

Certificate Number: AZ 69027099

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CERTIFICATE OF SUITABILITY

Authorised marking: TUV-027099-E

TÜV Rheinland Australia Pty Ltd "Electrical Product Safety Certification (EPSC) Scheme", accredited by JAS-ANZ in accordance with ISO/IEC 17065, has issued this certificate under JAS-ANZ accreditation. The electrical equipment described hereunder has been evaluated and found to be electrically safe at the time of certification and met the minimum safety requirements contained in Australian Standard AS/NZS 3820 as of current. It is a requirement that all equipment supplied under this certificate shall be identical to the equipment as certified. The certificate holder may affix the above mentioned authorised marking on the product.

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-SG01HP3-AU-AM2 , SUN-6K-SG01HP3-AU-AM2 ,
SUN-8K-SG01HP3-AU-AM2 , SUN-10K-SG01HP3-AU-AM2 ,
SUN-12K-SG01HP3-AU-AM2 , SUN-15K-SG01HP3-AU-AM2 ,
SUN-20K-SG01HP3-AU-AM2 , SUN-25K-SG01HP3-AU-AM2 ,
GB-S5K-AU , GB-S6K-AU , GB-S8K-AU , GB-S10K-AU ,
GB-S12K-AU , GB-S15K-AU , GB-S20K-AU , GB-S25K-AU

Ratings:

Ratings refer to Continuation Sheets 1 to 5 for details

Standard:

AS/NZS 4777.2:2020+A1
IEC 62109-1:2010
IEC 62109-2:2011

Issue Date:

04/05/2023

Expiry Date:

04/05/2028

Signed for and on behalf of TÜV Rheinland Australia Pty Ltd

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Grant Li



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CONTINUATION SHEET 1

Description of Equipment

Ratings:

For all models:

Protection: Class I, IP65, PD 3

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

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

Grid side: III

For models: SUN-xK-SG01HP3-AU-AM2, x=5, 6, 8, 10 &

GB-S5K-AU, GB-S6K-AU, GB-S8K-AU, GB-S10K-AU,

PV input:

Vmax: 1000Vdc

VMPP : 150 - 850Vdc

Isc: 30+30A

Imax: 20+20A

Battery input:

Type: Li-ion

Max Voltage: 700Vdc

Voltage range: 160-700Vdc

Max charging current: 37A

Max discharging current: 37A

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CONTINUATION SHEET 2

Description of Equipment

AC output:

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

Rated frequency: 50Hz,

Max / Rated Output Apparent power(kVA): 5, 6, 8, 10

Max / rated Output Power(kW): 5, 6, 8, 10

Max / Rated Output current(A): 7.3, 8.7, 11.6, 14.5

Power factor: 0.8 leading to 0.8 lagging

GEN port:

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

Rated frequency: 50Hz,

Rated Input Apparent power(kVA): 5, 6, 8, 10

Rated Input current(A): 7.3, 8.7, 11.6, 14.5

For models: SUN-12K-SG01HP3-AU-AM2, SUN-15K-SG01HP3-AU-AM2 & GB-S12K-AU, GB-S15K-AU

PV input:

Vmax: 1000Vdc

VMPP : 150 - 850Vdc

Isc: 39+30A

Imax: 26+20A

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CONTINUATION SHEET 3

Description of Equipment

Battery input:

Type: Li-ion

Max Voltage: 700Vdc

Voltage range: 160-700Vdc

Max charging current: 37A

Max discharging current: 37A

AC output:

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

Rated frequency: 50Hz,

Max / Rated Output Apparent power(kVA): 12, 15

Max / rated Output Power(kW): 12, 15

Max / Rated Output current(A): 17.4, 21.8

Power factor: 0.8 leading to 0.8 lagging

GEN port:

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

Rated frequency: 50Hz,

Rated Input Apparent power(kVA): 12, 15

Rated Input current(A): 17.4, 21.8

For models: SUN-20K-SG01HP3-AU-AM2, SUN-25K-SG01HP3-AU-AM2 & GB-S20K-AU, GB-S25K-AU

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CONTINUATION SHEET 4

Description of Equipment

PV input:

Vmax: 1000Vdc

VMPP : 150 - 850Vdc

Isc: 39+39A

Imax: 26+26A

Battery input:

Type: Li-ion

Max Voltage: 700Vdc

Voltage range: 160-700Vdc

Max charging current: 37A, 50A

Max discharging current: 37A, 50A

AC output:

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

Rated frequency: 50Hz,

Max / Rated Output Apparent power(kVA): 20, 25

Max / rated Output Power(kW): 20, 25

Max / Rated Output current(A): 29.0, 36.3

Power factor: 0.8 leading to 0.8 lagging

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CONTINUATION SHEET 5

Description of Equipment

GEN port:

