



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°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.

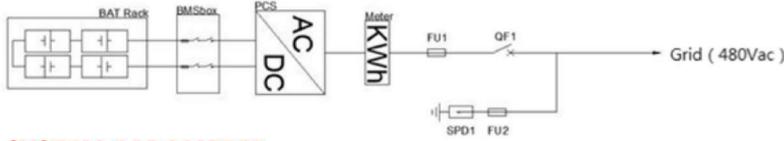
CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, 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 | |
| Nominal AC Power | 125 kW |
| Nominal AC voltage | 480 Vac |
| Maximum Continuous Discharge Rate (MCDR) | 125 kW |
| 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 |
| 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 277Vac |
| 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.



CSI Energy Storage Co., Ltd.

4273 King Street East, Suite 102 | Kitchener, Ontario, N2P 2E9, Canada | www.csisolar.com, support@csisolar.com

Dec. 2025. Datasheet KuBank2.0 UL_V1.22_EN