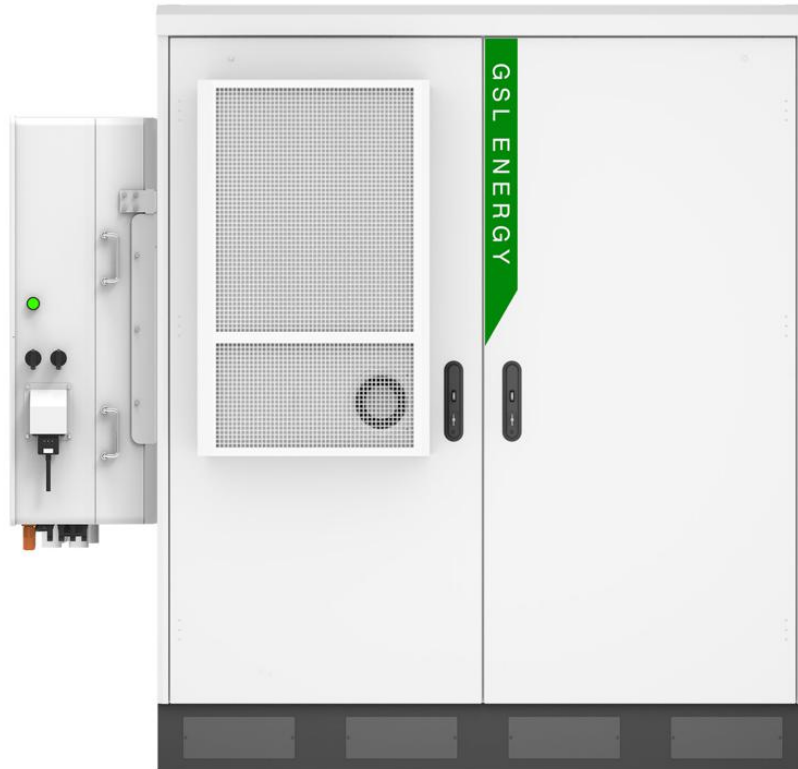


ALL IN ON SOLAR STORAGE SYSTEM

GSL-BESS-50K170(Outdoor)

50kva 170kWh



The **GSL-BESS-50K170** is an advanced solar pv batteries solution designed for large-scale renewable energy storage and backup power applications.

As a leading solar pv batteries manufacturer, **GSL ENERGY** utilizes high-voltage lithium iron phosphate (LiFePO₄) battery technology to create an intelligent and safe system.

This modular solar pv batteries system features 170kWh of usable capacity from 12 battery modules 14.34KWH connected in series, operating at 500-800VDC.

It includes a built-in air conditioner to maintain temperatures below 40°C for optimal performance. An intelligent battery management system actively monitors and protects each solar pv batteries module, while the integrated energy management system supports key functions like black start and AC/DC coupling with solar PV.

With its cobalt-free, non-toxic LiFePO₄ chemistry and IP55 enclosure, this eco-friendly solar pv batteries system allows versatile indoor or outdoor installation.

As an innovative solar pv batteries solution from focused on intelligent and green technologies, the **GSL-BESS-50K170** delivers reliable, efficient and safe renewable energy storage.

It comes with a 10 year warranty. The 50kW hybrid inverter supports both on-grid and off-grid applications, with 4 MPPTs, peak efficiency of 97.6% and full compliance to safety and emissions standards.

- **Intelligent temperature control**

Built-in air conditioner, the maximum temperature of the battery is less than 40°C

- **Reliable**

Positive Balance Intelligent BMS, providing complete protection, can effectively extend cycle life of battery packs

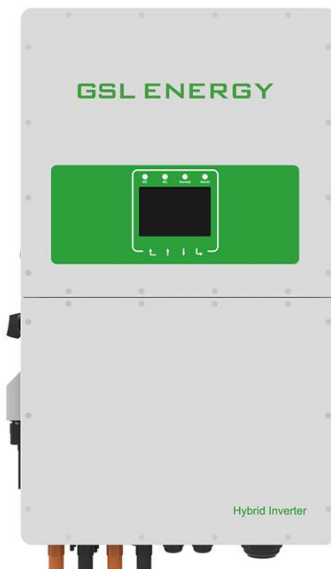
- **Flexible**

EMS and BMS integrated technology, AC/DC power supply redundancy design, support black start function

- **Safer**

Prismatic Lithium Iron Phosphate (LFP) Battery, The battery pack and system adopt an aerosol fire extinguishing solution

Model	GSL-BESS-50K170
System Specification	
Nominal Output Power/UPS Power (W)	50000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Three phase
Energy Configuration (kWh)	172
Dimension (W x D x H,mm)	1400x1100x1650 (no contain inverter)
Weight Appr. (kg)	2315.50
AC Output Rated Current (A)	75.8
Battery Operating Voltage (V)	500 ~800
Battery Chemistry	LiFePO4
IP Rating of Enclosure	IP55
System Certification	UN38.3, IEC62619, CE, CEI 0-21,

	VDE-AR-N 4105, IEC 62109
Installation Style	Floor-Mounted
Warranty	10 years
Inverter Technical Specification	
 The image shows a GSL Energy Hybrid Inverter. It is a light gray, rectangular unit with a green display screen in the center. The screen shows the text 'GSL ENERGY' at the top and 'Hybrid Inverter' at the bottom. Below the screen, there are several colored ports (red, black, blue, green) for wiring. The unit is mounted on a wall with four screws.	
Max. PV Input Power (W)	65000
Max. PV Input Current (A)	36+36+36+36
Rated PV Input Voltage (Vdc)	600
Start Up DC Voltage (Vdc)	180
MPPT Voltage Range (Vdc)	150-850
Max. PV Short-circuit Current (A)	55+55+55+55
Number of MPPT	4
Peak Power (off grid)	1.5 time of rated power, 10s
Power Factor	0.8 leading to 0.8 lagging
THD	<3%
DC injection current (Ma)	<0.5In
Display	LCD
Operating Temperature Range (°C)	-40~60(>45°C derating)

Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W x D x H, mm)	527x294x894
Inverter Communication	CAN, RS485, WIFI, ETH
Safety EMC / Standard	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Max. Efficiency	97.6%
Max. charging/discharging efficiency	91%
Max Parallel connection sets	10
Battery Technical Specification	
	
Battery Module Nominal Voltage (V)	614.4V
Battery Capacity	280Ah
Battery Energy (kWh)	172KWH
BMS Communication	CAN

BMS parallel support connection	3sets
Max charge current	100A
Max discharge current	100A
Battery system Weight (kg)	1895.50kgs
Operating Temperature Range	Charge: 0~55℃ / Discharge: -20℃~55℃
Cycle Life	≥10000(@25℃±2℃,0.5C/0.5C,70%EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3, MSDS
Protection	
Short circuit protection	YES
Over current protection	YES
Over charge protection	YES
Over temperature protection	YES
Cell over voltage protection	YES
Cell under voltage protection	YES
Over discharge protection	YES

System Diagram

