



UTILITY-SCALE ESS SOLUTION

WS-L5000-BC-2

WS-MV2500

WS-L5000-BC-2 | The Low LCOS Multi-intelligent Energy Storage Solution

Economical and efficient

- 20-foot container 5016kWh
- Maximum efficiency 94.5%
- Shoulder-to-shoulder/back-to-back installation
- Maximum support for 10-year warranty



Flexible and convenient

- Liquid cooling circuit equipped with bidirectional shut-off valve
- Equipped with waste liquid collection device
- Single/dual circuit output, 2/4h application



Smart Cloud Management

- AI-Powered Load Optimization
- 24/7 Remote Monitoring & O&M
- Real-Time Battery Health & Safety Alerts
- Cloud-Connected Ecosystem



Ultimate Safety

- 2+3 Level Fire Protection System
- 3+2+1 Level Electrical Safety Protection

WS-MV2500 | Integrated Boost and Conversion Solution



Intelligent Collaboration

- AI-Power Load Optimization
- 24/7 Remote Monitoring & O&M
- Cloud-Connected Ecosystem



Safe and Reliable

- 3+3 level overcurrent and loop protection
- Equipped with dual fire detection
- Multi-chamber independent heat dissipation to avoid hot spot effect
- Strong environmental adaptability, corrosion resistance grade C5M, protection rating IP54



Grid-friendly

- Supports connection to 12kV-36kV, 50Hz/60Hz power grid
- Supports ring network configuration, redundant load power supply
- Equipped with PQ/VF/VSG/SVG functions
- Equipped with primary frequency regulation, LVRT, HVRT capabilities



Economical and efficient

- 20-foot integrated machine size design, easy to transport, small footprint
- PCS adopts three-phase boost topology, maximum conversion efficiency 99%

