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DAkkS Deutsche Akkreditierungsstelle D-ZE-11321-01-00

TÜV SÜD Product Service

Certificate of Conformity

No. ESY 086470 0228 Rev. 00

Holder of Certificate: **Ginlong Technologies Co., Ltd.**
No.57 Jintong Road
Binhai Industrial Park, Xiangshan
315712 Ningbo, Zhejiang
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Hybrid Inverter

Model(s): **S6-EH1P3K-L-PLUS, S6-EH1P3.6K-L-PLUS, S6-EH1P4.6K-L-PLUS, S6-EH1P5K-L-PLUS, S6-EH1P6K-L-PLUS, S6-EH1P8K-L-PLUS**

Parameters: See next pages.

Applicable standards:
EN 50549-1:2019
RfG:2016
NC RfG:2018
PTPiREE:2021

This Certificate of Conformity confirms the compliance with the above listed standards on a voluntary basis. It refers only to the sample submitted to TÜV SÜD Product Service GmbH and does not certify the quality or safety of the serial products. It was issued according to TÜV SÜD Product Service certification program Photovoltaics and Grid Integration. For details see: www.tuvsud.com/ps-cert

Test report no.: 7040924037117-00

Date, 2024-11-06

(Zhengdong Ma)

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Technical Certifier (Zhengdong Ma) appointed by Certification Body TÜV SÜD Product Service GmbH performed assessment of the products listed in this certification in the place: Ridlerstraße 65, 80339 Munich, Germany.

Test requirement	The certification complies with the requirements of the following documents for **PPM** installations of **Type A** **EN 50549-1:2019** Requirements for generating plants to be connected in parallel with distribution networks - Part 1: Connection to a LV distribution network - Generating plants up to and including Type B **RfG:2016** Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for the connection of generating units to the Network (OJ EU L 112/1 of 27.4.2016) **NC RfG:2018** General applicability requirements resulting under EU commission regulation 2016/631 of 14 April 2016 establishing a network code on requirements for the connection of generating units to the grid (NC RfG-2018) - approved by the Decision of the President of the Energy Regulatory Office DRE.WOSE.7128.550.2.2018.ZJ dated 2 January 2019. **PTPiREE:2021** Conditions and procedures for the use of certificates in the process of connecting modules generation modules to the power grid V1.2
Designation and type of certification programme	1(a) according to EN ISO/IEC 17067 Based on Photovoltaics and Grid Integration Certification Program (Revision 7, Dated 30 Aug 2022) for Poland Grid Code
Manufacturer & Address	Ginlong Technologies Co., Ltd. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA
Software version	A2
Expiry date of certificate	2029-09-29

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Parameters:

Models	S6-EH1P3K-L-PLUS	S6-EH1P3.6K-L-PLUS	S6-EH1P4.6K-L-PLUS
PV-Input:			
Max. input voltage	DC 500 V		
Mppt voltage range	DC 90 V, ..., 435 V		
Max. input current	AC 16/16 A	AC 16/16 A	AC 16/16 A
Isc PV (absolute maximum)	AC 20/20 A	AC 20/20 A	AC 20/20 A
Battery Input / Output:			
Battery Type	Li-ion/Lead-acid		
Battery Voltage range	DC 40, …, 60 V		
Max. Charge / discharge current	DC 70 A/ 70 A	DC 80 A/ 80 A	DC 105 A/ 105 A
AC-Output (Grid side):			
Rated output voltage	1/N/PE AC 230 V		
Rated output frequency	50 Hz		
Max. /Rated apparent output power	3000 VA	3600 VA	4600 VA
Max. /Rated output current	AC 13.1 A	AC 15.7 A	AC 20 A
Power factor range	-0.8, …, 1, …, +0.8		

Models	S6-EH1P5K-L-PLUS	S6-EH1P6K-L-PLUS	S6-EH1P8K-L-PLUS
PV-Input:			
Max. input voltage	DC 500 V		
Mppt voltage range	DC 90 V, ..., 435 V		
Max. input current	AC 16/16 A	AC 16/16 A	AC 32/32 A
Isc PV (absolute maximum)	AC 20/20 A	AC 20/20 A	AC 40/40 A
Battery Input / Output:			
Battery Type	Li-ion/Lead-acid		
Battery Voltage range	DC 40, …, 60 V		
Max. Charge / discharge current	DC 112 A/ 112 A	DC 135 A/ 135 A	DC 190 A/ 190 A
AC-Output (Grid side):			
Rated output voltage	1/N/PE AC 230 V		
Rated output frequency	50 Hz		
Max. /Rated apparent output power	5000 VA	6000 VA	8000 VA
Max. /Rated output current	AC 21.8 A	AC 26.1 A	AC 34.8 A
Power factor range	-0.8, …, 1, …, +0.8		

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Scope and function assessment based on the rules for the application of equipment certificates for Power Park Modules (PPMs), as specified in the PTPiREE document.

Parameter	RfG: 2016	NC RfG: 2018	Type A	Type B	Type C	Type D	Result
Frequency range	13.1 a)	13.1 a), i	Y	-	-	-	Pass
Rate of change of frequency withstand capability (RoCoF) df/dt	13.1 b)	13.1 b)	Y	-	-	-	Pass
Remote ceasing active power	13.6	13.6	Y	-	-	-	Pass
Remote control of active power	14.2	14.2 b)	N/A	-	-	-	N/A
Power generation module operation mode in which the generated active power decreases in response to an increase in the system frequency above a specified value (LFSM-O)	13.2 (*)	13.2 a), b), f)	Y	-	-	-	Pass
Power generation module operation mode in which the generated active power increases as a result of the system frequency falling below a specified value (LFSM-U)	15.2 c)	15.2 c), i	Y	-	-	-	Pass
Ability to withstand voltage dips for connections below 110 kV	14.3	14.3 a), i, b)	N/A	-	-	-	N/A
Ability to withstand voltage dips for connections above 110 kV	16.3	16.3 a), i, c)	N/A	-	-	-	N/A
Fast fault current contribution, symmetrical and asymmetrical faults	20.2 b), c) 21.3 e)	20.2 b), c) 21.3 e)	N/A	-	-	-	N/A
Recovery of active power after short circuit	20.3	20.3 a)	N/A	-	-	-	N/A
(*) Article 13.2.(b) only applies to Type A PPMs in accordance with RfG:2016.							

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