

IEC 61850 Certificate Level A¹

No. 10028420-INC 17-2561

Issued to:

Qualitrol Company LLC
1385 Fairport Road
Fairport, NY 14450
United States of America

For the client system:

QTMS Transformer Monitor System
QTMS software version: 2.8.3
IEC 61850 client version: 01.00.12
S/N: 50264450-1-1

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 1.0 with TPCL² 1.0_rev3 with product's protocol, model and technical issue implementation conformance statements: "IEC 61850 PICS for QTMS, IST-156-2, September 26, 2017", "IEC 61850 MICS for QTMS, IST-156-1, September 26, 2017" and "IEC 61850 TICS for QTMS, IST-156-4, September 26, 2017" and the extra information for testing: "IEC 61850 PIXIT for QTMS, IST-156-3, September 26, 2017".

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 (15/24)	13 Time Synchronization (2/4)
2 Data Sets (4/10)	
2+ Data Set Definition (5/8)	
5 Unbuffered Reporting (18/23)	
6 Buffered Reporting (23/28)	

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA 61850 IED simulator 6.1.23 and UniCA 61850 Analyzer 5.31.00. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10028420-INC 17-2562 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Qualitrol. 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, September 27, 2017



P. Cioci
Business Director
Intelligent Networks and Communication

Issued by:



DNV-GL
DNV KEMA is now DNV GL



R. Schimmel
Verification 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 UCA International Users Group Edition 2 Client Conformance Test Procedures version 1.0 with TPCL 1.0_rev3

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv1, cSrv2, cSrv3, cSrv5, cSrv7, cSrvN3, cSrvN5
2: Data Sets		cDs2, cDs3, cDs5, cDs6
2+: Data Set Definition		cDs10, cDs12, cDs13, cDsN10a, cDsN11
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp2, cRp7, cRp12, cRp13b, cRp16
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr2, cBr7, cBr12, cBr13b, cBr16, cBr32, cBr33
13: Time Synchronization	cTm1, cTmN1	