NEW

CanadianSolar

SolBank

Energy Storage System

S1K51K3A01|S1K5650A01

Canadian Solar SolBank is a modular, flexible, dedicated, simple and cost-effective MWh-scale battery energy storage system. Multiple SolBank energy storage systems can be expanded in parallel to meet today's energy storage needs and prepare for the future' s requirements.

KEY FEATHERS

- LFP 280Ah cell, long service life, cost-effective, safe and reliable
- High areal energy density: 201 kWh/m^2
- Active balancing BMS on pack and rack level, releases more energy and extends the life of the system
- Liquid cooling technology with design redundancy, cell temperature controlled within the optimal operating range
- Battery pack IP65 seal grade, avoid dust, moisture, and water condensation
- Multi-stage thermal spread protection technology, effectively prevents battery heat spread and improves safety
- Multi-level fire detection, monitor early thermal runaway of cells
- All internal components including batteries assembled in factory, reduced shipping costs and on-site installation workload

PRODUCT CERTIFICATES*

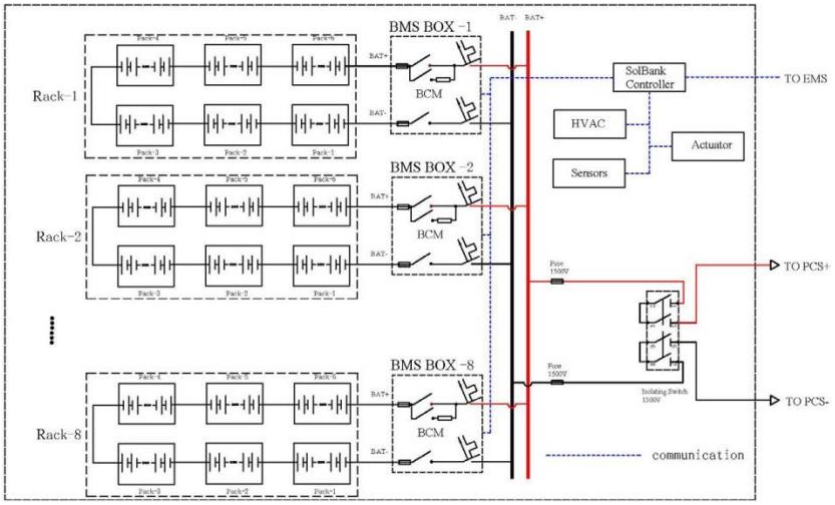
UL1973, UL9540, UL9540A, UN38.3 / UN3536

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 20 years, it has successfully delivered over 67 GW of premium-quality solar modules across the world.

CSI Energy Storage Co., Ltd.
348 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

CIRCUIT DIAGRAM



SYSTEM PARAMETER

	S1K51K3A01	S1K5650A01
Battery Chemistry	Lithium Iron Phosphate (LFP)	
Pack Configuration	1P69S (69 Cells)	
Rack Configuration	1P414S (6 Packs)	
System Configuration	8P414S (8 Racks)	
DC Voltage (Nominal)	1324.8 V	
DC Voltage Range[1]	1159.2 V ~ 1490.4 V	
Rated DC Power[2]	1375 kW	700 kW
Usable Energy Capacity (FAT)[3]	2750 kWh	2800 kWh
Max. Short Circuit Current	75 kA	70 kA
Charging/Discharging Mode	0.5 P / 0.5 P	0.25 P / 0.25 P
Duration @Rated Power	2 hrs	4 hrs
DC Round Trip Efficiency (RTE)[4]	⩾ 92%	⩾ 94%
Aux Load (Standby/Peak)	1.25 kVA / 37.5 kVA	1.25 kVA / 25 kVA
Auxiliary Power Interface	AC480 V / 60 Hz, 3P5W	
Thermal Management System	Liquid cooling/heating for battery system, air cooling for electrical components and humidity control	
Auxiliary Backup Power[5]	2-hrs UPS, installed in the container	
Operating Temperature (Ambient)	-30 °C to 55 °C	
Relative Humidity	⩽95% (non-condensing)	
Communication Interface	Ethernet / RS485 / CAN	
Communication Protocol	Modbus TCP / Modbus RTU / CAN 2.0	
Certifications	UL1973, UL9540, UL9540A, UN38.3 / UN3536	
Design Standards/Codes	IEC62619, IEC61000, NFPA69, NFPA70, NFPA855, IEC62620	
Enclosure	20ft. high-cube container	
Dimensions (L*W*H)	6058*2438*2896 mm (238.50*95.98*114.02 in)	
Weight (Battery Included)	29,800 kg (65,700 lbs)	
Altitude	< 2000 m (derating between 2000 m ~ 4000 m)	
Enclosure Ingress Rating	IP55 / NEMA 3R	
Painting/Coating	RAL9003	
Seismic Parameter	Zone 4	
Noise @1m distance	⩽ 75 dB	
Fire Detection	Heat and smoke detection	
Explosion Prevention & Mitigation	Gas detection with active ventilation	
Fire Alarm	Alarm panel, strobes and horns with UPS backup	
Local Emergency Stop	Yes	
Remote Stop/Shut-off	Yes	

1. Maximum voltage range value
2. The parameter value is the maximum operating power of a single SolBank. When two units are connected in parallel, the operating power of a single SolBank needs to be derated by 5%.
3. Usable Energy Capacity is measured at the DC bus, contact CSI for an accurate estimate
4. RTE is measured at rated DC Power operation, excluding auxiliary load
5. Backup power supports control system only, including fire detection and alarm, BMS

* The technical parameters contained in this technical data document may deviate slightly, and Canadian Solar does not guarantee that they are completely accurate. Due to continuous innovation, research and development and product improvement, Canadian Solar reserves the right to adjust the information in this technical parameter document at any time without prior notice. The customer should obtain the latest version of the technical parameter document when signing the contract and make it an integral part of the binding contract signed by both parties.

PARTNER SECTION

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