STACK100& STACK100 Pro

Innovative HV Stackable Battery Solution



Model	STACK100	STACK100 Pro
Battery Type	$LiFePO_4$	
Module Voltage/Capacity	51.2V/100Ah	
Module Number per Stack	3~15 Modules	
Cluster Number per System	Max 12 clusters in Parallel	
System Energy Range	15.36~76.8kWh	
Operating Voltage	134~864V	
Recommended Charge/ Discharge Current	50A (0.5C)	
Max.Charge/ Discharge Current	100A (1C)	
Peak Discharge Current (2min, 25°C)	125A(1.25C)	
Depth of Discharge	95%	
Communication	CAN/RS485	
Cycle Life[1]	≥8000 cycles	
Charging Temp. Range	0°C~55°C/-20°C~55°C(with heating function)	
Discharging Temp. Range	-20~55°C	
Single Module Weight	47kg	55kg
Single Cluster Dimension [W*D*H] (mm)[2]	590*390*(233+133*n)	657*460*(292+191*n)
Protection Level	IP20	IP66
Safety Protection	Aerosol fire extinguisher	Aerosol fire extinguisher, Temperature sensor, Pressure Relief Valve, CO detector [3] , Aerogel pad between battery cells [3] , Fireproof protection for the module [3]
Installation method	Wire free stack-up	
User Interface	Built-in WIFI module + APP, LED	
Cooling method	Fan cooling	Natural cooling
Battery Module Name	S51100	S51100 pro
Certification & Safety Standard	CE-EMC/CE-RED/62619/63056/62477/62040/UN38.3/VED2510	
Compatible Inverters	Solis/GoodWe/Growatt/DEYE/Solinteg ect.	

[1] Test conditions: 0.2C Charging& Discharging. @25°C, 95% DOD， 70%EOL
[2] "n" stands for the number of battery modules
[3] CO detector, Aerogel pad between battery cells and Fireproof protection for the module are optional

Effortless Installation, Higher Space Utlization

Save Space & Labor

STACK100 Series



One cluster installation in

30min

Under the stairs
Warehouse
Limited spaces...

