High Voltage Grid Scale DC Block

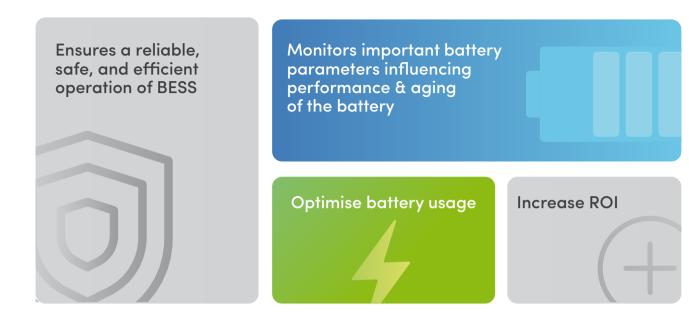


Turn-key solution for high voltage ESS applications.



Advanced and interoperable BMS.

with enhanced diagnoses and prognoses functions:



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

Extra-long degradation curve

Highest energy density Extended voltage range Liquid cooled 1376.25 kWh in 3592 x 2596 x 2176mm

1075.0 V - 1401.6 V (SOC 0% - 100%)

Min. 8000 cycles at 0.5 Cp

RTE \geq 97% at 0.5 Cp @STC-Aux max < 5kW

Best Cost of Storage



Drop-ship

Top efficiency

~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 Explosion prevention

Intrusion protection

Serviceability

PPU safety functionalities

Aerosol type F/E A1000 ECO GREEN (UL)

Deflagration panels acc. to NFPA 68

Lockable, open-door sensor

Door locking in open position

Short circuit protection, over-and undervoltage protection, over-and under- temperature protection, manual disconnection, string current measurement

DC protection main logic and minimum hardware

Redundant fuse, contactor and disconnector at string level

Plug & Play



Connectivity

On site

Easy connection to neighboring units and PCS

Fast installation and commissioning.
Pre-populated modules

Certifications



Battery

Logistics

Electrical

Fire

IEC 62619 / IEC 62933-5-2 / UL 1973 / UL 9540

UN38.3

01130.3

IEC / UL / CE / FCC NFPA 855 / UL9540A

Resilient design



Operational temperature range

Corrosion resistance

Ingress protection

Fire resistance rating

Seismic rating

Wind resistance

-20 to 50°C

C3 (C5M as an option)

IP54

1h FR

Zone 4 according to Telcordia GR-63

Hurricane CAT 3 (50-60 m/s)



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