

No. 10128286-INC 18-3163

Issued to:

GE
Grid Solutions SAS
1, rue Paul Doumer - CS 60601
73106 Aix les Bains Cedex
France

For the 9-2LE publisher:

XMU800 Merging Unit
Platform Software version 1.0.9
Platform Firmware version 0.32
Hardware version: XMU800-B
Supporting:
4 phase voltage and current
Neutral is calculated

The 9-2LE publisher has not been shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-2, and 9-2

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 and the UCA International Users Group "Test Procedures version 1.1 for Sampled Values Publishers according to the "Implementation Guideline for Digital Interface to Instrument Transformers using IEC 61850-9-2 (9-2LE version 2.1)" with TPCL² version 1.1 with 92LE publisher's protocol implementation conformance statement: "PICS Protocol Implementation Conformance Statement for the IEC 61850 Interface of the XMU800 Merging Unit, reference XMU800_PICS_1.1_20181126" and extra information for testing: "PIXIT Protocol Implementation eXtra Information for Testing for the IEC 61850 Interface of the XMU800 Merging Unit, reference XMU800_PIXIT_1.1_20181203".

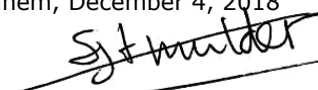
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

11a Sampled Value publishing (15/17)	50 Hz with 80 samples per cycle
11a Sampled Value publishing (15/17)	60 Hz with 80 samples per cycle
11a Sampled Value publishing (15/17)	50 Hz with 256 samples per cycle
11a Sampled Value publishing (15/17)	60 Hz with 256 samples per cycle

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA 61850 Analyzer 61850 version 5.34.02. This document has been issued for information purposes only, and the archived DNV GL report No. 10128286-INC 18-3162 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by GE. The manufacturer's production process has not been assessed. This certificate does not imply that DNV GL has approved any product other than the specimen tested.

Arnhem, December 4, 2018


S.J.T. Mulder
Business Leader
Interoperability of smart power systems

Issued by:



DNV KEMA is now DNV GL


R. Schimmel
Verification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System

² TPCL - Test procedures change list

Copyright © DNV GL Netherlands B.V. Arnhem, the Netherlands. All rights reserved. It is prohibited to update or change this certificate in any manner whatsoever, including but not limited to dividing it into parts.

Applicable Test Procedures from the UCA International Users Group Test procedures version 1.1 for Sampled Values Publishers according to the "Implementation Guideline for Digital Interface to Instrument Transformers using IEC 61850-9-2 (9-2LE version 2.1)" with TPCL version 1.1.

Conformance Block	Mandatory	Conditional
Configuration	Cnf1, Cnf2, Cnf3, Cnf4, Cnf5, Cnf6, Cnf7, Cnf8	
11a Sampled Value Publishing 50 Hz, 80 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp4, Svp7, Svp8, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 60Hz, 80 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp4, Svp7, Svp8, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 50Hz, 256 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp5, Svp7, Svp9, Svp12, Svp13, Svp15, Svp16, Svp17
11a Sampled Value Publishing 60Hz, 256 samples/cycle	Svp1, Svp2, Svp3, Svp6, Svp10, Svp11, Svp14	Svp5, Svp7, Svp9, Svp12, Svp13, Svp15, Svp16, Svp17