

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

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Issued to: Schweitzer Engineering Laboratories, Inc 2350 NE Hopkins Court Pullman, WA 99163-5603 USA No. 74100372-MOC/INC 11-1382

For the product: SEL-710 Motor Protection Relay Version R406



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: "IEC61850 PICS SEL-710, version 20110606", "IEC61850 MICS SEL-710, version 20110606", "IEC61850 TICS SEL-710, version 20110606" and product's extra information for testing: "IEC61850 PIXIT SEL-710, version 20110606".

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<br>2<br>5<br>6 | Basic Exchange (15/24)<br>Data Sets (3/6)<br>Unbuffered Reporting (13/18)<br>Buffered Reporting (16/20)<br>COOSE Publish (5/12) | 9b GOOSE Subscribe (10/10)<br>12a Direct Control (7/11)<br>12c Enhanced Direct Control (7/13)<br>12d Enhanced SBO Control (12/19)<br>13 Time Surgeon (3(5)) |
|------------------|---|---|
| 9a               | GOOSE Publish (5/12)  | 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 3.21.02 with test suite 3.21.02 and UniCA 61850 analyzer 4.22.03. 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. 74100372-MOC/INC 11-1381 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by SEL. 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, 14 June 2011

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

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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,<br>AssN5<br>Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd,<br>SrvN4 | Srv8                 |
| 2: Data Sets                 | Dset1, Dset10a, DsetN1ae   |                      |
| 5: Unbuffered Reporting      | Rp1, Rp2, Rp3, Rp4, Rp7, Rp10<br>RpN1, RpN2, RpN3, RpN4  | Rp5, Rp8, Rp9        |
| 6: Buffered Reporting        | Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12<br>BrN1, BrN2, BrN3, BrN4, BrN5                              | Br5, Br10, Br11      |
| 9a: GOOSE publish            | Gop2, Gop3, Gop4, Gop7   | Gop1                 |
| 9b: GOOSE subscribe          | Gos1a, Gos2, Gos3, GosN1, GosN2,<br>GosN3, GosN4, GosN5, GosN6                                       | Gos1b                |
| 12a: Direct control          | CtIN3, CtIN8<br>DOns1, DOns3   | Ctl2, CtIN10, CtIN11 |
| 12c: Enhanced Direct Control | CtIN3, CtIN8<br>DOes2, DOes5   | Ctl2, CtIN10, CtIN11 |
| 12d: Enhanced SBO control    | Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9<br>SBOes1, SBOes2, SBOes3                                    | Ctl2, CtlN10, Ctln11 |
| 13: Time sync                | Tm1, Tm2, TmN1   |                      |

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