

**Certificate Number:** AZ 69025985

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## CERTIFICATE OF SUITABILITY

Authorised marking: TUV025985E

*This is to certify that TÜV Rheinland Australia Pty Ltd as accredited by JAS-ANZ in accordance with ISO/IEC 17065 has examined for compliance with certification standards, the electrical equipment described hereunder and authorises the certificate holder to affix the above mentioned mark to products of the same type; or the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled*

### CERTIFICATE HOLDER:

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

### DESCRIPTION OF EQUIPMENT

**Declared class:** Non-declared  
**Product:** Hybrid Inverter  
**Trade Name / Manufacturer:** Deye  
**Model Number:** SUN-5K-SG04LP3-AU ; SUN-6K-SG04LP3-AU ;  
SUN-8K-SG04LP3-AU ; SUN-10K-SG04LP3-AU ;  
SUN-12K-SG04LP3-AU  
**Ratings:** Rating details refer to CONTINUATION SHEET 1 - 2  
**Standard:** AS/NZS 4777.2:2020+A1  
IEC 62109-1:2010  
IEC 62109-2:2011  
**Issue Date:** 28/04/2022  
**Expiry Date:** 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

A handwritten signature in blue ink, appearing to read 'Grant Li', positioned above a horizontal line.

Grant Li



Acc. No. Z2870404AA  
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## CERTIFICATE OF SUITABILITY

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CONTINUATION SHEET 1

Description of Equipment

Ratings:

For model SUN-5K-SG04LP3-AU; SUN-6K-SG04LP3-AU;  
SUN-8K-SG04LP3-AU; SUN-10K-SG04LP3-AU; SUN-12K-SG04LP3-AU:  
Protection: Class I, IP65, PD 2 Internal; PD 3 External  
Operating Temp.: -45°C to 60°C (>45°C derating)  
Overvoltage Category (OVC): Battery and PV sides: II;  
Grid side: III

PV input:

Vmax: 800Vdc

VMPP : 200 - 650Vdc

Isc: 17+17A; 17+17A; 17+17A; 34+17A; 34+17A

I<sub>max</sub>: 13+13A; 13+13A; 13+13A; 26+13A; 26+13A

Battery input:

Type: Lead-acid or Li-ion

Rated voltage: 48Vdc

Voltage range: 40-60Vdc

Max charging current: 120A; 150A; 190A; 210A; 240A

Max discharging current: 120A; 150A; 190A; 210A; 240A

Issue Date: 28/04/2022

Expiry Date: 28/04/2027

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## CERTIFICATE OF SUITABILITY

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CONTINUATION SHEET 2

Description of Equipment

Ratings:

AC output:

Rated Output voltage: 3L/N/PE, 230/400, 240/415

Rated frequency: 50Hz,

Max / Rated Output Apparent power: 5kVA; 6kVA; 8kVA; 10kVA;

12kVA

Max / rated Output Power: 5kW; 6kW; 8kW; 10kW; 12kW

Max / rated Output current: 10.9A; 13A; 17.4A; 21.7A; 26.1A

Power factor: 0.8 leading to 0.8 lagging

Issue Date: 28/04/2022

Expiry Date: 28/04/2027

Signed for and on behalf of TÜV Rheinland Australia Pty Ltd

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## CERTIFICATE OF SUITABILITY

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CONTINUATION SHEET 3

(Modification 1)

1. Changing the operating ambient temperature range from  
-45°C to 60°C (>45°C derating) to  
-40°C to 60°C (>45°C derating);
2. Add alternative AC breaker: Nader NDB2T-63 AZ69025002

Issue Date: 25/05/2022

Expiry Date: 28/04/2027

Signed for and on behalf of TÜV Rheinland Australia Pty Ltd

TÜV Rheinland

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CONTINUATION SHEET 4

(Modification 2)

1. Change the ratings of PV Input Short-Circuit Current  $I_{sc}$  for SUN-5K-SG04LP3-AU; SUN-6K-SG04LP3-AU; SUN-8K-SG04LP3-AU; SUN-10K-SG04LP3-AU; SUN-12K-SG04LP3-AU from:  
17+17A; 17+17A; 17+17A; 34+17A; 34+17A to  
19.5+19.5A; 19.5+19.5A; 19.5+19.5A; 39+19.5A; 39+19.5A.

