



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

No. 74101693-MOC/INC 13-2033

Issued to:  
SEL, INC.  
2350 NE Hopkins Court  
Pullman, WA 99163  
USA

For the server product:  
3530-4 Real-Time Automation Controller  
Version R122



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 1.6, the product's protocol and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for IEC 61850 for IEC 61850 for the SEL Real-time Automation Controllers, February 22, 2013", and "Technical Issues Implementation Conformance Statement (TICS) for IEC 61850 for the SEL Real-time Automation Testing Controllers, February 22, 2013" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for IEC 61850 for the SEL Real-Time Automation Controllers, February 22, 2013".

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):

|    |                         |    |                            |
|----|-------------------------|----|----------------------------|
| 9a | GOOSE Publish (7/13)    | 13 | Time synchronization (3/5) |
| 9b | GOOSE Subscribe (10/11) |    |                            |

This certificate includes a summary of the test results as carried out at SEL in the USA with UniCA Client simulator 3.26.04 with Test Suite 3.24.02, UniCA GOOSE Simulator 2.26.01 and UniCA 61850 Analyzer 4.25.00. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74101693-MOC/INC 13-2046 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, May 28, 2013

M. Adriaansen  
Director Intelligent Networks & Communication

R. Schimmel  
Certification Manager

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 Device Test Procedures version 2.3 with TPCL version 1.6

| <b>Conformance Block</b> | <b>Mandatory</b>  | <b>Conditional</b> |
|--------------------------|---|--------------------|
| 9a: GOOSE publish        | Gop2, Gop3, Gop4, Gop7, Gop9, Gop10a                        | Gop5               |
| 9b: GOOSE subscribe      | Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6 | Gos1b              |
| 13: Time sync            | Tm1, Tm2, TmN1  |                    |