

No. 72124320-OPE/INC 15-3119

Issued to:

ABB S.p.a - Power Products division
Unità Operativa Adda - HV
Via dei Ceramisti, snc - Loc. S.Grato
26900 Lodi
Italy

For the server product:

Motor Drive 1.4
Software version: 1.11
S/N: 1234-0010

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 1.0.2 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 Ed 2 interface in Motor Drive 1.4, Version 1.06", "Model Implementation Conformance Statement for the IEC 61850 Ed 2 interface in Motor Drive 1.4, Version 1.09" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface in Motor Drive 1.4, Version 1.06" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Ed 2 interface in Motor Drive 1.4, Version 1.08".

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 (17/26)	9b GOOSE Subscribe (12/14)
2 Data Sets (4/7)	12a Direct Control (6/18)
9a GOOSE Publish (10/13)	13 Time Synchronization (3/7)

This certificate includes a summary of the test results as carried out at ABB in Italy with UniCA 61850 Client Simulator 4.29.03 with test suite Ed2 3.29.01 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 72124320-OPE/INC 15-3118 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by ABB. 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, December 4, 2015



M. Adriaensen
Head of Department
Operational Excellence

Issued by:



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 1.0.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sSrv6, sSrv8, sSrvN1f
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
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	sCtl7, sCtl16
13: Time sync	sTm1, sTm2, sTmN1	