooling:** Keeps battery temperature within $\pm 1^{\circ}\text{C}$, enhancing performance and extending battery life by up to 10%.
- **Automatic Real-Time Balancing:** Optimizes cell performance for increased capacity and service life.
- **Comprehensive Monitoring & Control:** Monitors PCS, battery packs, temperatures, voltages, and detects gas/smoke at all levels.
- **Seamless Deployment:** Integrated plug-and-play design for easy transport, maintenance, and quick installation.
- **Fast & Reliable Power Switching:** Offers 10ms grid-to-off-grid switchover for uninterrupted power supply.

Solar-Storage System Intergration



Emergency Power Backup

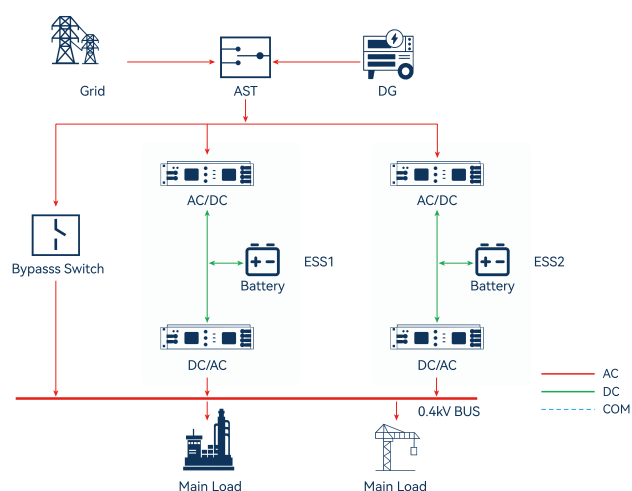
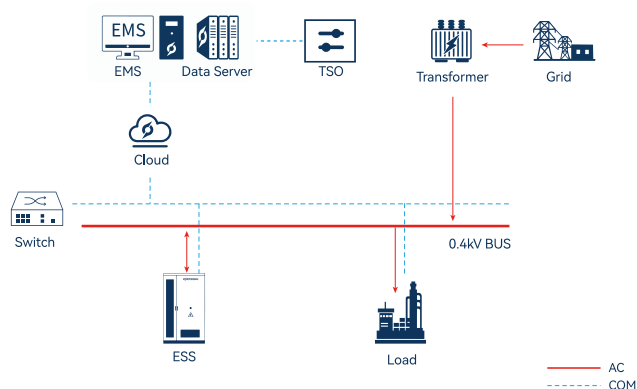


Rated Power (kW)	130
AC Maximum Current (A)	197
Rated Voltage AC	3/N/PE; 220/380 3/N/PE; 230/400
Rated Frequency (Hz)	50/60
Power Factor	-1~+1
THDi (%)	< 3
Off-grid	Support

Rated Capacity (kWh)	261
DC Maximum Current (A)	185
Battery Type (V/Ah)	LFP 3.2/314
Battery Voltage Range (V)	700~950
Rated Voltage DC (V)	832
Battery Module (kWh/V)	52/166.4
Number of Battery Module	5
Cycle Life	≥6000 times (25°C±5°C/100% DOD/80% SOE)
BMS Balancing Method	Active battery cell balancing

Dimension W*D*H (mm)	1450×1400×2350
Weight (kg)	2800
Operating Temperature Range (°C)	-30 tp +50 (derating > 45)
Relative Humidity (%)	0~95
Altitude (m)	≤2000
Protection Level	IP55
Cooling Method	Air cooling (PCS); Liquid Plate Cooling (Battery)
Inverter Topology	Non-isolated

Online UPS



The EnFlow 130kW is an efficient, scalable, and safe energy storage solution for commercial and industrial use.



