



4085

# IEC 61850 Certificate Level B<sup>1</sup>

No. 50745.6UR.803

Issued to:  
GE Grid Automation  
650 Markland St.  
Markham, ON L6C 0M1, Canada



For the server product:  
UR N60 Network Stability and  
Synchrophasor Measurement Relay  
IEC 61850 Firmware Version 7.70

## The server product has not been shown to be non-conforming to: **IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1** Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10, the UCA International Users Group Server Device Test Procedures version 3.2, the product's protocol, model and technical issue implementation conformance statements: "UR Family Version 7.70 IEC 61850 Conformance Statement for PICS", "UR Family Version 7.70 – IEC 61850 Ed 1 Conformance Statement for MICS", "UR Family Version 7.70 IEC 61850 Conformance Statement for TICS – Edition 1 Tissues" and extra information for testing "UR Family Version 7.70 IEC 61850 Conformance Statement for PIXIT".

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 (24/25)	12a	Direct Control (7/11)
2	Data Sets (3/6)	12b	SBO Control (10/14)
4	Setting Group Selection (3/3)	12c	Enhanced Direct Control (9/13)
5	Unbuffered Reporting (16/18)	12d	Enhanced SBO Control (14/19)
6	Buffered Reporting (23/27)	13	Time Synchronization (4/5)
9a	GOOSE Publish (12/12)	14	File Transfer (5/7)
9b	GOOSE Subscribe (11/11)		

This certificate includes a summary of the test results as carried out at Grid Automation Laboratories in UK Grid Solutions Limited in Stafford, United Kingdom with UniCA 61850 client simulator version 4.31.02 with test suite version 3.29.00 and the UniCA 61850 Analyzer version 5.34. This document has been issued for information purposes only, and the original paper copy of the Grid Automation Laboratories report: No. 50745.6UR.303 will prevail.

The tests have been carried out on one single specimen of the product as referred above and submitted to Grid Automation Laboratories by GE Grid Automation. The manufacturer's production process has not been assessed. This certificate does not imply Grid Automation Laboratories at UK Grid Solutions Limited has approved any product other than the specimen tested.

Stafford, 05-06-2018

Allen Millard  
Grid Automation Laboratories Manager

Hua Qin  
Grid Automation Laboratories  
IED Communication Test Engineer

<sup>1</sup> Level B – Tester with ISO 9001 Quality System



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Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 3.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3 Srv6, Srv7, Srv8, Srv9, Srv10, Srv12, SrvN1e, SrvN1f, SrvN2, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group	Sg1, SgN1a, Sg3	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp8, Rp10, Rp11, Rp12, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br20, Br21, Br22, Br25, Br26, Br27, Br28 BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	Br5, Br8, Br10, Br11, Br12
9a: GOOSE Publish	Gop2, Gop3, Gop4, Gop9, Gop10a	Gop1, Gop5, Gop6, Gop7, Gop10b, GopN1, GopN2
9b: GOOSE Subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b, Gos4
12a: Direct Control	CtlN3, DOs1	Ctl2, Ctl7, CtlN10, CtlN11, DOs3
12b: SBO Control	CtlN1, CtlN2, CtlN3, CtlN4, SBOs2	Ctl2, Ctl3, Ctl7, CtlN10, CtlN11
12c: Enhanced Direct Control	CtlN3, DOes2, DOes5	Ctl2, Ctl7, CtlN6, CtlN8, CtlN10, CtlN11
12d: Enhanced SBO Control	CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2, Ctl3, Ctl7, CtlN6, CtlN10, CtlN11
13: Time sync	Tm1, Tm2	Tm3, TmN1
14: File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft3

All configuration file and data model tests have been successfully performed for the product variants using the same software and hardware version:

UR B30, UR B90, UR C30, UR C60, UR C70, UR D30, UR D60, UR F35, UR F60, UR G30, UR G60, UR L30, UR L60, UR L90, UR M60, UR T35, UR T60

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Grid Automation Laboratories, UK Grid Solutions Limited, St. Leonards Building, Redhill Business Park, Stafford ST16 1WT, United Kingdom  
Phone: + 44 (0) 1785 250 070

