

SunStorage PRO

STE-1ML-500P

All-in-one Liquid-cooled
On/off-grid ESS Container



All-in-One 10-ft Container

Highly integrated 3S system, cooling system, and fire protection system, delivering greater capacity within a smaller footprint.



Seamless On/off-grid Switching

The system is equipped with an integrated STS, enabling seamless on-grid and off-grid switching within 20ms.



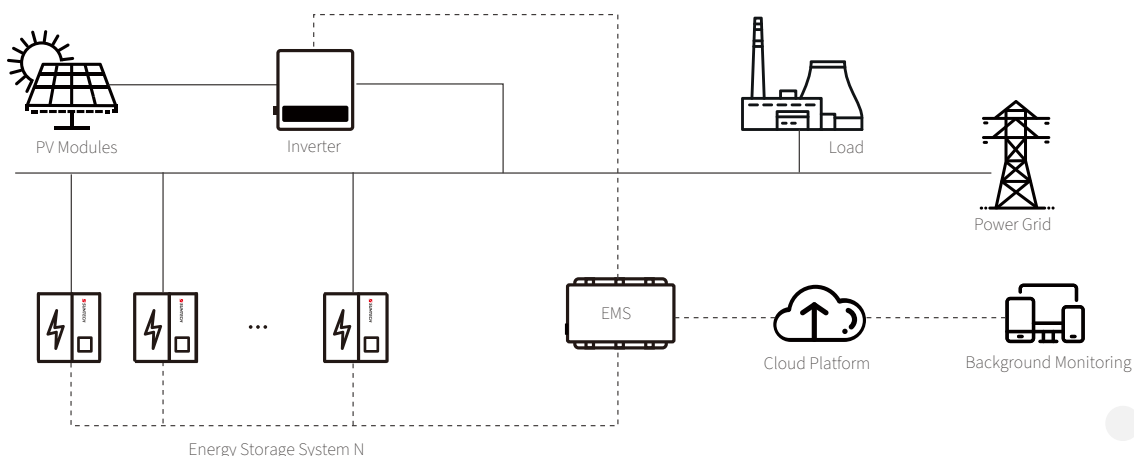
String-Based Solution

Each battery cluster is independently managed, enhancing system reliability and stability.



Multiple Power Source Options

Equipped with reserved interfaces for diesel generator and PV inverter, the system supports multiple power sources, making it suitable for a wide range of application scenarios.



Model		STE-1ML-500P
Battery Side		
Cell Type		LFP/314Ah
Pack Configuration		52.2 kWh / 1P52S
System Configuration		1044 kWh / 4P260S
Rated DC Voltage(V)		832
DC Voltage Range(V)		728 ~ 936
Max. Charge/Discharge Rate		0.5 P
Max. Depth of Discharge		100% (25 ± 2°C)
Grid Side		
Rated Output Power(kW)		500
Max. Apparent Power(kVA)		550
Rated AC Voltage(V)		400
AC Voltage Range		±15%
Grid Type		3W+N+PE
Rated Frequency(Hz)		50 / 60
On/off-grid Switching Time(ms)		<20
Power Factor		0.99/ -1 ~ +1
THDi		≤3%
DC Ratio		<0.5% I _{pn}
Backup Side		
Max. PV Inverter Input Current(A)		800
Max. Diesel Generator Input Current(A)		800
Max. Backup Load Port Current(A)		800
Recommended Max. Backup Load Power*(kW)		350 (70% of Rated Output Power)
General		
Cycle Life		≥ 8,000 cycles
Communication		Modbus TCP/IP
Fire Suppression System		Aerosol system (pack level and container level), water spray system
Ingress Rating		IP54
Cooling		Liquid cooling+Forced air cooling
Operating Temperature(°C)		-25~55 (Derating after 45)
Anticorrosion Rating		C4 (C5 optional)
Humidity		5~95% RH (non-condensing)
Noise(dB)		≤ 80
Altitude(m)		3000 (Derating above 2000)
Dimensions (W*D*H) (mm)		2991*2438*2591
Weight(t)		14
Certification		UN38.3, IEC62477-1, CE/EMC, IEC62619, IEC63056, UL9540A, EN50549

*Note: The value indicated herein is a recommended reference based on PF=0.7. When the load involves motors or other types of impact loads, it is recommended to equip the system with a soft starter. Please contact Suntech for further technical support prior to order placement.