EnAqua 130kW/261kWh BESS

Immersion Cooling

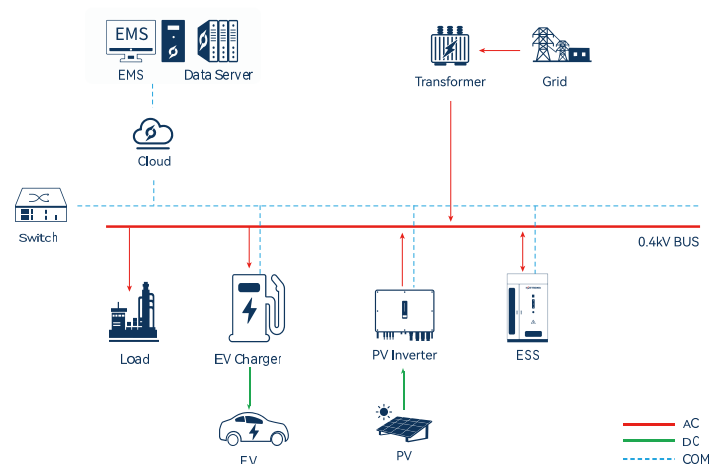
Ultra-Safe | Extreme Condition Ready

The EnAqua 130kW/261kWh BESS features advanced immersion cooling technology, fully submerging batteries in a thermally conductive insulating liquid for unmatched safety and enhanced thermal stability. This innovative design extends battery life by over 10%, ensuring reliable performance in extreme temperatures, high humidity, and harsh environments.

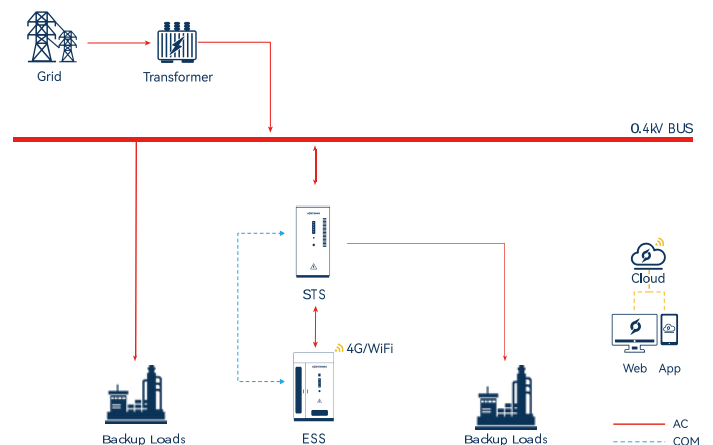
Features:

- **Unrivaled Safety** – Immersion cooling mitigates thermal runaway risks and eliminates the risk of explosions and fire.
- **Plug-and-Play Deployment** – A highly integrated system for easy transport, maintenance, and fast on-site setup.
- **Built for Extremes** – Operates reliably in high heat, freezing cold, high humidity, and high-altitude conditions

Solar-Storage System Integration



Emergency Power Backup



EnAqua 130kW/261kWh BESS

AC Input/Output

Rated Power(kW)	130
AC Maximum Current (A)	197
Rated Voltage AC	3/N/PE; 220/380 3/N/PE; 230/400
Rated Frequency (Hz)	50/60
Power Factor	-1~+1
THDi (%)	< 3
Off-grid	Support

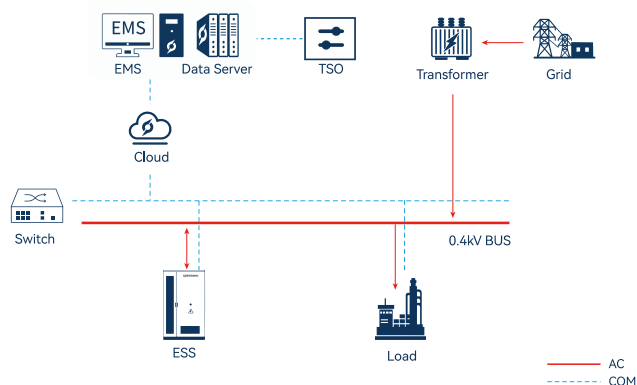
Battery Parameters

Rated Capacity (kWh)	261
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Battery Module (kWh/V)	52/166.4
Number of Battery Module	5
Cycle Life	≥6000 times (25°C±5°C/100% DOD/80% SOE)
BMS Balancing Method	Active battery cell balancing

