



KuBank2.0

C&I Energy Storage System

S-277-2h-UL

KuBank2.0 is a modular, flexible and cost-effective kWh-scale battery energy storage system. Multiple units can be connected in parallel. This product is designed to meet energy storage needs for today and for the future.

KEY FEATURES



Cost-effective and long service life.



Integrated, modular design, adapt to different application scenarios, convenient installation and commissioning



Active balancing BMS on pack and rack level, with 2A balance current help to release more energy and extends the lifespan.



Liquid cooling technology with cell temperatures being controlled within the optimal operating range, temperature difference $< 3^{\circ}\text{C}$



Battery pack IP67 seal grade avoids dust, moisture, and water condensation



Multi-stage thermal spread technology, effectively prevents battery heat spread and improves safety.



Multi-level fire detection monitors early thermal runaway of cells



Built-in peak shaving, demand management and other operational control modes; operational data can be accessed via 5G, LAN, etc. to the cloud, enabling unattended operation and maintenance efficiency

Certificates

UL9540, UL9540A, UL1973, UN38.3
UL1741, CEC listed, Heco listed, FCC Part 15, UL1741SB, IEEE1547, UL 1741 CRD

*The specific certificates applicable to each market, and not all 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 applicable in the regions in which the products will be used.

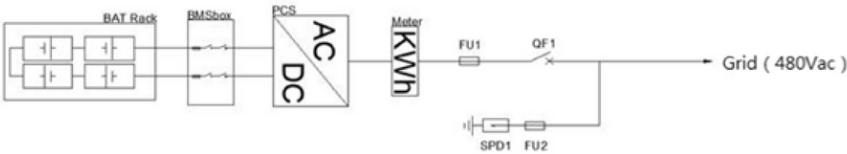
CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, it has successfully delivered over 150 GW of premium-quality solar modules across the world.

As a part of Canadian Solar, we recognize the crucial role of battery storage systems in achieving a sustainable future. We offer a suite of proven, flexible, turnkey energy storage solutions, providing our clients with a streamlined and efficient experience. Our team of experienced engineers and project managers is focused to ensure the best overall value for each project, through advanced technology and system flexibility while backed by our experience, bankability, coverage, and commitment to providing the highest level of support, quality, safety, and superior performance.





CIRCUIT DIAGRAM



SYSTEM PARAMETER

DC Parameters	
Product Name	CSI-KuBank-S-277-2h-UL
Battery Chemistry	Lithium Iron Phosphate (LFP)
Pack Configuration	1P69S (69 Cells)
System Configuration	1P276S (4 Packs)
DC Voltage (Nominal)	883.2 V
DC Voltage Range*	772.8 V ~ 993.6 V
Rated Energy Capacity	277 kWh
Max. Short Circuit Current	9 kA
Charging/Discharging Mode	0.5 P / 0.5 P
AC Parameters	
AC Connection	
Rated AC Power	125 kVA
Nominal AC voltage	480 Vac
AC voltage range	422 to 528 Vac
Nominal grid frequency	60 Hz
Frequency Range	59.3 to 60.5 Hz, adjustable
THD	<3%
Power Factor	-1 ~ 1, continuously adjustable
General	
Duration @Rated Power	2 hrs
AC Round Trip Efficiency	≥ 90%
Control Backup	2-hrs UPS for control system including BMS, installed in the cabinet
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, UL1741, UL1741SB
Grid Code	UL1741SB, IEEE1547, UL 1741 CRD
Enclosure	Non-standard sheet metal
Dimensions (W*H*D)	Battery enclosure 1550*2280*2100 mm; PCS Enclosure: 600*500*2000 mm
Weight (Battery Included)	3,800kg
Altitude	< 2000 m (derating between 2000 m ~ 4000 m)
Enclosure Ingress Rating	IP54 / NEMA 3R
Painting/Coating	RAL9003
Seismic Parameter	Zone 4
Noise @1m distance	≤ 75 dB
Fire Detection and Alarm	Combustible gas detection and smoke detection, Horn & Strobe alarm, Deflagration venting
Fire Suppression	Aerosol-based fire suppression system
Emergency Stop/Shut-off	Local and remote

* Unit is rated at 772.8V~993.6V for optimized product performance, maximum voltage range value for battery system is 703.8V~993.6V.
** The rated operating power of a single unit subject to a maximum of 8 units connected in parallel.
*** 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.