Liquid-Cooled ESS

Model

WS-L5000-BC-2

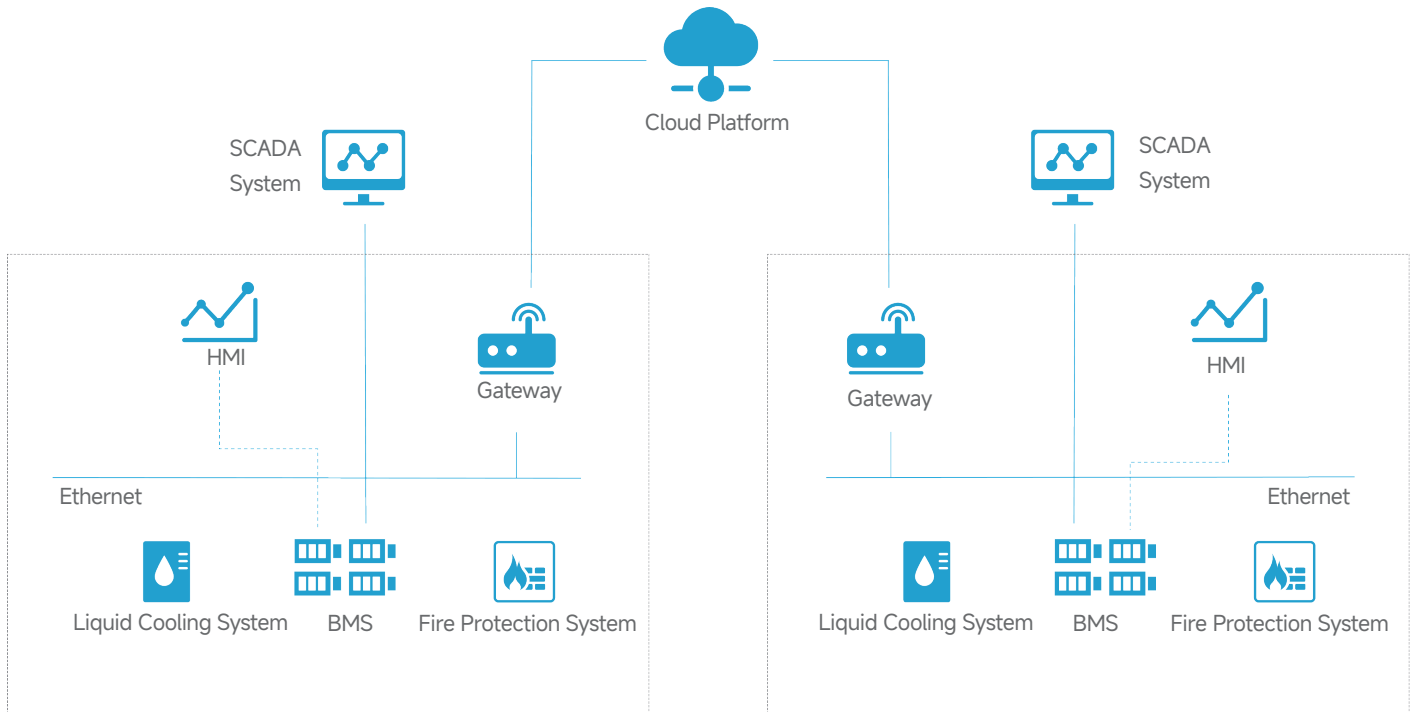
Battery Data

Battery Type	LiFePO4
Nominal Capacity (Cell)	314Ah
PACK Configuration	1P104S
RACK Configuration	4*1P104S
System Configuration	2*6P416S (12P416S)
Nominal Voltage	1331.2Vdc (1144-1497.6Vdc)
Nominal Energy	5016kWh (12× 418kWh)
Nominal Current	2*939A
Charge/Discharge Rate	0.5P
DC efficiency	≥94.5%

System Data

Operating Temperature	-30°C ~ +55°C (>45°C derating)
Storage Temperature	-30°C ~ +60°C
Humidity	0 ~ 95%RH
Type of cooling BAT	Liquid cooling
Fire Suppression	Aerosol、Water
Ingress Protection	IP55
Anticorrosion grade	C4/C5
Altitude	≤3000m
Weight	≤42T
Dimensions (W × D × H)	6058*2438*2896mm
Communication	Ethernet/CAN
Standard compliance	IEC62619,IEC62477,IEC62933,IEC63056,IEC61000,UN38.3,UN3536,NFPA855,UL9540A

Architecture Diagram



Model **WS-MV2500-2**

DC Side Data

Max. DC voltage	1500Vdc
DC voltage range for nominal power	1000Vdc~1500Vdc
Max. DC current	1404A*2
No. of DC inputs	2

PCS AC Side Data

Rated output power	2500 kVA
Max output power	2500*1.1kVA @35°C
Rated AC voltage	690Vac
AC voltage range	621~759Vac (-10%~+10%)
Max AC current	2300A
Nominal grid frequency	50Hz/60Hz
Grid frequency rage	45~55Hz/55~65Hz
AC current THD	< 3% @Pn
Power factor at nominal power	> 0.99
Power factor range	1 leading ~ 1 lagging

Efficiency

Average efficiency	≥98.3%
--------------------	--------

Transformer

Isolation Mode	Oil-Immersed Transformer
Transformer Rated Power	2700kVA
LV/MV Voltage	0.69kV/10~35kV
Transformer Vector	Dy11
Cooling Type	ONAN/KNAN

