



Letter of Attestation

Document: 70205990

Master Contract: N/A

Project: 70205990

Date Issued: January 14, 2019

Issued to: Jiangsu Goodwe Power Supply
Technology Co. Ltd.

No. 189 Kun Lun Road, Suzhou
New District,
Jiangsu, China

Attention: Xie Jing

*CSA Group hereby confirms that it has completed an evaluation of:
Transformerless Utility Interactive Inverter, DNS series and NS series.*

*Models: GW3000D-NS, GW3600D-NS, GW4200D-NS, GW5KD-NS, GW5000D-NS, GW6000D-NS,
GW1000-NS, GW1500-NS, GW2500-NS, GW3000-NS*

*CSA Group hereby attests that the products identified above and described
in test report 70205990 dated January 14, 2019
complies with the following standards/tests, to the extent applicable:*

*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.*



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Following tests were performed:

Requirement		Topic	Test Result
IEEE 1547.1	5.1	Temperature Stability	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.5.3	Dielectric test for paralleling device	Conducted on the relays for GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.2	Test for response to abnormal voltage conditions	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.3	Response to abnormal frequency conditions	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.4	Synchronization	Conducted on model GW6000D-NS, GW3000D-NS, GW3000-NS and GW1000-NS with acceptable result
IEEE 1547.1	5.5	Interconnection integrity	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.5.1	Protection from electromagnetic interference (EMI) test	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.5.2	Surge withstand performance test	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.5.2 a)	Surge Withstand on External signal and control Circuits	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.5.2 b)	Surge Withstand on EUT power circuits	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.2	Test for response to abnormal voltage conditions	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.3	Response to abnormal frequency conditions at extreme temp	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.4	Synchronization	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.7	Unintentional islanding	Conducted on model GW6000D-NS, GW3000D-NS, GW3000-NS and GW1000-NS with acceptable result
IEEE 1547.1	5.6	Limitation of dc injection	Conducted on model GW6000D-NS, GW3000D-NS, GW3000-NS and GW1000-NS with acceptable result



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IEEE 1547.1	5.11	Harmonics	Conducted on model GW6000D-NS, GW3000D-NS, GW3000-NS and GW1000-NS with acceptable result
IEEE 1547.1	5.10	Reconnect following abnormal condition disconnect	Conducted on model GW6000D-NS and GW3000-NS with acceptable result
IEEE 1547.1	5.9	Open Phase Test	Conducted on model GW6000D-NS and GW3000-NS with acceptable result

Issued by: Rohana Yang

CSA Group

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 OF THE CANADIAN STANDARDS ASSOCIATION AND CSA GROUP OR ITS REGISTERED TRADEMARK, IN ANY WAY, IS NOT PERMITTED WITHOUT PRIOR WRITTEN CONSENT OF CSA GROUP.