




Single-Phase Hybrid Inverter

HSA-8~12K1P-BL

「8/10/12kW」

Features

 **PV Oversizing**
Up to 200% PV accessing, 180% PV oversizing


 **Parallel Connection**
Support parallel connection up to 9 units

 **High-Temperature Adaptability**
Allow full-power input and output under high temperature

 **Overload Capacity**
2 times the rated power for 10s

 **Three MPPTs**
Three MPPTs for efficient power tracking

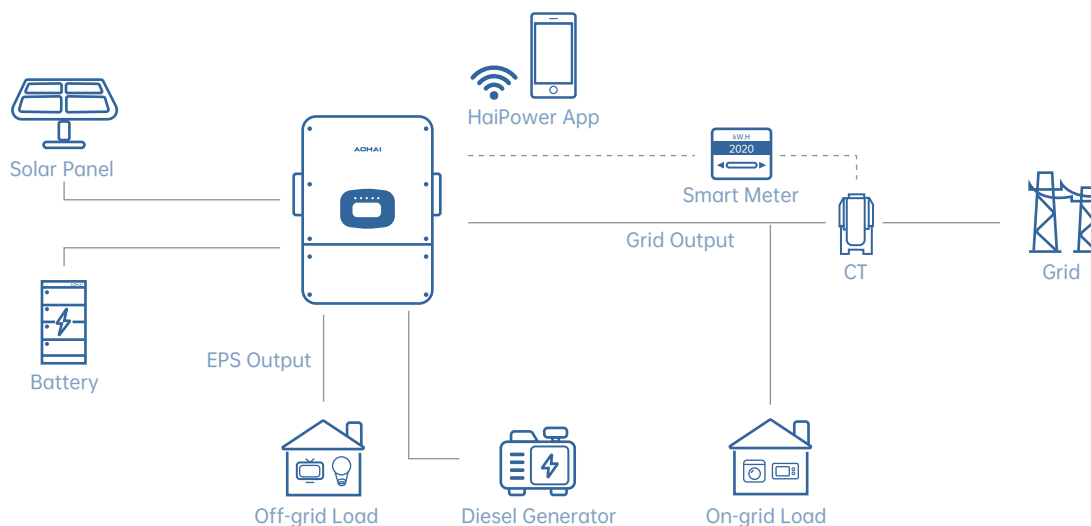
 **Seamless Switchover**
UPS-level switching time: 4ms

 **Touch Screen**
4.3" 800 x 480 interactive display without physical keys

 **Flexible Connection**

- GEN port for generator input
- Dual AC outputs for smart load management
- AC coupling function

Energy Storage Solution



Specifications

Model	HSA-8K1P-BL	HSA-10K1P-BL	HSA-12K1P-BL
Technical Data			
Recommended Max. PV Array Size	16000Wp	24000Wp	24000Wp
Max. PV Input Power	12000W	18000W	18000W
Max. Input Voltage	500V	500V	500V
Start-up Voltage	120V	120V	120V
Rated Input Voltage	370V	370V	370V
MPPT Operating Voltage Range	120~425V	120~425V	120~425V
MPPT Voltage Range (full load)	222~425V	222~425V	222~425V
Max. Input Current per MPPT	27+27A	27+27+27A	27+27+27A
Max. Short Circuit Current per MPPT	44+44A	44+44+44A	44+44+44A
Number of MPPTs	2	3	3
Number of Strings per MPPT	2+2	2+2+2	2+2+2
Max. Inverter Backfeed Current to The Array (A)	0	0	0
Battery Data			
Battery Type	Lead-acid or Lithium-ion		
Rated Battery Voltage	48V		
Battery Voltage Range	40V~60V		
Max. Charge / Discharge Current	190A	220A	250A
Max. Charge / Discharge Power	8000W	10000W	12000W
Battery Communication	CAN / RS485		
Number of Battery Input	1		
AC Input / Output Data (Grid, Load & Generator)			
Rated AC Input / Output Active Power	8000W	10000W	12000W
Max. AC Input / Output Apparent Power	8800VA	11000VA	13200VA
Peak Apparent Power (off-grid)	2 times of rated power, 10s		
Rated AC Input / Output Current	36.4A / 34.8A / 33.4A	45.5A / 43.5A / 41.7A	54.6A / 52.2A / 50A
Max. AC Input/Output Current	38.3A	47.9A	57.4A
Max. Continuous AC Passthrough (grid to load)	60A		
Max. Output Fault Current	100A		
Max. Output Over Current Protection	150A		
Rated Input / Output Voltage	220V / 230V / 240V		
Input / Output Voltage Range (V)	0.85Un-1.1Un		
Grid Connection Form	L+N+PE		
Rated Grid Frequency / Range	50 / 45~55Hz, 60 / 55~65Hz		
Power Factor	0.8 leading~0.8 lagging		
THDi (nominal power)	<3%		
DC Injection Current	<0.5%In		
Switch time (Typ)	4ms		
Efficiency			
Max. Efficiency	97.60%		
European Efficiency	96.50%		
MPPT Efficiency	>99.9%		
Protection			
PV Reverse Polarity Protection	yes		
Anti-Islanding Protection	yes		
Output Short Protection	yes		
Ground Fault Monitoring	yes		
Insulation Resistance Monitoring	yes		
Over-current Protection	yes		
Over-temperature Protection	yes		
AC / DC Surge Protection	TYPE II (DC), TYPE II (AC)		
AFCI Protection	Optional		
DC Switch	yes		
Residual Current Monitoring	yes		
Grid Monitoring	yes		
General Data			
Dimension (W*H*D)	420mm*680mm*252.5mm (Excluding connectors)		
Weight	36kg	37kg	37kg
Relative Humidity	0~100%		
Operating Temperature Range	-25°C to +60°C, >45 Derating		
Storage Temperature	-45°C to +85°C		
Noise Emission	<45dB		
Altitude	2000m		
Cooling Method	Intelligent Air Cooling		
Ingress Protection	IP66		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Topology	Non-Isolated		
Protective Class	I		
Communication Interface	RS485 / CAN / Bluetooth / WIFI, LAN / 4G / GPRS (optional)		
Power Grid Side Energy Detection Method	1CT, Meter (optional)		
Display	LCD & APP		
Standby / Internal Consumption	<25W (night)		
PV Connector	MC4 compatible connector		
Battery Connector	Connector		
AC Connector	Connector		