PowerHub

High Voltage All-In-One Hybrid ESS

Introducing the PowerHub by Sunsynk Mobile.

- Rated power operation the maximum temperature of the battery is less than 40°C.
- Suitable for high rate cyclic charging and discharging scenarios.
- Combustible gas, smoke and temperature detection, system active exhaust, and fire alarm.
- Supports battery expansion, with a maximum capacity of 360kWh.
- EMS, hybrid inverter and BMS integrated technology, power supply redundancy design, supports black start function, off-grid operation etc.
- Lithium Iron Phosphate (LFP) battery, the battery pack and system adopt an aerosol fire extinguishing solution.



Model	**SS-CS-GE-F60**
System Specification	
Max. Grid AC Input	50000W
Nominal Output Power/UPS Power	50000W
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Three-Phase
Energy Configuration	61.4kWh
Module Capacity	100Ah
Dimension (WxDxH)	735x1045x2235mm (not including inverter)
Weight Appr.	1015kg (battery) + 80kg (inverter)
AC Output Rated Current	75.8A
Battery Operating Voltage	500 ~ 700V
Charge/Discharge Current	100A
Max. Charging/Discharging Efficiency	91.0%
Battery Chemistry	$LiFePO_4$
IP Rating of Enclosure	IP55
Installation Style	Floor-Mounted

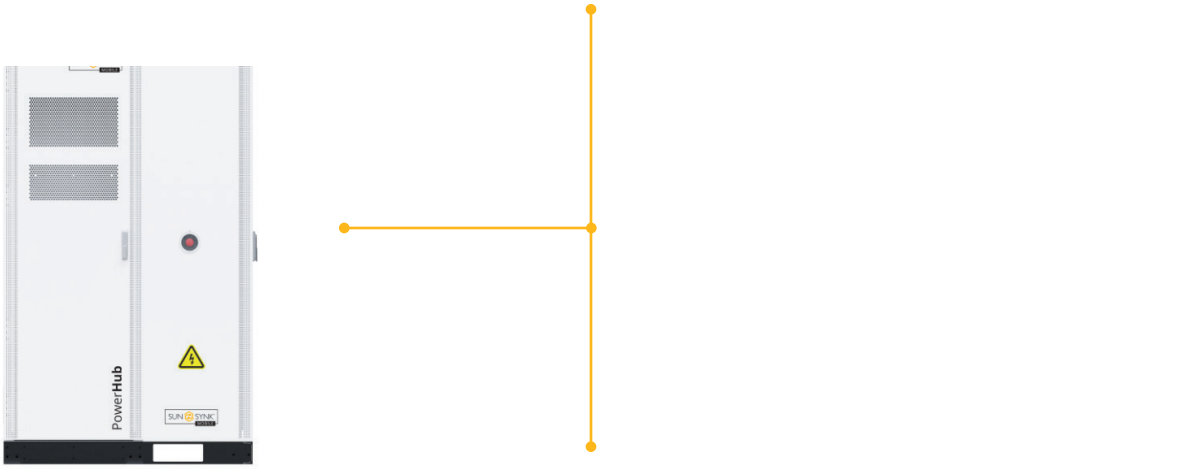
Inverter Technical Specification		
Max. PV Input Power		65000W
Max. PV Input Current		36+36+36+36A
Rated PV Input Voltage		600Vac
Start Up DC Voltage		180Vdc
MPPT Voltage Range		150-850Vdc
Max. PV Short-Circuit Current		55+55+55+55A
Number of MPPT / Number of String		4/8
Peak Power (Off Grid)		1.5 time of rated power, 10s
Power Factor		0.8 leading to 0.8 lagging
THD		<3%
DC Injection Current		<0.5%In mA
Display		LCD
Operating Temperature Range		-40°C ~ 60°C (>45°C derating)
Relative Humidity		15% ~ 85% (no condensing)
Dimension (WxDxH)		527x294x894mm
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%
MPPT Efficiency		99.9%
Battery Technical Specification		
Battery Module Nominal Voltage		51.2V
Battery Module Energy		5.12kWh
Battery Usable Energy		55.29kWh
Charge/Discharge Current	Recommended	50A
	Nominal	100A
	Peak Discharge (2min, 25 °C)	125A
BMS Communication		CAN
Battery Module Dimension (WxDxH)		440x570x133mm
Battery Module Weight		44kg
Operating Temperature Range		Charge: 0~55°C / Discharge: -20°C~55°C
Storage Temperature		0~35°C
Cycle Life		≥6000 (@25°C±2°C, 0.5C/0.5C, 70%EOL)
Battery Module Certification		CE, IEC62619, IEC62040, UN38.3

