

No. 10133027-INC 19-2559

Issued to:

ETM Professional Control GmbH
Marktstrasse 3
7000 Eisenstadt
Austria

For the client system:

SIMATIC WinCC Open Architecture
Software version: 3.16 P012
Hardware: Fujitsu Celsius W420 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 the WinCC OA IEC 61850 client, date July 2019", "Model Implementation Conformance Statement for the IEC 61850 interface in the WinCC OA IEC 61850 client, date July 2019" and "TISSUES Implementation Conformance Statement for the IEC 61850 Edition 2 Client interface in the WinCC OA IEC 61850 client, date July 2019" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the WinCC OA IEC 61850 Client, date July 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 (21/24)	12a Direct Control (7/9)
2 Data Sets (6/10)	12b SBO Control (9/11)
2+ Data Set Definition (8/8)	12c Enhanced Direct Control (7/9)
3 Substitution (3/3)	12d Enhanced SBO Control (9/11)
4 Setting Group Selection (3/3)	14 File Transfer (5/8)
5 Unbuffered Reporting (24/24)	
6 Buffered Reporting (28/28)	

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. 10133027-INC 19-2558 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by ETM. 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 8, 2019



E. Henriquez
Business Leader
Interoperability of Smart Power Systems

Issued by:



DNV KEMA is now DNV GL



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, sSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs11, cDs12, cDs13, cDs14, cDsN10a, cDsN10b, cDsN11
3: Substitution	cSub1, cSub3	cSub2
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, cRp16, cRp17, 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, cBr16, cBr17, 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
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFtN2