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Be**Efficient.**
Be**Sustainable.**

ZEUS UE-L5015

Bringing Green Energy to Life

Storage solution designed to deliver energy, safety, durability, and intelligent control in any environment.

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Energy Storage System Liquid Cooling Container

ZEUS UE-L5015

bernavitas TDG

High safety

- **UL9540A** test successfully passed with excellence, including forced thermal propagation evaluation without affecting adjacent containers. The system integrates pressure relief and explosion protection in compliance with **NFPA68** and **NFPA69**, ensuring maximum operational safety under critical conditions.

Environmental protection

- Enclosure with **IP54** rating, **C4/C5** corrosion resistance, and high-voltage modules certified to **IP66**. Ensures long-lasting resistance against dust, water, and corrosive industrial environments, maintaining reliability throughout the entire lifecycle.

Reinforced and stable design

- High-strength steel structural design compliant with IEEE693 seismic standards

Prevention and control

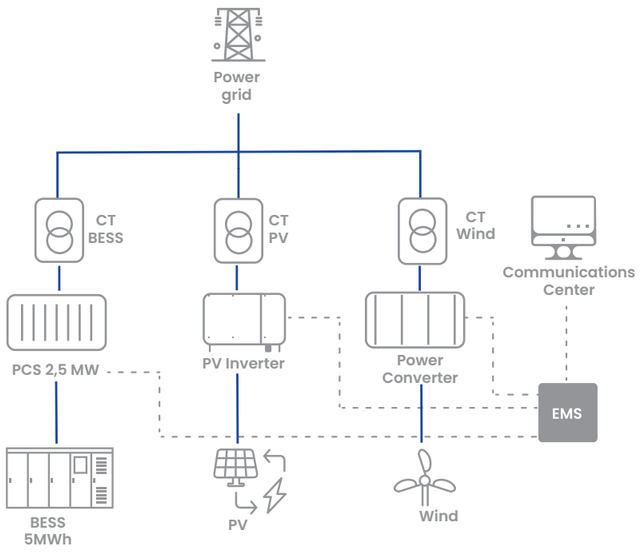
- Design with multiple configurations of modular suppression and protection systems at the container level.
- The DC circuit is equipped with multi-level disconnections, offering different configuration options.
- The insulation strength of the system is sufficient, with no breakdown or flashover during the 5 kV DC withstand test.

Off-Grid mode

- The system allows operation in off-grid mode, ensuring energy autonomy even in the absence of the power grid.

High-precision thermal management

- Centralized cooling system with multi-stage bypass, parallel flow, and regulated flow control.
- The temperature difference of cells in the module is 2 °C and that is 3 °C for container level.
- Electrical components are tested at 60 °C to guarantee durability, and the liquid cooling pipeline is checked at 1000 hours of high temperature cycle.



Glossary. PCS: Power Conversion System / EMS: Energy Management System / BMS: Battery Management System.

MODEL 2500 kW/5015 kWh

DC

Cell Type	314 Ah (LFP) 3.2 V
PACK Capacity	104,5 kWh (1P104S)
System Capacity	5015,9 kWh (12P4S)
Voltage range	1040 ~ 1500 V (For cell 2.5V ~ 3.65V)
Discharge/charge range	0,5 C
Maximum continuous charge/discharge current	1880 A
Dimensions (W x D x H)	6058*2438*2896 mm (20HQ)
Weight	44,5 t

AC

Rated Power	2500 kW
Maximum Operating Current	Nominal: 2.832 A Max: 3.115,2
PCS output voltage	690 Vac
LV/MV Transformer	0,69 / (6-35) kV
Nominal Frequency	50 Hz/60 Hz
Total current distortion rate	≤ 3 %
Power factor	≥ 0,99
Power factor adjustable range	-1 (leading) 1 (lagging)
Maximum power	2750 kW
Maximum PCS efficiency	≥ 98 %
Dimensions (W x D x H)	6058*2438*2896 mm (20HQ)
Weight	15 t

GENERAL

Protection level	IP54 (PCS IP66)
Lyfe cycles	8000 CYCLES
Relative himidity	0 ~ 100 %
Maximum working height	≤ 3000 m
Anti-corrosion grade	C5-H
Fire Safety Equipment	Smoke, temperature, gas detector Fire suppresion control panel.
Operating Temperature Range	-40 °C ~ 60 °C
Cooling method	Liquid cooling (PACKs) Air cooling (inverter)

COMMUNICATIONS

Interface	Ethernet
Protocol	CAN, RS485, TCP/IP

REGULATIONS

GB/T34120-2023, GB/T34133-2023, IEC 62477-1:2022, IEC 61000-6-2:2016, EN IEC 61000-6-2:2019 IEC 61000-6-4:2018, EN IEC 61000-6-4:2019 IEC 62920:2017+A1:2021, EN 62920:2017 IEC 61000-3-11:2017, EN IEC 61000-3-11:2019 IEC 61000-3-12:2021, EN 61000-3-12:2011+A1:2019 EN 55011-2016+A2:2021, CISPR 11:2019, EN 50549-1:2019+A1:2023 , EN 50549-2:2019+A1:2023 , IEC 62477-1:2022, EN 62477-1:2012 + A12:2021

CELL MANUFACTURER

REPT BATTERO

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