ATTESTATION OF CONFORMITY

No. 10528565-DSO 25-4074

Issued to:
Brodersen A/S
Byageren 7,
2850 Naerum
Denmark

for the product:
RTU32M composed with MP32A (Modular RTU)
Software version: 1.66.5.376
Hardware version: Type 1
S/N: 2020-41-18102
Interface: Ethernet (RJ45)

With the implemented communication protocol:

IEC 60870-5-7 Ed.1 - *Controlled Station*

Transmission protocols Security extensions for **IEC 60870-5-104** protocols (applying IEC 62351)
(IEC 62351-3 Ed.1.2 and **IEC/TS 62351-5 Ed.2)**

The product has not been shown to be non-conforming to the specified protocol standard, including the interface requirements. End-to-End data element tests for the information and control points as described in manufacturer Protocol Implementation Conformance Statement (PICS) have been performed on the product's protocol implementation. The IEC 62351 test cases related to the following conformance requirements have been verified with a positive result:

Conformance to IEC 62351-5:		Conformance to IEC 60870-5-104:	
• MAC Algorithm: HMAC-SHA256 • Key Warp Algorithm: AES-256 • Use of Error Messages	• ASDU Segmentation • Session Key Maintenance • Challenge/reply authentication • Aggressive Mode • Security Statistics	• Station initialization • Background Scan • Acquisition of events • General interrogation • Clock synchronization	• Command transmission • Transmission of integrated totals • Parameter loading • Test procedure

Conformance to selected TLS protocol features:	Conformance to certificate support:	Conformance to cryptographic algorithm support:
• TLS_RSA_WITH_AES_128_CBC_SHA and the one described in the test report • TLS versions: 1.2 • TLS Resumption using HelloRequest • TLS Renegotiation using HelloRequest • TLS Session Renegotiation extension	• Support of multiple CA • Certification revocation using CRL • Acceptance of any certificate from authorized CA • Acceptance of individual certificates from authorized CA	• RSA 1024, 2048 • SHA-256

The test campaign did not reveal any errors in the product's protocol implementation.
This attestation is granted on account of tests made at location of DNV in The Netherlands and performed with DNV UniGrid Telecontrol Simulator version 2.5.1. The test performed were related to the following PICS:

1. For IEC 62351-3: IEC 62351-3 Protocol Implementation Document (PICS) version 1.06
2. For IEC 62351-5: IEC 62351-5 Protocol Implementation Document (PID) version 1.02
3. For IEC 60870-5-104: 60870-5-104 Protocol Implementation Document for RTU32M and RTU32N series version 0.07

This Attestation has been issued for information purpose only, and the archived results, including remarks and limitations, are laid down in DNV report no. 10528565-DSO 25-4075.
The tests have been carried out on one single specimen of the product referred above and submitted to DNV by Brodersen A/S. The manufacturer's production process has not been assessed. This attestation does not imply that DNV has verified any server product other than the specimen tested.

Arnhem, May 13th, 2025

Issued by:

S. Pini
Test Engineer
Interoperability of Power Systems

O.C. Serban
Principal Consultant & Team Leader
Protocol Competence and Test Center

IMPORTANT: Remarks apply to this implementation. See the resulting report for full details. Publication of this document is allowed. Publication in total or in part and/or reproduction in whatsoever way of the contents of the above mentioned report(s) is not allowed unless permission has been explicitly given either in the report(s) or by previous letter.

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