IEC 61850 Certificate Level A¹

No. 10200769-INC 20-2175

Issued to:

ALFANAR Electrical Systems
ALFANAR Industrial City
New Al Kharj Road, Riyadh
Kingdom of Saudi Arabia

For the client system:

SPRECON-V460 Energy Edition
Firmware version: 8.10
Hardware: HP Z240 Tower Workstation with
Windows 10 Enterprise

The client system 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 Client Conformance Test Procedures version 1.1.1 with product's protocol, model and technical issue implementation conformance statements and the extra information for testing: "SPRECON-V460 driver manual, IEC850, v.8.10".

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 (19/24)		9	GOOSE Control Block (2/2)	
2	Data Sets (6/10)		12a	Direct Control (7/9)	
2+	Data Set Definition (5/8)		12b	SBO Control (9/11)	
3	Substitution (3/3)		12c	Enhanced Direct Control (7/9)	
4	Setting Group Selection (2/3)		12d	Enhanced SBO Control (9/11)	
4+	Setting Group Definition (5/5)		13	Time Synchronization (4/4)	
5	Unbuffered Reporting (22/24)		14	File Transfer (6/8)	
6	Buffered Reporting (26/28)		15	Service Tracking (8/17)	

This certificate includes a summary of the test results as carried out at DNV GL in the Netherlands with UniCA 61850 IED simulator 6.1.31 and UniCA 61850 Analyzer 5.36.01. This document has been issued for information purposes only, and the archived copy of the DNV GL verification report No. 10200769-INC 20-2174 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Sprecher Automation. 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, February 14, 2020

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

Issued by:

DNV·GL

DNV KEMA is now DNV GL

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 Edition 2 Client Conformance Test Procedures version 1.1.1

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cSrv1, cSrv4, cSrv5, cSrv6, cSrv7, cSrv9, cSrv10, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDs6, cDsN1a, cDsN1b
2+: Data Set Definition		cDs10, cDs12, cDs13, cDsN10a, cDsN11
3: Substitution	cSub1, cSub3	cSub2
4: Setting Group	cSg2, cSgN1	
4+: Setting Group Definition	cSg11, cSg14	cSg10, cSg12, cSg13
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp2, cRp6, cRp7, cRp12, cRp13b, cRp16, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr2, cBr6, cBr7, cBr12, cBr13b, cBr16, cBr18, cBr32, cBr33, cBrN1
9: GOOSE Control Block		cGcb1, cGcb2
12a: Direct Control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2, cCtl3
12b: SBO Control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cCtl3, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2, cCtl3
12d: Enhanced SBO Control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cCtl3, cSBOes4
13: Time Synchronization	cTm1, cTmN1	cTm2, cTmN2
14: File Transfer	cFt1, cFt3, cFtN1	cFt2, cFt5, cFtN2
15: Service Tracking		cTrk1, cTrk2, cTrk3, cTrk4, cTrk7, cTrk8, cTrk9, cTrk11