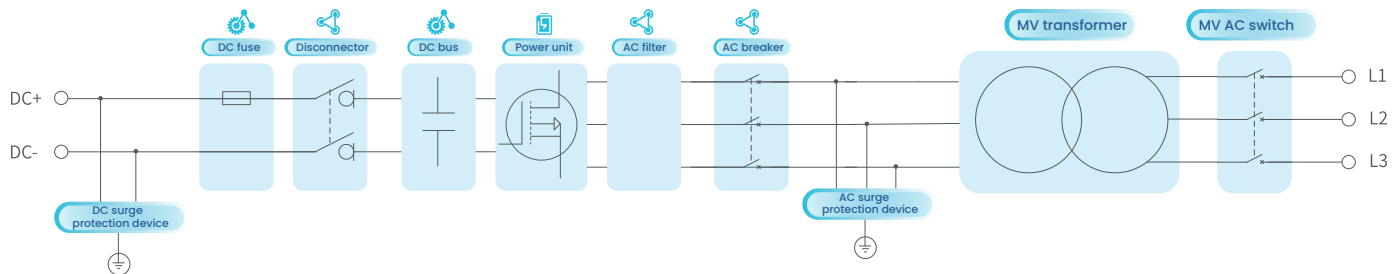
General Data

Dimensions (W*D*H)	6058*2438*2896mm
Weight	≤18T
Protection degree	IP65 for PCS, IP54 others
Cooling method	Natural air cooling (transformer)/Air-water cooling (PCS)
altitude	4000m (> 2000m derating)
Operating temperature range	-30°C~60°C (> 45°C derating)
Humidity range	0~95%
Anticorrosion grade	C4/C5
Over voltage range	DC OVC II / AC OVC III
Surge protection	DC Type II / AC Type II
Communication	RS485/ETH/CAN

Standard compliance

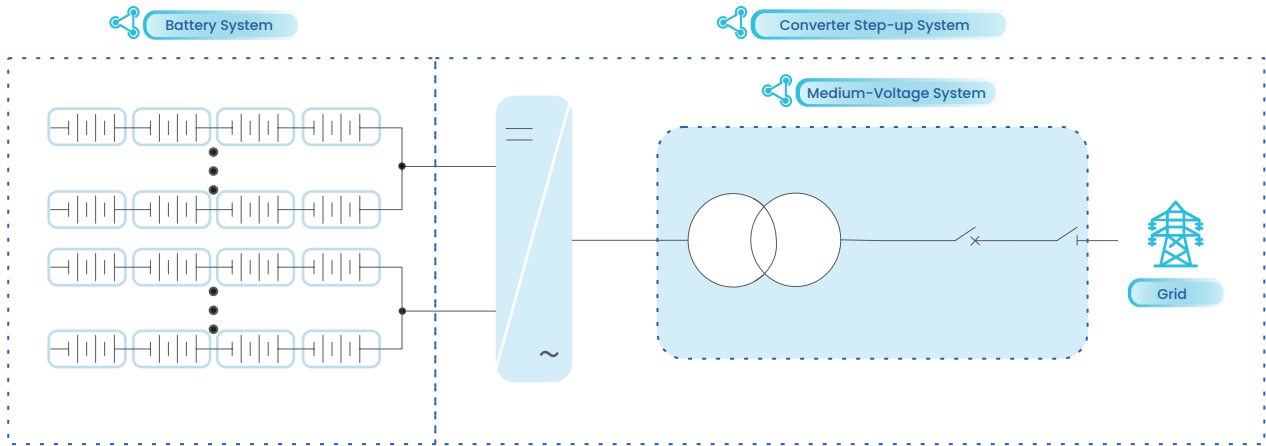
IEC 62477, IEC 61000, IEC 62920, IEC 61727, IEC 62116, IEC 60076,
IEC 62271-100/103/200, EN 50549-2/-10, ANSI C57.12.10/20

Topology



Typical 4H Application Circuit Diagram

The 5MW product series includes the energy storage container (WS-L5000-BC-2) and the integrated PCS & step-up transformer unit (WS-MV5000-2). It can be configured to form GW-scale energy storage power stations with 2-hour/4-hour duration for the generation/grid side, and is equipped with the capabilities of primary frequency regulation and inertial support.





POWERING YOUR LIFE



www.deyeess.com / www.deyeinverter.com



Deye ESS / Deye New Energy