

Three Phase String Inverter

SUN- 30 / 33 / 35 / 40 / 50 / 60 K-G03



Max. 4 MPP trackers, Max. efficiency up to 98.7%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)

Deye

Stock Code: 605117.SH

Model	SUN-30K-G03	SUN-33K-G03	SUN-35K-G03	SUN-40K-G03	SUN-50K-G03	SUN-60K-G03
Input Side						
Max. DC Input Power (kW)	39	42.9	45.5	52	65	78
Max. DC Input Voltage (V)	1000					
Start-up DC Input Voltage (V)	250					
MPPT Operating Range (V)	200~850					
Max. DC Input Current (A)	40+40	40+40+40			40+40+40+40	
Max. Short Circuit Current (A)	60+60	60+60+60			60+60+60+60	
No.of MPP Trackers	2	3			4	
No.of Strings per MPP Tracker	3					
Output Side						
Rated Output Power (kW)	30	33	35	40	50	60
Max. Active Power (kW)	33	36.3	38.5	44	55	66
Nominal Output Voltage / Range (V)	3L/N/PE 220/380V, 230/400V					
Rated Grid Frequency (Hz)	50 / 60 (Optional)					
Operating Phase	Three phase					
Rated AC Grid Output Current (A)	45.5/43.5	50/47.8	53/50.7	60.6/58	75.8/72.5	90.9/87
Max. AC Output Current (A)	50/47.9	55/52.6	58.3/55.8	66.7/63.8	83.3/79.7	100/95.7
Output Power Factor	0.8 leading to 0.8 lagging					
Grid Current THD	<3%					
DC Injection Current (mA)	<0.5%					
Grid Frequency Range	47~52 or 57~62 (Optional)					
Efficiency						
Max. Efficiency	98.7%					
Euro Efficiency	98%					
MPPT Efficiency	>99%					
Protection						
DC Reverse-Polarity Protection	Yes					
AC Short Circuit Protection	Yes					
AC Output Overcurrent Protection	Yes					
Output Overvoltage Protection	Yes					
Insulation Resistance Protection	Yes					
Ground Fault Monitoring	Yes					
Anti-islanding Protection	Yes					
Temperature Protection	Yes					
Integrated DC Switch	Yes					
Remote software upload	Yes					
Remote change of operating parameters	Yes					
Surge protection	DC Type II / AC Type II					
General Data						
Size (mm)	647.5W×537H×303.5D					
Weight (kg)	44.5					
Topology	Transformerless					
Internal Consumption	<1W (Night)					
Running Temperature	-25~65 , >45 derating					
Ingress Protection	IP65					
Noise Emission (Typical)	<50 dB					
Cooling Concept	Smart cooling					
Max. Operating Altitude Without Derating	2000m					
Warranty	5 years					
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11					
Operating Surroundings Humidity	0-100%					
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2					
Features						
DC Connection	MC-4 mateable					
AC Connection	IP65 rated plug					
Display	LCD 240 × 160					
Interface	RS485/RS232/Wifi/LAN					

EU Declaration of Conformity

Product: **PV Inverter**

Models: SUN-40K-G03;SUN-50K-G03;SUN-60K-G03

Name and address of the manufacturer: Ningbo Deye Inverter Technology Co., Ltd.

No. 26 South YongJiang Road, Daqi, Beilun, NingBo, China

This declaration of conformity is issued under the sole responsibility of the manufacturer. Also this product is under manufacturer's warranty.

This declaration of conformity is not valid any longer: if the product is modified, supplemented or changed in any other way, as well as in case the product is used or installed improperly.

The object of the declaration described above is in conformity with the relevant Union harmonization legislation: The Low Voltage Directive (LVD) 2014/35/EU;the Electromagnetic Compatibility (EMC) Directive 2014/30/EU;the restriction of the use of certain hazardous substances (RoHS) Directive 2011/65/EU.

References to the relevant harmonized standards used or references to the other technical specifications in relation to which conformity is declared:

LVD:	
EN 62109-1:2010	●
EN 62109-2:2011	●
EMC:	
EN IEC 61000-6-2:2019	●
EN IEC 61000-6-4:2019	●
EN IEC 61000-3-11:2019	●
EN 61000-3-12:2011	●

Nom et Titre / Name and Title:

Bard Dai

Senior Standard Certification Engineer
NINGBO DEYE INVERTER TECHNOLOGY CO.,LTD.

Au nom de / On behalf of:

Date / Date (yyyy-mm-dd):

A / Place:

Ningbo Deye Inverter Technology Co., Ltd.

2023-09-27

Ningbo, China



Dongguan BALUN Testing Technology Co., Ltd.

