



IEC 61850 Certificate Level A¹

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No. 74105246-MOC/INC 13-4265

Issued to:
Siemens A.G., IC SG EA
Protection and Substation Control Systems
Wernerwerkdamm 5
D-13623 Berlin
Germany

For the server product:
SIPROTEC V4
7SJ66 Multifunction Protection
Firmware V04.00

Issued by:



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 TPCL² version 1.7, the product's protocol, model and technical issue implementation conformance statements: "SIEMENS SIPROTEC 7SJ66 IEC 61850 PIXIT, PICS, TICS, C53000-G1140-C383-1", "Model Implementation Conformance Statement (MICS), version 1 Revision 9" and the extra information for testing: "SIEMENS SIPROTEC 7SJ66 IEC 61850 PIXIT, PICS, TICS, C53000-G1140-C383-1".

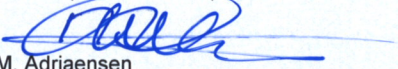
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):


| | | | |
|----|-------------------------------------|-----|--------------------------------|
| 1 | Basic Exchange (20/24) | 9a | GOOSE Publish (10/13) |
| 2 | Data Sets (3/6) | 9b | GOOSE Subscribe (11/11) |
| 2+ | Data Set Definition (23/23) | 12a | Direct Control (4/12) |
| 4 | Setting Group Selection (3/3) | 12c | Enhanced Direct Control (4/13) |
| 4+ | Setting Group Definition (7/7) | 12d | Enhanced SBO Control (12/19) |
| 5 | Unbuffered Reporting (17/19) | 13 | Time Synchronization (3/5) |
| 6 | Buffered Reporting (19/21) | 14 | File Transfer (4/7) |
| 6+ | Enhanced buffered reporting (12/12) | | |

This certificate includes a summary of the test results as carried out at SIEMENS in Germany with UniCA 61850 Client simulator 4.27.04 with test suite 3.27.02 and UniCA 61850 Analyzer 5.27.06. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74105246-MOC/INC 13-4264 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by SIEMENS. 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, December 12, 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



Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.7

| Conformance Block | Mandatory | Conditional |
|---------------------------------|--|---|
| 1: Basic Exchange | Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4 | Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN3 |
| 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 | |
| 4: Setting Group Selection | Sg1, SgN1a, Sg3 | |
| 4+: Setting Group Definition | Sg2, Sg4, SgN1b, SgN2, SgN3, SgN4, SgN5 | |
| 5: Unbuffered Reporting | Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12 RpN1, RpN2, RpN3, RpN4 | Rp5, Rp6, Rp8, Rp9, Rp11, RpN5 |
| 6: Buffered Reporting | Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5 | Br5, Br6, Br10, Br11, Br13 |
| 6+: Enhanced buffered reporting | BrE1, BrE2, BrE3, BrE6, BrE7, BrE8, BrE9, BrE10, BrE11 | BrE4, BrE5, BrE12 |
| 9a: GOOSE publish | Gop2, Gop3, Gop4, Gop7, Gop9, Gop10a | Gop1, Gop6, Gop10b, GopN1 |
| 9b: GOOSE subscribe | Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6 | Gos1b, Gos4 |
| 12a: Direct control | CtIN3, CtIN8 DOs1 | DOs3 |
| 12c: Enhanced Direct Control | CtIN3, CtIN8 DOes2, DOes5 | |
| 12d: Enhanced SBO control | CtI3, CtIN1, CtIN2, CtIN3, CtIN4, CtIN9 SBOes1, SBOes2, SBOes3 | CtI2, CtI7, CtIN11 |
| 13: Time sync | Tm1, Tm2, TmN1 | |
| 14: File transfer | Ft1, Ft2ab, Ft4, FtN1ab | |