

(A Company Limited by Guarantee, Registered at London, Number 347056)

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Director ~~Mr. J. J. Swan~~ Dip. E.E., C.Eng.,  
F.I.E.E. F.I.Q.A.

GEC Installation Equipment Ltd.,  
East Lancashire Road,  
Liverpool, L10 5HB

Attention of: Mr T. Wells

File Ref. AST/68/3/73

Authorisation Ref. A3053A

Date 9th January 1989

Dear Sirs,

## AUTHORISATION TO USE THE ASTA CERT ENDORSEMENT

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

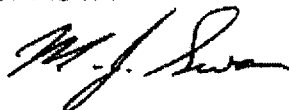
British Standard No.	88: Part 2, sections 2.1 and 2.2: 1988 (IEC 269-2: 1984 and IEC 269-2-1, section II: 1987)
Manufacturers Type Designation & BS Ref / Size / Types	TC BS Ref B1
Voltage Rating	660 Vac
Breaking Capacity	80 kA
Current Ratings	100M200, 100M160, 100M125, 100, 80, 63 & 50
ASTA Certificate No(s).	9863 & S10844

### Approved Variants

Details of any approved variants 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,  
for ASTA



Note: This authorisation extends  
that of the same reference  
issued 24th September 1984.

Acknowledgement of receipt is hereby given

 Signed  
for GEC Installation Equipment Ltd Company  
17 January 1989 Date

### Details of Approved Variants

10-11  
24-9-54

**CERTIFICATE OF Short Circuit Rating**

**APPARATUS:** Motor circuit and general purpose non-indicating  
tag type fuse links (B.S. Ref. B1)

**DESIGNATION:** Types TC100M200 and TC50 \*

**MANUFACTURER:** GEC Installation Equipment Limited, Liverpool

**TESTED BY:** SWITCHGEAR TESTING COMPANY LIMITED

**DATE(S) OF TESTS:** 10-6-83, 27-6-83, 28-6-83, 29-6-83, 30-6-83

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 B.S. 88 : Parts 1 and 2 : 1975. The tests also comply with the requirements of IEC Publications 269-1 : 1968 and 269-2A : 1975 and Australian Standard 2005 : Parts 1 and 2 : 1977.

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

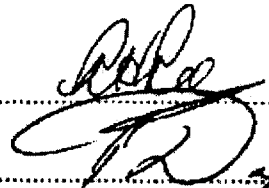
Symmetrical breaking current of 80kA rms for a voltage rating of 660 volts a.c.

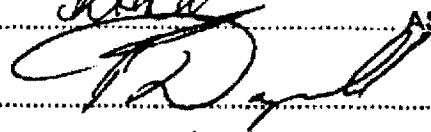
\* The above fuse links represent the maximum and minimum ratings of a homogeneous series. Fuse links having intermediate ratings of 100M160A, 100M125A, 100A, 80A and 63A have been examined and comply with clause 8.1.5.3 (B.S. 88 : Part 1 : 1975) as part of this series.

The responsibility for conformity of any apparatus having the same designation with that tested lies with the manufacturer.

This Certificate comprises 8 pages, 1 diagrams, 26 oscillograms, 7 photographs,  
1 drawings and - other sheets as detailed on page -

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, 23/24 Market Place, Rugby CV21 3DU England. (see ASTA Publication No. 7).

  
..... ASTA Observer

  
..... Secretary

10<sup>th</sup> August 1984  
..... Date

# ASTA CERTIFICATION SERVICES

(Incorporated in the year 1938)

23/24 Market Place, Rugby, CV21 3DU, England

Laboratory Ref. No. 28WG**SUPPLEMENT TO CERTIFICATE OF SHORT-CIRCUIT RATING**  
**No. 9863 ISSUED 10th August 1984 (28WB)**

**APPARATUS:** Motor circuit and general purpose non-indicating tag type fuse-links B.S. ref. B1 of 100M200A and 50A normal current rating with intermediate ratings of 100M160A, 100M125A, 100A, 80A and 63A

**DESIGNATION:** TC

**MANUFACTURER:** GEC Installation Equipment Limited, Liverpool

**CERTIFICATION STANDARD:** B.S. 88 : Parts 1 and 2 : 1975, IEC 269-1 : 1968, IEC 269-2A : 1975

**CERTIFIED RATINGS:** 80kA at 660V, 50Hz

This supplement to the above mentioned certificate is issued to extend its applicability to cover compliance with clause 8.5 of B.S. 88 : Parts 1 and 2, Sections 2.1 and 2.2 : 1988 (IEC 269-1, IEC 269-2 : 1986 and IEC 269-2-1, Section 11 : 1987) for the same short-circuit rating.

Breaking Range and Utilization Category :-

gM - Maximum rating 100M200A, plus intermediate ratings 100M160A and 100M125A

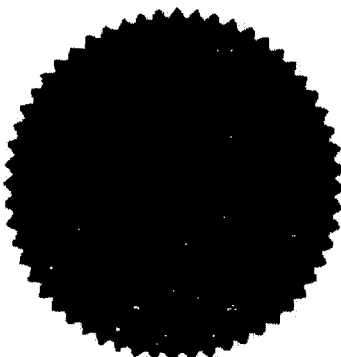
gG - Intermediate ratings 100A, 80A, 63A and minimum rating of 50A

No additional tests were made

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 this page

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*SV Rudolph* ASTA Observer/Inspector  
*M. J. Swan* DIRECTOR  
Secretary  
10<sup>th</sup> November 1988 Date