

ASTA Certificate

COPY

OF INTERNAL ARC PERFORMANCE

Laboratory Ref. No.103382

APPARATUS: 12 kV, 50 Hz, three-phase, air insulated, metal-enclosed switchgear and controlgear assembly incorporating 1250 A main busbars, a 400 A MVX Soft Starter, a 630 A line vacuum circuit breaker, a 630 A bypass contactor, an earthing switch and associated busbar. The assembly is suitable for indoor installation.

DESIGNATION: AuCom L series panel – MVX Soft Starter Panel (SSP)

MANUFACTURER: AuCom Electronics Limited
123 Wrights Rd, Middleton 8024, New Zealand

TESTED BY: Ausgrid Testing & Certification
18 Mars Road Lane Cove West NSW 2066 Australia

DATE(S) OF TESTS: 21 February to 13 May 2013

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this certificate has been subjected to the series of proving tests in accordance with

IEC 62271-200 Edition 2.0 2011 Clause 6.106 and Annex AA and
AS 62271-200 : 2005, Clause 6.106 and Annex A

The results are shown in the record of Proving Tests and the oscillograms attached hereto. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the ratings assigned by the manufacturer as stated below.

Internal Arc Classification IAC	: AFLR
Internal Arc	: 31.5 kA rms for 1 s, 78.8 kA peak
Accessibility Type A	: Restricted to authorized personnel only

The rear cable compartment containing 400 A MVX soft start cassette and 630 A bypass vacuum circuit breaker.

The 630 A VCB compartment

The 1250 A main horizontal busbar compartment

The record of Proving Tests applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

This Certificate comprises 25 pages, 4 diagrams, 20 oscillograms, 46 photographs, 13 drawings and no other sheets, as detailed on page 2.

Only integral reproductions of this whole certificate or reproductions of this page accompanied by any ratings pages are permitted.

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M. A. Carstedt M. A. Carstedt
ASTA Observer

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4TH August 2014 Date

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Verifies compliance with all the requirements of a Standard

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Verifies complete series of type/verification tests prescribed in a Standard has been made successfully.

Certificate of Selected Type/Verification Tests

Verifies specified type/verification tests have been made successfully

Supplementary Certificate

Extends the scope of an existing Certificate to cover changes in rating or in design

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An ASTA Test Report is issued when tests otherwise satisfactory cannot be included in a Certificate for one or more reasons, e.g. verification of non-standard ratings

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Record Of Proving Tests

ASTA

Laboratory Reference No: 103382

Additional Tests.

Note : The additional tests performed and contained in this report are listed below and this page is not a Ratings Page.

Tests in accordance with Client's instructions using IEC 62271-200 Edition 2.0 2011 as a guide

Dielectric tests (Clause 6.2)

Power frequency voltage test (Clause 6.2.6.1)	: 35 kV rms for 1 minute
Lightning impulse voltage tests on top and bottom busbars (Clause 6.2.6.2)	: 75 kV
Lightning impulse voltage tests on top busbars only (Clause 6.2.6.2)	: 85 kV
Measurement of resistance of the main circuit (Clause 6.4)	: Verified

Short-circuit tests

Short-time and peak withstand current tests including resistance measurements (Clause 6.6)

Main horizontal earthing busbar	: 31.5 kA rms for 3 s, 78.8 kA
Main vertical and horizontal phase busbars in RHS panel 2	: 31.5 kA rms for 3 s, 78.8 kA

Short-time and peak withstand current test including resistance measurements (Clause 6.6)

Main horizontal earthing busbar	: 31.5 kA rms for 4 s, 78.8 kA
Main vertical and horizontal phase busbars in RHS panel 2	: 31.5 kA rms for 4 s, 78.8 kA

Tests in accordance with Client's instructions using IEC 62271-100 Edition 2.1 2012 Clause 6.104 as a guide

Prospective TRV calibration for Run state current breaking test	: TRV peak value 20.9kV Time co-ordinate t_3 54.8 μ s Rate of rise 0.38 kV/ μ s Time delay t_d <9 μ s
Run state current breaking test	: 1760 A at 12 kV
Start state short-circuit current breaking test	: 31.5 kA at 6 kV

21 February to 13 May 2013
Dates of Tests

M. A. Carstedt
ASTA Observer