IEC 61850 Certificate Level A[1]

No. 10035088-INC 17-2049

Issued to:

ELESTER-PKP Sp. z o.o.
81 Pogonowskiego St.
90-569 Lodz
Poland

For the server product:

CZAT 7 CPU with PSU, DOU, DIOU, DIU and Synoptic modules
Protection unit for trains and trams traction systems
CPU software version: V1.0
CPU hardware version: V1.0 and S/N: 11141011

The server product has not been 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 and the extra information for testing: "Elester-PKP Sp. z o.o. CZAT7: IEC 61850 Server Interface Conformance Statement, issue 0.1.2, dated 30-03-2017"

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 (21/24)	9a	GOOSE Publish (10/12)
2	Data Sets (3/6)	9b	GOOSE Subscribe (9/11)
2+	Data Set Definition (24/24)	12a	Direct Control (3/11)
5	Unbuffered Reporting (17/18)	12b	SBO Control (6/14)
6	Buffered Reporting (24/27)	13	Time Synchronization (4/5)
		14	File Transfer (4/7)

This certificate includes a summary of the test results as carried out at INFO TECH in Poland with UniGrid SA 1.0.287.780 with test suite 1.0 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 report No. 10035088-INC 17-2048 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Elester-PKP. 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, April 28, 2017

P. Cioci
Global Service Line Leader
Operational Excellence of Power Systems

Issued by:

DNV·GL
DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

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

Applicable Test Procedures from the UCA International Users Group Server 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, Srv7, Srv8, SrvN1e, SrvN1f, SrvN2, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14	DsetN15a, DsetN15b
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, RpN1, RpN2, RpN3, RpN4, RpN8	Rp6, Rp7, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br20, Br21, Br22, Br25, Br26, Br27, Br28, BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br6, Br7, Br8, Br10, Br11, Br12
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop5, Gop6, Gop7, GopN1
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	
12a: Direct Control	CtlN3, DOns1	DOns3
12b: SBO Control	CtlN1, CtlN2, CtlN3, CtlN4, SBOns2	Ctl3
13: Time Sync	Tm1, Tm2	Tm3, TmN1
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	