

## IEC 61850 Certificate Level A<sup>1</sup>

No. 30520015-Consulting 07-0750

Issued to: ZIV P+C Parque Tecnologico, 210 48170 Zamudio Spain For the product: #IRV-A Type: 7IRV-A3N-220400VB OS version 2.0 Application version 3.13



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 of the IEC 61850 communication interface in #IRV-A, revision 3", "MICS of the IEC 61850 communication interface in #IRV-A, revision 6", "IEC 61850 Tissues Conformance Statement" and extra information for testing (PIXIT) "PIXITof the IEC 61850 communication interface in #IRV-A, revision 6"

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):

- 1 Basic Exchange (20/23)
- 2 Data Sets (2/5)
- 5 Unbuffered Reports (9/13)
- 6 Buffered Reports (12/15)

9ab Generic Object Oreiented Substation Events (14/20)

- 12a Direct Control (5/11)
- 12c Enhanced Direct Control (7/11)
- 13 Time Synchronization (3/4)

This Certificate includes a summary of the test results as carried out at ZIV P+C, Spain, with UniCAsim 61850 version 2.14.01 test system running test suite "61850 Conformance Test v2.14.04", UniCA 61850 analyzer version 4.15.00. The test is based on the UCA International Users Group Device Test Procedures version 1.1. This document has been issued for information purposes only, and the original paper copy of the KEMA report: No. 30520015-Consulting 07-0749 will prevail.

The tests have been carried out on one single specimen of the products as referred above and submitted to KEMA by TEAM. 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, April 3, 2007

S.J.L.M. Janssen
Managing Director KEMA Consulting

E.F. Melenhorst Senior Test Engineer

MUS

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 1.1:

| Conformance Block           | Mandatory   | Conditional              |
|-----------------------------|---|--------------------------|
| 1: Basic Exchange           | Ass1, Ass2, Ass3, AssN2, AssN3,<br>AssN4, AssN5, Srv1, Srv2, Srv3,<br>Srv4, Srv5, SrvN1abcd, SrvN2,<br>SrvN3, SrvN4 | Srv6, Srv7, Srv8, SrvN1e |
| 2: Data Sets                | Dset1, DsetN1ae   |                          |
| 5: Unbuffered Reporting     | Rp1, Rp2, Rp4, RpN1, RpN2, RpN3, RpN4   | Rp5, RpN6                |
| 6. Buffered Reporting       | Br1, Br2, Br4, Br8, Br9, BrN1, BrN2,<br>BrN3, BrN4, BrN5  | Br5, BrN6                |
| 9a: GOOSE publish           | Gop2, Gop3, Gop4, Gop7  | Gop1                     |
| 9b: GOOSE subscribe         | Gos1, Gos2, Gos3, GosN1, GosN2,<br>GosN3, GosN4, GosN5, GosN6   |                          |
| 12a Direct control          | CltN3, CtlN8, DOns1   | Ctl2, Ctl7               |
| 12c Enhanced Direct control | CtlN3, CtlN8, DOes2, DOes5  | Ctl2, Ctl7, CtlN6        |
| 13 Time sync                | Tm1, Tm2, TmN1  |                          |

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