



IEC 61850 Certificate Level A¹

No. 30630033-Consulting 2006-0392

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

For the product:
Siprotec V4
6MD63 **Medium Voltage Bay Unit**
Firmware V04.63.02
EN100 V03.07.01



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: "SIPROTEC 4 Ethernet Module EN100 IEC 61850 Electrical / Optical Interface 100 MBit Manual, version 1.5.1, Edition February 2006, C53000-G1140-C167-6", "MICS, Mapping family 7SJ6XX, Mappingversion 1 revision 65" and product's extra information for testing: "SIPROTEC Input / Output Unit with Local Control 6MD63 V4.6 IEC 61850 PIXIT, Edition 21-06-06, C53000-G1140-C185-1".

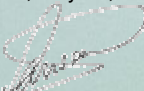
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases as defined in the UCA International Users Group Device Test procedures):

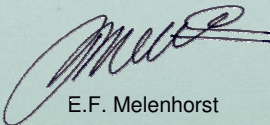
| | | | | | |
|----|----------------------|---------|-----|----------------------|---------|
| 1 | Basic Exchange | (19/23) | 12a | Direct Control | (6/11) |
| 2+ | Data Set Definition | (25/28) | 12d | Enhanced SBO Control | (10/17) |
| 5 | Unbuffered Reporting | (12/13) | 13 | Time Synchronization | (3/4) |
| 9a | GOOSE Publish | (5/11) | 14 | File Transfer | (3/6) |
| 9b | GOOSE Subscribe | (9/9) | | | |

This Certificate includes a summary of the test results as carried out at the KEMA laboratory at Arnhem, The Netherlands, with UniCASim 61850 version 2.14.00 test system running test suite "61850 Conformance Test 2.13.10", UniCASim GOOSE version 2.13.00 with test suite "GOOSE conformance Test version 2.12.05" and UniCA 61850 analyzer version 4.13.02. The test is based on the UCA International Users Group Device Test Procedures version 1.1. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 30630033-Consulting 2006-0393 will prevail.

The tests have been carried out on one single specimen of the products as referred above and submitted to KEMA by Siemens. 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, May 18, 2006


S.J.L.M. Janssen
Managing Director KEMA Consulting


E.F. Melenhorst
Senior Test Engineer

1 Level A – Independent Test Lab with certified ISO 9000 or ISO 17025 Quality System

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Performed test cases:

| 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, SrvN3 |
| 2: Data Sets | Dset1, DsetN1ae | |
| 2+: Data Set Definition (SCL-DynDataSet) | Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9, DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15 | |
| 5: Unbuffered Reporting | Rp1, Rp2, Rp3, Rp4, Rp7, RpN1, RpN2, RpN3, RpN4 | Rp5, Rp6, RpN5 |
| 9a: GOOSE publish | Gop2, Gop3, Gop4, Gop7 | Gop1 |
| 9b: GOOSE subscribe | Gos1, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6 | |
| 12a Direct control | CtlN3, CtlN8, DOns1, DOns3 | Ctl2, Ctl7 |
| 12d Enhanced SBO control | Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOes1, SBOes2, SBOes3 | Ctl2, Ctl7 |
| 13 Time sync | Tm1, Tm2, TmN1 | |
| 14 File transfer | Ft1, Ft2ab, FtN1ab | |


 The logo for KEMA, featuring the word "KEMA" in a large, bold, sans-serif font. To the right of the text is a stylized graphic element consisting of three curved lines that suggest a hand or a signal, rendered in a light blue color.

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