

No. 10003520-OPE/INC 16-0003

Issued to:

ANDRITZ HYDRO GmbH
Eibesbrunnergasse 20
1120 Vienna
Austria

For the server product:

HIPASE-P Transformer and Generator Protection
of Power Plants.
Software version: V0.90.50
S/N: GGP002-00 505B002

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

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

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL² 1.1.1 with product's protocol, model and technical issue implementation conformance statements: "HIPASE IEC 61850 PICS Protocol Implementation Conformance Statement, revision 1.00", "HIPASE IEC 61850 MICS Model Implementation Conformance Statement, revision 1.00" and "HIPASE IEC 61850 TICS Technical Issues Conformance Statement, revision 1.00" and the extra information for testing: "HIPASE IEC 61850 PIXIT Protocol Implementation eXtra Information for Testing, revision 1.00".


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 (16/26)	13 Time Synchronization (3/7)
2 Data Sets (3/7)	
6 Buffered Reporting (25/29)	

This certificate includes a summary of the test results as carried out at ANDRITZ in Austria with UniCA 61850 Client simulator 4.29.03 with test suite Ed2 3.29.04 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10003520-OPE/INC 16-0002 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by ANDRITZ. 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, November 26, 2015



M. Adriaensen
Head of Department
Operational Excellence

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

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL 1.1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv8, sSrvN1f
2: Data Sets	sDs1, sDs10a, sDsN1ae	
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr9, sBr14, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr5, sBr8, sBr10, sBr11, sBr12, sBr13
13: Time sync	sTm1, sTm2, sTmN1	