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.

Report number: **CMCC-ESH-P24120459**
Certificate number: **U24-1221**
Certification Program: **NSOP-0032-DEU-ZE-V10**
Date of issue: **2025-01-08**

Certification body

Domenik Koll
Head of Energy Systems Germany

Accreditation

DAkkS Deutsche Akkreditierungsstelle D-ZE-12024-01-00

Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016				
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**			
Static converter model	**HI5-1P4K-LV**	**HI5-1P4K6-LV**	**HI5-1P5K-LV**	**HI5-1P5K5-LV**
Input DC (photovoltaic)				
MPP voltage range [V]	120-450	120-450	120-450	120-450
Max. input voltage [V]	500	500	500	500
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 output current [A]	17,4	20	21,7	24
Rated apparent power [VA]	4000	4600	5000	5500
Static converter model	**HI5-1P6K-LV**	--	--	--
Input DC (photovoltaic)				
MPP voltage range [V]	120-450	--	--	--
Max. input voltage [V]	500	--	--	--
Max. input current per MPPT [A]	16 / 16	--	--	--
Output AC				
Rated AC voltage [V]	L/N/PE, 230, 50 Hz	--	--	--
Rated output current [A]	26	--	--	--
Rated apparent power [VA]	6000	--	--	--
Interface protection system and interface switch (Network and system protection "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**			
Integrated interface switch	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			

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.