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Certificate of compliance

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

Product: Photovoltaic inverter

Model: SUN-M130G4-EU-Q0, SUN-M160G4-EU-Q0
SUN-M180G4-EU-Q0, SUN-M200G4-EU-Q0
SUN-M220G4-EU-Q0, SUN-M130G4-EU-Q0-I
SUN-M160G4-EU-Q0-I, SUN-M180G4-EU-Q0-I
SUN-M200G4-EU-Q0-I, SUN-M220G4-EU-Q0-I

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

EN 50549-10:2022

Requirements for generating plants to be connected in parallel with distribution networks - Part 10: Tests for conformity assessment of generating units

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: ASUE-ESH-P24010377-R1

Certificate number: U24-1231

Certification Program: NSOP-0032-DEU-ZE-V10

Date of issue: 2025-01-09

Accreditation



Accredited certification body by Deutsche Akkreditierungsstelle GmbH (DAkKS) according to ISO/IEC 17065. The accreditation is valid only for the scope listed in the annex of the accreditation certificate D-ZE-12024-01-00. The Deutsche Akkreditierungsstelle GmbH (DAkKS) is signatory of the multilateral arrangements of EA, ILAC and IAF for mutual recognition.

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Annex certificate of conformity No. U24-1231

Extract from test report ASUE-ESH-P24010377-R1 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".

Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016				
Manufacturer	NingBo Deye Inverter Technology Co., Ltd. No. 26 South YongJiang Road, Daqi, Beilun, NingBo China			
Product type	Photovoltaic inverter			
Static converter model	SUN-M130G4-EU-Q0	SUN-M160G4-EU-Q0	SUN-M180G4-EU-Q0	SUN-M200G4-EU-Q0
Input DC (photovoltaic)				
MPP voltage range [V]	25-55	25-55	25-55	25-55
Max. input voltage [V]	60	60	60	60
Max. input current per MPPT [A]	15*4	15*4	15*4	15*4
Output AC				
Rated AC voltage [V]	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz
Rated output current [A]	5,7	7,0	7,9	8,7
Max. output current [A]	5,7	7,0	7,9	8,7
Nom. converter output (P _{NINV}) [W]	1300	1600	1800	2000
Max. apparent power [VA]	1300	1600	1800	2000
Static converter model	SUN-M220G4-EU-Q0	SUN-M130G4-EU-Q0-I	SUN-M160G4-EU-Q0-I	SUN-M180G4-EU-Q0-I
Input DC (photovoltaic)				
MPP voltage range [V]	25-55	25-55	25-55	25-55
Max. input voltage [V]	60	60	60	60
Max. input current per MPPT [A]	18*4	18*4	18*4	18*4
Output AC				
Rated AC voltage [V]	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz
Rated output current [A]	9,6	5,7	7,0	7,9
Max. output current [A]	9,6	5,7	7,0	7,9
Nom. converter output (P _{NINV}) [W]	2200	1300	1600	1800
Max. apparent power [VA]	2200	1300	1600	1800
Static converter model	SUN-M200G4-EU-Q0-I	SUN-M220G4-EU-Q0-I	--	--
Input DC (photovoltaic)				
MPP voltage range [V]	25-55	25-55	--	--
Max. input voltage [V]	60	60	--	--
Max. input current per MPPT [A]	18*4	18*4	--	--
Output AC				
Rated AC voltage [V]	L/N/PE, 230V, 50Hz	L/N/PE, 230V, 50Hz	--	--
Rated output current [A]	8,7	9,6	--	--
Max. output current [A]	8,7	9,6	--	--



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Nom. converter output (P_{NINV}) [W]	2000	2200	--	--
Max. apparent power [VA]	2000	2200	--	--
Interface protection system and interface switch (Network and system protection "NS-protection")				
Type of protection	Integrated NS-protection			
Assigned to generation unit type	SUN-M130G4-EU-Q0, SUN-M160G4-EU-Q0 SUN-M180G4-EU-Q0, SUN-M200G4-EU-Q0 SUN-M220G4-EU-Q0, SUN-M130G4-EU-Q0-I SUN-M160G4-EU-Q0-I, SUN-M180G4-EU-Q0-I SUN-M200G4-EU-Q0-I, SUN-M220G4-EU-Q0-I			
Integrated interface switch	Type of switching equipment 1: galvanic separation HF-Transformer Type of switching equipment 2: Relay (Model HF175F) Note: The output is switched off by the inverter bridge and one relay in series in each line and neutral.			
Firmware version	0308-1426			
Note	<p>The settings of the interface protection are password protected adjustable.</p> <p>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.</p> <p>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.</p>			