

IEC 61850 Certificate Level A¹

Issued to:

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

For the client system:

SEL-3350 Real-Time Automation Controller
Firmware version: SEL-3350-R149-V7-Z000121-D20230518
S/N: 1223191845

The client system has not been shown to be non-conforming to:

IEC 61850 Edition 2 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 Edition 2, the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.2 with client system's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for IEC 61850 for the SEL Real-Time Automation Controllers, R149-V7", "Model Implementation Conformance Statement (MICS) for IEC 61850 for the SEL Real-Time Automation Controller 3350 (RTAC SEL-3350), R149-V7" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in SEL-RTAC, R149-V7" and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in SEL-RTAC, R149-V7".

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 (13/24)	12a Direct Control (6/9)
2 Data Sets (2/10)	12b SBO Control (7/11)
5 Unbuffered Reporting (19/24)	12c Enhanced Direct Control (6/9)
6 Buffered Reporting (21/28)	12d Enhanced SBO Control (7/11)
	13 Time Synchronization (3/4)
	14 File Transfer (3/8)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniCA 61850 IED Simulator version 6.1 and UniCA 61850 Analyzer 6.40. This document has been issued for information purposes only, and the archived DNV verification report No. 10445966-DSO 24-4321 rev 2 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV by Schweitzer Engineering Laboratories, Inc. The manufacturer's production process has not been assessed. This certificate does not imply that DNV has approved any product other than the specimen tested.

Arnhem, October 2, 2024



P. Pourabrahim
Test Engineer

Issued by:




R. Schimmel
Verification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System

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Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv5, cSrv7, cSrvN3, cSrvN5, cSrvN6
2: Data Sets		cDs3, cDsN1c
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp2, cRp6, cRp7, cRp16, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr2, cBr6, cBr7, cBr16, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2
13: Time sync	cTm1, cTmN1	cTm2
14: File transfer	cFt1, cFt3, cFtN1	