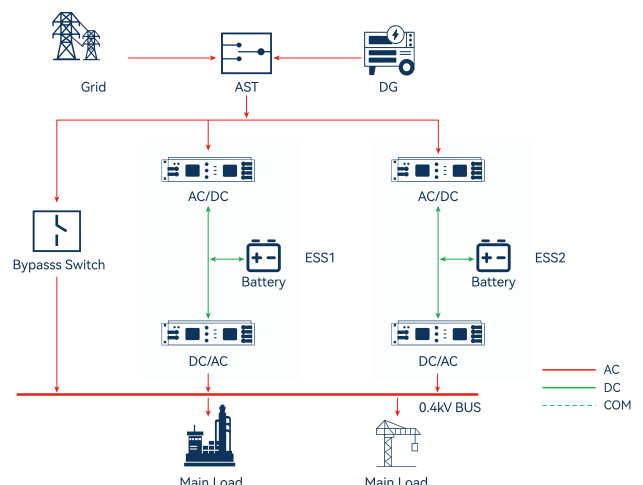
General Data

Dimension W*D*H (mm)	1450×1400×2500
Weight (kg)	3500
Operating Temperature Range (°C)	-30 to +50 (derating > 45)
Relative Humidity (%)	0~95
Altitude (m)	≤2000
Protection Level	IP55
Cooling Method	Air cooling (PCS); Immersion Cooling (Battery)
Inverter Topology	Non-isolated

FCR/FRR



Online UPS



With cutting-edge cooling and superior adaptability, EnAqua 130kW is the ultimate choice for safety-critical energy storage applications.



EnVault 5MW/10MWh UTILITY-SCALE BESS

Liquid Plate Cooling

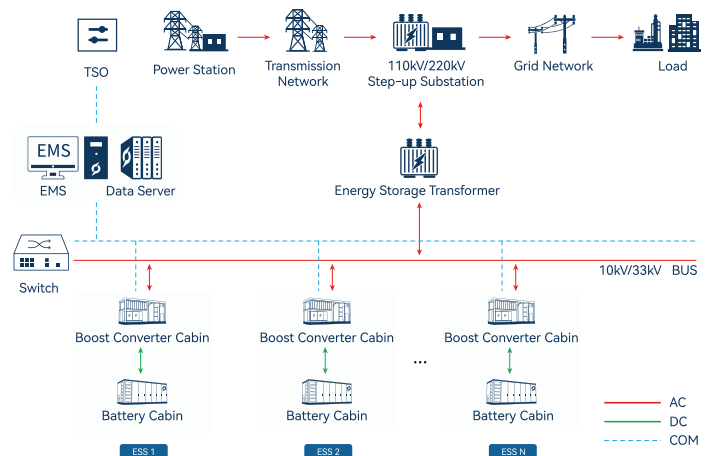
High-Efficiency I Grid-Optimized

The EnVault 5MW/10MWh ESS is a utility-scale storage solution designed for quick deployment and grid integration. It features 99% PCS efficiency, full reactive power support, and four-quadrant operation for optimized energy conversion. Its black start and VSG capabilities enhance grid stability, making it suitable for renewable integration, diesel generation, and microgrid applications.