Room 104, 204, 205, Building 1, No. 6, Industrial South Road, Songshan Lake District, Dongguan, Guangdong, China

VERIFICATION OF CONFORMITY

Certificate No.: BL-DG2280869D01

Applicant: NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

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

Manufacture: NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

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

Product: Grid-connected PV Inverter

Brand name: **Deye**

Model name: SUN-60K-G03, SUN-50K-G03, SUN-45K-G03, SUN-40K-G03,
SUN-35K-G03, SUN-33K-G03, SUN-30K-G03

The submitted sample of the above product has been tested according with below Standard(s):

Applied Standards:	Report No.:
IEC 62109-1:2010; IEC 62109-2:2011	BL-DG2280869-B01 BL-DG2280869-B01 A1





Dongguan BALUN Testing Technology Co., Ltd.

Room 104, 204, 205, Building 1, No. 6, Industrial South Road, Songshan Lake District, Dongguan, Guangdong, China

VERIFICATION OF CONFORMITY

Certificate No.: BL-DG2280869D02

Applicant: NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

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

Manufacture: NINGBO DEYE INVERTER TECHNOLOGY CO., LTD.

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

Product: Grid-connected PV Inverter

Brand name: **Deye**

Model name: SUN-60K-G03, SUN-50K-G03, SUN-45K-G03, SUN-40K-G03,
SUN-35K-G03, SUN-33K-G03, SUN-30K-G03

The submitted sample of the above product has been tested according with below Standard(s) used for showing compliance with the essential requirements in the **LVD directive (2014/35/EU)** :

Applied Standards:	Report No.:
EN 62109-1:2010; EN 62109-2:2011	BL-DG2280869-B01 BL-DG2280869-B01 A1





Shenzhen BALUN Technology Co., Ltd.

Room 104, 204, 205, Building 1, No. 6, Industrial South Road, Songshan Lake District, Dongguan, Guangdong, China

VERIFICATION OF CONFORMITY

Certificate No.: BL-DG20C0913D01

Applicant: NingBo Deye Inverter Technology Co.,Ltd

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

Manufacture: NingBo Deye Inverter Technology Co.,Ltd

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

Product: PV Solar Grid Tie Inverter

Brand name: Deye

Model name: SUN-20K-G03, SUN-25K-G03, SUN-30K-G03, SUN-33K-G03,
SUN-35K-G03, SUN-40K-G03, SUN-50K-G03, SUN-60K-G03

The submitted sample of the above product has been tested according with below Standard(s) used for showing compliance with the essential requirements in the **EMC directive (2014/30/EU)** :

Applied Standards:		Report No.:
EN IEC 61000-6-2:2019	EN IEC 61000-6-4:2019	BL-DG20C0913-401
EN IEC 61000-3-11:2019	EN 61000-3-12:2011	



Tel: +86 755 66850100

Fax: +86 755 61824271

Email: qc@baluntek.com

web: www.baluntek.com



Shenzhen BALUN Technology Co., Ltd.

Room 104, 204, 205, Building 1, No. 6, Industrial South Road, Songshan Lake District, Dongguan, Guangdong, China

VERIFICATION OF CONFORMITY

Certificate No.: BL-DG20C0913D02

Applicant: NingBo Deye Inverter Technology Co.,Ltd

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

Manufacture: NingBo Deye Inverter Technology Co.,Ltd

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

Product: PV Solar Grid Tie Inverter

Brand name: Deye

Model name: SUN-20K-G03, SUN-25K-G03, SUN-30K-G03, SUN-33K-G03,
SUN-35K-G03, SUN-40K-G03, SUN-50K-G03, SUN-60K-G03

The submitted sample of the above product has been tested according with below Standard(s) :

Applied Standards:		Report No.:
IEC 61000-6-2:2016	IEC 61000-6-4:2018	BL-DG20C0913-401
IEC 61000-3-11:2017	IEC 61000-3-12:2011	



Date of Issue: Feb. 26, 2021

Tel: +86 755 66850100

Fax: +86 755 61824271

Email: qc@baluntek.com

web: www.baluntek.com

C E R T I F I C A T E

of Conformity



Registration No.: AK 50529668 0001

Report No.: CN219NXF 001

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

Product: PV-Inverter
(Grid-Connected PV Inverter)

Identification: Type Designation: SUN-30K-G03 SUN-33K-G03 SUN-35K-G03
SUN-40K-G03 SUN-50K-G03 SUN-60K-G03
Serial Number : Engineering samples
Firmware Version: Mcu:2185 Lcd:0179
Remark(s) : Refer to report CN219NXF 001 for details.

