

No. 844000136-OPE/INC 17-1745

Issued to:

Siemens AG
IC SG EA PRO
Humboldtstr. 59
90459 Nuremberg
Germany

For the server product:

SICAM AK 3 Automation Component with modules
CP-2016 and CP-2019
Software version: ET25 Rev. 03.04
Module: HW version: S/N:
CP-2016 BC2-016--.03 BF1512032572
CP-2019 BC2-019--.03 BF1601022478

The server product 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 for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL² 1.2 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 Ed.2 Server Interface in Siemens SICAM AK 3, DC0-168-2.00, 2016-12-22", "Model Implementation Conformance Statement for the IEC 61850 Ed.2 Server Interface in Siemens SICAM AK 3, DC0-167-2.00, 2016-12-22" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed.2 Server Interface in Siemens SICAM AK 3, DC0-170-2.00, 2016-12-22" and the extra information for testing: "Protocol Implementation extra Information for Testing (PIXIT) the IEC 61850 Ed.2 Server Interface in Siemens SICAM AK 3, DC0-169-2.00, 2016-12-22".


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 (22/26)	12a Direct Control (4/18)
2 Data Sets (4/7)	12c Enhanced Direct Control (5/20)
4 Setting Group Selection (3/4)	12d Enhanced SBO Control (12/28)
5 Unbuffered Reporting (16/21)	13 Time Synchronization (3/7)

This certificate includes a summary of the test results as carried out at Siemens in Austria with UniCA 61850 Client Simulator 4.29.03 with test suite Ed2 4.31.03 and UniCA 61850 Analyzer 5.31.00. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 84000136-OPE/INC 17-1746 will prevail.

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

Arnhem, January 13, 2017



P. Cioci
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DNV-GL
DNV KEMA is now DNV GL



R. Schimmel
Verification 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 Edition 2 Server Test Procedures version 1.0 with TPCL 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv9, sSrv10, sSrv12, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4: Setting Group Selection	sSg1, sSg3, sSgN1	
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp11, sRp12, sRpN5
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl14
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl6, sCtl26
13: Time sync	sTm1, sTm2, sTmN1	