IEC 61850 Certificate Level A[1]

International
Usersgroup

No. 74102438-MOC/INC 13-1478

Issued to:
Mitsubishi Electric Corporation
1-5-8 Takatsukadai, Nishi-ku
Kobe 651-2271
Japan

For the server product:
MDT-H1SA Protection relay
s/w version:
M-CPU JQ51 C
R-CPU JQ52 A
C-CPU HL06 A
E-CPU HL08 C
h/w version:
SCHEME No. 639PSA

Issued by: **KEMA**

The server 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[2] version 1.5, the product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) and Tissues Conformance Statement for MDT-H1SA (TICS) of the IEC 61850 communication interface for MDT-H1SA v.1.00" and "Model Implementation Conformance Statement (MICS) of the IEC 61850 interface for MDT-H1SA" and the extra information for testing: "Protocol implementation extra information for testing (PIXIT) of the IEC 61850 communication interface for MDT-H1SA v.1.00".

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 (16/24)		9a	GOOSE Publish (8/13)
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)
5	Unbuffered Reporting (15/19)		14	File Transfer (4/7)
6	Buffered Reporting (17/21)			

This certificate includes a summary of the test results as carried out at Mitsubishi Electric Corporation in Japan with UniCA 61850 Client simulator 4.26.04 with test suite 3.26.00 and UniCA 61850 Analyzer 5.26.04. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 74102438-MOC/INC 13-1477 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by Mitsubishi Electric Corporation. The manufacturer's production process has not been assessed. This attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, April 16, 2013

M. Adriaensen
Director Intelligent Networks & Communication

R. Schimmel
Certification Manager

1 Level A - Independent test lab with certified ISO 9001 quality system
2 TPCL   - Test procedures change list

Applicable Test Procedures from the UCA International Users Group Device Test Procedures version 2.3 with TPCL version 1.5

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	Srv8, SrvN1f
2: Data Sets	Dset1, Dset10a, DsetN1ae	
4: Setting Group Selection	Sg1, SgN1a	Sg3
4+: Setting Group Definition	Sg2, Sg4, SgN1b, SgN2, SgN3, SgN4, SgN5	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, Rp12, RpN1, RpN2, RpN3, RpN4	Rp5, Rp8, Rp9, RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, Br14, BrN1, BrN2, BrN3, BrN4, BrN5	Br5, Br10, Br11
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7, Gop10a	Gop1, Gop6, GopN1
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
12a: Direct control	CtlN3, CtlN8, DOns1, DOns3	
13: Time sync	Tm1, Tm2, TmN1	Tm3
14: File transfer	Ft1, Ft2ab, Ft4, FtN1ab	