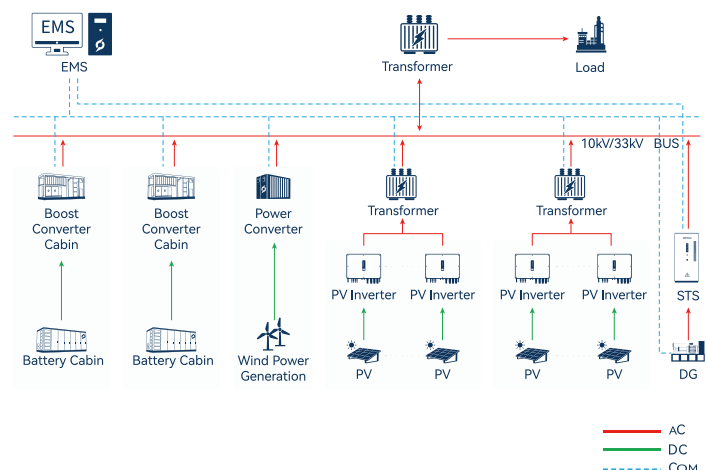
Key Features:

- **Automatic Real-Time Cell Balancing:** Optimizes battery performance, increasing capacity and extending BESS lifespan.
- **Comprehensive Monitoring & Control:** Monitors PCS, battery packs, temperature, voltage, and gas/smoke detection.
- **99% PCS Efficiency:** Supports stable grid integration with full reactive power.
- **Advanced Grid Support:** Includes black start and VSG for system restart and frequency/voltage regulation.
- **Millisecond-Level Response:** EMS/SCADA integration allows real-time power adjustments for grid stability.

Container Type Utility-Scale ESS



Grid-forming ESS



EnVault 5MW/10MWh UTILITY-SCALE BESS

AC Input/Output

Rated Power(MW)	5
AC Maximum Power (MW)	5.5
LV/MV Voltage (kV)	0.69/35 (10~35 Optional)
Rated Frequency (Hz)	50/60
Power Factor	-1~+1
THDi (%)	<3
Isolation Method	Oil-immersed transformer
Transformer Vector	Dy11
Oil Type	Mineral oil (PCB free) or degradable oil on request
Dimension W*D*H (mm)	7300×3400×3300
Weight (t)	≤25
Protection Level	IP54

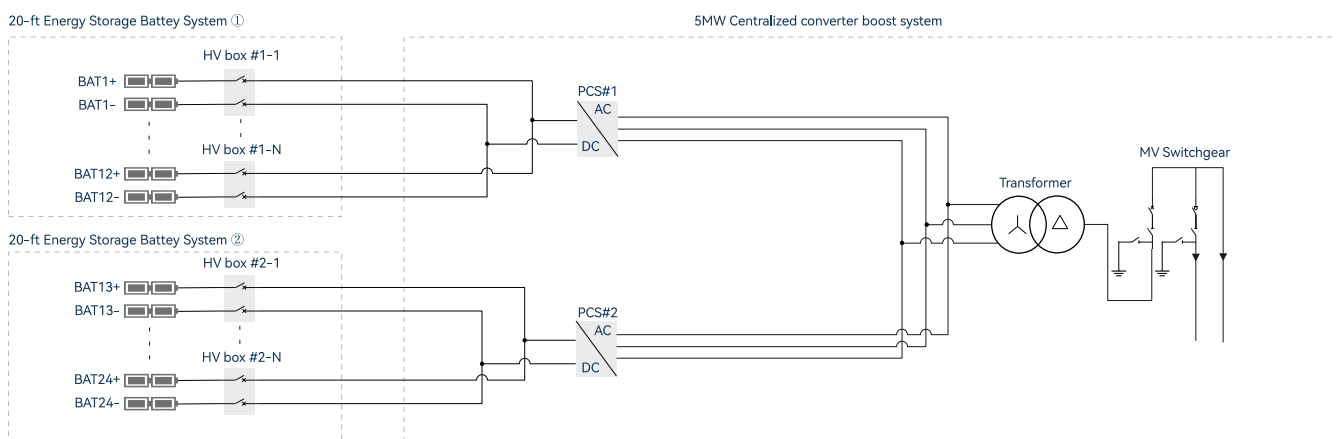
Battery Parameters

Rated Capacity (MWh)	5×2 (2 Containers)
Battery Voltage Range (V)	1000~1500
Rated Voltage DC (V)	1331.2
Battery Type (V/Ah)	LFP 3.2/314
Battery Module (kWh/V)	104.499/332.4
Grouping Method	1P416S×12×2 (2 Containers)
Cycle Life	≥6000 times (25°C±5°C/100%DOD/80% SOE)
BMS Balancing	Support
Protection Level	IP54
Cooling Method	Liquid Plate Cooling
Dimension (W/D/H) (mm)	(6058×2438×2896)×2 (2 Containers)
Weight (t)	43×2 (2 Containers)

