



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

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No. 74102166-MOC/INC 13-0419

Issued to:  
Brodersen A/S  
Islevdalvey 187  
DK-2610 Roedovre  
Denmark

For the client system:  
Brodersen RTU32  
Firmware 1.52

Issued by:



The client system 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 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL<sup>2</sup> version 1.2 with client system's protocol, model and technical issue implementation conformance statements: "PICS for Brodersen RTU32 Series IEC61850 Client Driver, revision 1.00", "MICS for Brodersen RTU32 Series IEC61850 Client Driver, revision 1.00", "TICS for Brodersen RTU32 Series IEC61850 Client Driver, revision 1.00" and product's extra information for testing: "PIXIT for Brodersen RTU32 Series IEC61850 Client Driver, revision 1.00".

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 (17/22)	12a	Direct Control (5/7)
2	Data Sets (5/9)	12b	SBO Control (7/9)
3	Substitution (3/3)	12c	Enhanced Direct Control (5/7)
4	Setting Group Selection (2/4)	12d	Enhanced SBO Control (7/9)
4+	Setting Group Definition (2/2)	13	Time Synchronization (2/4)
5	Unbuffered Reporting (12/18)	14	File Transfer (5/8)
6	Buffered Reporting (16/22)		

This certificate includes a summary of the test results as carried out at KEMA in the Netherlands with UniCA Multi IED Simulator version 3.26.1 and UniCA 61850 Analyzer version 5.26.03. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74102166-MOC/INC 13-0418 will prevail.

The test has been carried out on one single specimen of the client system as referred above and submitted to KEMA by Brodersen. 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, February 4, 2013

M. Adriaansen  
Director Intelligent Networks & Communication

R. Schimmel  
Certification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 or ISO 17025 Quality System

<sup>2</sup> TPCL - Test Procedure Change List



Applicable Test Procedures from the UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv5, cSrv6, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDsN1a, cDsN1b
3: Substitution	cSub1	cSub2, cSub3
4: Setting Group Selection	cSg2, cSgN1	
4+: Setting Group Definition	cSg3, cSg4	
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRpN2, cRpN3, cRpN7, cRpN8	cRp7, cRpN4
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr12, cBrN2, cBrN3, cBrN7, cBrN8, cBrN9	cBr7, cBr13, cBrN4
12a: Direct control	cCtl4, cCtlN1 cDOns1, cDOns2	cCtl2
12b: SBO control	cCtl4, cCtlN1 cSBOns1, cSBOns2, cSBOns3	cCtl2, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtlN1 cDOes1, cDOes2	cCtl2
12d: Enhanced SBO control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cCtl2 cSBOes4
13: Time sync	cTm1	cTm2
14: File transfer	cFt1, cFt2, cFt3, cFtN1, cFtN2	