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Product Expansion

Max: 50kW/360kWh

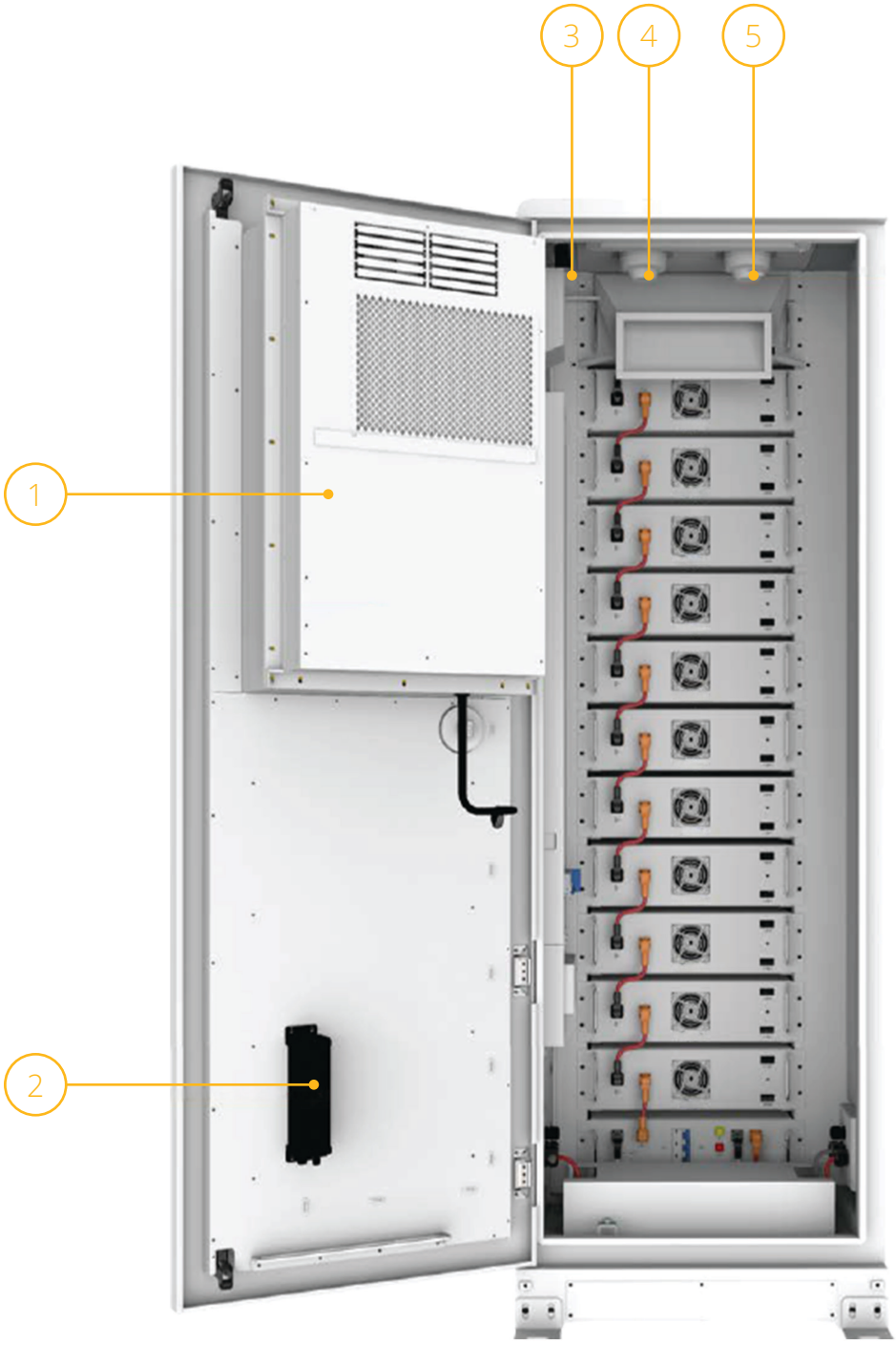




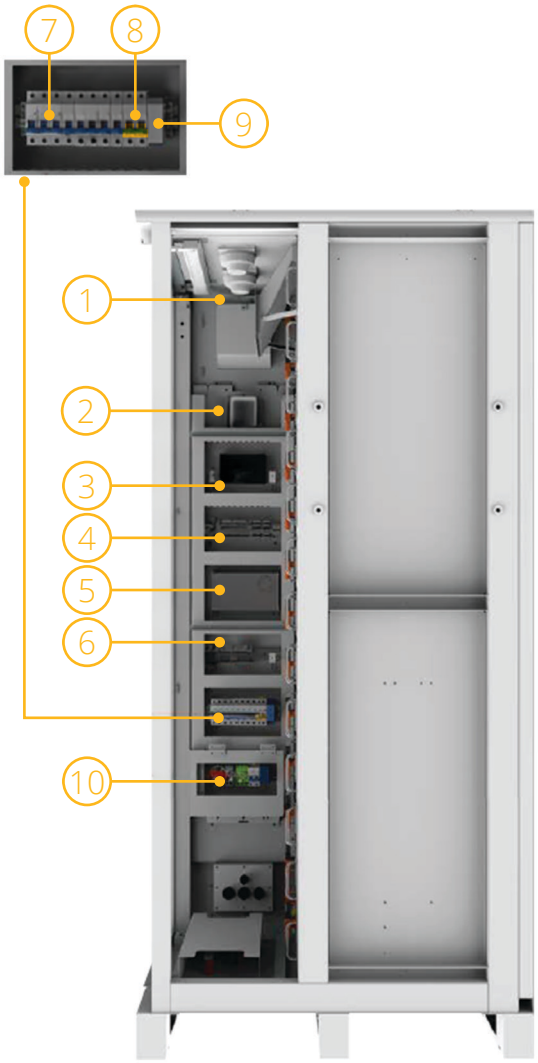
Max: 300kW/260kWh



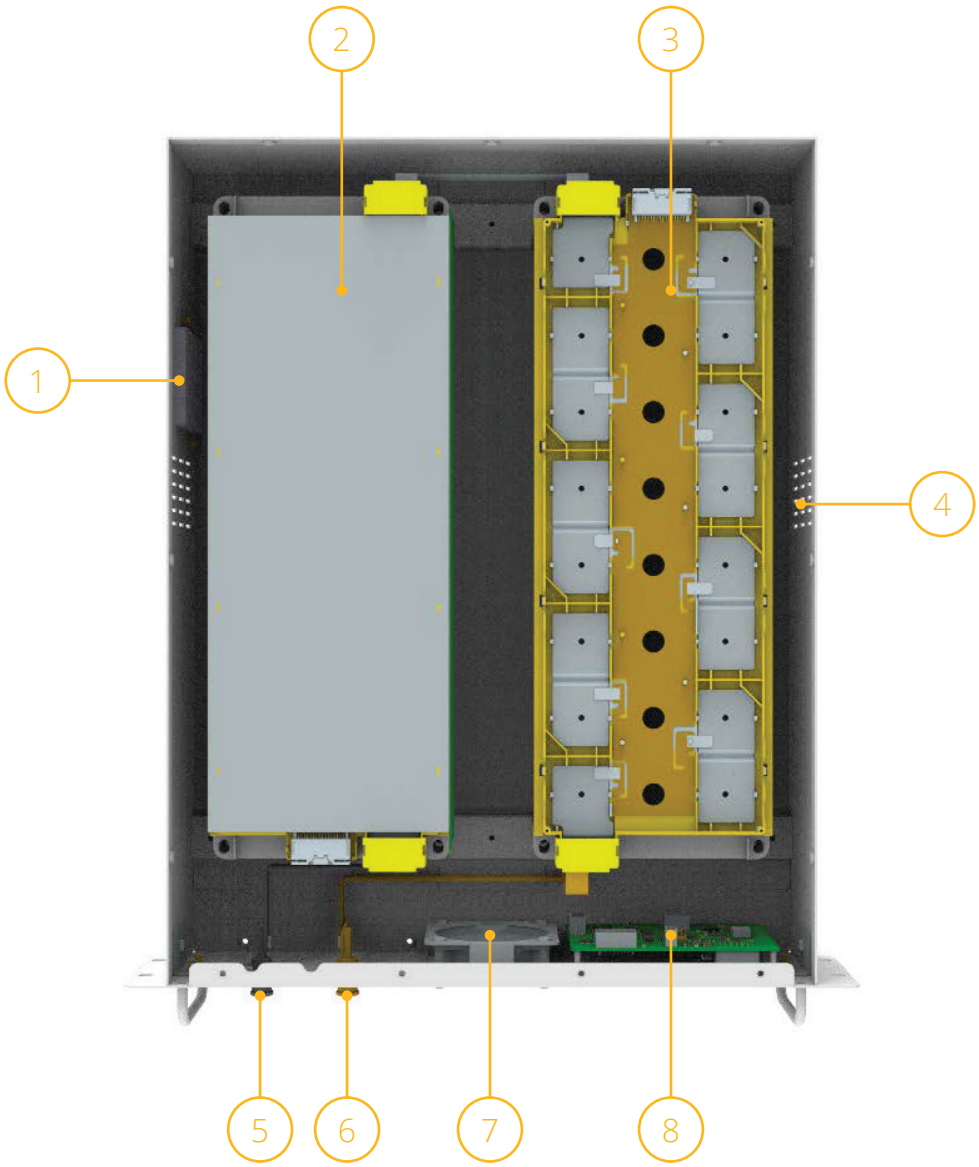
