



IEC 61850 Certificate Level A¹

International
Usersgroup

No. 74100457-MOC/INC 11-1063

Issued to:
ALSTOM GRID UK Ltd.
St. Leonards Avenue
Stafford ST17 4LX
United Kingdom

For the product:
ALSTOM GRID MiCOM P145
Feeder Management Relay
Version 46A

Issued by:



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

IEC 61850-6, 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 with product's protocol, model and technical issue implementation conformance statements: "PICS & MICS Feeder Management Relays (P145/EN PM/Ff7)", "TICS Feeder Management Relays (P14x/EN TC/Ff7)" and product's extra information for testing: "PIXIT Feeder Management Relays (P14x/EN PX/fF7)".

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 as defined in the UCA International Users Group Device Test procedures v2.2b):

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

This Certificate includes a summary of the test results as carried out at KEMA in Arnhem, The Netherlands with UniCasim 61850 version 3.23.00 with test suite 3.20.00 and UniCA 61850 analyzer 4.23.02. The test is based on the UCA International Users Group Device Test Procedures version 2.2b. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74100457 MOC/INC 11-1062 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by ALSTOM GRID UK Ltd. The manufacturer's production process has not been assessed. This Certificate does not imply that KEMA has certified or approved any product other than the specimen tested.

Arnhem, 5 May 2011


M. Adriaansen
Regional Director Management & Operations Consulting


P. Ciod
Test Engineer

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

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
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10 RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, RpN5, RpN6
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12 BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, BrN6
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	Gop1, Gop5, Gop6, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8 DOns1, DOns3	Ctl7, CtlN11
12b: SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, SBOs2	Ctl7, CtlN11
12c: Enhanced Direct Control	CtlN3, CtlN8 DOes2, DOes5	Ctl7, CtlN11
12d: Enhanced SBO control	Ctl3, CtlN1, CtlN2, CtlN3, CtlN4, CtlN9 SBOes1, SBOes2, SBOes3	Ctl7, CtlN11
13: Time sync	Tm1, Tm2, TmN1	
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	Ft2c, FtN1c