



IEC 61850 Certificate Level A¹

International Usersgroup

No. 30107083-Consulting 11-0235

Issued to:
Bharat Heavy Electricals Ltd.
Corporate Research And Development
Vikasnagar
Hyderabad – 500 093
India

For the product:
BHEL-MU Merging Unit
Firmware K0.01



The product has not shown to be non-conforming to:
IEC 61850-7-2 and 8-1
Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 with product's protocol and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for IEC 61850 interface in BHEL-MU, version 1.0", "Tissues Implementation Conformance Statement (TICS) for IEC 61850 interface in BHEL-MU, version 1.0" and product's extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for IEC 61850 interface in BHEL-MU, version 1.01"

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 v2.2):

9a GOOSE Publish (4/12)	13 Time Synchronization (3/4)
9b GOOSE Subscribe (10/10)	

This Certificate includes a summary of the test results as carried out at KEMA in the netherlands with UniCAsim GOOSE version 2.18.01 with test suite 2.12.05 and UniCA 61850 analyzer 4.22.05. The test is based on the UCA International Users Group Device Test Procedures version 2.2. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 30107083-Consulting 11-0234 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to KEMA by BHEL. 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, 2 February 2011

M. Adriaansen
Regional director Management & Operations Consulting

R. Schimmel
Certification manager

1 Level A - Independent Test lab with certified ISO 9000 or ISO 17025 Quality System

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

Conformance Block	Mandatory	Conditional
9a: GOOSE publish	Gop2, Gop3, Gop4, Gop7	
9b: GOOSE subscribe	Gos1a, Gos2, Gos3, GosN1, GosN2, GosN3, GosN4, GosN5, GosN6	Gos1b
13: Time sync	Tm1, Tm2, TmN1	