

No. 10029266-OPE/INC 16-2568

Issued to:

JSC "Electropribor"
Yakovlev prospect, 3
428003 Cheboksary
Russian Federation

For the server product:

PQI96 (ЩМК96)
Power Quality Instrument
Firmware version: 1.9.3-iec81
S/N: 00032

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: "Protocol Implementation Conformance Statement (PICS) for PQI96, PQI120M, PQI120MP (ЩМК96, ЩМК120С, ЩМК120СП), 29-11-2016", "Model Implementation Conformance Statement (PICS) for PQI96, PQI120M, PQI120MP (ЩМК96, ЩМК120С, ЩМК120СП), 29-11-2016" and "TISSUES Implementation Conformance Statement (PICS) for PQI96, PQI120M, PQI120MP (ЩМК96, ЩМК120С, ЩМК120СП), 24-11-2016" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface for PQI96, PQI120M, PQI120MP (ЩМК96, ЩМК120С, ЩМК120СП), 24-11-2016".

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 (16/24)	13 Time Synchronization (3/5)
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This certificate includes a summary of the test results as carried out at NTC FSK UES in Russia with UniCA 61850 Client Simulator 4.32.01 with test suite 4.32.01 and UniCA 61850 Analyzer 5.31.01. This document has been issued for information purposes only, and the original paper copy of the DNV GL verification report No. 10029266-OPE/INC 16-2567 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Electropribor. 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 15, 2016



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

Issued by:



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, SrvN1f
13: Time Sync	Tm1, Tm2	TmN1

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version:

- PQI120M (ЩМК120С) Power quality instrument
- PQI120MP (ЩМК120СП) Power quality instrument