Tested acc. to: UTE C15-712-1/07.13
VFR 2019
DIN VDE V 0126-1-1/08.13

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Date 31.12.2021

Certification Body
A circular blue stamp with the text "TÜV Rheinland LGA Products GmbH" around the perimeter. In the center is the TÜV Rheinland logo. Below the stamp, the name "Weichun Li" is written in blue ink.
Weichun Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

NingBo Deye Inverter Technology
Co., Ltd.
Ji Dehai

Date : 31.12.2021
Our ref. : LIUPHI 01
Your ref.: Ji Dehai

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

Ref : AK Certificate of Conformity

Type of Equipment : Grid-Connected PV Inverter
Model Designation : See Certificate
Certificate No. : AK 50529668 0001
Report No. : CN219NXF 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


Weichun Li

CC: NingBo Deye Inverter Technology

Enclosure

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



VERIFICATION OF COMPLIANCE

No.: GZES2101000287PV


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

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

Product Name: PV Solar Grid Tie Inverter

Product Description: Inverter used in PV system

Model No.: SUN-60K-G03, SUN-50K-G03, SUN-40K-G03, SUN-35K-G03,
SUN-33K-G03, SUN-30K-G03, SUN-25K-G03, SUN-20K-G03

Trade Mark: 

Rating: Refer to page 2

Intended Use: PV System

Protection against Electric Shock: Class I

Additional Information (if any): IP 65

Firmware version: Ver0179, V2185

Sufficient samples of the product have been tested and found to be in conformity with

Test Standard: Refer to page 3

as shown in the

Test Report Number(s): GZES210100028701, GZES210100028702
GZES210100028703, GZES210100028704

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant specific standards.


David Guo
Senior Technical Manager
SGS-CSTC



2021-02-10

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Member of SGS Group (Société Générale de Surveillance)

No.:

GZES2101000287PV

Other information added :
Ratings

Model	SUN-60K-G03	SUN-50K-G03	SUN-40K-G03	SUN-35K-G03
DC Input				
Max. DC Power	78kW	65kW	52kW	45.5kW
Max. DC voltage	1000Vdc			
MPPT voltage range	200-850Vdc			
Full power MPPT voltage range	460-850Vdc			
Max. input current	4x40Adc	4x40Adc	3x40Adc	3x40Adc
AC Output				
Rated power	60kW	50kW	40kW	35kW
Max. AC power	66kW	55kW	44kW	38.5kW
Max. output current	95.7Aac	79.7A	63.8A	55.8A
Nominal grid voltage	3L/N/PE, 230/400V			
Nominal output frequency	50Hz/60Hz			
Output power factor	1 (Adjustable from 0.8 leading to 0.8 lagging)			
Operating temperature range	-20+65°C (derating at +45°C)			
Ingress protection	IP65			
Protective class	Class I			



David Guo
Senior Technical Manager
SGS-CSTC



2021-02-10

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Member of SGS Group (Société Générale de Surveillance)

No.:

GZES2101000287PV

Other information added :

Ratings

Model	SUN-33K-G03	SUN-30K-G03	SUN-25K-G03	SUN-20K-G03
DC Input				
Max. DC Power	42.9kW	39kW	32.5kW	26kW
Max. DC voltage	1000Vdc			
MPPT voltage range	200-850Vdc			
Full power MPPT voltage range	460-850Vdc			
Max. input current	3x40A _{dc}	2x40A _{dc}	2x30A _{dc}	2x25A _{dc}
AC Output				
Rated power	33kW	30kW	25kW	20kW
Max. AC power	36.3kW	33kW	27.5kW	22kW
Max. output current	52.8A _{ac}	47.8A	39.9A	31.9A
Nominal grid voltage	3L/N/PE, 230/400V			
Nominal output frequency	50Hz/60Hz			
Output power factor	1 (Adjustable from 0.8 leading to 0.8 lagging)			
Operating temperature range	-20+65°C (derating at +45°C)			
Ingress protection	IP65			
Protective class	Class I			



David Guo
Senior Technical Manager
SGS-CSTC



2021-02-10

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No.:

GZES2101000287PV

Test Standards: IEC 60068-2-1:2007. Environmental testing. Part 2-1: Tests. Test Ae: Cold.
IEC 60068-2-2:2007. Environmental testing. Part 2-2: Tests. Test Be: Dry heat.
IEC 60068-2-14:2009. Environmental testing. Part 2-14: Tests. Test Nb: Change of temperature.
IEC 60068-2-30:2005. Environmental testing. Part 2-30: Tests. Test Db-Variant 1: Damp heat, cyclic (12 h + 12 h cycle).
IEC 61683:1999. Photovoltaics systems - Power conditioners - Procedure for measuring efficiency.
IEC 62116:2014. Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters.
IEC 61727:2004. Photovoltaics (PV) systems - Characteristics of the utility interface.



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SGS-CSTC

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