



IEC 61850 Certificate Level A¹

International
Usersgroup

No. 30920410-Consulting 09-1136

Issued to:
SHR Automation
3399 Huaning Road
Minhang District
Shanghai 201108, China

For the product:
UDC-501
Bay Control Unit
Firmware version R2.03



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: "PICS_UDC501 version 1.08", "MICS_UDC501 version 1.08", "TICS_UDC501 version 1.08" and product's extra information for testing: "PIXIT_UDC501 version 1.08".

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 v2.2):

1 Basic Exchange (19/24)	9a GOOSE Publish (7/12)
2 Data Sets (3/6)	9b GOOSE Subscribe (9/10)
3 Substitution (4/4)	12a Direct Control (4/11)
4+ Setting Group Definition (10/10)	12c Enhanced Direct Control (4/13)
5 Unbuffered Reporting (14/18)	12d Enhanced SBO Control (11/19)
6 Buffered Reporting (17/20)	13 Time Synchronization (3/4)
	14 File Transfer (6/7)

This Certificate includes a summary of the test results as carried out at SHR Automation in China with UniCAsim 61850 version 3.19.01 with test suite 3.19.00 and UniCA 61850 analyzer 4.18.01. The test is based on the UCA International Users Group Device Test Procedures version 2.2. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 30920410-Consulting 09-1135 will prevail.

The test has been carried out on one single specimen of the products as referred above and submitted to KEMA by SHR Automation. 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, June 9, 2009

W. Strabbing
Manager Intelligent Networks and Communication

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1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.2

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, Dset10a, DsetN1ae	
3: Substitution	Sub1, Sub2, Sub3, SubN1	
4: Setting Group Selection	Sg1, SgN1a	Sg3a
4+: Setting Group Definition	Sg2, Sg3b, Sg4, SgN1b, SgN2, SgN3, SgN4	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
12a: Direct control	CltN3, CtIN8, DOns1, DOns3	
12c: Enhanced Direct Control	CltN3, CtIN8, DOes2, DOes5	
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, FtN1ab	Ft2c, Ft4, FtN1c