

IEC 61850 Certificate Level A¹

Issued to:

Schneider Electric Industries SAS
35 rue Joseph Monier
92500 Rueil Malmaison
France

For the server product:

Easergy MiCOM P546
Line Differential Protection Relay
Software version: K3
Hardware version: M
S/N: 37117942

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 2.0.4 with product's protocol, model and technical issue implementation conformance statements: "P54x/EN PC/Vk5 – Ed. 2 Protocol Implementation Conformance Statement (PICS), 12/2020", "P544 & P546/EN MC/Vk5 – Ed. 2 Model Implementation Conformance Statement (MICS), 12/2020" and "P54x/EN TC/Vk5 – Ed. 2 Tissues Conformance Statement (TICS), 12/2020" and the extra information for testing: "P54x/EN PX/Vk5 – Ed. 2 Protocol Implementation eXtra Information for Testing (PIXIT), 12/2020".


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 (21/26)	9a GOOSE Publish (12/13)
2 Data Sets (4/7)	9b GOOSE Subscribe (19/20)
4 Setting Group Selection (4/4)	12a Direct Control (7/19)
5 Unbuffered Reporting (21/23)	12b SBO Control (14/28)
6 Buffered Reporting (31/33)	12c Enhanced Direct Control (9/21)
	12d Enhanced SBO Control (15/29)
	13 Time Synchronization (6/7)
	14 File Transfer (7/8)

This certificate includes a summary of the test results as carried out at DNV in the Netherlands with UniGrid SA Simulator 1.8.0 with test suite 20210330.1 and UniCA 61850 Analyzer 6.40.01. This document has been issued for information purposes only, and the archived DNV verification report No. 10299662-INC 21-3111 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 Schneider Electric. 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 22, 2021



N.A. Heijker
Business Leader
Interoperability of Smart Power Systems

Issued by:



DNV



R. Schimmel
Verification Manager

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 2.0.4

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv12, sSrvN1e, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp13, sRp15, sRp17, 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	sBr8, sBr10, sBr11, sBr12, sBr13, sBr15, sBr17, sBr23, sBr24
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop5, sGop6, sGopN1, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos6b, sGos13
12a: Direct control	sCtl5, sCtl10, sDOs1, sDOs2	sCtl13, sCtl15, sCtl16
12b: SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOs1, sSBOs2, sSBOs6	sCtl4, sCtl6, sCtl15, sCtl16, sCtl27
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl13, sCtl14, sCtl15, sCtl16, sCtl26
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl6, sCtl15, sCtl16, sCtl26
13: Time sync	sTm1, sTm2, sTmN1	sTm3, sTm4, sTm5
14: File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2c, sFtN1c