SUNTECH

Innovation in Every Watt

SunStorage HOME

STE-6/9A-10/12/15/20HT-40

Stackable Design

Storage System for Residential Scenario

Smart Three-phase Design

Adopting a modular approach with internal plugin connections between modules for easy installation.

Up to 150% high DC/AC

Power oversizing capability delivers more PV power to supply loads and charge batteries simultaneously.

Expandable Capacity

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

Seamless on/off Grid switch

<10ms seamless auto switching. Smooth transition to backup power ensures continuity during power outages.

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Inverter Models	STE-10HT-40	STE-12HT-40	STE-15HT-40	STE-20HT-40
PV Side				
Start-up Voltage(V)	135			
Max. PV Input Voltage(V)*	1000			
Rated PV Input Voltage(V)	620			
MPPT Operating Voltage Range(V)*	200~950	200~950	200~950	200~950
No. of MPP Trackers	2	2	2	2
Max. Input Current per MPPT(A)	30/30	30/30	30/30	30/30
Grid Side (On-Grid)				
Rated Output Power(kW)	10	12	15	20
Max. Output Apparent Power(kVA)	11	13.2	16.5	22.0
Rated AC Voltage(V)	3L/N/PE; 220/380; 230/400; 240/415			
Rated AC Frequency(Hz)	50/60			
Rated Output Current(A)	15.2/14.5/13.9	18.2/17.4/16.7	22.7/21.7/20.8	30.3/29/27.8
Max. Output Current(A)	16.5	20.0	25.0	33.5
Power Factor	0.8 leading ⋯0.8 lagging			
THDi (@Rated Power)	< 3%			
Max. Input Apparent Power(kVA)**	20.0	24.0	30.0	30.0
Max. AC Input Current(A)	29.0	34.8	43.5	43.5
Back-up Side (Off-Grid)				
Rated Output Power(kW)	10	12	15	20
Peak Output Apparent Power(kVA)	18@10s	18@10s	24@10s	24@10s
Rated Output Voltage(V)	3L/N/PE; 220/380; 230/400; 240/415			
Rated Output Frequency(Hz)	50/60			
Rated Output Current(A)	15.2/14.5/13.9	18.2/17.4/16.7	22.7/21.7/20.8	30.3/29/27.8
On/Off-grid Switching Time(ms)	< 10			
THDv (@Linear Load)	< 3%			
Efficiency				
MPPT Efficiency	99.90%			
Max. Efficiency	98.40%			
European Efficiency	97.50%			
Protection				
Integrated Protection	DC reverse polarity protection / Battery input reverse connection protection / Insulation resistance protection /Surge protection(DC/AC: Type II/Type II) / Over-temperature protection / Residual current protection /Islanding protection / AC over-voltage protection / Overload protection / AC short-circuit protection			
General Data				
Dimensions(W×H×D mm)	534×418×210(Inverter)			
Weight(kg)	28	28	31	31
Ingress Protection	IP65			
Standby Self-consumption(W)	< 15			
Topology	Transformerless			
Operating Temperature Range(°C)	-30~60			
Relative Humidity(%)	0~100			
Max. Operation Altitude(m)	3000			
Over Voltage Category	II(PV+Battery), III(Mains)			
Cooling	Smart Fan			
Noise Level(dB)	< 40			
Display	LED & OLED			
Communication	CAN, RS485			

Battery Model	STE-6A-DC	STE-9A-DC
Specifcations		
Battery Type	$LiFePO_4$	
Nominal Capacity(kWh)	6.02	9.04
Rated Charge/Discharge Power(kW)	3	4.5
Peak Charge/Discharge Power(10 seconds)(kW)	4.5	6.75
Usable Energy(90% DoD)(kWh)	5.83	8.76
Scalability	1~6	
General Data		
Dimensions(W×H×D mm)	745×345×310	
Weight(kg)	69.3	87.4
Installation Method	Floor stacked	
Cooling	Natural Convection	
Ingress Protection	IP65	
Relative Humidity	5% to 95%, Non-condensation	
Operating Altitude(m)	< 3000	
Operating Temperature Range(°C)	-20~55 (Charging: 0~55, discharging: '-20~55)	
Storage Temperature Range(°C)	-30~60	
Display	LED	
Warranty	10 years	

Control Box	STE-CB-6U
Operating Voltage Range(Three Phase)(V)	600-900
Weight(kg)	8.2
Dimensions(W×H×D mm)	745×345×160
Communication	CAN

*:PV Max. input voltage is 950V without batter, or 850V with batter, otherwise inverter will be waiting;

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