Traditional Solutions



- Multi cables
- Complicated assembly
- Fixed rack



- Need crane
- Need specified space
- Concrete base

Flexible Expansion and Investment

Single cluster
15-76kWh

Max.12 clusters
921kWh

Mixed use of new & old batteries within **3** years





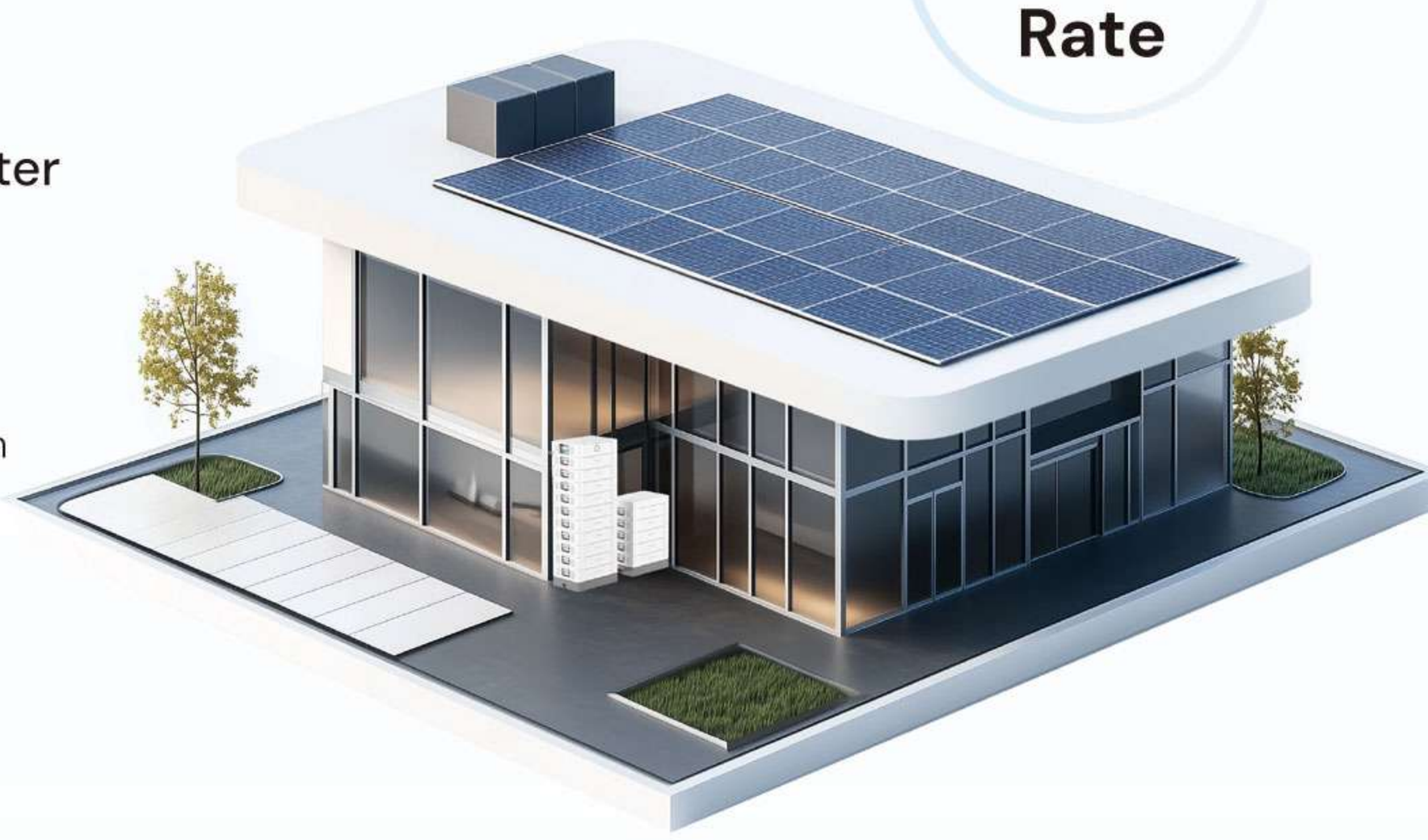
Fast Charge and Discharge

Max Charge/Discharge Current: 100A

1C
Rate

Higher C-Rate is Better Choice for

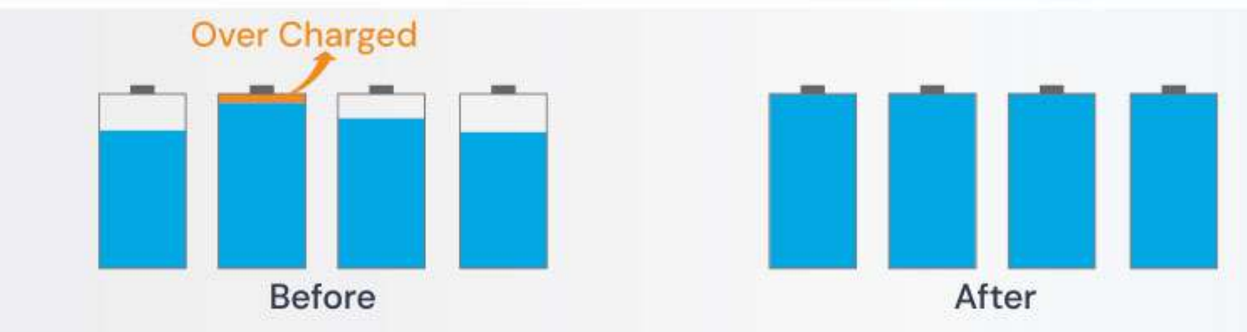
1. Short-term backup
2. With larger solar system
3. VPP Applications:
   - Ancillary services
   - Arbitrage
   - Dynamic tariff



