

21 December 1995

GEC ALSTHOM Low Voltage Equipment Ltd.,
East Lancashire Road,
Liverpool



For the attention of Mr. J. Zugaj.

Dear Sirs,

**AUTHORISATION TO USE THE ASTA CERT ENDORSEMENT
AUTHORISATION REF. A3147**

Authority is hereby given for the fuse-link types and ratings identified below to be endorsed
ASTA CERT or ASTA CERTIFIED.

Details of Reference Fuse-Links

| | |
|---|---|
| British Standard No.: | BS 88: Sections 2.1 & 2.2: 1988 (IEC 269-2:1986 & IEC 269-2-1: Section II: 1987) |
| Manufacturers Type Designation & BS Ref. / Size / Types: | TIS Ref A3 |
| Voltage Rating: | 560V ac |
| Breaking Capacity: | 80kA |
| Current Ratings: | 16A, 20A, 25A, 32A, 35A, 40A, 50A & 63A, |
| ASTA Certificate No(s): | 12809 (short-circuit) |
| Label Trade Name: | GEC Alsthom |

Approved Variants

Details of approved variants (if any) are shown on attachments to this letter

This letter of authorisation is not valid until a signed acknowledgement of receipt has been received by ASTA. The signing of this letter by a manufacturer means ipso facto that the manufacturer agrees to recognise and to observe the requirements of the current issue of ASTA Publication No. 20.

Yours faithfully,

RETURN ONE SIGNED COPY TO ASTA

Acknowledgement of receipt is hereby given

Signed
for GEC ALSTHOM LV&L Company

8/1-1996 Date



ASTA CERTIFICATION SERVICES

(Incorporated in the year 1938)

ASTA House, Chestnut Field, Rugby, CV21 2TL, England

Laboratory Ref. No. HSA: F19P/C1

CERTIFICATE OF SHORT-CIRCUIT RATING

APPARATUS: General purpose non-indicating tag type cartridge fuse-links of 16A* and 63A* normal current rating. Reference A3.

DESIGNATION: TIS16 & TIS63

MANUFACTURER: GEC Alstom Low Voltage Equipment Ltd, East Lancs Road, Liverpool

TESTED BY: Fluvent Technical Services, Trafford Park, Manchester
Fluvent Technical Services, East Lancs Road, Liverpool

DATE(S) OF TESTS: Jan, Feb, May & June 1995

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

BS88 Part 1: 1988 (IEC269-1: 1986) Including AMD6648: 1991, BS88 Part 2: Section 2.1: 1988 (IEC269-2-1: 1986) Including AMD6686: 1991, BS88 Part 2: Section 2.2: 1988 (IEC269-2-1: Section II: 1986) Including AMD6697: 1991 Clause 8.5.

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 Breaking Capacity | - | 80kA for a voltage rating of 660V 50Hz a.c. |
| Breaking Range & Utilization Category | - | gG |

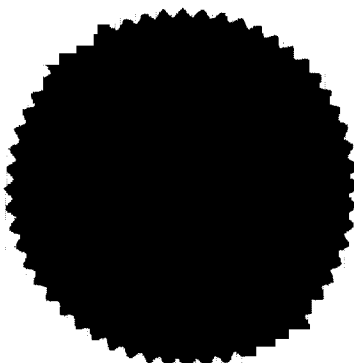
*The above fuse-links represent the maximum & minimum ratings of a homogeneous series. Fuse-links having intermediate ratings of 20A, 25A, 32A, 35A, 40A & 50A have been examined and comply with clause 8.1.5.2. as part of this series.

This certificate contains tests that comply with ASTA Test Instruction C8.2.

The record of Proving Tests apply 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 12 pages, 2 diagrams, 37 oscillograms, 1 photographs, 2 drawings and no other sheets as detailed on page 1

Only integral reproduction of this Certificate, or reproductions of this page accompanied by any page(s) on which are stated the assigned rated characteristics of the apparatus tested, are permitted without written permission from ASTA, ASTA House, Chestnut Field, Rugby, CV21 2TL England. (see overleaf)



Registration Number
019

G V Radcliffe ASTA Observer
G V Radcliffe
M. J. Swan Director
20th December 1995 Date