



# IEC 61850 Certificate Level A<sup>1</sup>

No. B43-17-AM

Issued to:

**Ormazabal Protection & Automation S.L.U.**  
Barrio basauntz 2  
48140, Igorre (Bizkaia)  
Spain

For the server product:

**Product id: 3PRP0046**  
**Product name: ekor.rci**  
**HW version: rev 01**  
**FW Version: 7.11**

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 TPCL<sup>2</sup> version 1.2.4 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 Ed2 interface (PICS\_61850ServerEd2\_ORM\_ekor\_rci\_rpa\_rpt.rev1b)", "Model Implementation Conformance Statement for the IEC 61850 Ed2 Interface" (MICS\_61850ServerEd2\_ORM\_ekor\_rci\_rpa\_rpt.rev1b), "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface" (TICS\_61850ServerEd2\_ORM\_ekor\_rci\_rpa\_rpt.rev1b) and product's extra information for testing: "Protocol Implementation eXtra Information for Testing for the IEC 61850 Ed2 interface" (PIXIT\_61850ServerEd2\_ORM\_ekor\_rci\_rpa\_rpt.rev1c).

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

1 Basic Exchange (22/26)	12a Direct Control (5/18)
2 Data Sets (4/7)	13 Time Synchronization (3/7)
2+ Data Set Definition (22/24)	14 File Transfer (8/8)
5 Unbuffered Reporting (18/21)	
6 Buffered Reporting (25/30)	

This Certificate includes a summary of the test results as carried out at Tecnalia Research & Innovation in Spain with client simulator PROTESTING360 version 1.2.6.19 with test suite version IEC61850\_SERVER\_ED2\_REV\_1\_0\_TPCL\_1\_2\_4\_V1\_2 and analyser PROTESTING360 version 1.2.6.19. This document has been issued for information purposes only, and the original paper copy of the Tecnalia Research & Innovation report: No. B43-17-AM will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to Tecnalia Research & Innovation by Ormazabal. The manufacturer's production process has not been assessed. This certificate does not imply that Tecnalia Research & Innovation has certified or approved any product other than the specimen tested.

Bilbao, March 8<sup>th</sup> 2018

Issued by: Tecnalia Research & Innovation

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1 Level A - Independent Test lab with certified [ISO 9001] [ISO/IEC 17025] Quality System  
2 Test Procedure Change List

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL version 1.2.4:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv8, sSrv9, sSrv10, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+: Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs11, sDs13, sDs14, sDsN1cd sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs12
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12
12a Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl16
13 Time sync	sTm1, sTm2, sTmN1	
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2c, sFt3, sFtN1c