

No. 10147432-INC 19-2400

Issued to:

Elipse Software
Rua 24 de Outubro, 353-10 Andar
90510-002 Porto Alegre RS
Brasil

For the client system:

Elipse Power
IEC 61850 client driver version: 3.0.1
Hardware: Lenovo Ideapad 320 with Windows 10
Enterprise

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 Elipse E3/Power, version 2.00", "IEC 61850 Client Driver Model Implementation Conformance Statement, version 2.00" and "IEC 61850 Client Driver Tissues Implementation Conformance Statement, version 2.00" and the extra information for testing: "IEC 61850 Client System Protocol Implementation Conformance Extra Information, version 2.00".

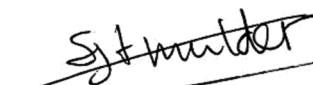
The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

1 Basic Exchange (21/24)	12a Direct Control (7/9)
2 Data Sets (7/10)	12b SBO Control (9/11)
2+ Data Set Definition (6/8)	12c Enhanced Direct Control (7/9)
4 Setting Group Selection (3/3)	12d Enhanced SBO Control (9/11)
5 Unbuffered Reporting (22/24)	13 Time Synchronization (3/4)
6 Buffered Reporting (26/28)	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 5.34.01. This document has been issued for information purposes only, and the archived of the DNV GL verification report No. 10147432-INC 19-2399 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Elipse Software. 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, April 16, 2019



S.J.T. Mulder
Business Leader
Interoperability of Smart Power Systems

Issued by:




R. Schimmel
Verification Manager

¹ 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	cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv9, cSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs3, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs11, cDs12, cDs13, cDs14, cDsN11
4: Setting Group	cSg2, cSgN1	cSg1
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp12, cRp13b, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr1, cBr2, cBr6, cBr7, cBr12, cBr13b, cBr18, cBr32, cBr33, cBrN1
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2, cCtl3
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cCtl3, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2, cCtl3
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cCtl3, cSBOes4
13: Time Synchronization	cTm1, cTmN1	cTm2
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt5, cFtN2