Test Verification of Conformity

Verification Number: 240604177GZU- VOC002

On the basis of the tests undertaken, the sample<s> of the below product has been tested by an accredited 3rd party laboratory in accordance to the referenced specification<s>/standard<s> at the time the tests were carried out. This verification is part of the full test report<s> and should be read in conjunction with it <them>. This verification replaces previous verification number 231207114GZU-VOC002 dated: 26 February 2024.
This document can be used in support of a claim in meeting relevant UK legislation and mandatory Conformity Marking. And in accordance with EU law, the claim is the sole obligation of the Manufacturer/ Importer.

Applicant Name & Address:	Shenzhen PolarESS Technology Co, Ltd. 6#-1002, Building 6, Chuangwei Innovation Valley, No.8 Tangtou 1st Road, Tangtou Community, Shiyan Sub-district, Bao'an District, Shenzhen, China.
Product Description:	PV Hybrid inverter
Ratings & Principle Characteristics:	See Appendix: Test Verification of Conformity
Models/Type References:	ALPS HY3.6-GL, ALPS HY4.6-GL, ALPS HY5.0-GL, ALPS HY6.0-GL, ALPS HY8.0-GL
Brand Names:	POLAR ESS®
Specification<s>/Standards:	IEC/EN 62109-1: 2010 (First Edition)Safety of power converters for use in photovoltaic power systems – Part 1: General requirements IEC/EN 62109-2: 2011 Safety of power converters for use in photovoltaic power systems – Part 2: Particular requirements for inverters
Verification Issuing Office Name & Address:	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch. Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China
Date of Tests:	05 Jun 2024 to 19 Jul 2024
Test Report Number(s):	240604177GZU-001, 06 August 2024 240604177GZU-002, 06 August 2024

Additional information in Appendix.

Jason Fu

Signature

Name: Jason Fu
Position: Supervisor
Date: 07 August 2024

APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 240604177GZU -VOC002.

Ratings & Principle Characteristics:

Model	ALPS HY3.6-GL	ALPS HY4.6-GL	ALPS HY5.0-GL	ALPS HY6.0-GL	ALPS HY8.0-GL
Input Data (PV)					
Max. PV open-circuit voltage	550 V				
Max. PV short-circuit current	2*23 A				
Max. PV input current	2*17 A				2*20A
MPPT voltage range	90~530 V				
MPPT tracker/No. of Strings per MPP Tracker	2/1				
Output Data (AC, on-grid)					
Rated AC output power(W)	3600	4600	5000	6000	8000
Max. apparent power(VA)	3600	4600	5000	6000	8000
Max. output current	16 A	20 A	21.7 A	26 A	34A
Nominal grid voltage	230Va.c.				
Nominal frequency	50 Hz				
Power factor range	0.8 lagging ~ 0.8 leading				
Output Data (AC, backup)					
Nominal EPS output power(W)	3600	4600	5000	6000	8000
AC Nominal voltage	230Va.c.				
Nominal frequency	50Hz				
Power factor range	0.8 lagging ~ 0.8 leading				
Max. output current	16 A	20 A	21.7 A	26 A	34A
Battery					
Battery type	Lead-acid or Li-ion				
Battery voltage range	46.7-57.6 V				
Nominal voltage	51.2 V				
Max. charging/ discharging current	83A/83A	104A/ 104A	112A/ 112A	130A/ 130A	175A/ 175A
Max. Battery charging/discharging power(W)	4000/ 4000	5000/ 5000	5400/ 5400	6500/ 6500	8500/ 8800
Others					
Inverter Topology	Non-isolated				
Overvoltage Category	DC II; AC III				
Ingress protection	IP20				
Protective Class	Class I				
Operating temperature range	-25°C~60°C				
Software version	SD1.0				

Jason Fu

Signature

Name: Jason Fu
Position: Supervisor
Date: 07 August 2024