

Certificate

No. ESY 086470 0306 Rev. 00

Prototype Confirmation

Holder of Certificate: **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road
Binhai Industrial Park, Xiangshan
315712 Ningbo, Zhejiang
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter
(Hybrid Inverter)**

Model(s):
S6-EH3P80K10-NV-ND-H
S6-EH3P99.9K10-NV-ND-H
S6-EH3P100K10-NV-ND-H
S6-EH3P125K10-NV-ND-H
S6-EH3P80K10-NV-YD-H
S6-EH3P99.9K10-NV-YD-H
S6-EH3P100K10-NV-YD-H
S6-EH3P125K10-NV-YD-H

Parameters: See pages 2 to 9

Applicable standards: VDE-AR-N 4110:2023
FGW TR8:2019

This Certificate confirms the compliance with the above listed standards on a voluntary basis. It refers only to the sample submitted to TÜV SÜD Product Service GmbH and does not certify the quality or safety of the serial products. It was issued according to TÜV SÜD Product Service certification program Photovoltaics and Grid Integration. For details see: www.tuvsud.com/ps-cert

Test report no.: 64290253048501

Date, 2026-04-10

Kennen Wang

(Kennen Wang)

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Parameters:

General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P80K10-NV-ND-H
No. of phases	3 phases
Rated apparent power	80 kVA
Rated active power	80 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	80 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	115.9 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	160 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	80 kW
Maximum discharge power	80 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P80K10-NV-ND-H
Rated apparent power	80 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P99.9K10-NV-ND-H
No. of phases	3 phases
Rated apparent power	99.9 kVA
Rated active power	99.9 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Rated frequency	50 Hz
Maximum active power (P _{Emax})	99.9 kW
Contribution to short circuit current (RMS)	144.8 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	200 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	99.9 kW
Maximum discharge power	99.9 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P99.9K10-NV-ND-H
Rated apparent power	99.9 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P100K10-NV-ND-H
No. of phases	3 phases
Rated apparent power	100 kVA
Rated active power	100 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	100 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	144.9 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	200 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	100 kW
Maximum discharge power	100 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P100K10-NV-ND-H
Rated apparent power	100 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P125K10-NV-ND-H
No. of phases	3 phases
Rated apparent power	125 kVA
Rated active power	125 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	125 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	181.2 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	250 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	125 kW
Maximum discharge power	125 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P125K10-NV-ND-H
Rated apparent power	125 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P80K10-NV-YD-H
No. of phases	3 phases
Rated apparent power	80 kVA
Rated active power	80 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	80 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	115.9 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	160 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	80 kW
Maximum discharge power	80 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P80K10-NV-YD-H
Rated apparent power	80 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P99.9K10-NV-YD-H
No. of phases	3 phases
Rated apparent power	99.9 kVA
Rated active power	99.9 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	99.9 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	144.8 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	200 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	99.9 kW
Maximum discharge power	99.9 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P99.9K10-NV-YD-H
Rated apparent power	99.9 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P100K10-NV-YD-H
No. of phases	3 phases
Rated apparent power	100 kVA
Rated active power	100 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	100 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	144.9 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	200 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	100 kW
Maximum discharge power	100 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P100K10-NV-YD-H
Rated apparent power	100 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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General and Input/output values	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P125K10-NV-YD-H
No. of phases	3 phases
Rated apparent power	125 kVA
Rated active power	125 kW
Rated AC-voltage	230/400 V _{AC} , 3P+N+PE
Maximum active power (P _{Emax})	125 kW
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	181.2 A _{AC}
DC Input values	
Min. MPPT voltage	150 V _{DC}
Max. MPPT voltage	950 V _{DC}
Max. DC input voltage	1000 V _{DC}
Max. DC input current	420 A _{DC}
Max. peak power	250 kW
Battery Input values	
Battery type	Li-ion
Maximum voltage	950 V _{DC}
Battery rated voltage	600 V _{DC}
Maximum charge power	125 kW
Maximum discharge power	125 kW
Maximum charge current	200 A _{DC}
Maximum discharge current	200 A _{DC}
Converter-Power section	
Manufacturer	Ginlong technologies Co., Ltd.
Type name	S6-EH3P125K10-NV-YD-H
Rated apparent power	125 kVA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16000 Hz
Generic type of power control	SVPWM
Software version	DSPA: V03B13, DSPB: V03B13; ARM: V04A8

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Prototype Confirmation			
Manufacturer	Ginlong technologies Co., Ltd.		
Power generation unit type	Hybrid Inverter, type 2		
Technical data	Rated active power:	S6-EH3P80K10-NV-ND-H	80 kW
		S6-EH3P99.9K10-NV-ND-H	99.9 kW
		S6-EH3P100K10-NV-ND-H	100 kW
		S6-EH3P125K10-NV-ND-H	125 kW
		S6-EH3P80K10-NV-YD-H	80 kW
		S6-EH3P99.9K10-NV-YD-H	99.9 kW
		S6-EH3P100K10-NV-YD-H	100 kW
		S6-EH3P125K10-NV-YD-H	125 kW
	Rated voltage:	S6-EH3P80K10-NV-ND-H	3P+N+PE, 230/400
		S6-EH3P99.9K10-NV-ND-H	
		S6-EH3P100K10-NV-ND-H	
		S6-EH3P125K10-NV-ND-H	
		S6-EH3P80K10-NV-YD-H	
		S6-EH3P99.9K10-NV-YD-H	
		S6-EH3P100K10-NV-YD-H	
		S6-EH3P125K10-NV-YD-H	
	Nominal frequency:	S6-EH3P80K10-NV-ND-H	50 Hz
		S6-EH3P99.9K10-NV-ND-H	
		S6-EH3P100K10-NV-ND-H	
		S6-EH3P125K10-NV-ND-H	
		S6-EH3P80K10-NV-YD-H	
		S6-EH3P99.9K10-NV-YD-H	
		S6-EH3P100K10-NV-YD-H	
		S6-EH3P125K10-NV-YD-H	
VDE application guide	VDE-AR-N 4110:2023-09 “TCR Medium-voltage” Technical requirements for the connection and operation of customer installations to the medium voltage network		
Certification program	FGW Technical guideline No 8 (Revision 9)		

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The following data sheet and test data are evaluated according to clause 12 of VDE-AR-N 4110:2023-09 and clause 2.11 of FGW TR8:2019-02 for confirmation of regulation for prototypes:

- Electrical data (Nominal and rated values) (See Page 2 to 9)
- Schematic overview of the generation unit with all essential components (See Page 12)
- Operating ranges of the generating unit
 - Limits in quasi-stationary operation/ limits in steady-state operation;
 - Reactive power setting range;
 - FRT limit curve (U/t diagram);
- Protection functions with setting ranges
 - Decoupling protection;
 - Self-protection;
- Active power control
 - Power-frequency behaviour;
 - Active power gradient;
- Reactive power control
- Dynamic reactive current feed-in
 - Basic mode of operation;
- Declaration of the manufacturer stating compliance of VDE-AR-N 4110:2023-09 of above models.

Remark:

1. For the detail, see the technical report 64.290.25.30485.01 for the full evaluation according to clause 12 of VDE-AR-N 4110:2023-09 and clause 2.11 of FGW TR8:2019-02.

2. The validity of this prototype confirmation is limited to 2 years from the issued date to the certificate expiry date below. Full verification of the requirements must be carried out as a unit certificate before this certificate expiry date.

Certificate expiry date	2028-04-09
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Schematic set-up of the power generation unit

