

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

No. 74106906-OPE/INC 15-0760

**Issued to:** INEA d.o.o. Stegne 11 SI-1000 Ljubljana Slovenia For the client system: ME-RTU Software version: 90.34 Hardware version: 1.23

## 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 and UCAIug 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: "Protocol Implementation Conformance Statement for the IEC 61850 interface in ME-RTU Firmware Version 90.34, 27th February 2015", "Model Implementation Conformance Statement for the IEC 61850 interface in ME-RTU Firmware Version 90.34, 27th February 2015" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in ME-RTU Version 90.34, 27th February 2015" and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in the ME-RTU Date: 27th February 2015".

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 5 6	Basic Exchange (14/22) Unbuffered Reporting (12/18) Buffered Reporting (16/22)	12a Direct Control (4/7) 12b SBO Control (6/9) 12c Enhanced Direct Control (4/7) 12d Enhanced SBO Control (6/9)
		12d Enhanced SBO Control (6/9)
		13 Time Synchronization (1/4)

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA IED Simulator version 3.26.01 and UniCA 61850 Analyzer version 5.28.04. This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 74106906-OPE/INC 15-0759 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by INEA d.o.o. 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, March 1, 2015

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



DNV KEMA is now DNV GL



Certification Manager

 $^1$  Level A - Independent test lab with certified ISO 9001 Quality System  $^2$  TPCL - Test procedures change list

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Applicable Test Procedures from the UCAIug 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 cSrv5, cSrv6, cSrvN3, cSrvN4, cSrvN5
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	
12b: SBO Control		cCtl4, cCtlN1 cSBOns1, cSBOns2, cSBOns3	cSBOns4
12c:	Enhanced Direct Control	cCtl4, cCtlN1 cDOes1, cDOes2	
12d:	Enhanced SBO Control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cSBOes4
13:	Time sync	cTm1	