UCA International Users Group

DNV

IEC 61850 Certificate Level A[1]

Issued to:

Sécheron SA
Rue du Pré-Bouvier 25
1242 Satigny – Geneva
Switzerland

For the client system:

SEPCOS Control & Protection Relay
Software version: 8.20-2
S/N: 21470

The client system 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 in substations

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.1.2 with client system's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in SEPCOS IEC61850 Version 8.20-2, version 1.3", 'Model Implementation Conformance Statement for the IEC 61850 Client Interface in SEPCOS IEC61850 Stack Version 8.20-2, version 1.1" and "TISSUEs Implementation Conformance Statement (TICS) for the IEC 61850 client and server interface in SEPCOS IEC61850 Version 8.20-2, version 1.2" and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 client interface in SEPCOS IEC 61850 Stack Version 8.20-2, version 1.1".

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 (22/24)	9	GOOSE Control Block (2/2)
2	Data Sets (6/10)	12a	Direct Control (6/9)
3	Substitution (3/3)	12b	SBO Control (8/11)
5	Unbuffered Reporting (22/24)	12c	Enhanced Direct Control (6/9)
6	Buffered Reporting (26/28)	12d	Enhanced SBO Control (8/11)
		13	Time Synchronization (3/4)
		14	File Transfer (4/8)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniCA 61850 IED Simulator version 6.1.31 and UniCA 61850 Analyzer 6.40.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10160027-INC 21-2837 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 Sécheron. 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, April 16, 2021

Issued by:

DNV

N.A. Heijker
Business Leader
Interoperability of Smart Power Systems

R. Schimmel
Verification Manager

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

IEC 61850 Certificate Level A

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv9, cSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
3: Substitution	cSub1, cSub3	cSub2
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp16, cRp17, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr1, cBr2, cBr6, cBr7, cBr16, cBr17, cBr18, cBr32, cBr33, cBrN1
9: GOOSE control block		cGcb1, cGcb2
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl2, cCtl3
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl2, cCtl3, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl2, cCtl3
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl2, cCtl3, cSBOes4
13: Time sync	cTm1, cTmN1	cTm2
14: File transfer	cFt1, cFt3, cFtN1	cFt5