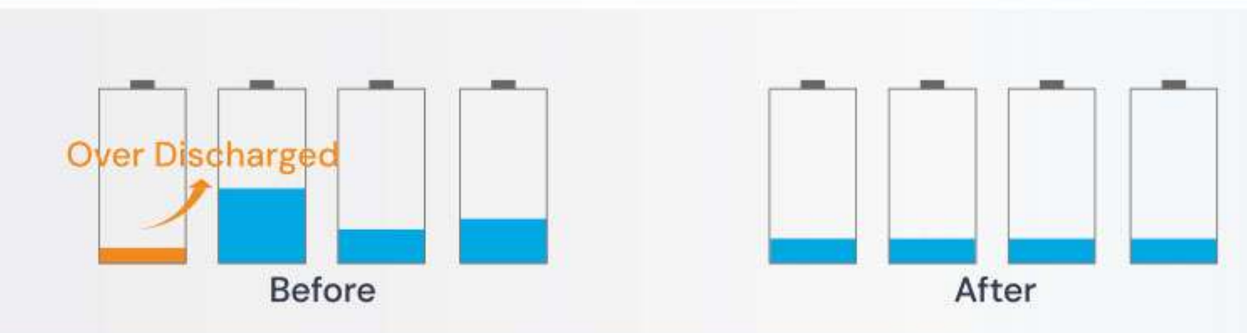
Strong Cell-balance Ability



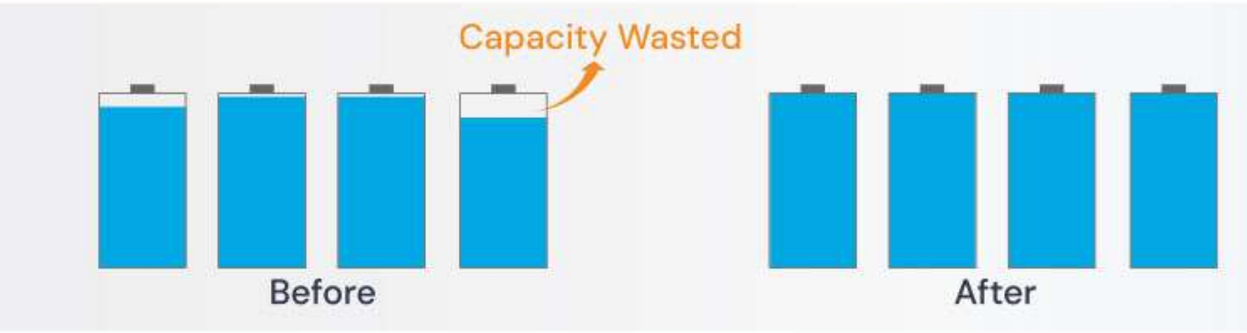
More precise battery SOC



Higher cell uniformity



Battery longer lifespan under better conditions



Battery capacity fully used

Easier Maintenance

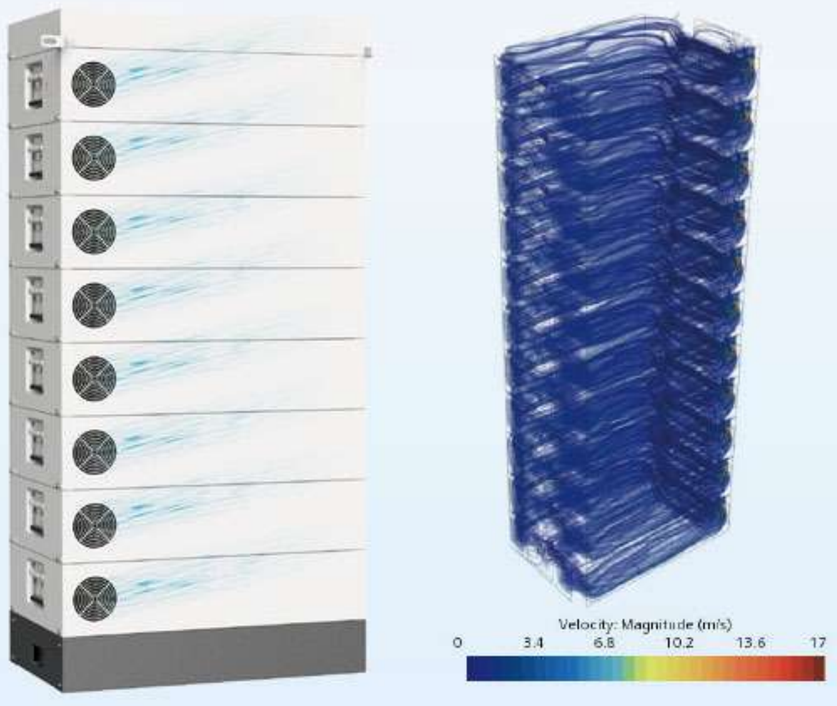
The BMS maintenance panel is positioned at the front of the stacked modules, allowing for inspection and maintenance without battery disassembly.



