







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.
-  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.
-  Supports battery expansion, with a maximum capacity of 360kWh.



Model	Powerhub
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)	61.4
Dimension (WxDxH mm)	735x1045x2235 (not including inverter)
Weight Appr. (kg)	1015 (battery) + 80 (inverter)
AC Output Rated Current (A)	75.8
Battery Operating Voltage (V)	500 ~ 700
Max. Charging/Discharging Efficiency	91%
Battery Chemistry	LiFePO ₄
IP Rating of Enclosure	IP55
Installation Style	Floor-Mounted

Inverter Technical Specification	
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)	<0.5%In
Display	LCD
Operating Temperature Range (°C)	-40 ~ 60 (>45°C derating)
Relative Humidity	15% ~ 85% (no condensing)
Dimension (WxDxH 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%
MPPT Efficiency	99.9%
Battery Technical Specification	
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimension (WxDxH mm)	440x570x133
Battery Module Weight (kg)	44
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~55°C
Cycle Life	≥6000 (@25°C±2°C, 0.5C/0.5C, 70%EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3

PRODUCT EXPANSION

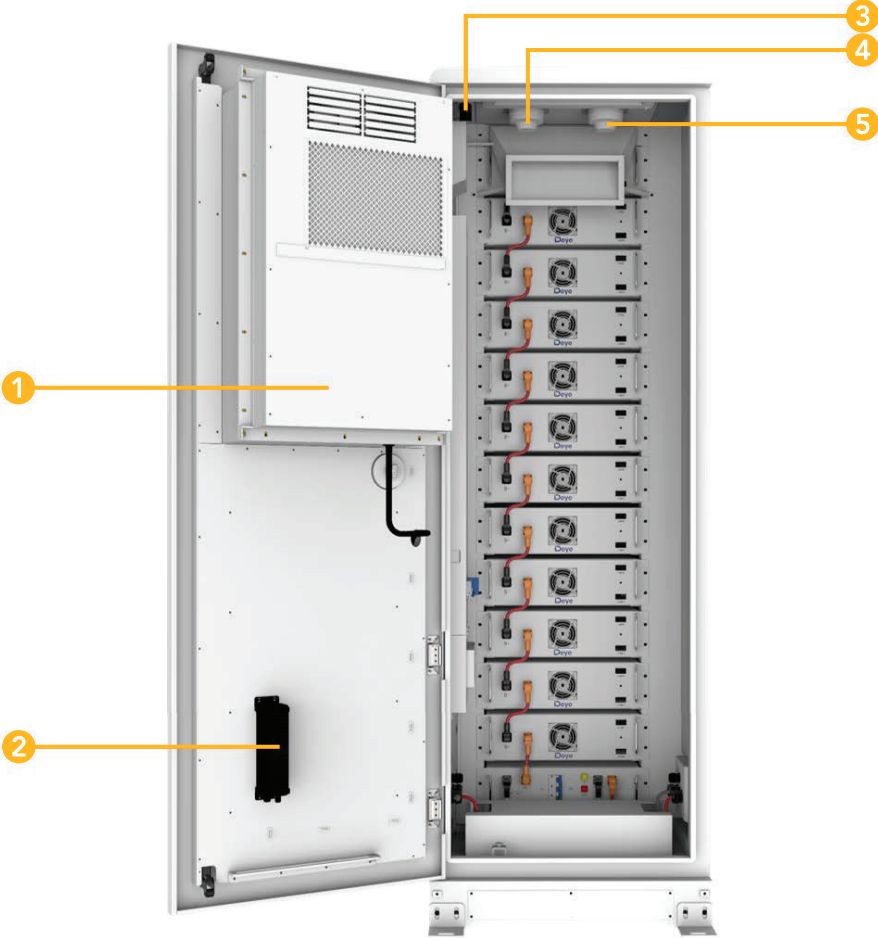
MAX: 50kW/360kWh



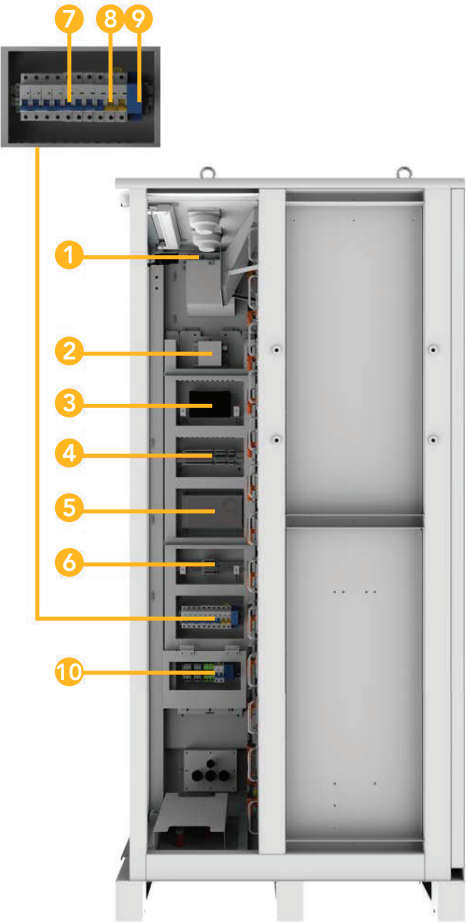
MAX: 300kW/360kWh



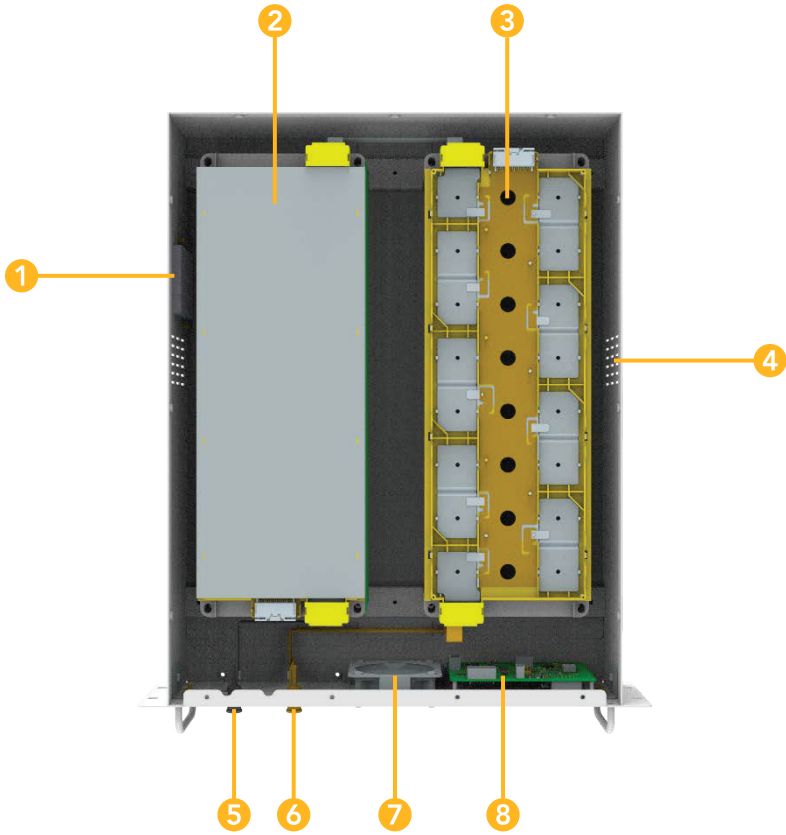
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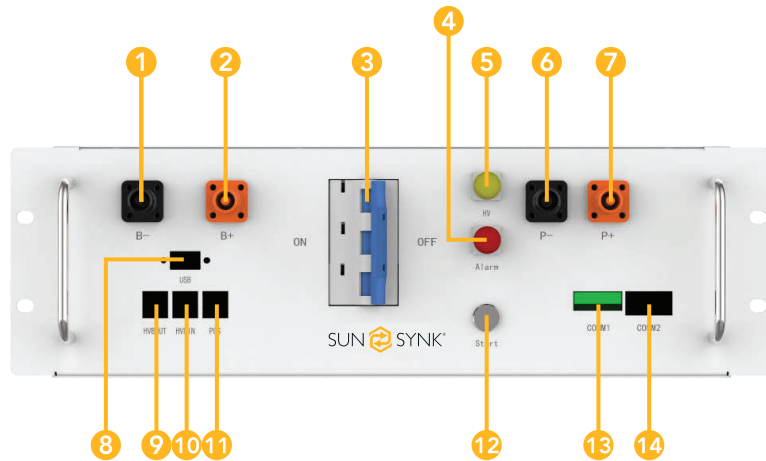
<p>1 Air Conditioner</p>	<p>Cooling the BESS.</p>
<p>2 Aerosol Fire Suppression Device</p>	<p>When the BESS is detected to be on fire, aerosol is emitted to extinguish the fire.</p>
<p>3 Travel Switch</p>	<p>Check whether the BESS's door is closed.</p>
<p>4 Smoke Detector</p>	<p>A device used to detect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



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.



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



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