

Letter of Attestation

Document: 80112241 **Master Contract:** 302680

Project: 80112241 **Date Issued:** March 28, 2022

Issued to: FOXESS CO., LTD.

No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, Zhejiang

325058 China

Attention: Hardy Yang

CSA Group hereby confirms that it has completed an evaluation of: Transformerless Utility Interactive Inverter

Models F3000-G2, F3600-G2, F4600-G2, F5000-G2, F5300-G2, F6000-G2

CSA Group hereby attests that the products identified above and described in test report 80112241 dated March 25, 2022 complies with the following standards/tests, to the extent applicable:

CSA C22.2 No. 107.1-16 - Power Conversion Equipment

UL 1741 - Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (Third Edition, Revision Dated September 28, 2021)

IEEE 1547-2003 (R2008) - IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547.1-2005(R2011) - IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems.

Henry Huan

Issued by: Henry Huan

CSA Group

DQD 507.10 Rev 2021-09-27



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Following tests were performed:

Requirement		RENFERENCE	Test Result
UL1741	46	Temperature	Pass
CSA 107.1-16	6.3	Temperature (Normal)	Pass
UL1741	47	Dielectric Voltage-Withstand Test	Pass
CSA 107.1-16	6.5	Dielectric Strength	1
UL1741	48.2	Output Ratings	Pass
CSA 107.1-16	14.3.2	Output Ratings	7
UL1741	50.2	Output Overload Test	Pass
CSA 107.1-16	6.6.1(e)	Overload	
UL1741	50.3	Short-Circuit Test	Pass
CSA 107.1-16	14.3.9	AC output short circuit current contribution tests	=
UL1741	50.6	Component Short- and Open-Circuit	Pass
CSA 107.1-16	6.6.7	Component Faults	7
UL1741	50.8	Loss of Control Circuit	Pass
CSA 107.1-16	14.3.6		
UL1741	13.2	Capacitor Stored Energy	Pass
CSA 107.1-16	6.19	Capacitor Discharge (Energy and Shock Hazards)	
UL1741	31	Control Circuits	Pass
UL1741	51	Grounding Impedance Test	Pass
CSA No 0.4	/	Bonding of electrical equipment	
UL1741	62	Static Load	Pass
UL50E	8.6	Hosedown test	Pass
CSA 107.1-16	14.3.4	Test for response to abnormal voltage conditions	Pass
IEEE 1547.1	5.2	(Before Surge Test)	
IEEE 1547.1	5.3	Response to abnormal frequency conditions (Before Surge Test)	Pass
CSA 107.1-16	14.3.4	Surge rest)	
IEEE 1547.1	5.4	Synchronization (Before Surge Test)	Pass

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Requirement		RENFERENCE	Test Result
IEEE 1547.1	5.5.1	Protection from electromagnetic interference (EMI) test	Pass
IEEE 1547.1	5.5.2	Surge withstand performance test	Pass
IEEE 1547.1	5.5.2 b)	Surge Withstand on EUT power circuits	Pass
CSA 107.1-16	14.3.4	Test for response to abnormal voltage conditions at extern temp (Spot check after Surge Test)	Pass
IEEE 1547.1	5.2		
IEEE 1547.1	5.3	Response to abnormal frequency conditions at extern temp (Spot check after Surge Test)	Pass
CSA 107.1-16	14.3.4		
IEEE 1547.1	5.4	Synchronization (After Surge Test)	Pass
CSA 107.1-16	14.3.5	Unintentional islanding	Pass
IEEE 1547.1	5.7		
CSA 107.1-16	10.5.3	Limitation of dc injection	Pass
IEEE 1547.1	5.6		
IEEE 1547.1	5.10	Reconnect following abnormal condition disconnect	Pass
CSA 107.1-16	14.3.3	Harmonics Distortion	Pass
IEEE 1547.1	5.11		

^{*}Note: 1. Due to the product limitation, only applicable tests of the listed standards were performed, refer to the Description report and Test data for the detailed test condition.

2. Surge withstand performance test voltage Line to Neutral is 1000v, Line to Ground & Neutral to Ground is 2000v.

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THIS LETTER OF ATTESTATION DOES NOT AUTHORIZE THE USE OF THE CSA MARK ON THE SUBJECT PRODUCTS.

QUOTATIONS FROM THE TEST REPORT OR THE USE OF THE NAME CSA GROUP OR ITS REGISTERED TRADEMARK, IN ANY WAY, IS NOT PERMITTED WITHOUT PRIOR WRITTEN CONSENT OF CSA GROUP TESTING & CERTIFICATION INC.

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