

Certificate of compliance

Applicant: Yinergy Digital Power Technology Co., Ltd.

Building 4&5, No.161, Yuancheng Road, Qiantang District, Hangzhou, Zhejiang

P.R.China

Product: Solar Hybrid Inverter

Model: HI5-1P4K-LV

HI5-1P4K6-LV HI5-1P5K-LV HI5-1P5K5-LV HI5-1P6K-LV

The device is designed to work as a generation unit of the type: A

Inverter for single-phase parallel connection to the public grid. The network monitoring and disconnection device is an integral part of the above-mentioned model.

Applied rules and standards:

EN 50549-1:2019

Requirements for parallel connection of installations with distribution networks - Part 1: Connection to an LV distribution network - Production of installations up to and including Type B

- 4.4 Normal operating range
- 4.5 Immunity to disturbances
- 4.6 Active response to frequency deviation
- 4.7 Power response to voltage variations and voltage changes
- 4.8 EMC and power quality
- 4.9 Interface protection
- 4.10 Connection and starting to generate electrical power
- 4.11 Ceasing and reduction of active power on set point
- 4.13 Requirements regarding single fault tolerance of interface protection system and interface switch

DIN VDE V 0124-100:2020 (5.5.2.1 Functional safety of network and system protection)

Grid integration of generator plants - Low-voltage - Test requirements for generator units to be connected to and operated in parallel with low-voltage distribution networks

Commission Regulation (EU) 2016/631 of 14 April 2016

Establishing a network code on requirements for grid connection of generators (NC RFG).

Type approval for generation units to use in Type A plants.

At the time of issue of this certificate, the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

Certification body

Head of Energy Systems Germany

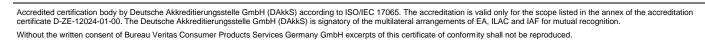
Report number: CMCC-ESH-P24120459

Certificate number: U24-1221

Certification Program: NSOP-0032-DEU-ZE-V10
Date of issue: 2025-01-08

Accreditation









Extract from test report CMCC-ESH-P24120459 issued by a testing laboratory accredited by "Deutsche Akkreditierungsstelle GmbH (DAkkS)" according to ISO/IEC 17025. The accreditation is only valid for the scope listed in the annex of the accreditation certificate "D-PL-12024-03-04".

Manufacturer	Yinergy Digital Power Technology Co., Ltd. Building 4&5, No.161, Yuancheng Road, Qiantang District, Hangzhou, Zhejiang P.R.China				
Product type	Solar Hybrid Inverter				
20.00	454/17	4546014	48514 1 1	45575 I.V	
Static converter model	HI5-1P4K-LV	HI5-1P4K6-LV	HI5-1P5K-LV	HI5-1P5K5-LV	
Input DC (photovoltaic)	420.450	420.450	400.450	420.450	
MPP voltage range [V]	120-450 500	120-450	120-450	120-450	
Max. input voltage [V]	16 / 16	500 16 / 16	500 16 / 16	500 16 / 16	
Max. input current per MPPT [A]	16 / 16	16 / 16	16 / 16	16 / 16	
Output AC Rated AC voltage [V]	L/N/PE, 230, 50 Hz	L/N/PE, 230, 50 Hz	L/N/PE, 230, 50 Hz	L/N/PE, 230, 50 Hz	
Rated AC voltage [v] Rated output current [A]	17,4	20	21,7	24	
Rated apparent power [VA]	4000	4600	5000	5500	
Rated apparent power [VA]	4000	4600	3000	5500	
Static converter model	HI5-1P6K-LV				
Input DC (photovoltaic)	HIG-TFOR-LV				
MPP voltage range [V]	120-450				
Max. input voltage [V]	500				
Max. input current per MPPT [A]	16 / 16				
Output AC	10710				
Rated AC voltage [V]	L/N/PE, 230, 50 Hz				
Rated AC voltage [v] Rated output current [A]	26				
Rated apparent power [VA]	6000				
Interface protection system and	interface switch (Netwo	rk and system protect	ion "NS-protection")		
Type of protection	Integrated NS-protection				
Assigned to generation unit type	HI5-1P4K-LV HI5-1P4K6-LV HI5-1P5K-LV HI5-1P5K5-LV HI5-1P6K-LV	HI5-1P4K6-LV HI5-1P5K-LV HI5-1P5K5-LV			
Integrated interface switch	Type of switching e	Type of switching equipment 1: Relay (Model HF165FD-G) Type of switching equipment 2: Relay (Model HF165FD-G) Note: The output is switched off by the inverter bridge and two relay in series in each line and neutral.			
Firmware version	V2.85				

Annex certificate of conformity No. U24-1221



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Note

The settings of the interface protection are password protected adjustable.

In case the above stated generators are used with an external protection device, the protection settings of the inverters are to be adjusted according to the manufacturer's declaration.

The above stated generators are tested according to the requirements in the EN 50549-1:2019 Commission Regulation (EU) 2016/631 of 14 April 2016. Any modification that affects the stated tests must be named by the manufacturer/supplier of the product to ensure that the product meets all requirements.