



IEC 61850 Certificate Level A¹

International Usersgroup

No. 30820176-Consulting 08-1719

Issued to:
NARI-RELAYS
69 Suyuan Road
Jiangning
Nanjing 211102
P.R. of China

For the product:
RCS-931
Line Differential Relay
Firmware version R10.01

Issued by: 

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: "RCS-931 Line Differential Relay IEC 61850 Protocol Implementation Conformance Statement (PICS),2007-12-15 R1.00", "RCS-931 Line Differential Relay IEC 61850 Model Implementation Conformance Statement (MICS), 2007-12-15 R1.00", "IEC 61850 Tissues Conformance Statement(TICS),2007-12-15 R1.00" and product's extra information for testing: "RCS-931 Line Differential Relay Protocol implementation extra information for testing (PIXIT) of the IEC 61850 communication interface, 2007-12-15 R1.00".


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 as defined in the UCA International Users Group Device Test procedures v1.1):

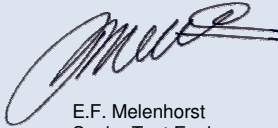
1 Basic Exchange (20/23)	9a GOOSE Publish (7/11)
2 Data Sets (2/5)	9b GOOSE Subscribe (9/9)
4+ Setting Group Selection (10/11)	12a Direct Control (5/11)
5 Unbuffered Reporting (10/13)	12d Enhanced SBO Control (10/17)
6 Buffered Reporting (13/15)	13 Time Synchronization (3/4)
	14 File Transfer (3/6)

This Certificate includes a summary of the test results as carried out at NARI Relays in P.R. of China with UniCASim 61850 V3.17.03 with test suite V3.17.03, UniCA 61850 analyzer V4.18.01 and UniCASim GOOSE v2.14.01 with test suite V2.12.05. 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. 30820176-Consulting 08-1718 will prevail.

The test has been carried out on one single specimen of the products as referred above and submitted to KEMA by NARI-Relays. 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, July 25, 2008


W. Strabbing
Manager Intelligent Networks and Communication


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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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 1.1

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, SrvN2, SrvN3
2: Data Sets	Dset1, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1	
4+: Setting Group Definition	Sg2, Sg3, Sg4, Sg5 SgN2, SgN3, SgN4, SgN5	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, (Rp7) RpN1, RpN2, RpN3, RpN4	Rp5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, (Br7), Br8, Br9 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
12a: Direct control	CltN3, CltN8 DOns1, DOns3	Ctl2
12d: Enhanced SBO control	Ctl3, CltN1, CltN2, CltN3, CltN4, CltN9 SBOes1, SBOes2, SBOes3	Ctl2
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, FtN1ab	

Note: Rp7 and Br7 are not applicable because buffer time is not supported.