

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

*Issued to:*

Nanjing SAC Power Grid Automation CO., Ltd.  
No. 39 Shuige Road, Jiangning Development Zone  
Nanjing, China

*For the product:*

Fault Recording and Fault Locating  
device DRL6600U  
MMS LITE Ver. 5.02.02.05  
ICD Ver. 1.4.8

*Issued by:* ABB Switzerland Ltd, Power Systems, SVC Baden

**The product has not 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 Device Test Procedures version 2.3 with TPCL<sup>2</sup> version 1.7.1, the product's protocol, model and technical issue implementation conformance statements: "IEC 61850 PICS for DRL6600U", "IEC 61850 MICS for DRL6600U", "IEC 61850 TICS for DRL6600U" and the extra information for testing: "IEC 61850 PIXIT for DRL6600U"


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 (21/24)	9a	GOOSE Publish (7/13)
2	Data Sets (3/6)	9b	GOOSE Subscribe (10/11)
4	Setting Group Selection (3/3)	12a	Direct Control (4/12)
4+	Setting Group Definition (7/7)	13	Time Synchronization (4/5)
6	Buffered Reporting (18/21)	14	File Transfer (6/7)
6+	Enhanced buffered reporting (9/12)		

This Certificate includes a summary of the test results as carried out at the SVC Baden in Switzerland with UniCasim 61850 version 4.28.04 with test suite 3.28.00 and UniCA Analyzer 5.28.03. This document has been issued for information purposes only, and the original paper copy of the SVC Baden report: No. 1KHL050060 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to SVC Baden by Nanjing SAC Power Grid Automation CO.,Ltd. The manufacturer's production process has not been assessed. This certificate does not imply that SVC Baden has approved any product other than the specimen tested.

Baden, 2014-09-22

  
S. Gerspach  
Certification Manager

  
C. Zehnder  
Test engineer

<sup>1</sup> Level B - Tester with ISO 9001 Quality System  
<sup>2</sup> TPCL - Test procedures change list

Conformance Block		Mandatory	Conditional
1	Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN2, SrvN3
2	Data Sets	Dset1, Dset10a, DsetN1ae	
4	Setting Group Selection	Sg1, SgN1a, Sg3	
4+	Setting Group Definition	Sg2, Sg4, SgN1b, SgN2, SgN3, SgN4, SgN5	
6	Buffered Reports	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11, BrN6
6+	Enhanced buffered reporting	BrE1, BrE2, BrE3, BrE6, BrE7, BrE8, BrE9, BrE10, BrE11	
9a	GOOSE publish	Gop2, Gop3, Gop4, Gop7, Gop9, Gop10a	GopN2
9b	GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a	Direct Control	CtIN3, CtIN8 DOns1	DOns3
13	Time Synchronization	Tm1, Tm2	Tm3, TmN1
14	File Transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.7.1