

IEC 61850 Certificate Level A¹

No. 10126823-INC 18-3195

Issued to:

Schneider Electric Recloser Solutions 80 Schneider Road Eagle Farm, Brisbane QLD 4009, Australia

For the server product:

ADVC3 – Advanced Controller Software version: A50-08.00r30739

Hardware version: 5.90

S/N: 000006

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 1.2.6 with product's protocol, model and technical issue implementation conformance statements: "ADVC3 Advanced Controller Range Protocol Implementation Conformance Statement (PICS), version 3.0", "ADVC3 Advanced Controller Model Implementation Conformance Statement (MICS), version 3.0" and "ADVC3 Advanced Controller Tissues Implementation Conformance Statement (TICS), version 1.0" and the extra information for testing: "ADVC3 Advanced Controller Range Protocol Implementation extra Information for Testing (PIXIT), version 3.0".

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 (21/26)
- 2 Data Sets (4/7)
- 2+ Data Set Definition (24/24)
- 5 Unbuffered Reporting (20/21)
- 6 Buffered Reporting (27/30)
- 9a GOOSE Publish (11/13)
- 9b GOOSE Subscribe (12/14)

- 12a Direct Control (5/18)
- 12b SBO Control (12/27)
- 12c Enhanced Direct Control (6/20)
- 12d Enhanced SBO Control (13/28)
- 13 Time Synchronization (5/7)
- 14 File Transfer (5/8)

This certificate includes a summary of the test results as carried out at Schneider Electric in Australia with UniGrid SA Simulator 1.4.440 with test suite 1.0.34 and UniCA 61850 Analyzer 5.34.01. This document has been issued for information purposes only, and the archived DNV GL verification report No. 10126823-INC 18-3194 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Schneider Electric. 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, December 14, 2018

Business Leader

Interoperability of Smart Power Systems

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DNV KEMA is now DNV GL

 $^{\mathrm{1}}$ 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 1.2.6

Conf	ormance Block	Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv8, sSrvN1e, sSrvN1f, sSrvN2, sSrvN3
2:	Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+:	Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs11, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs12, sDsN11, sDsN12
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRpN5
6:	Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12
9a:	GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11	sGop1, sGop6, sGop7, sGopN1, sGopN2
9b:	GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl16
12b:	SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6	sCtl4, sCtl6, sCtl16
12c:	Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl14, sCtl16
12d:	Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl6, sCtl16
13:	Time sync	sTm1, sTm2, sTmN1	sTm3, sTm5
14:	File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	