DNV

IEC 61850 Certificate Level A[1]

Issued to:

ABB Oy
Distribution Solutions
Muottitie 2A
FI-65101 Vaasa
Finland

For the server product:

REX610 Feeder Protection and Control Relay
Software version: 1.2.0
Hardware revision: A
S/N: 1VHR31010030

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) REX610 IEC 61850 interface, 2NGA000853, Rev A", "Model Implementation Conformance Statement (MICS) REX610 IEC 61850 interface, 2NGA000852, Rev A" and "TISSUES Implementation Conformance Statement (TICS) REX610 IEC 61850 interface, 2NGA000854, Rev A" and the extra information for testing: "Protocol Implementation extra Information for Testing (PIXIT) REX610 IEC 61850 interface, 2NGA000855, Rev A".

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 (25/26)		9a	GOOSE Publish (11/13)
2	Data Sets (4/7)		9b	GOOSE Subscribe (19/21)
4	Setting Group Selection (4/4)		12a	Direct Control (9/18)
4+	Setting Group Definition (12/13)		12d	Enhanced SBO Control (17/28)
5	Unbuffered Reporting (19/23)		13	Time Synchronization (5/7)
6	Buffered Reporting (27/33)			

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 2.2.1 with test suite 20231130 and UniCA 61850 Analyzer 6.41.00. This document has been issued for information purposes only, and the archived DNV verification report No. 10266477-DSO 23-3369 rev 2 will prevail.

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

Arnhem, December 21, 2023

G. Akse
Business Development Manager
Interoperability of Power Systems

Issued by:

DNV

R. Schimmel
Verification Manager

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

UCA International Users Group P.O. Box 315, Shell Knob, MO 65747 USA

IEC 61850 Certificate Level A

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv6, sSrv9, sSrv10, sSrv12, sSrv13, sSrvN1e, sSrvN2, sSrvN3
2:	Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4:	Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
4+:	Setting Group Definition	sSg2, sSg4, sSg6, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg9
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp15, sRpN5
6:	Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12, sBr15
9a:	GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop6, sGopN1, sGopN2
9b:	GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos13
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl2, sCtl7, sCtl13, sCtl15, sCtl16
12d:	Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl2, sCtl4, sCtl7, sCtl15, sCtl16, sCtl20, sCtl26
13:	Time sync	sTm1, sTm2, sTmN1	sTm4, sTm5