

Unit Certificate



FGW TG8 EZE

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ID 190000000

No.: 968/GI 1718.01/23

Grid Integration of Distributed Energy Resources

Certificate Holder AISWEI Technology Co., Ltd.
Room 905B, 757 Mengzi Road,
Huangpu District
Shanghai
P. R. China

Manufacturer see certificate holder

Subject Grid Connected PV Inverter
ASW75K-LT, ASW80K-LT, ASW100K-LT, ASW110K-LT

Codes and Standards VDE-AR-N 4110:2018
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 VDE-AR-N 4110:2018-11 . The conformity is declared by following documents: Evaluation Report-No.: 968/GI 1718.01/23, dated 05.04.2023 Validation Report-No.: 968/GI 1718.00/23, dated 05.04.2023 Test Report No.: CN2273AX 001, dated 26.12.2022 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.

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 2028-04-05

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 1718.01/23 dated 2023-04-05. 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, 2023-04-05

Certification Body Safety & Security for Automation & Grid

Dipl.-Ing. Marco Klose

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Precisely Right.

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Technical data of the PGU:

Typ:	ASW75K-LT	ASW80K-LT	ASW100K-LT	ASW110K-LT
Max. apparent power:	75 kVA	88 kVA	110 kVA	121 kVA
Rated active power:	75 kW	80 kW	100 kW	110 kW
Max. active power (P_{600}):	75.00 kW	88.66 kW	110.84 kW	121.92 kW
Rated current:	114.0 A _{AC}	127.0 A _{AC}	158.0 A _{AC}	174.7 A _{AC}
Rated voltage:	400 V _{AC}			
Nominal frequency:	50 Hz / 60 Hz			
Minimum required short-circuit power (only for type 1 PGU):	N/A			
Software-Version:	Main DSP Software version: V610-04001-00 Slave DSP Software version: V610-04002-00 Safety DSP Software version: V610-12001-00			

Validated Simulation Model:

Reference name: TUVR_ASW 75-110K-LT VDE 4110 V_1 Encrypted.pfd

MD5 Checksum: 522100770c5c701d293b2e4829c763bb

Simulation platform: DlgSILENT PowerFactory 2021

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.

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- The certified product does not provide a test terminal. A connecting terminal plate has to be installed separately, if necessary.
- 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 simulations accord. chapter 2.2.1 of the TG4 validation report 968/GI 1718.00/23 with max. k-factor ($k = 6$) were performed with a higher short-circuit power to achieve plausible results ($SCR = 7$). For all other cases a short circuit power of the grid of $SCR = 5$ was sufficient. This has to be recognized for system certification.
- The validated simulation model of the PGUs shall be used in the certified version (see table for details on file name and check sum (MD5))

Schematic overview of the PGU:

