

CENTRAL POWER RESEARCH INSTITUTE

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BANGALORE – 560 080. I N D I A



IEC 61850 Certificate ^{Level A}



No. ITID/PL/C0021/2010

Issued to:

M/s Crompton Greaves Limited,
A-3, Ambad M.I.D.C, Nashik
Maharashtra-422010
India

For the product:

CGI14C Over Current Protection Relay
Hardware Version: CGHW-1.00
Software Version: V1.00
Serial No.: I100400110

Issued by: CENTRAL POWER RESEARCH INSTITUTE, India

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 version 1.00", "MICS version 1.00", "TICS version 1.00" and products extra information for testing: "PIXIT version 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 as defined in the UCA International Users Group Device Test procedures v2.2):

| | |
|------------------------------|-------------------------------|
| 1 Basic Exchange (19/24) | 9a GOOSE (5/11) |
| 2 Data Sets (3/6) | 12a Direct Control (5/12) |
| 5 UnBuffered Reports (13/18) | 13 Time Synchronization (3/5) |
| 6 Buffered Reports(15/20) | |

This Certificate includes a summary of the test results as carried out at CPRI, Bangalore, India with UniCASim 61850 version 3.19.00 test system running test suit "61850 Conformance Test v3.19.00", and UniCASim 61850 analyzer version 4.20.01. 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 CPRI report No.: ITID/PL/T0021/2010.Dated: May 20, 2010 will prevail.

The tests have been carried out on one single specimen of the products as referred above and submitted to CPRI by M/s Crompton Greaves Limited, India. The manufacturer's production process has not been assessed. This Certificate does not imply that CPRI has certified or approved any product other than the specimen tested.

Bangalore, May 20, 2010.

(Mridula Jain)
Test Engineer




(V. Arunachalam)
Additional Director

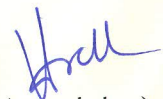
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Applicable Test Cases:

| Conformance Block | Mandatory | Conditional |
|-------------------------|--|---------------------------------|
| 1: Basic Exchange | Ass1, Ass2, Ass3, AssN2, AssN3, AssN4, AssN5, Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4 | Srv8, Srv6, Srv7, SrvN1e, SrvN3 |
| 2: Data Set | Dset1, Dset10a, DsetN1ae | - |
| 5: Unbuffered Reporting | Rp1, Rp2, Rp3, Rp4, Rp7, Rp10, RpN1, RpN2, RpN3, RpN4 | Rp5, RpN5, Rp8 |
| 6: Buffered Reporting | Br1, Br2, Br3, Br4, Br7, Br8, Br9, Br12, BrN1, BrN2, BrN3, BrN4, BrN5 | Br5, Br10 |
| 9a GOOSE publish | Gop2, Gop3, Gop4, Gop7 | Gop1 |
| 12a Direct control | CtlN3, CtlN8 DOns1, DOns3 | Ctl2 |
| 13 Time sync (client) | Tm1, Tm2, TmN1 | - |


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