

High Voltage Grid Scale DC Block



**Turn-key solution
for high voltage ESS
applications.**

Advanced and interoperable BMS.

with enhanced diagnoses and prognoses functions:

Ensures a reliable, safe, and efficient operation of BESS



Monitors important battery parameters influencing performance & aging of the battery



Optimise battery usage



Increase ROI



Flexibility, reliability & safety.

Sunlight Li.ON ESS Advanced DC Block is a fully integrated modular and turn-key storage solution designed for a diverse set of market applications.



Integrated solution offering modularity for projects of any size



Outdoor rated cabinet designed to operate in the most harsh environments



Integrated solution minimizing commissioning time



Multilevel safety according to NFPA 855:

- fire protection
- heat and gas detection
- emergency shutdown



High availability ensured through redundant CAN network



Design according to IEC and UL standards



High cyclability leads to reduced LCOS



Liquid cooling

Best Cost of Storage



Highest energy density	Liquid cooled 1376.25 kWh in 3592 x 2596 x 2176mm
Extended voltage range	1075.0 V - 1401.6 V (SOC 0% - 100%)
Extra-long degradation curve	Min. 8000 cycles at 0.5 Cp
Top efficiency	RTE >= 97% at 0.5 Cp @STC-Aux max < 5kW
Drop-ship	~13000 kg, ships fully equipped and tested any-where-save on field installation
Smart BMS	3 levels temperature control, failure diagnostics, au-tomatic enumeration, FOTA update, virtual capacity split for optimal combination with PCS

Safety



State of art fire suppression system	Aerosol type F/E A1000 ECO GREEN (UL)
Explosion prevention	Deflagration panels acc. to NFPA 68
Intrusion protection	Lockable, open-door sensor
Serviceability	Door locking in open position
PPU safety functionalities	Short circuit protection, over-and under-voltage protection, over-and under- temperature protection, manual disconnection, string current measurement
DC protection main logic and minimum hardware	Redundant fuse, contactor and disconnecter at string level

Plug & Play



Connectivity	Easy connection to neighboring units and PCS
On site	Fast installation and commissioning. Pre-populated modules

Certifications



Battery	IEC 62619 / IEC 62933-5-2 / UL 1973 / UL 9540
Logistics	UN38.3
Electrical	IEC / UL / CE / FCC
Fire	NFPA 855 / UL9540A

Resilient design



Operational temperature range	-20 to 50°C
Corrosion resistance	C3 (C5M as an option)
Ingress protection	IP54
Fire resistance rating	1h FR
Seismic rating	Zone 4 according to Telcordia GR-63
Wind resistance	Hurricane CAT 3 (50-60 m/s)



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