

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

No. 84000072-OPE/INC 16-2310

**Issued to:**

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

**For the client system:**

SICAM AK 3 Automation Component with modules  
CP-2016, CP-2019 and SM-2558  
Software version: ETA5 Rev. 03.04  
Module: HW version: S/N:  
CP-2016 BC2-016--.03 BF1512032572  
CP-2019 BC2-019--.03 BF1601022478  
SM-2558 BC2-558--.03 BF1512033766

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 for power utility automation

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 1.0 with TPCL<sup>2</sup> 1.0 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 Ed.2 Client Interface in Siemens SICAM AK 3, DC0-142-2.00, 2016-09-16", "Model Implementation Conformance Statement for the IEC 61850 Ed.2 Client Interface in Siemens SICAM AK 3, DC0-141-2.00, 2016-09-16" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed.2 Client Interface in Siemens SICAM AK 3, DC0-143-2.00, 2016-09-16" and the extra information for testing: "Protocol Implementation extra Information for Testing (PIXIT) the IEC 61850 Ed.2 Client Interface in Siemens SICAM AK 3, DC0-144-2.00, 2016-09-16".


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 (21/24)	12a Direct Control (6/9)
2 Data Sets (6/10)	12c Enhanced Direct Control (6/9)
2+ Data Set Definition (5/8)	12d Enhanced SBO Control (8/11)
4 Setting Group Selection (3/3)	13 Time Synchronization (3/4)
5 Unbuffered Reporting (22/23)	14 File Transfer (3/8)
6 Buffered Reporting (27/28)	

This certificate includes a summary of the test results as carried out at Siemens in Austria with UniCA 61850 IED simulator 5.31.00 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. 84000072-OPE/INC 16-2309 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, September 16, 2016



**P. Cioci**  
Global Service Line Leader  
Operational Excellence of Power  
Systems

**Issued by:**




**R. Schimmel**  
Verification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System

<sup>2</sup> TPCL - Test procedures change list

Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TPCL 1.0

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs12, cDs13, cDsN10a, cDsN11
4: Setting Group	cSg2, cSgN1	cSg1
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp12, cRp13b, cRp16, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr1, cBr2, cBr6, cBr7, cBr12, cBr13b, cBr16, cBr18, cBr32, cBr33, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cSBOes4
13: Time Synchronization	cTm1, cTmN1	cTm2
14: File Transfer	cFt1, cFt3, cFtN1	