

## IEC 61850 Certificate Level A<sup>1</sup>

Page 1/2

Issued to: Stucke Elektronik GmbH Merkurring 26 22143 Hamburg No. 74104125-OPE/INC 14-0516

For the server product: SYMAP-Compact+

IEC61850 Software version: FW1.11.1

Hardware version: v1-2.0

Issued by:

Germany



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

## IEC 61850 First Edition 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, the UCA International Users Group Device Test Procedures version 2.3 with TPCL<sup>2</sup> version 1.7, the product's protocol, model and technical issue implementation conformance statements and the extra information for testing: "SYMAP Compact Communication IEC 61850 Edition1 Software version FW1.11.1 Appendix, version v1.1".

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 (16/24)
- 2 Data Sets (3/6)
- 2+ Data Set Definition (23/23)
- 4 Setting Group Selection (3/3)
- 5 Unbuffered Reporting (16/19)
- 6 Buffered Reporting (18/21)

- 9a GOOSE Publish (10/13)
- 9b GOOSE Subscribe (10/11)
- 12a Direct Control (3/12)
- 12d Enhanced SBO Control (13/19)
- 13 Time Synchronization (3/5)

This certificate includes a summary of the test results as carried out at KEMA in the Netherlands with UniCA 61850 Client Simulator 4.27.04 with test suite 3.27.00 and UniCA 61850 Analyzer 5.27.04. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74104125-OPE/INC 14-0517 will prevail.

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

Arnhem, January 30, 2014

M. Adraensen
Director Intelligent Networks & Communication

R Schimmel

Certification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System

<sup>2</sup> TPCL - Test procedures change list

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.7

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5	Srv8, SrvN1f
	Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9	
	DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
4: Setting Group Selection	Sg1, Sg3, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12	Rp6, Rp8, Rp9, RpN5, RpN6
	RpN1, RpN2, RpN3, RpN4	
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14	Br6, Br10, Br11, BrN6
	BrN1, BrN2, BrN3, BrN4, BrN5	
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop7, Gop9, Gop10a	Gop1, Gop5, Gop6, GopN1
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct Control	CtIN3, CtIN8	
	DOns1	
12d: Enhanced SBO Control	Cti3, CtiN1, CtiN2, CtiN3, CtiN4, CtiN9	Ctl2, Ctl7, CtlN10, CtlN11
	SBOes1, SBOes2, SBOes3	
13: Time Sync	Tm1, Tm2, TmN1	