

No. 10151005-INC 19-2677

**Issued to:**

Martem AS  
Laki 25  
12915 Tallinn  
Estonia

**For the client system:**

Telem-AGC  
Software version: 2.0.126-8C74E1B-K4  
Hardware version: AGC-EL-N4-N

The client system has not been shown to be non-conforming to:

## IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.1.1 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in Telem-AGC, date 15.07.2019", "Model Implementation Conformance Statement for the IEC 61850 interface in Telem-AGC, date 11.07.2019" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in Telem-AGC, date 11.07.2019" and the extra information for testing: "Protocol Implementation eXtra Information for Testing the IEC 61850 interface in Telem-AGC, date 11.07.2019".

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 (17/24)	12a Direct Control (6/9)
2 Data Sets (2/10)	12b SBO Control (8/11)
2+ Data Set Definition (8/8)	12c Enhanced Direct Control (6/9)
5 Unbuffered Reporting (19/24)	12d Enhanced SBO Control (8/11)
6 Buffered Reporting (23/28)	13 Time Synchronization (3/4)
	14 File Transfer (6/8)

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA 61850 IED simulator 6.1.31 and UniCA 61850 Analyzer 5.36.01. This document has been issued for information purposes only, and the archived of the DNV GL verification report No. 10151005-INC 19-2676 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Martem AS. 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, July 15, 2019



**N.A. Heijker**  
Business Leader  
Interoperability of Smart Power Systems

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

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Applicable Test Procedures from the UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv5, cSrv6, cSrv7, cSrv9, cSrv10, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs5, cDs6
2+: Data Set Definition		cDs10, cDs11, cDs12, cDs13, cDs14, cDsN10a, cDsN10b, cDsN11
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp2, cRp7, cRp13b, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr2, cBr7, cBr13b, cBr18, cBr32, cBr33, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl2, cCtl3
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl2, cCtl3, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl2, cCtl3
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl2, cCtl3, cSBOes4
13: Time Synchronization	cTm1, cTmN1	cTm2
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt5, cFtN2