2. Change the ratings of AC Maximum output current for SUN-5K-SG04LP3-AU; SUN-6K-SG04LP3-AU; SUN-8K-SG04LP3-AU; SUN-10K-SG04LP3-AU; SUN-12K-SG04LP3-AU from:  
10.9A; 13A; 17.4A; 21.7A; 26.1A to  
7.2A; 8.7A; 11.6A; 14.5A; 17.4A.

Issue Date: 29/09/2022

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

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CONTINUATION SHEET 5

(Modification 3)

Update AC rated output current rating for  
SUN-5K-SG04LP3-AU; SUN-6K-SG04LP3-AU; SUN-8K-SG04LP3-AU;  
SUN-10K-SG04LP3-AU; SUN-12K-SG04LP3-AU from:  
10.9A; 13A; 17.4A; 21.7A; 26.1A to  
7.2A; 8.7A; 11.6A; 14.5A; 17.4A.

Issue Date: 07/12/2022

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

**TÜV Rheinland**

A handwritten signature in blue ink, appearing to read "Grant Li", positioned above a horizontal line.

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CONTINUATION SHEET 6

(Modification 4)

Add 5 new models:

AI-W5.1-5P3-AU; AI-W5.1-6P3-AU; AI-W5.1-8P3-AU;  
AI-W5.1-10P3-AU; AI-W5.1-12P3-AU

Rating:

Protection: Class I, IP65, PD 2 Internal; PD 3 External

Operating Temp.: -40°C to 60°C (>45°C derating)

Overvoltage Category (OVC): Battery and PV sides: II;

Grid side: III

PV input:

Vmax: 800Vdc

VMPP : 200 - 650Vdc

Isc: 19.5+19.5A; 19.5+19.5A; 19.5+19.5A; 39+19.5A; 39+19.5A

I<sub>max</sub>: 13+13A; 13+13A; 13+13A; 26+13A; 26+13A

Issue Date: 23/05/2023

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

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## CERTIFICATE OF SUITABILITY

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CONTINUATION SHEET 7

(Modification 4)

Battery input:

Type: Lead-acid or Li-ion

Rated voltage: 48Vdc

Voltage range: 40-60Vdc

Max charging current: 120A; 150A; 190A; 210A; 240A

Max discharging current: 120A; 150A; 190A; 210A; 240A

AC output:

Rated Output voltage: 3L/N/PE, 400/415V; 50Hz

Max / Rated Output Apparent power: 5kVA; 6kVA; 8kVA; 10kVA;  
12kVA

Max / rated Output Power: 5kW; 6kW; 8kW; 10kW; 12kW

Max / rated Output current: 7.2A, 8.7A, 11.6A, 14.5A, 17.4A

Power factor: 0.8 leading to 0.8 lagging

GEN output:

Rated Output voltage: 3L/N/PE, 400/415V; 50Hz

Rated Output Power: 5kW; 6kW; 8kW; 10kW; 12kW

Rated Output current: 7.2A, 8.7A, 11.6A, 14.5A, 17.4A

Issue Date: 23/05/2023

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

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Grant Li



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### CONTINUATION SHEET 8

(Modification 5)

1. Add 5 new models:

AI-W5.1-5P3-AU-B; AI-W5.1-6P3-AU-B; AI-W5.1-8P3-AU-B  
AI-W5.1-10P3-AU-B; AI-W5.1-12P3-AU-B

2. Modification base on original models SUN-xK-SG04LP3-AU  
(variable x can be 5,6,8,10,12): Add magnet rings and  
Y capacitor to optimize EMC performance.

Ratings:

Protection: Class I, IP65, PD 2 Internal; PD 3 External

Operating Temp.: -25°C to 60°C (Derating at 45°C)

Overvoltage Category (OVC): DC sides: II; AC side: III

PV input:

Vmax: 800Vdc

VMPP : 200 - 650Vdc

Isc PV(Ad.c.): 19.5+19.5A; 19.5+19.5A; 19.5+19.5A

39+19.5A; 39+19.5A

Imax: 13+13A; 13+13A; 13+13A, 26+13A; 26+13A

Issue Date: 16/08/2024

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

A handwritten signature in blue ink, appearing to read "John Wang".