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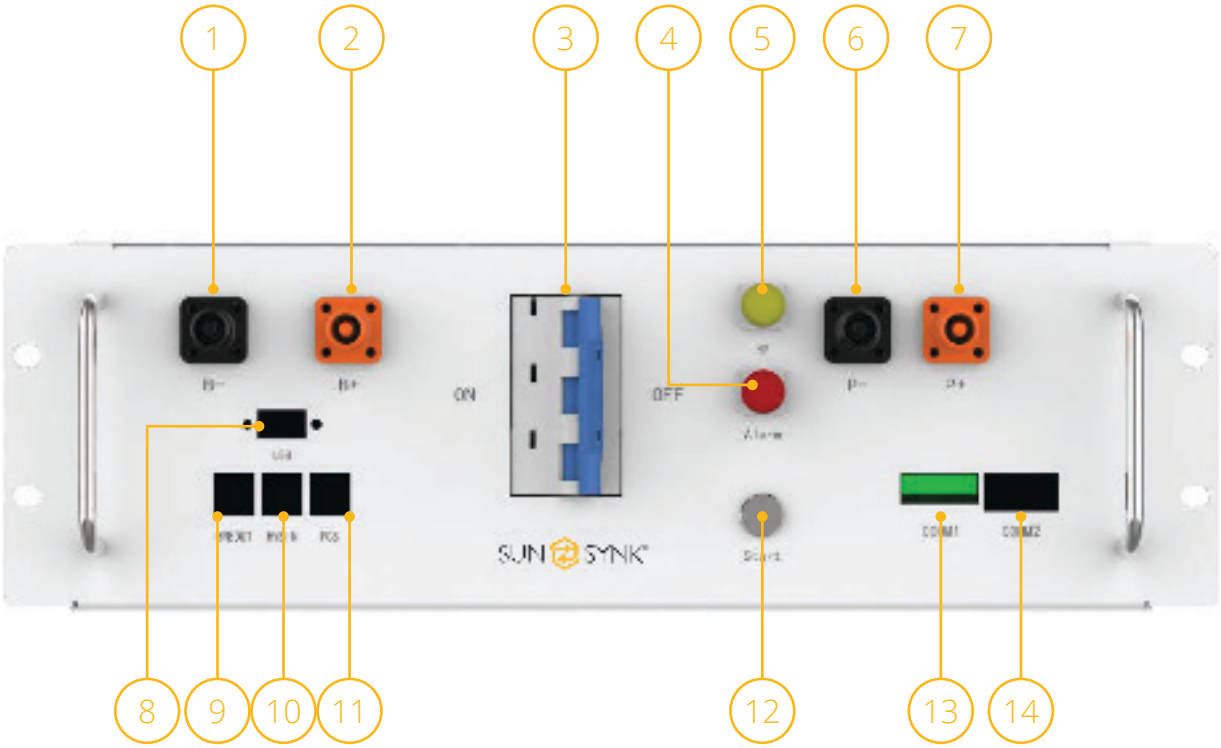
1	Air Conditioner	Cooling the BESS.
2	Aerosol Fire Suppression Device	When the BESS is detected to be on fire, aerosol is emitted to extinguish the fire.
3	Travel Switch	Check whether the BESS's door is closed.
4	Smoke Detector	A device used to detect smoke in a fire and sound an alarm when smoke is detected.
5	Heat Detector	A device used to measure temperature and sound an alarm if it detects excessive temperature.