General Data

Operating Temperature Range (°C)	-30 to +50 (derating > 45)
Relative Humidity (%)	0~95
Altitude (m)	≤2000
Communication Protocols	IEC 61850, Modbus, TCP

Circuit Diagram



With high efficiency, fast response, and robust grid support, EnVault 5MW is the ultimate utility-scale energy storage solution.



EnOceanus 5MW/10MWh UTILITY-SCALE BESS

Immersion Cooling

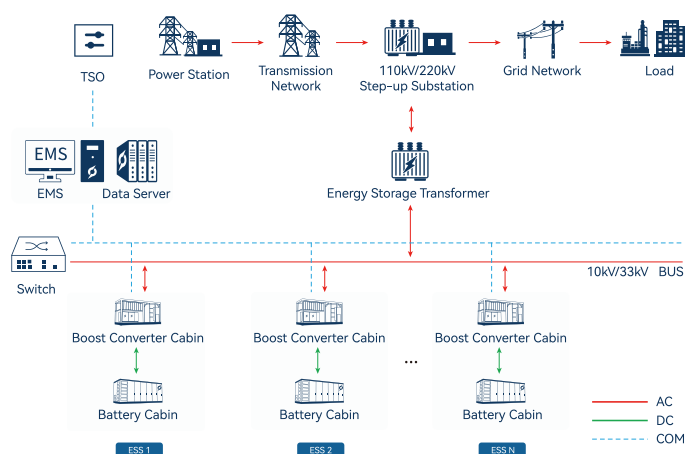
Ultra-Safe | High-Efficiency

The EnOceanus 5MW/10MWh ESS is a utility-scale storage solution designed for quick deployment and grid integration. It features 99% PCS efficiency, full reactive power support, and four-quadrant operation for optimized energy conversion. Its black start and VSG capabilities enhance grid stability, making it suitable for renewable integration, diesel generation, and microgrid applications.

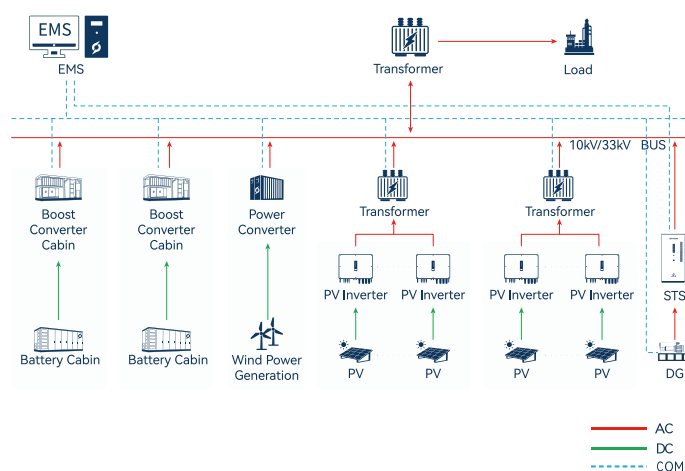
Key Features:

- **Unrivaled Safety:** Immersion cooling mitigates thermal runaway risks and eliminates the risk of explosions and fire.
- **Automatic Real-Time Cell Balancing:** Optimizes battery performance, increasing capacity and extending BESS lifespan.
- **Comprehensive Monitoring & Control:** Monitors PCS, battery packs, temperature, voltage, and gas/smoke detection.
- **99% PCS Efficiency:** Supports stable grid integration with full reactive power.
- **Advanced Grid Support:** Includes black start and VSG for system restart and frequency/voltage regulation.
- **Millisecond-Level Response:** EMS/SCADA integration allows real-time power adjustments for grid stability.

