

No. 10003111-OPE/INC 15-2933

**Issued to:**

Siemens Protection Devices Limited  
North Farm Road, Hebburn  
Tyne & Wear, NE31 1LX  
United Kingdom

**For the server product:**

Reyrolle 7SR12 Argus  
Directional Overcurrent Protection Relay  
Firmware Version: 2436H80004R4b  
EN100 Communication Module V04.27  
S/N: 104483509/001

The server product has not been shown to be non-conforming to:

## IEC 61850 First Edition Parts 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, the UCA International Users Group Server Device Test Procedures version 2.3 with TPCL<sup>2</sup> version 1.8, the product's protocol, model and technical issue implementation conformance statements and extra information for testing: "7SR12 Argus Directional Overcurrent Protection Relay IEC 61850 Model Implementation Conformance Statement (MICS), 2015/08" and "7SR11 and 7SR12 Argus Overcurrent Protection Relays IEC 61850 PIXIT, PICS, TICS, 2015/10".

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 (20/24)	9a GOOSE Publish (10/12)
2 Data Sets (3/6)	9b GOOSE Subscribe (10/11)
2+ Data Set Definition (23/23)	12a Direct Control (5/12)
4 Setting Group Selection (3/3)	12c Enhanced Direct Control (5/13)
5 Unbuffered Reporting (19/19)	12d Enhanced SBO Control (10/19)
6 Buffered Reporting (27/28)	13 Time Synchronization (4/5)
	14 File Transfer (4/7)

This certificate includes a summary of the test results as carried out at Siemens in The United Kingdom with UniCA 61850 Client Simulator 4.29.03 with test suite 3.29.00 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 10003111-OPE/INC 15-2935 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, December 1, 2015



**M. Adriaensen**  
Head of Department  
Operational Excellence

Issued by:



DNV KEMA is now DNV GL



**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 Server Device Test Procedures version 2.3 with TPCL 1.8

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3, Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
4: Setting Group Selection	Sg1, SgN1a, Sg3	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, Rp15, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp6, Rp7, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br15, Br20, Br21, Br22, Br25, Br26, Br27, Br28, BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br5, Br6, Br7, Br8, Br10, Br11, Br12, Br24
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop6, Gop7, Gop10b, GopN1
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct Control	CtIN3, CtIN8, DOns1	CtIN11, DOns3
12c: Enhanced Direct Control	CtIN3, CtIN8, DOes2, DOes5	CtIN11
12d: Enhanced SBO Control	CtI3, CtIN1, CtIN2, CtIN3, CtIN4, CtIN9, SBOes1, SBOes2, SBOes3	CtIN11
13: Time Sync	Tm1, Tm2	Tm3, TmN1
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version:

- Reyrolle 7SR11 Argus Overcurrent protection relay