



Single-phase Hybrid Inverter

HSC-3~8K1P-BL

「3/3.6/4.6/5/6/8kW」

Features



PV Oversizing

Support 200% PV oversizing



Powerful Battery Charge / Discharge

Max. continuous charge / discharge current of 190A



Flexible Connections

- GEN port for generator input
- Smart load management
- AC coupling function



Seamless Switchover

UPS-level switching time: 4ms



Integrated MPPT

Up to 2 MPPTs, max. 36A per MPPT, supporting up to 4 PV strings



Overload Capacity

Peak power able to reach 2 times the rated power for 10s



Parallel Connection

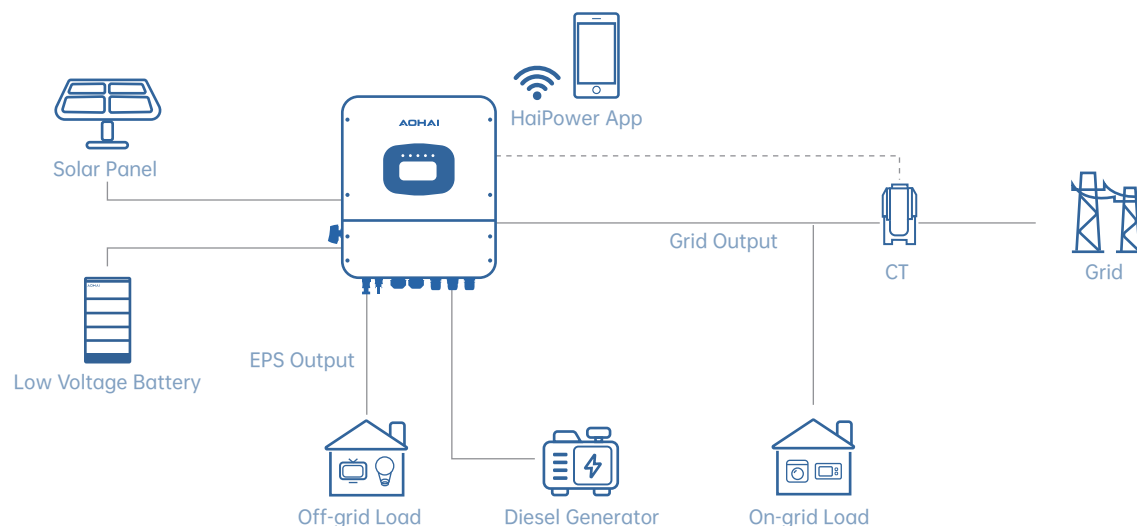
- Parallel connection up to 9 units
- Support single-phase or three-phase parallel expansion



Touch Screen

4.3-inch color touch screen

Energy Storage Solution



Specifications

Model HSC-3K1P-BL HSC-3.6K1P-BL HSC-4.6K1P-BL HSC-5K1P-BL HSC-6K1P-BL HSC-8K1P-BL

Solar Input Data

Max. PV Input Power	6000W	7360W	9200W	10000W	12000W	16000W
Max. Input Voltage	550V					
Start-up Voltage	60V					
Rated Input Voltage	360V					
MPPT Operating Voltage Range	80~520V					
MPPT Voltage Range(full load)	120~440V	150~440V	180~440V	200~440V	240~440V	200~440V
Max. Input Current per MPPT	20+20A	20+20A	20+20A	20+20A	20+20A	36+36A
Max. Short Circuit Current per MPPT	25+25A	25+25A	25+25A	25+25A	25+25A	45+45A
Number of MPPTs	2					
Number of Strings per MPPT	1+1	1+1	1+1	1+1	1+1	2+2
Max. Inverter Backfeed Current to The Array	0					

Battery Data

Battery Type	Lead-acid or Lithium-ion					
Rated Battery Voltage	48V					
Battery Voltage Range	40~60V					
Max. Charge / Discharge Current	100A	100A	120A	120A	140A	190A
Max. Charge / Discharge Power	3000/3300W	3680/4048W	4600/5060W	5000/5500W	6000/6600W	8000/8800W
Battery Communication	CAN / RS485					
Number of Battery Input	1					

AC Input / Output Data (Grid, Load & Generator)

Rated AC Input / Output Active Power	3000W	3680W	4600W	5000W	6000W	8000W
Max. AC Input / Output Apparent Power	3300VA	3680VA	4600VA	5000VA	6600VA	8800VA
Peak Apparent Power (off-grid)	2 times of rated power, 10s					
Rated AC Input / Output Current (at 230V)	13.6/13/12.5A	16A	20.9/20/19.2A	22.7/21.7/20.8A	27.3/26.1/25A	36.4/34.8/33.3A
Max. AC Input/Output Current	15A	16A	20.9A	22.7A	30A	40A
Max. Continuous AC Passthrough (AC to load)	45A	45A	45A	45A	45A	50A
Max. Output Fault Current	27.3A	33.5A	45.5A	45.5A	54.5A	72.7A
Max. Output Over Current Protection	104.3A	104.3A	104.3A	104.3A	104.3A	134.1A
Rated Input / Output Voltage	220/230/240V	230V	220/230/240V	220/230/240V	220/230/240V	220/230/240V
Input / Output Voltage Range	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	97.6%
European Efficiency	96.5%
MPPT Efficiency	>99.9%
Max. Charge / Discharge Efficiency	94.6%

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 III(DC), TYPE II(AC)
AFCI Protection	Optional
DC Switch	Yes
Residual Current Monitoring	Yes
Grid Monitoring	Yes

General Data

Dimension (W*H*D)	365mm*430mm*245mm (Excluding connectors and brackets)					
Weight	≤20kg	≤20kg	≤20kg	≤20kg	≤20kg	≤22kg
Relative Humidity	0~100%					
Operating Temperature Range	-40 to +60°C, >45°C Derating					
Storage Temperature	-45°C to +85°C					
Noise Emission	<35dB	<35dB	<35dB	<35dB	<35dB	<55dB
Altitude	3000m					
Cooling Method	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	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 (optional)					
Power Grid Side Energy Detection Method	1CT, Meter (optional)					
Display	LCD & APP					
Standby / Internal Consumption	<25 (night)					
PV Connector	MC4 compatible connector					
Battery Connector	Connector					
AC Connector	Connector					