

SunStorage HOME

STE-6A-3/3.6/4.2/4.6/5/6HS-30

Stackable Design

Storage System for
Residential Scenario



Reliable Power

- 10ms switchover keeps power on
- 200% overload drives heavy loads
- Generator support ensures continuous backup
- Parallel operation stays stable on/off-grid



Energy Savings

- Dynamic tariff charging cuts energy cost
- 1C fast charge restores full power quickly
- 20A PV input supports high-power modules
- Smart load control boosts self-consumption



Expandable Capacity

Flexible expansion by mixing old & new batteries, plus self-heating for all-climate reliability, allows flexible expansion up to 6 battery packs.



High Efficiency

Efficiency up to 97.6%, providing more energy for home loads and batteries.



Inverter Models	STE-3HS-30	STE-3.6HS-30	STE-4.2HS-30	STE-4.6HS-30	STE-5HS-30	STE-6HS-30
PV Input						
Start-up Voltage(V)	80	80	80	80	80	80
Max. PV Input Voltage(V)*	580	580	580	580	580	580
Operating Voltage Range(V)*	70~550	70~550	70~550	70~550	70~550	70~550
Rated Power MPP Voltage Range(V)	160~500	95~500	110~500	120~500	130~500	160~500
No. of MPP trackers	1	2	2	2	2	2
Max. PV Input Current(A)	20	20/20	20/20	20/20	20/20	20/20
Grid Side						
Rated Output Power(kW)	3.0	3.6	4.2	4.6	5.0	6.0
Max. Output Apparent Power(kVA)	3.0	3.6	4.2	4.6	5.0	6.0
Max. Input Apparent Power(kVA)**	6.0	7.2	8.4	9.2	10.0	10.0
Rated Output Voltage(V)	L/N/PE; 220/230/240					
Rated Output Frequency(Hz)	50/60					
Rated Output Current(A)	13.6/13/12.5	16.4/15.7/15	19.1/18.3/17.5	20.9/20/19.2	22.7/21.7/20.8	27.3/26.1/25
Max. Output Current(A)	13.6	16.4	19.1	20.9	22.7	27.3
Max. Input Current(A)	27.3	32.7	38.2	41.8	45.5	45.5
Power Factor	0.8 leading ...0.8 lagging					
Back-up Side						
Rated Output Power(kW)	3.0	3.6	4.2	4.6	5.0	6.0
Max. Output Apparent Power(kVA)	3.0	3.6	4.2	4.6	5.0	6.0
Rated Output Current(A)	13.6/13/12.5	16.4/15.7/15	19.1/18.3/17.5	20.9/20/19.2	22.7/21.7/20.8	27.3/26.1/25
Peak Output Apparent Power(kVA)	5.8 @10s	5.8 @10s	8.4 @10s	8.4 @10s	8.4 @10s	8.4 @10s
On/Off-grid Switching Time(ms)	< 10					
Efficiency						
Max. Efficiency	97.6%					
European Efficiency	97.1%					
General Data						
Over Voltage Category	II (PV+Battery), III (Mains)					
Dimensions(W×H×D mm)	445×400×197					
Weight(kg)	18	20	20	20	20	20
Ingress Protection	IP65					
Operating Temperature Range(°C)	-30~60					
Cooling	Natural Convection					
Noise Level(dB)	< 25					
Display	OLED & LED					
Communication	CAN, RS485, WiFi/LAN(Optional)					
Battery Model						
STE-6A-DC						
Specifications						
Battery Type	LiFePO ₄					
Nominal Capacity(kWh)	6.02					
Usable Energy(90% DoD)(kWh)	5.83					
Rated Charge/Discharge Power(kW)	3					
Peak Charge/Discharge Power(10 seconds)(kW)	4.5					
Scalability	1~6					
General Data						
Dimensions(W×H×D mm)	745×345×310					
Weight(kg)	69.3					
Ingress Protection	IP65					
Installation Method	Floor stacked					
Operating Temperature Range(°C)	-20~55 (Charging: 0~55, discharging: '-20~55)					
Storage Temperature Range(°C)	-30~60					
Relative Humidity	5% to 95%, Non-condensation					
Operating Altitude(m)	< 3000					
Cooling	Natural Convection					
Display	LED					
Warranty	10 years					
Control Box						
STE-CB-6U						
Operating Voltage Range(Single Phase)(V)	350~450					
Weight(kg)	8.2					
Dimensions(W×H×D mm)	745×345×160					
Communication	CAN					

*:PV Max. input voltage is 550V, otherwise inverter will be waiting;

**Max apparent power means the maximum power imported from the grid used to satisfy the backup loads and charge the battery;