

IEC 61850 Conformance Certificate Level B¹

Issued to:
ABB S.p.A.
Via Baioni 35
24123 Bergamo
ITALY

For the product:
ABB SACE Emax2 Ekip COM IEC61850
Firmware version 3.01
S/N 429011249010VV010

Issued by: ABB Switzerland Ltd, Power Systems, SVC Baden

The server product has not shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10, the UCA International Users Group Server Device Test Procedures version 3.03, the product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for ABB SACE Emax2 Based on IEC 61850-7-2, v.1.6", "Protocol Implementation Conformance Statement (PICS) for ABB SACE Emax2 Based on IEC 61850-8-1, v.1.3", "Model Implementation Conformance Statement (MICS) for ABB SACE Emax2, v.1.9", "Technical Issues Conformance Statement (TICS) for ABB SACE Emax2, v.1.1" and the extra information for testing "Protocol Implementation eXtra Information for Testing (PIXIT) for ABB SACE Emax2 Based on IEC 61850-10, v.1.10".

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 (18/24)	9b	GOOSE Subscribe (10/11)
2	Data Sets (3/6)	12c	Enhanced Direct Control (5/13)
5	Unbuffered Reporting (13/18)	13	Time Synchronization (4/5)
9a	GOOSE Publish (6/12)		

This Certificate includes a summary of the test results as carried out at the SVC Baden in Switzerland with UniCasim 61850 version 4.29.03 with test suite 3.29.00 and UniCA Analyzer 5.28.03. This document has been issued for information purposes only, and the original paper copy of the SVC Baden report: No. 1KHL050113 will prevail. The test has been carried out on one single specimen of the product as referred above and submitted to SVC Baden by ABB AB, GA Products. The manufacturer's production process has not been assessed. This certificate does not imply that SVC Baden has approved any product other than the specimen tested.

Baden, 2017-07-11



S. Gerspach
Certification Manager



C. Vottis
Test engineer

1: Level B - Tester with ISO 9001 Quality System

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Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 3.03:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3 Srv6, Srv8, SrvN1e, SrvN1f
2: Data Sets	Dset1, Dset10a, DsetN1ae	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, RpN1, RpN2, RpN3, RpN4, RpN8	Rp8, Rp11, Rp12
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop7
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12c: Enhanced direct control	Does2, Does5, CtlN3	CtlN8, CtlN11
13: Time sync	Tm1, Tm2	Tm3, TmN1