

VERIFICATION OF COMPLIANCE

No.: LVD GZES2503003702PV

Applicant: Shenzhen Aohai Digital Power Co., Ltd.
10th Floor, Building 4, Tianan Yungu Industrial Park Phase II,
Gangtou Community, Bantian Street, Longgang District,
Shenzhen, Guangdong, China

Manufacturer: Shenzhen Aohai Digital Power Co., Ltd.
10th Floor, Building 4, Tianan Yungu Industrial Park Phase II,
Gangtou Community, Bantian Street, Longgang District,
Shenzhen, Guangdong, China

Product Name: Single Phase Hybrid Inverter

Product Description: Inverter used in PV system

Model No.: HSA-8K1P-BL, HSA-10K1P-BL, HSA-12K1P-BL

Trade Mark: **AOHAI**

Rating: See page 2-3

Protection against Electric Shock: Class I

Degree of Protection: IP66

Additional Information: Software version: BB1.0
Hardware version: HAS-8-12K1P-BL-V1.0

Sufficient samples of the product have been tested and found to be in conformity with

Test Standard: EN 62109-1:2010
EN 62109-2:2011

as shown in the

Test Report Number(s): GZES250300370201
GZES250300370202

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant harmonized standards under the Low Voltage Directive 2014/35/EU. The CE marking can be affixed, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The affixing of the CE marking presumes in addition that the conditions in annex III and IV of the Directive are fulfilled.

David Guo

Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2025-10-20

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-CSTC Standards Technical Services Co., Ltd.
16F, Century Yu Hui Mansion, No.73, Fucheng Road, Haidian District, Beijing, 100142, CHINA
www.sgsgroup.com.cn
Member of the SGS Group (SGS SA)

No.: GZES2503003702PV
 Other information added:
 Rating:

Rating specifications of Hybrid Inverter			
Model	HSA-8K1P-BL	HSA-10K1P-BL	HSA-12K1P-BL
Solar Input Data			
Recommended Max. PV Array Size (W)	16000	24000	
Max. PV Input Power (W)	12000	18000	
Max. Input Voltage (V)	500		
Start-up Voltage (V)	120		
Nominal Input Voltage (V)	370		
MPPT Operating Voltage Range (V)	120~425		
Max. Input Current per MPPT (A)	27+27	27+27+27	
Max. Short Circuit Current per MPPT (A)	44+44	44+44+44	
Number of MPPT	2	3	
Number of Strings per MPPT	2+2	2+2+2	
Battery Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	40~60		
Max. Charge / Discharge Current (A)	190	220	250
AC Input Data (Grid&Generator)			
Nominal Input Voltage (V)	230, L+N+PE		
Input Voltage Range (V)	0.85Un-1.1Un		
Max. Continuous Curent (A)	60		
AC Frequency / Range (Hz)	50/45-55		
AC Output Data (On-Grid)			
Nominal Output Power (W)	8000	10000	12000
Max. Apparent Output Power (VA)	8800	11000	13200
Nominal Output Voltage (V)	230, L+N+PE		
Nominal Grid Frequency / Range (Hz)	50/45-55		
Nominal Output Current (A)	34.8	43.5	52.2
Max. Output Current (A)	38.3	47.9	57.4
Power Factor	0.8 leading~0.8 lagging		
THDi (nominal power)	<3%		

David Guo

Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2025-10-20

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-CSTC Standards Technical Services Co., Ltd.
 16F, Century Yu Hui Mansion, No.73, Fucheng Road, Haidian District, Beijing, 100142, CHINA
www.sgsgroup.com.cn
 Member of the SGS Group (SGS SA)

No.:

GZES2503003702PV

Other information added:

Rating:

Rating specifications of Hybrid Inverter			
Model	HSA-8K1P-BL	HSA-10K1P-BL	HSA-12K1P-BL
AC Output Data (Back-UP)			
Nominal Output Power (W)	8000	10000	12000
Max. Apparent Output Power (VA)	8800	11000	13200
Nominal AC Voltage (V)	230, L+N+PE		
Nominal Grid Frequency / Range (Hz)	50/45-55		
Nominal Output Current (A)	34.8	43.5	52.2
Max. Output Current (A)	38.3	47.9	57.4
THDv (@linear load)	< 3 %		
General Data			
Dimension (W*H*D) (mm)	420×680×252 (Excluding connectors and brackets)		
Weight (kg)	34.5		
Operating Temperature Range (°C)	-25 to +60°C, >45°C Derating		
Altitude (m)	2000		
Cooling Method	Intelligent Air Cooling		
Ingress Protection	IP66		
Over Voltage Category	OVC II (DC), OVC III (AC)		
Topology	Non-Isolated		

David Guo

Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2025-10-20

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-CSTC Standards Technical Services Co., Ltd.
16F, Century Yu Hui Mansion, No.73, Fucheng Road, Haidian District, Beijing, 100142, CHINA
www.sgsgroup.com.cn
Member of the SGS Group (SGS SA)