



**BUREAU
VERITAS**

Certificate of compliance

Applicant: UPOWER ELECTRIC CO., LTD
4F-A Block, No.62, Yinhe Road, Longgang District, Shenzhen, Guangdong
China

Product: Hybrid inverter

Model: UHome-3K0L
UHome-3K6L
UHome-4K0L
UHome-4K6L
UHome-5K0L
UHome-6K0L
UHome-8K0L

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 and Type B 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: CIZC-ESH-P22120590 **Certification Program:** NSOP-0032-DEU-ZE-V01
Certificate number: U23-0790 **Date of issue:** 2023-09-12

Certification body

Alf Assenkamp



Certification body Bureau Veritas Consumer Products Services Germany GmbH accreditation to DIN EN ISO/IEC 17065

Testing laboratory accredited according to DIN EN ISO/IEC 17025

A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH



Annex to the EN 50549-1 certificate of compliance No. U23-0790

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Appendix	
Extract from test report according to EN 50549-1	No.CIZC-ESH-P22120590

Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016

Manufacturer / applicant	UPOWER ELECTRIC CO., LTD 4F-A Block, No.62, Yinhe Road, Longgang District, Shenzhen, Guangdong, China
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Micro-generator Type	Hybrid inverter			
	UHome-3K0L	UHome-3K6L	UHome-4K0L	UHome-4K6L
MPP DC voltage range [V]	80-500			
Max. input DC voltage [V]	550			
Max. input DC current [A]	14/14			
Output AC voltage [V]	230 50/60Hz			
Max AC current [A]	14,3	16,0	19,1	20,0
Apparent power [VA]	3300	3680	4400	4600

	UHome-5K0L	UHome-6K0L	UHome-8K0L	--
MPP DC voltage range [V]	80-500			--
Max. input DC voltage [V]	550			--
Max. input DC current [A]	14/14		14/28	--
Output AC voltage [V]	230 50/60Hz			--
Max AC current [A]	21,7	28,7	38,3	--
Apparent power [VA]	5000	6600	8800	--

Firmware version	DSP: V1.05.07, ARM: V1.04.15
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Description of the structure of the power generation unit:
 The power generation unit is equipped with a PV/DC and line-side EMC filter. The power generation unit has no galvanic isolation between DC input and AC output. Output switch-off is performed with single-fault tolerance based on the inverter bridge and two series-connected relays in each line and neutral. This enables a safe disconnection of the power generation unit from the network in case of error.