

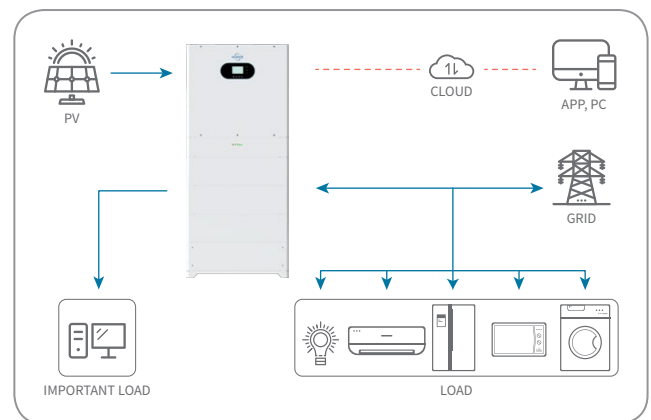


HAS-10~20K-3900

# All-In-One Stacked Energy Storage System

10kW / 12kW / 15kW / 20kW

- ✓ All-in-one design integrates with the internal PCS system (10kW / 12kW / 15kW / 20kW), battery system, BMS, high voltage distribution system, and external communication via CAN/485/Wi-Fi/4G.
- ✓ IP65 protection level, shock resistance, vibration and collision resistant, fully shockproof
- ✓ The battery adopts high pressure LFP with good thermal stability (3.99kWh modules), high flame retardant electrolyte, ceramic diaphragm, and high safety laminated design
- ✓ No wiring required, plug and play, easy to install
- ✓ Charging and discharging live of more than 6000 cycles, combined with the BMS network equalization algorithm, system service life of more than 10 years
- ✓ Achieved UN38.3, IEC62619, IEC63056, EN IEC61000 and other related certifications



Villa



Hotel



Residential electricity



Hospital



Museum



Church



Farm

Technical Data

HAS-10K-3900-H3

HAS-12K-3900-H4

HAS-15K-3900-H5

HAS-20K-3900-H5

**PV Input**

Maximum Input Power	15 kW	18 kW	22.5 kW	30 kW
Start-up Voltage	200 V			
Maximum PV Input Voltage	1000 V			
MPPT Voltage Range	180~960 V			
MPPT Voltage Range For Full Load	220~850 V	264~850 V	350~850 V	450~850 V
Number Of MPPT / Strings Per Channel	2/2			
Maximum MPPT Input Current	50 A (25/25)			

**Battery (Built-in)**

Battery Type	LFP / LiFePO4 (Lithium Iron Phosphate)			
Specifications	3.2 V / 39 Ah			
Rated Energy	11.9 kWh	15.9 kWh	19.9 kWh	19.9 kWh
Number of Modules	3	4	5	5
Rated Voltage	307.2 V	409.6 V	512 V	512 V
Voltage Range	240~350.4 V	320~467.2 V	400~584 V	400~584 V
Standard Charge/Discharge Current	40A / 40A			
Maximum Discharge Depth	90% DOD			

**AC Output (On-Grid)**

Rated Output Power	10 kW	12 kW	15 kW	20 kW
Maximum Output Power	11 kVA	13.2 kVA	16.5 kVA	22 kVA
Rated Output Voltage	220/380V, 230/400V (3PH, N, PE)			
Grid Voltage Range	184~276 V			
Maximum Output Current	16 A	19 A	24 A	32 A
Output Frequency	50/60 Hz (45~54.9 / 54.9~65)			
Power Factor	1 (0.8 leading~0.8 lagging)			
THDi (Rated Power)	<3%			

**Backup AC Output (EPS)**

Rated Output Power	10 kVA	12 kVA	15 kVA	20 kVA
Maximum Output Power	11kVA 60s, 15kVA 1s	13.2kVA 60s, 18kVA 1s	16.5kVA 60s, 22.5kVA 1s	22kVA 60s, 30kVA 1s
Maximum Output Current	16 A	19 A	24 A	32 A
Output Voltage	220/380V, 230/400V (3PH, N, PE)			
Output Frequency	50/60 Hz (±0.2%)			
THDu (Linear Load)	<3%			
Automatic Switching Time	<10ms			

**General Data**

Maximum Efficiency	98.2%			
Protection	DC Lightning Protection, AC Lightning Protection, PV Reverse Polarity Protection, Battery Reverse Protection, Insulation Resistor Detection, Leakage Current Detection, Anti-island Protection, Grounding Fault, Input Overvoltage & Unervoltage, Output Overvoltage & Unervoltage, Input Over Current, Output Overcurrent, Overheat Protection			
Ingress Protection Rating	IP65			
Cycle Life	≥6000 Cycles (25°C, 85% DOD) / ≥10 Years			
Noise	<40 dB			
Temperature Range	-25~60°C			
Cooling Method	Smart Fan Cooling + Natural Cooling			
Relative Humidity	0~95%			
Altitude	≤4000 m (>2000 m Derating)			
Display	LCD			
Communication	RS485 (Standard); Wi-Fi, GPRS, Ethernet (Optional)			
Standards and Certifications	CE/IEC62109/IEC62619/UN38.3			
Weight	198 kg	244 kg	290 kg	290 kg
Dimensions (WxDxH)	650x360x1450 mm	650x360x1650 mm	650x360x1850 mm	650x360x1850 mm