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

Rated frequency : 50Hz,

Rated Input Apparent power(kVA): 20, 25

Rated Input current(A): 29.0, 36.3

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CONTINUATION SHEET 6

(Modification 1)

1. Changed Max. battery charge/discharge current from 37A to 30A and remove the internal and external fans for model SUN-5K-SG01HP3-AU-AM2, SUN-6K-SG01HP3-AU-AM2, GB-S5K-AU, GB-S6K-AU.
2. Change the construction of GB-SxK-AU (X=5, 6, 8, 10, 12, 15, 20 & 25) to replace the AC MCBs with AC terminals, and replace the left side enclosure cover.
3. Added new models GB-S5K-AU-B, GB-S6K-AU-B, GB-S8K-AU-B, GB-S10K-AU-B, GB-S12K-AU-B, GB-S15K-AU-B, GB-S20K-AU-B, GB-S25K-AU-B, which are the same as GB-SxK-AU (X=5, 6, 8, 10, 12, 15, 20 & 25), except the AC terminals were replaced by MCBs, and different construction of left side enclosure cover.
4. Rotate the external fan(F1) for about 45° for models: GB-SxK-AU/ GB-SxK-AU-B (variable x can be: 8,10,12,15,20,25)
5. Added an external fan (F2) for modes GB-SxK-AU/ GB-SxK-AU-B, (variable x can be: 8,10);

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CONTINUATION SHEET 7

(Modification 1)

6. Added a new designed ARC board (SUN-15KW-SG01HP3-ARC-V1.1 without ARC function) for GBSxK-AU/GB-SxK-AU-B (variable x can be: 5,6,8,10,12,15,20,25) as default part;

7. Changed the original ARC board (SUN-15KW-SG01HP3-ARC-V1.0 with ARC function) as optional part;

8. Added an ARC board (SUN-15KW-SG01HP3-ARC-EU-V1.1) for SUN-xK-SG01HP3-AU-AM2, (variable x can be: 5,6,8,10,12,15, 20,25) as an optional part;

9. Update component information for ARC board (SUN-15KW-SG01HP3-ARC-V1.0)

10. Add component information for ARC board (SUN-15KW-SG01HP3-ARC-V1.1) and ARC board (SUN-15KW-SG01HP3-ARC-EU-V1.1)

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CONTINUATION SHEET 8

(Modification 1)

11. Updated CDF to add new/alternative components:
AC terminal, PV connector, High frequency switching transformer (T1), MOSFET (Q19), Y capacitor (C2, C11, C29, C36, C63, C65, C80, C81, C250, C254, C287), X capacitor (C92, C96), X capacitor C7, C10, C13, DC Common Mode Inductor (L1), Relay (RY2), Current sensor (U1, U6); Current Transformer (U43, U44, U46), Relay (RY17, RY18, RY19, RY20); Master chip (U2), Bus Electrolytic Capacitors (C3/C179/C455/ C131/C45, C133, C134, C180, C450, C451, C452, C454), X capacitor (C199, C200, C201), Current transformer (U55, U56, U57), IGBT (QR1, QR4, QS1, QS4, QT1, QT4, QB1, QB2), IGBT (QR2, QR3, QS2, QS3, QT2, QT34), Relay (RY6, RY7, RY8), AC inductor (R, S, T), Battery inductor (HL1-A, HL1-B, HL2-A, HL2-B), DC inductor (BOS1-A, BOS1-B, BOS2-A, BOS2-B), Balance bridge inductor (BL-A, BL-B), Varistor (RV3, RV4, RV5, RV6), Relay (RY24, RY25), GRID-Relay (RY9, RY10, RY11, RY12), LOAD-Relay (RY16, RY13, RY14, RY15), Varistor (RV10, RV11, RV12, RV13, RV14), Current Transformer (U40, U41, U42), X capacitor (C318, C322, C325), Y capacitor (C51, C52, C79, C90), Y capacitor (C1, C2).

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CONTINUATION SHEET 9

(Modification 2)

1. Updated components: Current transformer, IGBT, MOSFET, Relay, AC inductor, Battery inductor, DC inductor, Balance bridge inductor, PV connector, Grid side magnetic ring, BOOST inductive magnetic ring, ACOUT side magnetic ring, BAT side magnetic ring, BMS and Meter side magnetic ring, LOAD and GEN side magnetic ring.

2. Update CDF and photo documentation for adding magnet ring and Y capacitor in GB-SxK-AU/GB-SxK-AU-B (variable x can be: 5,6,8,10,20,25).

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Daniel Ngo



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