

No. 10004271-OPE/INC 16-2130

Issued to:

Dema Röle A.Ş.
Zumrutevler Mh. Ataturk Cd.
Inanc Sk. No: 4
34852 Maltepe, Istanbul
Turkey

For the server product:

MPM 400.D Multifunction Motor Protection Relay
Software version: 1.0
S/N: D.MPM.0014

The server product 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 Server Test Procedures version 1.0 with TPCL² 1.1.1 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface of DEMA MPM 400.D, DEMA DPM 400.D, DEMA CPM 400.D and of DEMA VPM 400.D, June 3, 2016", "Model Implementation Conformance Statement for the IEC 61850 interface in DEMA MPM 400.D and DPM 400.D, June 21, 2016" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface in DEMA MPM 400 D, DPM 400 D, CPM 400 D, VPM 400 D, June 21, 2016" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in DEMA MPM 400D DEMA, DPM 400.D, DEMA CPM 400.D and of DEMA VPM 400.D, June 2, 2016".

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 (20/26)	9a GOOSE Publish (10/13)
2 Data Sets (4/7)	9b GOOSE Subscribe (12/14)
4 Setting Group Selection (4/4)	12a Direct Control (4/18)
4+ Setting Group Definition (12/13)	13 Time Synchronization (4/7)
5 Unbuffered Reporting (19/20)	14 File Transfer (5/8)
6 Buffered Reporting (26/29)	

This certificate includes a summary of the test results as carried out at DNV GL in The Netherlands with UniCA 61850 Client Simulator 4.29.03 with test suite Ed2 4.31.05 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. 10004271-OPE/INC 16-2129 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Dema Röle. 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, 2016



P. Cioci
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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 Server Test Procedures version 1.0 with TPCL 1.1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrv12, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
4+: Setting Group Definition	sSg2, sSg4, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg5, sSg9
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp9, sRp14, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr9, sBr14, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop7, sGop9, sGop10, sGop11	sGop1, sGop6, sGopN1
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	
13: Time sync	sTm1, sTm2, sTmN1	sTm3
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version:

- VPM 400.D Voltage & Frequency Protection Relay
- CPM 400.D Multifunction Current Protection Relay
- DPM 400.D Multifunction Directional Protection Relay