

IEC 61850 Certificate Level A¹

No. 10016953-OPE/INC 16-2307

Issued to:

GE Power Conversion
18 Avenue du Québec
91140 Villebon-sur-Yvette
France

For the server product:

HPCi High Performance Controller
61850 Firmware: V3.2.2
S/N: 63216912

The server product has not been shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10, the UCA International Users Group Server Device Test Procedures version 3.03, the product's protocol, model and technical issue implementation conformance statements and the extra information for testing: "HPCi IEC 61850 Server Conformance Statement, 4MQM0086, Revision 05".

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):

1 Basic Exchange (20/24)	12a Direct Control (4/11)
2 Data Sets (3/6)	12b SBO Control (6/14)
5 Unbuffered Reporting (16/18)	12c Enhanced Direct Control (4/13)
6 Buffered Reporting (23/27)	12d Enhanced SBO Control (9/19)
9a GOOSE publish (10/12)	13 Time Synchronization (3/5)

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA 61850 Client Simulator 4.29.03 with test suite 4.32.01 and UniCA 61850 Analyzer 5.31.01. This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 10016953 - OPE/INC 16-2306 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 Power Conversion. 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, September 15, 2016



P. Cioci
Global Service Line Leader
Operational Excellence of Power
Systems

Issued by:




R. Schimmel
Verification Manager

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

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Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 3.03

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3, Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br20, Br21, Br22, Br25, Br26, Br27, Br28, BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br5, Br8, Br10, Br11, Br12
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop6, Gop7, Gop10b, GopN1
12a: Direct Control	CtIN3, DOs1	CtIN11, DOs3
12b: SBO Control	CtIN1, CtIN2, CtIN3, CtIN4, SBOs2	CtIN11
12c: Enhanced Direct Control	CtIN3, DOes2, DOes5	CtIN11
12d: Enhanced SBO Control	CtIN1, CtIN2, CtIN3, CtIN4, CtIN9, SBOes1, SBOes2, SBOes3	CtIN11
13: Time Sync	Tm1, Tm2	TmN1