John Wang



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## CERTIFICATE OF SUITABILITY

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### CONTINUATION SHEET 9

(Modification 5)

Battery input:

Battery type: Lead-acid or Li-ion

Rated voltage: 48Vdc

Voltage range: 40 – 60Vdc

Max charging / discharging current: 120A; 150A; 190A; 210A;  
240A

AC output:

Rated Output voltage: 3L/N/PE, 230/400, 240/415V; 50Hz

Max / Rated Output Apparent power: 5kVA; 6kVA; 8kVA; 10kVA;  
12kVA

Max / Rated Output Power: 5kW; 6kW; 8kW; 10kW; 12kW

Max / rated Output current: 7.2A; 8.7A; 11.6A; 14.5A; 17.4A

Power factor: 0.8 leading to 0.8 lagging

GEN output:

Rated Output voltage: 3L/N/PE, 230/400, 240/415V; 50Hz

Rated Output Power: 5kW; 6kW; 8kW; 10kW; 12Kw

Rated Output current: 7.2A; 8.7A; 11.6A; 14.5A; 17.4A

Issue Date: 16/08/2024

Expiry Date: 28/04/2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

A handwritten signature in blue ink, appearing to read 'John Wang'.

John Wang



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## CONTINUATION SHEET 10

(Modification 6)

1. Add new models SUN-5K-SG04LP3-AU-AM2-P , SUN-6K-SG04LP3-AU-AM2-P , SUN-8K-SG04LP3-AU-AM2-P , SUN-10K-SG04LP3-AU-AM2-P , SUN-12K-SG04LP3-AU-AM2-P .
2. Update the labels and diagram. Update the Isc, the maximum DC InputCurrent, altitude and weight of AI-W5.1-xP3-AU-B(x=5, 6, 8, 10, 12).
3. Standard updated from AS/NZS 4777.2:2020 +A1:2021 to AS/NZS 4777.2:2020 + A1:2021+A2:2024.

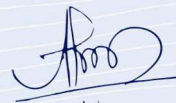
Retest are implemented on some items:

- Appendix B Harmonic voltage test adds phase angle information.
- Add Additional 1 Sinusoidal output in stand-alone mode.
- Add Appendix D DC Injection test in stand-alone mode.
- Add Additional 3 Current balance for three-phase inverters & Current balance for three-phase inverters in stand-alone mode.
- Add Appendix G.2.2 TABLE: Combined volt-var and volt-watt response modes.
- Appendix I (a) Undervoltage and overvoltage trip settings test retest.
- Appendix I (e) Underfrequency and over frequency trip settings test retest.
- Add Appendix J (b), (c) Test for an increase / decrease in frequency for inverters without energy storage.
- Add Appendix L(d) Single inverter generation limit control.

**Issue Date:** 04-05-2026

**Expiry Date:** 28-04-2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*



Rafeeqe Mohamed

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## CONTINUATION SHEET 11

Parameters of new models SUN-5K-SG04LP3-AU-AM2-P, SUN-6K-SG04LP3-AU-AM2-P, SUN-8K-SG04LP3-AU-AM2-P, SUN-10K-SG04LP3-AU-AM2-P, SUN-12K-SG04LP3-AU-AM2-P:

Battery:

Battery type: Lead-acid or Lithium-ion

Rated voltage [Vd.c.]:48

Voltage range [Vd.c.]:40-60

Max charging current [Ad.c.]: 120, 130, 190, 210, 240

Max discharging current [Ad.c.]: 120, 130, 190, 210, 240

DC side:

Max Input Voltage [Vd.c.]:800

MPPT Voltage Range [Vd.c.]:200-650

MPPT Full Power Voltage Range [Vd.c.]:350-650

Isc PV [Ad.c.]:30+30; 30+30; 30+30; 54+30; 54+30

Maximum DC Input Current [Ad.c.]:20+20; 20+20; 20+20; 36+20; 36+20

Start PV Voltage [Vd.c.]:160

Backfeed Current [A]:0

AC side:

Rated Output Voltage [Va.c.]:3L/N/PE 230/400, 240/415

Rated Output Frequency [Hz]:50

Rated Output Power [kW]:5, 6, 8, 10, 12

Max. Output Power [kW]: 5, 6, 8, 10, 12

Rated Output Apparent Power [kVA]: 5, 6, 8, 10, 12

Max. Output Apparent Power [kVA]: 5, 6, 8, 10, 12

Rated. Output Current [Aa.c.]:7.2, 8.7, 11.6, 14.5, 17.4

Max. Output Current [Aa.c.]: 7.2, 8.7, 11.6, 14.5, 17.4

Power factor:0.8 leading to 0.8 lagging

GEN Port:

Rated Input Voltage [Va.c.]:3L/N/PE 230/400, 240/415

Rated Input Frequency [Hz]:50

Rated. Input Current [Aa.c.]:24

**Issue Date:** 04-05-2026

**Expiry Date:** 28-04-2027

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*



Rafeeqe Mohamed

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