Container Type Utility-Scale ESS



Grid-forming ESS



EnOceanus 5MW/10MWh UTILITY-SCALE BESS

AC Input/Output

Rated Power (MW)	5
AC Maximum Power (MW)	5.5
LV/MV Voltage (kV)	0.69/35 (10~35 Optional)
Rated Frequency (Hz)	50/60
Power Factor	-1~+1
THDi (%)	<3
Isolation Method	Oil-immersed transformer
Transformer Vector	Dy11
Oil Type	Mineral oil (PCB free) or degradable oil on request
Dimension W*D*H (mm)	9280×3490×3040
Weight (t)	≤26.5
Protection Level	IP54

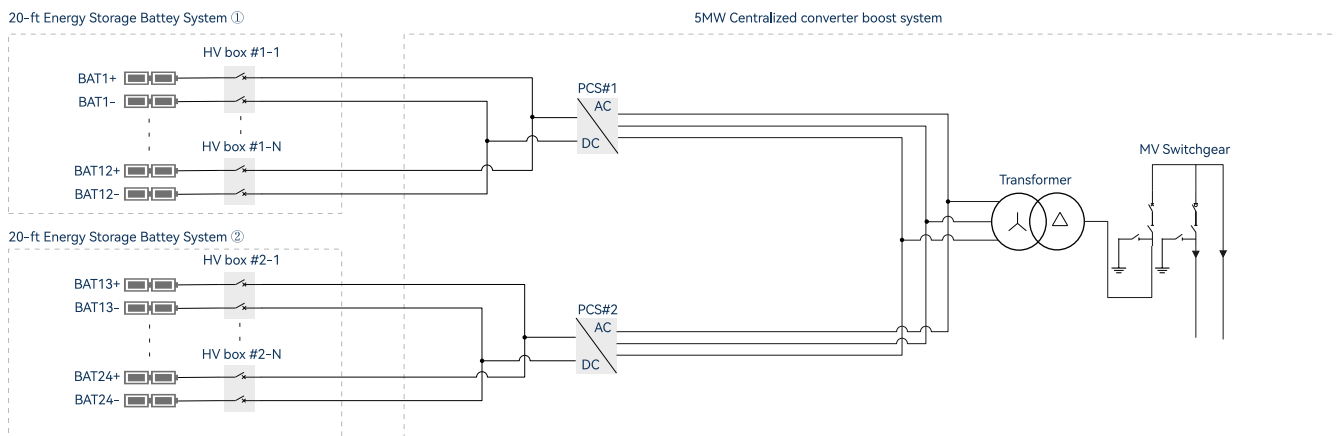
Battery Parameters

Rated Capacity (MWh)	5×2 (2 Containers)
Battery Voltage Range (V)	1000~1500
Rated Voltage DC (V)	1331.2
Battery Type (V/Ah)	LFP 3.2/314
Battery Module (kWh/V)	52.249/166.4
Grouping Method	1P416S×12×2 (2 Containers)
Cycle Life	≥6000 times (25°C±5°C/100%DOD/80% SOE)
BMS Balancing	Active battery cell balancing
Protection Level	IP54
Cooling Method	Immersion Cooling
Dimension (W/D/H) (mm)	(6885×3000×3615)×2 (2 Containers)
Weight (t)	50×2 (2 Containers)

General Data

Operating Temperature Range (°C)	-30 to +50 (derating > 45)
Relative Humidity (%)	0~95
Altitude (m)	≤2000
Communication Protocols	IEC 61850, Modbus, TCP

Circuit Diagram



With high efficiency, fast response, and robust grid support, EnOceanus 5MW is the ultimate utility-scale energy storage solution.

Empowering the Green Transition



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