

## IEC 61850 Certificate Level A1

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legued to

Yousung Instrument & Electric Co. #7-13, Songdo-dong, Yeonsu-gu Incheon Republic of Korea

No. 74101864-MOC/INC 12-01490

For the product: YSVR-2110A Voltage Regulation Relay Hw Rev 1.00 Sw Rev 1.03

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: "Protocol Implementation Conformance Statement for the IEC 61850 interface in <YSVR-2110A>", "Model Implementation Conformance Statement for <YSVR-2110A>", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in <YSVR-2110A>", and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in <YSVR-2110A>".

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 v2.2b):

- 1 Basic Exchange (19/24)
- 2 Data Sets (3/6)
- 2+ Data Set Definition (23/23)
- 5 Unbuffered Reporting (16/18)
- 6 Buffered Reporting (18/20)

- 9a GOOSE Publish (5/12)
- 9b GOOSE Subscribe (9/10)
- 12a Direct Control (6/11)
- 12d Enhanced SBO Control (11/19)
- 13 Time Synchronization (3/5)

This certificate includes a summary of the test results as carried out at KEMA in Arnhem, The Netherlands with UniCAsim 61850 version 4.24.02 with test suite 3.24.02c and UniCA 61850 analyzer 4.24.02. The test is based on the UCA International Users Group Device Test Procedures version 2.2b. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 12-01489 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by Yousung. 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, August 10, 2012

M. Adriaensen

Director Intelligent Networks & Communication

Certification Manager

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 2.2b

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5	Srv6, Srv7, Srv8, SrvN1e, SrvN3
	Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	
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	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4	Rp5, Rp6, Rp8, Rp9, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br6, Br10, Br11, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
12a: Direct control	CtlN3, CtlN8	Ctl2, CtlN11
	DOns1, DOns3	
12d: Enhanced SBO control	Cti3, CtiN1, CtiN2, CtiN3, CtiN4, CtiN9	Ctl2, CtlN11
	SBOes1, SBOes2, SBOes3	
13: Time sync	Tm1, Tm2, TmN1	