IEC 61850 Certificate Level A[1]

No. 74100446-MOC/INC 12-00433

Issued to:

Stucke Elektronik GmbH
Merkurring 26
22143 Hamburg
Germany

For the product:

SYMAP-BC Digital Protection Relay
Firmware CU: 1.10
Firmware IEC61850: 1.4

Issued by: **KEMA**

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

IEC 61850-6, 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 with product's protocol, model and technical issue implementation conformance statements: "Symap IEC 61850 Implementation Specification, V1.4" and product's extra information for testing: "Symap IEC 61850 Implementation Specification, V1.4".

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 as defined in the UCA International Users Group Device Test procedures v2.2b):

1	Basic Exchange (16/24)	9a	GOOSE Publish (7/12)
2	Data Sets (3/6)	9b	GOOSE Subscribe (10/10)
2+	Data Set Definition (23/23)	12a	Direct Control (4/11)
5	Unbuffered Reporting (14/18)	13	Time Synchronization (3/5)

This Certificate includes a summary of the test results as carried out at KEMA in The Netherlands with UniCAsim 61850 version 3.23.00 with test suite 3.24.01 and UniCA 61850 analyzer 4.24.03. The test is based on the UCA International Users Group Device Test Procedures version 2.2b. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74100446-MOC/INC 12-00432 will prevail.

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

Arnhem, March 5, 2012

M. Adriaensen
Regional Director Management & Operations Consulting

R. Schimmel
Certification Manager

1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.2b

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv8
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	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4	Rp6, Rp8, Rp9, RpN5
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	
13: Time sync	Tm1, Tm2, TmN1	