Balanced Cooling

STACK100

Fan cooling



STACK100 Pro

Natural cooling

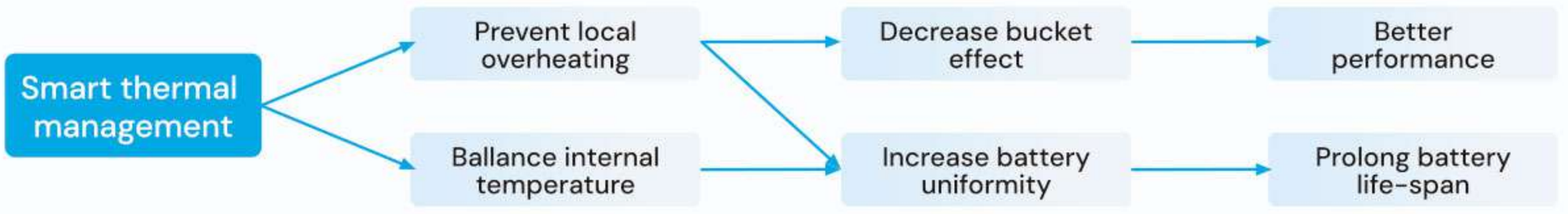


Cell temperature difference < 3°C

No additional energy consumption

1-Click denoise operation < 55dB

Minimal noise



Good cell uniformity within 3 years

8000+ Cycles/10Y

1C Charge/Discharge

Extreme Performance in Diverse Environments



[1] Heating function is optional for STACK100 series
[2] IP66 protection applies to STACK100 Pro

More Secure, More Reliable

6-layer safety protection [3]



- Aerosol fire extinguisher
- Temperature probe
- Pressure relief valve
- CO detector(optional)
- Aerogel pad between batteries(optional)
- Fireproof protection for the module(optional)

[3] This feature is specific to the STACK100 Pro. The STACK100 primarily utilizes aerosol fire extinguishers for fire protection

Real-time Monitoring

- Battery SOC
- Battery charge and discharge status
- Standby

- Communication failure between batteries or communication failure between lamp board and BMS

- System protection



Smart Management

- Battery system real-time running data
- Battery system real-time operation status
- Battery system historical data
- Battery cell voltage and balance
- Module temperature
- One-click OTA function
- . . .



Versatile Compatibility

Scenarios	Description	Energy Demand	Configuration	Inverter Power (kW)				
				15/20	25/30	50	80/100	125
Large Residential	Villa, Community	25 kWh	Stack100-5s	■	■			
Small Commercial	Small office, Shop, Community	50 kWh	Stack100-10s		■	■		
		70 kWh	Stack100-14s		■	■	■	
		100 kWh	2*Stack100-10s		■	■	■	
Medium Commercial	Farm, Restaurant	150 kWh	2*Stack100-15s			■	■	■
		200 kWh	3*Stack100-14s			■	■	■
Large Commercial	Supermarket, Hotel	300 kWh	4* Stack100-15s				■	■
		400 kWh	6*Stack100-13s				■	■
Industrial	Factory, Warehouse	500 kWh	7* Stack100-14s				■	■

Note: The darker the color in the table, the higher the recommendation.

solis | GOODWE | GROWATT | Deye | SOLINTEG | Solplanet

SINENG | SINEXCEL | SOSEN LED DRIVER | ATESS | KOSTAL | ...

Note: Due to space limitations only a selection of compatible inverter brands are shown here. Please refer to the Dyness Compatibility List for more details.

Limited Space? No Problem



Under stairs



Equipment room



Warehouse

Large Energy? Solved



Big House
20~50kWh



School
300-500kWh



Farm
300-800kWh



Charing station
500-900kWh

Business Card

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