ASTA CERTIFICATION SERVICES

(Incorporated in the year 1938) ASTA House, Chestnut Field, Rugby, CV21 2TL, England

CERTIFICATE OF TYPE TEST Laboratory Ref. No. 101945AC

APPARATUS: Two ring-type 0.66/3/- kV (Um/Insulation level), 50 Hz, cast resin current transformers comprising one single-ratio 2500/5 A measuring current transformer and one single-ratio 2250/5 A protective current transformer.

DESIGNATION: NITECH Current Transformers
2500/5A Type EMR-130 and 2250/5A Type EPR-110

MANUFACTURER: Dixson Industrial (s) Pte Ltd
No.32 Ang Mo Kio Industrial Park 2, #03-12,
Sing Industrial Complex,
Singapore 569510

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

DATE(S) OF TESTS: 13 December 2004 to 5 January 2005

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 Publication 60044-1 : 2003 Consolidated Edition 1.2 and BSEN 60044-1 : 1999 with Amendments No. 1 and 2, Clauses 7.1, 7.2, 8.3, 8.4, 11.4, 12.4 and 12.5

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.

Rated short-time thermal and dynamic current (Clause 7.1)	: 63 kA for 3 s, 158 kA peak
Rated continuous thermal current (Clause 7.2)	: Equal to rated primary current
Power-frequency withstand and Inter-turn overvoltage tests (Clauses 8.3 and 8.4)	: Complied
Accuracy of measuring current transformers (Clause 11.4) 2500/5	: Class 1 M
Current error, phase displacement and composite error of protective current transformers (Clauses 12.4 and 12.5) 2250/5	: Class 5P20

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 11 pages, 1 diagram, 1 oscillogram, 6 photographs, 4 drawings and no other sheets, as detailed on page 1.

UKAS PRODUCT CERTIFICATION
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M. A. Carstedt
M. A. Carstedt
ASTA Observer

C. Nicholas
DIRECTOR

8th February 2005 Date

Certificate No 14571

ASTA CERTIFICATION SERVICES

(Incorporated in the year 1938) ASTA House, Chestnut Field, Rugby, CV21 2TL, England

Laboratory Ref. No. 101243AC

CERTIFICATE OF SHORT-CIRCUIT RATING

APPARATUS: Two ring type current transformers

DESIGNATION: NITECH

MANUFACTURER: DIXSON INDUSTRIAL (S) PTE LTD
No 32 Ang Mo Kio Industrial Park 2,
Sing Industrial Complex, #03-12 Singapore 569510

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

DATE(S) OF TESTS: 21 and 22 November 2000

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 Publication 60044-1:1996 with Amendment No. 1and BSEN 60044-1:1999 Clause 7.1

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.

Rated short-time thermal current and rated dynamic current

Measurement Current Transformer

800/5 Class 1 : 65 kA for 3 s, 163 kA peak

Protection Current Transformers

1600/5 Class 5P20 : 65 kA for 3 s, 163 kA peak

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 8 pages, 2 diagrams, 1 oscillogram, 6 photographs, 3 drawings and no other sheets, as detailed on page .

NATIONAL ACCREDITATION OF CERTIFICATION BODIES

Registration Number 010

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 010

P J Ryan
ASTA Observer

C. Nicholls
ENGINEERING MANAGER
13TH February 2001 Date

ASTA PUBLICATION NO. 7

July 2000 Edition
Issue 6

This Publication gives a brief description of the Certificates and Reports issued by ASTA and provides guidance on the forms of advertised claims which may be made subsequent to certification. More information is given in ASTA Publication 5.

ASTA CERTIFICATES

Certificates are issued when samples of a particular product design have been tested satisfactorily against the requirements of a National, European or International Standard. Several forms of Certificate are available as follows:

Certificate of Complete Compliance - verifies compliance with all the requirements of a Standard e.g. dimensional, safety, performance, etc.

Certificate of Type Tests - is issued when a complete series of type tests prescribed in a Standard has been made successfully.

Certificate of Short-Circuit Rating - verifies the short-circuit performance of the design. The Certificate may include the results of other type tests, e.g. mechanical endurance tests.

Certificate of Making and Breaking Capacity - verifies the overload switching capability of equipment to which a short-circuit rating is not usually assigned, e.g. contactors. This Certificate may also include the results of other type tests.

Certificate of Supplementary Tests - extends the scope of an existing Certificate to cover changes in rating or in design which require additional proving tests to be made.

Certificate of Temperature-Rise Performance - verifies the temperature-rise limits of the equipment by performance of the appropriate type test specified by the Standards only where these tests are performed as complete type tests and not as a part of a sequence of tests.

Certificate of Dielectric Performance - verifies all dielectric ratings of the equipment by performance of the appropriate type test specified by the Standards only where these tests are performed as a complete type test and not as a part of a sequence of tests.

TEST REPORT

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. Complete details are given in ASTA Publication No. 5.

PUBLICATION

A Holder may, without prior approval from ASTA, reproduce the entire contents of Certificates and Test Reports, or Certificate Front Sheets accompanied by any associated pages on which are stated the assigned rated characteristics provided no part is obscured and all essential details are legible. Permission for any other kind of reproduction of Certificates and Test Reports must be obtained from ASTA.

PRODUCT ENDORSEMENT

The use of the Diamond Mark is authorised by a licensing agreement between ASTA and the Manufacturer or responsible vendor. The granting of an ASTA Certificate does not give authority for the Diamond Mark to be used as registration of quality management systems and routine assessments of production samples apply.

Equipment may be endorsed with the words ASTA CERT or ASTA CERTIFIED only when a formal scheme has been established and a letter of authorisation issued by ASTA to the manufacturer and receipt of the same acknowledged by that manufacturer. Endorsed products shall show at least the ratings verified by ASTA and the Standard against which Certification has been made. The **ASTA CERT.** endorsement must not be used on equipment intended for household use.

ADVERTISED CLAIMS

The holder of an ASTA Certificate may claim in Trade Journals, Catalogues, Technical Articles etc., and without the prior approval of ASTA that the product identified in a Certificate is ASTA Certified. To minimise the possibility of any mis-understanding such claims must clearly identify the product(s) certified, the ratings verified by ASTA and the Standard against which Certification has been made.