IEC 61850 Certificate Level B[1]

No. 2010PUCA0002

Issued to:
SIEMENS Power Automation Ltd.
4F, No. 37 Yihuai Street, Jiangning Economic &
Technological Development Zone, Nanjing,
P.R.China

For the product:
SIPROTEC 7SJ68 Multi-Functional Protectiv
Relay with Local Control
Firmware Version: 4.7

Issued by: **KETOP 开普**

The product has not shown to be non-conforming to:

IEC 61850-7-1, 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 with product's protocol, model and TISSUE implementation conformance statements: "SIPROTEC 7SJ68 IEC 61850 Conformance Statements", "SIPROTEC Model Implementation Conformance Statement (MICS) According to IEC61850", and extra information "SIPROTEC Multi-Functional Protectiv Relay with Local Control 7SJ68 IEC61850 PIXIT" for testing.

The following IEC 61850 conformance blocks are tested with a positive result (number of relevant and executed test cases / total number of test cases as defined in the UCA International Users Group Device Test Procedures):

1	Basic Exchange (22/24)		9a	GOOSE Publish（8/12）
2	Data Sets（4/6）		9b	GOOSE Subscribe（10/10）
2+	Data Set Definition（23/23）		12a	Direct control（6/11）
4	Setting Group Selection (2/3)		12c	Enhanced Direct Control（9/13）
5	Unbuffered Reports (16/18)		12d	Enhanced SBO control（14/19）
6	Buffered Reporting（18/20）		13	Time sync（4/5）
			14	File transfer（4/7）

KETOP Lab grants this Certificate on account of tests performed at the KETOP Lab's offices in Xuchang, China, with UniCAsim 61850 Client Version 3.19.02 simulating an IEC 61850 Client and the UniCA 61850 analyzer Version 4.20.05. The tests are based on the UCA International Users Group Device Test Procedure Version 2.2. This certificate has been issued for information purposes only and the original copy of the KETOP Lab report: No. JW100590 will prevail.

The tests have been carried out on one single specimen of the above-mentioned products, submitted by SIEMENS Power Automation Ltd. The certificate does not include an assessment of the manufacturer's production process. Conformity of his production process or any other product than the specimen tested by KETOP Lab is not the responsibility of KETOP Lab.

Xuchang, September 9, 2010

He Chun
Director of PRTC Department

Zhang Ran
Test Engineer

---

[1] Level B – Tester with ISO 9000 or ISO 17025 Quality System

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5, Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv9, Srv10, Srv8, Srv6, Srv7, SrvN1e, SrvN1f, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	Dset10b
2+: Data Set Definition (SCL-DynDataSet)	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
4: Setting Group Selection (SCL-ConfSG)	Sg1, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, RpN1, RpN2, RpN3, RpN4	Rp5, Rp6, RpN5 Rp8, Rp9, Rp11
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br6, Br10 Br11, Br13
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop6, Gop8, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a Direct control	CtlN3, CtlN8, DOns1, DOns3	Ctl2, CtlN10
12c Enhanced Direct Control	CtlN3, CtlN8, DOes2, DOes5	Ctl2, Ctl7, CtlN6, CtlN10, CtlN11
12d Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl2, Ctl7, CtlN6, CtlN10, CtlN11
13 Time sync	Tm1，Tm2，TmN1	TmN2
14 File transfer	Ft1, Ft2ab, Ft4, FtN1ab	

China KETOP Lab（Xuchang KETOP Electrical Apparatus Testing & Research Institute）
National Center For Quality Supervision & Testing of Relay Protection and Automation Equipment
1706#, Xuji Avenue, XuChang, Henan, P.R.China, P.C. 461000
T +86 374 3212755 F +86 374 3212775 www.ketop.cn