



IEC 61850 Certificate Level A¹

No. 74100372-MOC/INC 12-00747

Issued to:
Schweitzer Engineering Laboratories, Inc
2350 NE Hopkins Court
Pullman, WA 99163-5603
USA

For the product:
SEL-651R Recloser Control
Version R400



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-651R, version 20120330", "IEC61850 MICS SEL-651R, version 20120330", "IEC61850 TICS SEL-651R, version 20120330" and product's extra information for testing: "IEC61850 PIXIT SEL-651R, version 20120330".

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 (15/24) | 12a Direct Control (7/11) |
| 2 Data Sets (3/6) | 12c Enhanced Direct Control (7/13) |
| 5 Unbuffered Reporting (13/18) | 12d Enhanced SBO Control (12/19) |
| 6 Buffered Reporting (16/20) | 13 Time Synchronization (3/5) |
| 9a GOOSE Publish (5/12) | |
| 9b GOOSE Subscribe (10/10) | |

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 12-00746 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 attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, June 7, 2012

M. Adriaansen
Regional Director Management & Operations Consulting

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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, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4 | Srv8 |
| 2: Data Sets | Dset1, Dset10a, DsetN1ae | |
| 5: Unbuffered Reporting | Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4 | Rp5, Rp8, Rp9 |
| 6: Buffered Reporting | Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5 | Br5, Br10, Br11 |
| 9a: GOOSE publish | Gop2, Gop3, Gop4, Gop7 | Gop1 |
| 9b: GOOSE subscribe | Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6 | Gos1b |
| 12a: Direct control | CtlN3, CtlN8 DOns1, DOns3 | Ctl2, CtlN10, CtlN11 |
| 12c: Enhanced Direct Control | CtlN3, CtlN8 DOes2, DOes5 | Ctl2, CtlN10, CtlN11 |
| 12d: Enhanced SBO control | Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3 | Ctl2, CtlN10, CtlN11 |
| 13: Time sync | Tm1, Tm2, TmN1 | |