
# SunTera G2 5.01MWh

## Energy Storage System

Jinko ESS's 5.01 MWh energy storage system advances our liquid-cooled platform with integrated 314 Ah $LiFePO_4$ cells, delivering exceptional safety, efficiency, and reliability. Designed to support grid modernization, it offers high performance and extended cycle life within a compact 20-foot container.

### Engineered for High Efficiency & Density

System and container design is optimized to maximize energy density and spatial efficiency. Advanced system-level management minimizes auxiliary power consumption while ensuring stable, high-performance operation.

### Multi-Layer Safety & Protection

Incorporates comprehensive protection across cell, module, and system levels—integrating thermal, electrical, and fire safety controls. A unified fire and gas safety system with multi-sensor detection and controlled venting ensures early hazard identification and a safe system response.

### Flexible, Scalable Deployment

A fully containerized, modular architecture allows versatile layout configurations (e.g., back-to-back, side-by-side) to optimize site footprint. Intelligent remote monitoring enables real-time diagnostics, reduces on-site maintenance, and supports seamless project scaling.

### Long-Term Performance & Durability

Equipped with high-capacity 314 Ah LFP cells, engineered for stability and long service life in demanding applications. Excellent thermal uniformity at the cell level minimizes temperature differentials, reducing degradation risks and extending system longevity.

## Solar-Storage Integration

Seamlessly combine solar PV generation with energy storage to optimize self-consumption, maximize renewable utilization, and ensure a continuous, stable power supply.

## Grid Support Services

Deliver critical grid services including frequency regulation, voltage support, and peak shaving to enhance network stability, reliability, and power quality.

## Energy Market Participation

Enable revenue generation through energy arbitrage, capacity markets, and ancillary service provision, creating economic value while supporting overall grid efficiency.


## Battery parameters

| | |
|---|---|
| Type of cell | Lithium Iron Phosphate(LFP) |
| Cell specification | 3.2V/314Ah |
| Max.charge/discharge power | 0.25P/0.5P |
| Configuration of system | 1P416S×12 |
| Rated capacity | 5.01 MWh |
| Rated voltage | 1331.2V |
| Voltage range | 1164.8~1497.6V |

## System parameters

| | |
|---|---|
| Dimension(L×W×H) | 6058×2438×2896mm |
| Weight | ≈42,000 kg |
| Cooling method | Liquid Cooling |
| Operating temperature | -30~50°C |
| Operating humidity | ⩽95%RH, no condensation |
| Altitude | ⩽3,000m (derating above 2000 m) |
| Noise level | ⩽80dB(A), @1m/ 75dB(optional) |
| IP grade | IP55 |
| Corrosion class | C4/(C5 optional) |
| Fire suppression system | Temperature sensor + Smoke detector + Combustible gas detector + Deflagration venting + Fire extinguishing gas + Water sprinkler |
| Communication | Ethernet / Modbus TCP/IP |
| Certification Standards | IEC62619, IEC63056, IEC62933, IEC62477, IEC61000, UN38.3, UL1973, UL9540, UL9540A |



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