Unit Certificate

FGW TG8 EZE

TÜVRheinland® CERTIFIED

www.tuv.com
ID 1900000000

No.: 968/GI 2127.00/24 Grid Integration of Distributed Energy Resources

Certificate Holder	Guangzhou Sanjing Electric Co., Ltd. No. 9, Lizhishan Road, Science City, Guangzhou High-tech Zone Guangdong P.R. China
Subject	Grid-Connected PV Inverter C6-75K-T6-40, C6-100K-T9-40, C6-110K-T12-40, C6-125K-T12-40
Codes and Standards	VDE-AR-N 4110:2023 FGW TG 3:2018 Revision 25 FGW TG 4:2019 Revision 9 FGW TG 8:2019 Revision 9
Scope and result	The power generating units mentioned above meet the requirements of standards listed above. The conformity is declared by following documents: Evaluation Report-No.: 968/GI 2127.01/24, 2024-09-30 Validation Report-No.: 968/GI 2127.00/24, 2024-09-13 Test Report No.: CN23G8N8 001, dated 2024-01-11 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.
Specific provisions	The deviations and conditions for conformity according to the evaluation report must be observed. The corresponding conditions and deviations are listed on page 2 and 3 of the certificate.

Valid until 2029-09-30

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT GI3 V5.0:2021-11 in its actual version, whose results are documented in Report No. 968/GI 2127.01/24 dated 2024-07-24. 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.

Köln, 2024-09-30

TÜV Rheinland Industrie Service GmbH
Bereich Automation
Funktionale Sicherheit
Am Grauen Stein, 51105 Köln
Certification Body Safety & Security for Automation & Grid

Armin Kerperin

www.fs-products.com
www.tuv.com

DAkkS Deutsche Akkreditierungsstelle D-ZE-11052-02-02

TÜVRheinland® Precisely Right.

TÜV Rheinland Industrie Service GmbH, Am Grauen Stein, 51105 Köln / Germany
Tel.: +49 221 806-1790, Fax: +49 221 806-1539, E-Mail: industrie-service@de.tuv.com

Unit Certificate

Nr.: 968/GI 2127.01/24 Grid Integration of Distributed Energy Resources

Technical data of the PGU:

Typ:	C6-75K-T6-40	C6-100K-T9-40	C6-110K-T12-40	C6-125K-T12-40
Rated apparent power:	82.5 kVA	110 kVA	121 kVA	125 kVA
Rated active power:	75 kW	100 kW	110 kW	125 kW
Max. active power (P_{600}):	81.90 kW	109.20 kW	120.12 kW	124.09 kW
Rated voltage:	400 V_{AC}			
Nominal frequency:	50 Hz / 60 Hz			
Software-Version:	V0.082			

Validated Simulation Model:

Reference name: C6-(75-125)K VDE_Encrypted.pfd

MD5 Checksum: DEB4C697A5291A095CCF13654694706D

Simulation platform: DIgSILENT PowerFactory 2023 SP5

Unit Certificate

Nr.: 968/GI 2127.01/24 Grid Integration of Distributed Energy Resources

The following deviations and restrictions apply:

☐ **None**

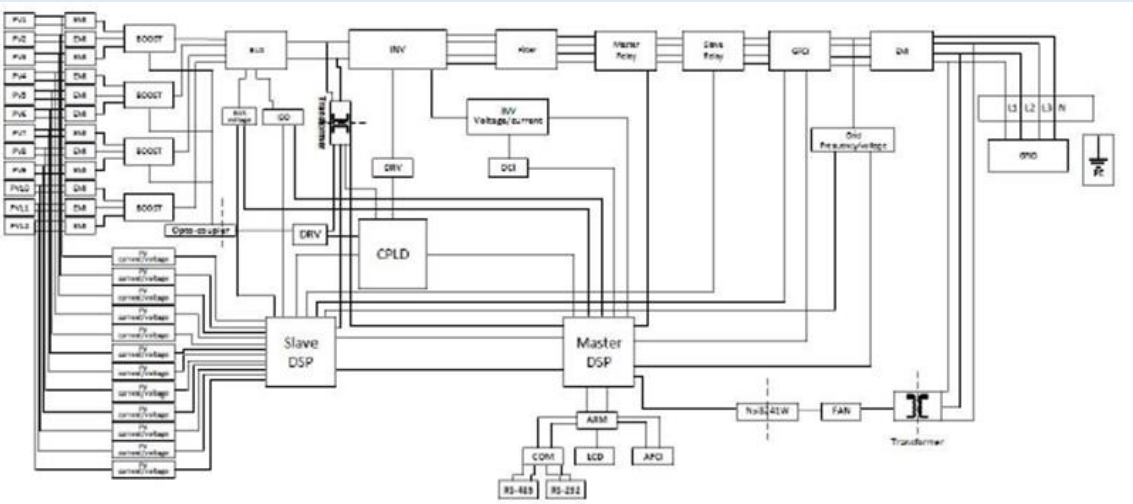
☒ **The following:**

- A voltage deadband cannot be set for Q(U)-control. If required, this has to be implemented on PGS level (e.g. via PGS controller).
- An external interface for specifying the reference voltage U/Uc is not implemented (Q(U)-control). If required, this has to be implemented on PGS level (e.g. via PGS controller).
- The PGU control only supports five reference points for Q(P) control. If more reference points are needed, the Q(P) control must be implemented on PGS level (e.g. by PGS controller).
- The PGU contains one single interface for active power setpoint. Separate interfaces for setpoint specifications including compliant prioritization of setpoints regarding active power (e.g. grid operator, direct marketer) must be implemented at PGS level (e.g. by PGS-controller) and be evaluated as part of system certification.
- The certified product does not provide a test terminal. A connecting terminal plate has to be installed separately, if necessary. Alternatively, this requirement can be fulfilled on PGS level through an intermediate decoupling protection device with valid component certificate according VDE-AR-N 4110 and separate circuit breaker.
- As the unit does not contain a display, this has to be considered on project level. With regard to the requirements of the corresponding grid provider, an appropriate device to check the protection settings has to be provided on demand or should be stored on site.
- The validated simulation model of the PGUs specified shall be used in the certified version (see information above for details on file name and check sum (MD5)).

Unit Certificate

Nr.: 968/GI 2127.01/24 Grid Integration of Distributed Energy Resources

Schematic overview of the PGU:



Primary energy supply: PV source

www.fs-products.com
www.tuv.com

TÜVRheinland®
Precisely Right.