

IEC 61850 Certificate Level A¹

Issued to:

SAE IT-Systems GmbH & Co. KG
Im Gewerbegebiet Pesch 14
50767 Köln
Germany

For the server product:

BCU-50-M
Bay Control Unit
Software version: Release 07.003.02B Build 017-
16.05.2023 13:13 Rev 59212
S/N: 310050502310

The server product has not been shown to be non-conforming to:

IEC 61850 Edition 2 with Amendment 1 Parts 6, 7-1, 7-2, 7-3, 7-4, 8-1

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 and the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.1 with product's protocol and model issue implementation conformance statements and the extra information for testing: "IEC 61850 Interoperability Telecontrol Substation Automation starting with setIT V7.0 from series5e devices, date 28-7-2022".

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):

1a Basic Exchange (19/29)	12a Direct Control (8/18)
2 Data Sets (4/7)	12b SBO Control (15/27)
2+ Data Set Definition (24/24)	12c Enhanced Direct Control (10/20)
5 Unbuffered Reporting (25/26)	12d Enhanced SBO Control (16/28)
6 Buffered Reporting (35/36)	13a Time Synchronization with SNTP (5/8)

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 2.0.2 with test suite 20230307.1 and UniCA 61850 Analyzer 6.40.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10377377-DSO 23-2969 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 SAE IT-systems GmbH & Co. KG. 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, July 28, 2023



G. Akse
Business Development Manager
Interoperability of Smart Power Systems

Issued by:




R. Schimmel
Verification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System
UCA International Users Group P.O. Box 315, Shell Knob, MO 65747 USA

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Applicable Server Test Procedures from the UCA International Users Group Edition 2 with Amendment 1 Server Test Procedures version 1.1

Conformance Block	Mandatory	Conditional
1a: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdef, sSrvN4	sAssN6, sSrv9, 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, sRp23, sRpN1, sRpN2, sRpN3, sRpN4, sRpN5, sRpN7, sRpN8, sRpN9	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRp15
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr23, sBr24, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN7, sBrN8, sBrN9, sBrN10	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr15
12a: Direct control	sCtl5, sCtl10, sDOs1, sDOs2	sCtl13, sCtl15, sCtl16, sCtl17
12b: SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOs1, sSBOs2, sSBOs6	sCtl4, sCtl6, sCtl15, sCtl16, sCtl17, sCtl27
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl13, sCtl14, sCtl15, sCtl16, sCtl17, sCtl26
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl6, sCtl15, sCtl16, sCtl17, sCtl26
13a: Time sync SNTP	sTm1, sTm2, sTm7, sTmN1	sTm5