IEC 61850 Certificate Level A[1]

Issued to:

Energy Team S.p.A.
Via della Republica 9
20090 Trezzano sul Naviglio (MI)
Italy

For the server product:

ET-CCI
Remote Terminal Unit for Electrical Applications
(Controllore Centrale Impianto)
Software version: 1.0.02.59
S/N: 11052476

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "PICS (Protocol Implementation Conformance Statement) for the IEC 61850 Ed. 2.0 interface of the Energy Team ET-CCI, version 1.0", "MICS (Model implementation conformance statement) for the IEC 61850 Ed. 2.0 interface of the Energy Team IED ET-CCI, version 1.0" and "TICS (Tissues conformance statement) for the IEC 61850 Ed. 2.0 interface of the Energy Team Device ET-CCI, version 1.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 Edition 2 server interface in ET-CCI, version 2".

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)	12a	Direct Control (6/18)
2	Data Sets (4/7)	12b	SBO Control (11/27)
2+	Data Set Definition (24/24)	12c	Enhanced Direct Control (6/20)
5	Unbuffered Reporting (21/23)	12d	Enhanced SBO Control (12/28)
6	Buffered Reporting (29/33)	13	Time Synchronization (4/7)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 2.2 with test suite 20230509 and UniCA 61850 Analyzer 6.41.0. This document has been issued for information purposes only, and the archived DNV verification report No. 10453731-DSO 23-2937 rev 2 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV by Energy Team S.p.A. The manufacturer's production process has not been assessed. This certificate does not imply that DNV has approved any product other than the specimen tested.

Arnhem, August 3, 2023

Issued by:

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[1] Level A - Independent test lab with certified ISO 9001 Quality System

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv9, sSrv10, sSrv12
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+: Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs11, sDs12, sDsN11, sDsN12
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp15, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr15
12a: Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl13, sCtl15
12b: SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6	sCtl6, sCtl15
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl13, sCtl15
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl6, sCtl15
13: Time sync	sTm1, sTm2, sTmN1	sTmN2