



Certificate of compliance

Applicant: NingBo Deye Inverter Technology Co., Ltd.
No. 26 South YongJiang Road, Daqi, Beilun, NingBo,
China

Product: Photovoltaic (PV) and battery inverter

Model: SUN-50K-SG01HP3-EU-BM4, SUN-40K-SG01HP3-EU-BM4, SUN-35K-SG01HP3-EU-BM3,
SUN-30K-SG01HP3-EU-BM3, SUN-29.9K-SG01HP3-EU-BM3

Inverter for three-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: ASUE-ESH-P22110228 **Certification Program:** NSOP-0032-DEU-ZE-V01
Certificate number: U23-0129_1 **Date of issue:** 2023-02-28

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



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Annex to the EN 50549-1 certificate of compliance No. U23-0129_1

Appendix

Extract from test report according to EN 50549-1

No. ASUE-ESH-P22110228

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		NingBo Deye Inverter Technology Co., Ltd. No. 26 South YongJiang Road, Daqi, Beilun, NingBo, China		
Micro-generator Type	Photovoltaic and battery inverter			
	SUN-50K-SG01HP3-EU-BM4	SUN-40K-SG01HP3-EU-BM4	SUN-35K-SG01HP3-EU-BM3	SUN-30K-SG01HP3-EU-BM3
MPP DC voltage range [V]	150-850			
Max. DC voltage [V]	1000			
Max. PV current [A]	4*36		3*36	
Output AC voltage [V]	3L/N/PE, 230/400, 50 Hz			
Rated AC current [A]	72,5	58,0	50,8	43,5
Max AC current [A]	79,8	63,8	55,8	47,9
Active Power [W]	50000	40000	35000	30000
Apparent power [VA]	55000	44000	38500	33000
Battery voltage [V]	160-800			
Max.Charging/Discharging Current [A]	50+50			
	SUN-29.9K-SG01HP3-EU-BM3	--	--	--
MPP DC voltage range [V]	150-850 Vd.c.	--	--	--
Input DC voltage range [V]	1000	--	--	--
Input DC current [A]	3*36	--	--	--
Output AC voltage [V]	3L/N/PE, 230/400, 50 Hz	--	--	--
Rated AC current [A]	43,4	--	--	--
Max AC current [A]	43,4	--	--	--
Active Power [W]	29900	--	--	--
Apparent power [VA]	29900	--	--	--
Battery voltage [V]	160-800	--	--	--
Max.Charging/Discharging Current [A]	50+50	--	--	--
Firmware version	1020			
Description of the structure of the power generation unit:				
The power generation unit is equipped with a PV 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.				



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Appendix

Extract from test report according to EN 50549-1

No. ASUE-ESH-P22110228

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.

CERTIFICATE



of Conformity Low Voltage Directive 2014/35/EU

Registration No.: AN 50566906 0001

Report No.: CN224QVM 001

Holder: NingBo Deye Inverter Technology
Co., Ltd.
No. 26 South YongJiang Road, Daqi,
Beilun NingBo,
315800 Zhejiang
P.R. China

Product: PV-Inverter
(Hybrid Inverter)

Identification: Type Name: SUN-50K-SG01HP3-EU-BM4, SUN-40K-SG01HP3-EU-BM4,
SUN-35K-SG01HP3-EU-BM3, SUN-30K-SG01HP3-EU-BM3,
SUN-29.9K-SG01HP3-EU-BM3
Serial No.: Engineering Samples
Remark(s) : Issued in conjunction with TÜV Rheinland
license R 50566893 0001-0007.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Certification Body

Date 08.12.2022



Bruce Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with.



NingBo Deye Inverter Technology
Co., Ltd.
Ji Dehai

Date : 08.12.2022
Our ref. : XGJ 01
Your ref.: Ji Dehai

No. 26 South YongJiang Road, Daqi,
Beilun NingBo,
315800 Zhejiang
P.R. China

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : Hybrid Inverter
Model Designation : See Certificate
Certificate No. : AN 50566906 0001
Report No. : CN224QVM 001

Dear Ji Dehai,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body



Bruce Li

Enclosure

证书的详细资料请登陆www.certipedia.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

Certificate of Conformity

NO.: ENB2209280102E00201C

The following product has been tested by us with the listed standards and found in conformity with the council EMC directive 2014/30/EU. This is to certify that the specimen is in conformity with the assessment requirement mentioned follow. This certificate does not imply assessment to the production of the product.

Applicant : NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

Address : No. 26 South YongJiang Road, Daqi, Beilun, NingBo, Zhejiang, China

Manufacturer : NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

Address : No. 26 South YongJiang Road, Daqi, Beilun, NingBo, Zhejiang, China

Trade Mark : 

EUT : Hybrid Inverter

M/N : SUN-50K-SG01HP3-EU-BM4, SUN-29.9K-SG01HP3-EU-BM3,
SUN-30K-SG01HP3-EU-BM3, SUN-35K-SG01HP3-EU-BM3,
SUN-40K-SG01HP3-EU-BM4, SUN-50K-SG01HP3-AU-BM4,
SUN-29.9K-SG01HP3-AU-BM3, SUN-30K-SG01HP3-AU-BM3,
SUN-35K-SG01HP3-AU-BM3, SUN-40K-SG01HP3-AU-BM4

Test Standards : EN IEC 61000-6-1:2019, EN IEC 61000-6-2:2019
EN IEC 61000-6-3:2021, EN IEC 61000-6-4:2019
EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013/A2:2021
EN IEC 61000-3-11:2019, EN 61000-3-12:2011
EN 55011:2016/A2:2021

Version : Ver.1.0




Tony Wei/Manager
November 02, 2022



The certificate is based on a single evaluation of one sample of above-mentioned products, It does not imply an assessment of the whole production and does not permit the use of the test lab. logo .

EMTEK (Ningbo) Co., Ltd.

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