IEC 61850 Certificate Level A[1]

Issued to:
SCLE SFE
25 Chemin de Paléficat
31200 Toulouse
France

For the server product:
ARKENS PR Line L301
Firmware version: 2.1a revision 461668
Package version: 1.00.1.0. revision 461393
S/N: 20.26.025.D

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

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

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 and the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.2 with product's protocol, model and tissues implementation conformance statements: "Protocol Implementation Conformance Statement ARKENS PR LINE L301, DPP01_CCN2013_2.5", "Model Implementation Conformance Statement (MICS) Arkens PR LINE L301 1.1, DPP08_CCN2013_1.1", "Tissues Implementation Conformance Statement ARKENS PR LINE L301, DPP03_CCN2013_2.0", and the extra information for testing: "Protocol Implementation Extra Information ARKENS PR LINE L301, DPP02_CCN2013_2.3".

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):

1a Basic Exchange (26/29)	12a Direct Control (10/18)
2 Data Sets (4/7)	12b SBO Control (17/28)
3 Substitution (3/3)	12c Enhanced Direct Control (12/20)
5 Unbuffered Reporting (22/26)	12d Enhanced SBO Control (17/28)
6 Buffered Reporting (32/36)	13a Time Synchronization with SNTP (7/8)
9a GOOSE publish (12/13)	14 File Transfer (5/8)
9b GOOSE subscribe (26/27)	

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 20231102 and UniCA 61850 Analyzer 6.44.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10372174-DSO 23-3273 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 SCLE SFE. 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, November 16, 2023

Issued by:

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

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IEC 61850 Certificate Level A

Applicable Server Test Procedures from the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.2

Conformance Block	Mandatory	Conditional
1a: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv6, sSrv9, sSrv10, sSrv11, sSrv12, sSrv13, sSrv15, sSrvN1e, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
3: Substitution	sSub1, sSub2, sSub3	
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRp23, sRpN1, sRpN2, sRpN3, sRpN4, sRpN5, sRpN7, sRpN8, sRpN9	sRp8, sRp10, sRp11, sRp12, sRp15
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr23, sBr24, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN7, sBrN8, sBrN9, sBrN10	sBr8, sBr10, sBr11, sBr12, sBr15
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop2b, sGop6, sGopN1, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos14, sGos15, sGos20, sGos21, sGos22, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6, sGosN7	sGos4, sGos13
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl7, sCtl13, sCtl15, sCtl16, sCtl17, sCtl18
12b: SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6, sSBOns8	sCtl4, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl27
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl7, sCtl13, sCtl14, sCtl15, sCtl16, sCtl17, sCtl18, sCtl26
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl26
13a: Time sync SNTP	sTm1, sTm2, sTm7, sTmN1	sTm3, sTm5, sTmN2
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	

Test case	Comments
sCtl16	Performed according to Redmine #5961
sSBOns8	Performed according to Redmine #6279