

# Unit Certificate



FGW TG8 EZE

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ID 190000000

No.: 968/GI 1569.01/22

Grid Integration of Distributed Energy Resources

<b>Certificate Holder</b>	Ginlong technologies Co., Ltd. No.57 Jintong Road, Binhai, (seafront), Industrial Park, Xiangshan Ningbo 315712 Zhejiang China	<b>Manufacturer</b>	see certificate holder
<b>Subject</b>	Grid-Connected PV Inverter Solis-50K-LV-5G, Solis-60K-LV-5G, Solis-80K-5G, Solis-100K-5G, Solis-110K-5G, Solis-100K-HV-5G, Solis-110K-BHV-5G, Solis-125K-HV-5G S5-GC50K-LV, S5-GC60K-LV, S5-GC80K, S5-GC100K, S5-GC110K		
<b>Codes and Standards</b>	VDE-AR-N 4110:2018 FGW TR 8:2019 Revision 9	FGW TR 4:2019 Revision 9 FGW TR 3:2018 Revision 25	
<b>Scope and result</b>	The power generating units mentioned above meet the requirements of VDE-AR-N 4110:2018-11. The conformity is declared by following documents: Evaluation Report-No.: 968/GI 1569.01/22, dated 28.10.2022 Validation Report-No.: 968/GI 1569.00/22, dated 26.10.2022 Test Report No.: CN22IQD7 001, dated 27.04.2022  The manufacturer has provided proof of certification of the quality management system of his production facility in accordance with ISO 9001 or is subject to production monitoring.		
<b>Specific provisions</b>	The deviations and conditions for conformity according to the evaluation report must be observed. The corresponding conditions and deviations are listed on page 3 of the certificate.		
<b>Valid until</b>	2027-10-28		

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT GI3 V1.0:2017 in its actual version, whose results are documented in Report No. 968/GI 1569.01/22 dated 2022-10-28. This certificate is specifically valid for the above mentioned system only. It becomes invalid, if any unapproved changes are implemented without prior assessment/approval by the certification body. Authenticity and validity of this certificate can be verified through the above indicated QR-code or at <http://www.fs-products.com>.

**TÜV Rheinland Industrie Service GmbH**  
Bereich Automation  
Funktionale Sicherheit  
Am Grauen Stein, 51105 Köln

Köln, 2022-10-28

Certification Body Safety & Security for Automation & Grid

M. Sc. Pascal Krey

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**TÜVRheinland**  
Precisely Right.

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## Technical data of the PGU:

Typ:	Solis-50K-LV-5G S5-GC50K-LV	Solis-60K-LV-5G S5-GC60K-LV	Solis-80K-5G S5-GC-80K	Solis-100K-5G S5-GC-100K
Max. apparent power:	55 kVA	66 kVA	88 kVA	110 kVA
Rated active power:	50 kW	60 kW	80 kW	100 kW
Max. active power (P <sub>600</sub> ):	54.0 kW	64.8 kW	86.4 kW	108.0 kW
Rated current:	144.3 A <sub>AC</sub>	173.2 A <sub>AC</sub>	133.7 A <sub>AC</sub>	167.1 A <sub>AC</sub>
Rated voltage:	3/(N)/PE 220 V <sub>AC</sub>		3/N/PE 400 V <sub>AC</sub>	
Nominal frequency:	50 Hz			
Minimum required short-circuit power (only for type 1 PGU):	N/A			
Software-Version:	A1			
Typ:	Solis-110K-5G S5-GC-110K	Solis-100K-HV-5G	Solis-110K-BHV-5G	Solis-125K-HV-5G
Max. apparent power:	121 kVA	110 kVA	121 kVA	137.5 kVA
Rated active power:	110 kW	100 kW	110 kW	125 kW
Max. active power (P <sub>600</sub> ):	118.9 kW	108.0 kW	118.8 kW	137.5 kW
Rated current:	183.8 A <sub>AC</sub>	132.3 A <sub>AC</sub>	129.4 A <sub>AC</sub>	165.4 A <sub>AC</sub>
Rated voltage:	3/N/PE 400 V <sub>AC</sub>	3/PE 480 V <sub>AC</sub>	3/PE 540 V <sub>AC</sub>	3/PE 480 V <sub>AC</sub>
Nominal frequency:	50 Hz			
Minimum required short-circuit power (only for type 1 PGU):	N/A			
Software-Version:	A1			

