

6kW/16kWh

All-in-one Residential PV+Battery ESS

Indoor BESS



High PV Input Capacity

9kW max PV input, 500V open circuit, 120A max charge current, supports oversized PV arrays for winter/low-light performance



Seamless Backup Power

10ms UPS-level switchover to battery mode, 12kVA surge capacity, 60s@110% overload protection for critical household load



All-in-One Compact Design

6kW hybrid inverter + 16kWh battery integrated cabinet, plug and play design, easier for fast installation



Smart Home Energy Hub

WiFi monitoring with APP control, supports time-of-use scheduling, self-consumption optimization and grid export limitation

Model		HC-UPSRAP16I
		6kW/16kWh
AC Input		
Rated Voltage	208V/220V/230V/240V;L+N+PE	
Voltage Range	90V~280V±3 (normal mode),170V~280V±3 (UPS mode)	
Frequency	50Hz/60Hz (Auto Adaptive)	
AC Output		
Rated Capacity	6kW	
Surge Power	12kVA	
Rated Voltage	208V/220V/230V/240V	
Power Factor	>0.99 (Leading)~1 (Lagging)	
Frequency	50Hz/60Hz±0.1%	
Switch Time	10ms	
Overload Capacity (Battery Mode)	60s@102%~110%,10s@110%~130% 3s@130%~150%,0.2s@≥150%	
Max. Efficiency (Battery Mode)	93%@48VDC	
Charger (PV/AC)		
Solar Charger Type	MPPT	
MAX.PV Input Current/Power	27A/9kW	
Voltage Range	80V~520V	
MAX.PV Open Circuit Voltage	500V	
MAX.PV Charge Current	120A	
MAX.Grid Charge Current	120A	
MAX.PV+Grid Charge Current	120A	
Battery		
Cell Type	LiFePO4	
Battery Cell	3.2V/314Ah	
Battery Pack Quantity	1P16S	
Nominal Battery Voltage	51.2A	
Rated Energy	16.076kWh (0.5C,25°C)	
Max. Charge/Discharge Current	150A	
Voltage Range	43.2V~57.6V	
Interface		
Display	LED	
Monitoring	WIFI	
General Data		
Ingress Protection	IP20/IP65	
Operating Temperature	-15°C~50°C	
Relative Humidity	5%~95% (Non-condensing)	
Storage Temperature	-15°C~60°C	
Max. Operating Altitude	4000m (Derating above 1000m)	
Dimensions (W/D/H)	436*420*750mm	
Weight	126kg	

System Diagram