1	Fan	Emission of combustible gas.
2	Combustible Gas Sensor	Detect combustible gases.
3	Serial Relay	Control system.
4	Terminal Line	For connecting cables.
5	Switching Mode Power Supply	Power source.
6	Terminal Line	For connecting cables.
7	Miniature Circuit Breaker	Controlled power-on and power-off.
8	Relay	Automatic regulation, safety protection, conversion circuit.
9	Water Immersion Sensor	Check the ESS for water leakage.
10	Terminal Line	Connect external cables.



1	Aerosol Fire Extinguishing Device	When the pack is detected to be on fire, aerosol is emitted to extinguish the fire.
2	Battery Module	Provides electrical energy storage and output.
3	CCS	Cells Contact System.
4	Air Inlet	Cold air inlet.
5	Battery Negative -	/
6	Battery Positive +	/
7	Fan	Promote internal and external air flow.
8	BMU	Battery monitoring.



1	B-	Connection position of the common negative pole of the battery.
2	B+	Connection position of the common positive pole of the battery.
3	Air Switch	Used to manually control the connection between the battery rack and external devices.
4	ALRM Light Indicator	Battery system fault alarm indicator.
5	HV Light Indicator	High-voltage hazard indicator.
6	PCS-	Connection position of PCS negative pole.
7	PCS+	Connection position of PCS positive pole.
8	USB	BMS upgrade interface and storage expansion interface.
9	OUT COM	Connection position with next HVB-100A 750V communication output.
10	IN COM	Connection position with previous HVB-100A750V communication input.
11	PCS COM	Communication interface with charging and discharging equipment.
12	START	A start switch of 12VDC power inside the high-voltage control box.
13	COMM1	Communicative connection with the cabinet.
14	COMM2	Communicative connection with the first battery module; and providing 12VDC power for the first battery module.