

IEC 61850 Certificate Level A¹

For the server product:

Firmware Version: V02.501

PowerLogicTM P5F30 protection relays



No. 23-04- CAV-013

Issued to:

Schneider Electric

35 Rue Joseph Monier, 92500 Rueil-Malmaison

France

Issued by:

Taiwan Testing and Certification Center

No.8, Ln. 29, Wenming Rd., Guishan Dist., Taoyuan

City 333, Taiwan (R.O.C.)

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "PowerLogic P5 IEC 61850 Server Conformance Statement Ed.2_C7".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

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1	Basic Exchange (24/26)	9b	GOOSE Subscribe (18/21)		
2	Data Sets (4/7)	12a	Direct Control (6/18)		
2+	Data Set Definition (24/24)	12b	SBO Control (12/27)		
4	Setting Group Selection (4/4)	12c	Enhanced Direct Control (7/20)		
4+	Setting Group Definition (13/13)	12d	Enhanced SBO Control (13/28)		
5	Unbuffered Reporting (21/23)	13	Time Synchronization (4/7)		
6	Buffered Reporting (30/33)	14	File Transfer (5/8)		
9a	GOOSE Publish (11/13)				

This certificate includes a summary of the test results as carried out at Taoyuan in Taiwan with SimFlex Client Simulator Edition 2 Version 3.19 with test suite IEC 61850 Ed.2 Conformance TP2_0_6_20220906 and Wireshark Version 3.6.3. This document has been issued for information purposes only, and the original paper copy of the Taiwan Testing and Certification Center report: No. 23-04CAV-013 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to Taiwan Testing and Certification Center by Schneider Electric. The manufacturer's production process has not been assessed. This certificate does not imply that Taiwan Testing and Certification Center has certified or approved any product other than the specimen tested.

Taoyuan, February 20 2024

Sophia Liu Head of Section Cheng-Hsien Lin Test Engineer

¹Level A - Independent Test lab with certified ISO/IEC 17025 Quality System UCA International Users Group P.O. Box 315, Shell Knob, MO 65747 USA





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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv6, sSrv9, sSrv10, sSrv12, sSrvN1e, sSrvN2, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ac	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
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
4+: Setting Group Definition	sSg2, sSg4, sSg6, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg5, sSg9
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp15, 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	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr15
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop6, sGopN1, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	5T- 5T-
12a Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl13, sCtl16
12b SBO control	sCt15, sCt18, sCt19, sCt110, sCt111, sCt125, sSBOns1, sSBOns2, sSBOns6	sCtl6, sCtl16, sCtl27
12c Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	sCtl13, sCtl16, sCtl26
12d Enhanced SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl6, sCtl16, sCtl26
13 Time sync	sTm1, sTm2, sTmN1	sTmN2
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	T T

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and firmware version: PowerLogicTM P5V20, P5U20, P5U30, P5T30 and P5L30.