## Validated Simulation Model:

Reference name: JL\_inverter\_VDE4110\_110K\_V2.pfd

MD5 Checksum: 324CF739482C15D5A828DC3674BBA713

Simulation platform: DlgSILENT PowerFactory 2021

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The following deviations and restrictions apply:

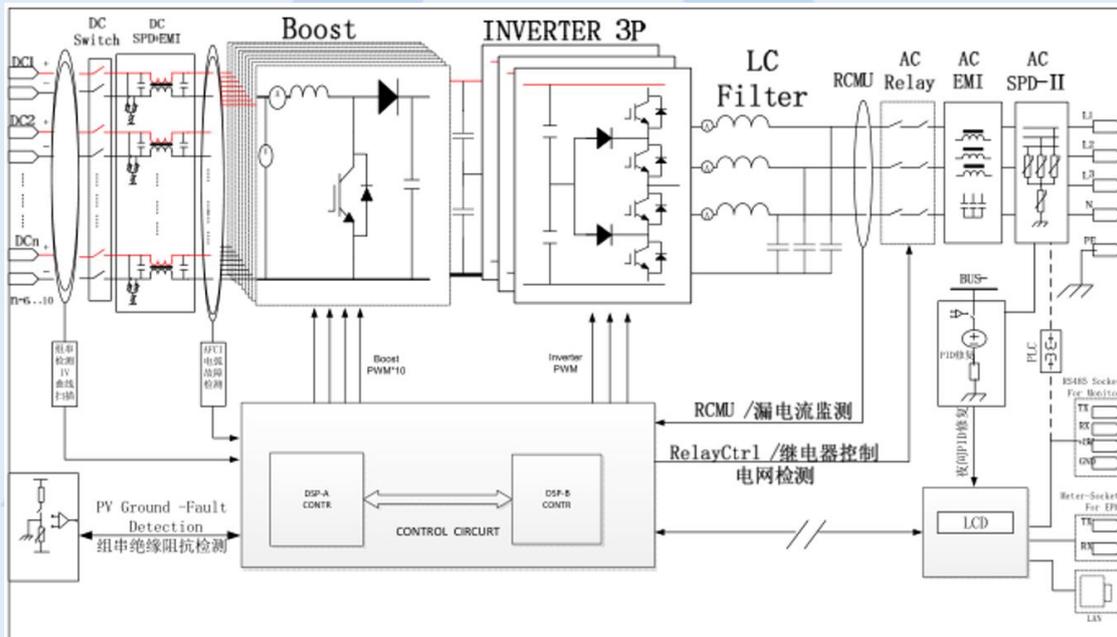
None

The following:

- The PGU contains one single interface for active power setpoint by grid operator or any different third party (e.g. direct marketer). Separate implementation of the interfaces for the grid provider specification and other setpoint specifications, including implementation of the lowest value in accordance with VDE-AR-N 4110, must therefore be implemented at the PGS level (e.g. in the PGS controller). This must be considered accordingly during system certification.
- The certified product does not provide a test terminal. A connecting terminal plate has to be installed separately, if necessary.

## Schematic overview of the PGU:

Solis-80K-5G, Solis-100K-5G, Solis-110K-5G, S5-GC80K, S5-GC100K



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## Schematic overview of the PGU:

S5-GC50K-LV, S5-GC60K-LV, Solis-50K-LV-5G, Solis-60K-LV-5G, Solis-100K-HV-5G, Solis-110K-BHV-5G, Solis-125K-HV-5G

