



# KuBank2.0

## C&I Energy Storage System

### S-277-2h-IEC

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°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



On-grid/off-grid switching function, backup power application, wider application scenarios

#### Certificates

IEC61000, IEC62477, IEC62619, IEC62109, RoSH&REACH, UN38.3, EU Battery Regulation

\*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.

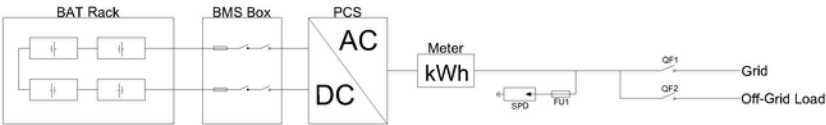


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CIRCUIT DIAGRAM



SYSTEM PARAMETER

DC Parameters	
Product Name	CSI-KuBank-S-277-2h-IEC
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 <sup>[1]</sup>	772.8 V ~ 993.6 V
Rated Energy Capacity	277 kWh
Charging/Discharging Mode	0.5 P / 0.5 P
Max. Short Circuit Current	10kA
AC Parameters	
Rated AC Power	125 kVA
Max.AC Power	137 kVA
Nominal AC voltage	400 Vac
AC voltage range	340 to 440 Vac (settable)
Nominal grid frequency	50/60 Hz (settable)
Frequency Range	50 Hz / 60 Hz ± 2.5 Hz
Current THD	<3% (at rated power)
Power Factor	-1 ~ 1, continuously adjustable
AC Access Method	3P+N+PE
General	
Duration @Rated Power	2 hrs
Max. AC Round Trip Efficiency	90%
Control Backup	2-hrs UPS for control system including BMS, installed in the cabinet
AC auxiliary power input	1P+N+PE at 230Vac
Operating Temperature (Ambient)	-30 °C to 55 °C
Relative Humidity <sup>[2]</sup>	≤95% (non-condensing)
Communication Interface	Ethernet / RS485 / CAN
Communication Protocol	Modbus TCP / Modbus RTU / CAN 2.0
Certifications	IEC/EN 62477-1, EN 61000-6-2/-4, UN38.3
Design Standards/Codes	IEC62619, IEC61000, NFPA68, IEC62933
Enclosure	Non-standard sheet metal
Dimensions (W*H*D)	1550*2280*2100mm
Weight (Battery Included)	3,600kg
Altitude	< 3000 m (derating between 2000 m ~ 3000 m)
Enclosure Ingress Rating	IP54 / NEMA 3R
Painting/Coating	RAL9003
Seismic Parameter	Zone 4
Noise @1m distance	≤ 70 dB
Fire Detection and Alarm	Combustible gas detection and smoke detection, Sound and Strobe alarm, Deflagration panel
Fire Suppression	Aerosol-based fire suppression system
Emergency Stop/Shut-off	Local and remote

[1] Unit is rated at 772.8V~993.6V for optimized product performance, maximum voltage range value for battery system is 703.8V~993.6V.  
[2] Standard configuration of system is 1 dehumidifier. When annual temperature ≥ 35°C or cumulative annual rainfall ≥ 200mm, recommended to add one more dehumidifier.  
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