



The Kenya Power & Lighting
Co. Ltd

TITLE:

SPECIFICATION FOR
FUSE LINK POWDER 11kV
OUTDOOR

Doc. No.

KPLC1/3CB/TSP11/027

Issue No.

1

Revision No.

0

Date of Issue

2006-06-14

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Issued by: Engineer, R&D	Authorized by: <i>D. M. MWANGI</i> (Designation) <i>CHDRS-PM</i>
Signed: <i>[Signature]</i>	Signed: <i>[Signature]</i>
Date: <i>19/6/06</i>	Date: <i>19/6/2006</i>



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0.1 Circulation List

COPY NO.	COPY HOLDER
1	Supplies Manager
2	Chief Engineer, Research & Development
3	Senior Engineer, Technical Standards & Specifications

0.2 Amendment Record

NO	DATE	Details of change		Authorization
	YY-MM-DD	Page	Clause/sub-clause and comment	Name and signature

Issued by: Engineer, R&D

Signed:

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Date:

19/6/06

Authorized by:

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Date:

19/6/2006

(Designation)

CHIEF ENGINEER



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FOREWORD

This specification has been prepared by the Research and Development Department of The Kenya Power and Lighting Company Limited (KPLC) and it lays down requirements for Fuse Link Powder 11kV Outdoor. It has been approved by the Technical Committee for use by KPLC in purchasing the fuses.

It shall be the responsibility of the manufacturer to ensure adequacy of the design and good engineering practice in the manufacture of the fuses for KPLC. The manufacturer shall submit information which confirms satisfactory service experience with products which fall within the scope of this specification.

1. SCOPE

This specification is for Fuse Link Powder 11kV for use in air (outdoor use).

2. REFERENCES

The following documents were referred to during the preparation of this specification. In case of conflict, the requirements of this specification shall take precedence.

IEC 282-1: High Voltage Fuses, Part 1: Current-Limiting Fuses

BS 2692-1: British standard specification for Fuses for voltages exceeding 1000 V a.c. Part 1: Current-limiting Fuses

3. TERMS AND DEFINITIONS

The definitions given in the reference standards shall apply.

4. REQUIREMENTS

4.1 SERVICE AND SYSTEM CONDITIONS

4.1.1 The fuse links shall be suitable for use outdoors in tropical areas at altitudes of up to 2200m above sea level, humidities of up to 90%, average ambient temperature of +30°C with a minimum of -1°C and a maximum of +40°C and heavy saline conditions along the coast.

4.1.2 The fuse links shall be suitable for service on 11kV, 3 Phase, 50Hz system, having a fault level of 16kA r.m.s. for 3 seconds.

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4.2. DESIGN AND CONSTRUCTION

- 4.2.1. The fuse links shall be designed and constructed in accordance with IEC 282-1 and BS 2692-1. The dimensions shall be in accordance with Figure 17 of BS 2692-1 (repeated in Table 1 of clause 4.2.3 below).
- 4.2.2. The fuse links shall be ferrule type for use in air and shall be suitable for use in the primary circuit of three phase transformers of ratings up to 1000KVA.
- 4.2.3. Ratings and Sizes of the fuse links shall be as follows.

Table 1: Ratings and Sizes

Rated Voltage	12kV
Rated Frequency	50Hz
Rated Current	Various (20A, 35.5A, 50A, 63A, 80A, 100A)
Rated Breaking Capacity	40kA
Dimensions (as per Fig. 17 of BS 2692-1)	Length: Min. 357mm, Max. 361mm.
	Diameter (ferrule portion): Min.75.7mm, Max. 76.7mm.

Note: For each of the fuses above, the manufacturer shall state the recommended rating of protected three phase transformer with a short duration 20% overload allowance.

- 4.2.4. Each fuse link shall be fitted with an indicating device (indicator). The device shall indicate at the fuse whether the fuse has operated.

5. TESTS AND INSPECTION

- 5.1 The fuse links shall be tested and inspected in accordance with BS 2692-1, IEC 282-1 and the requirements of this specification. It shall be the responsibility of the manufacturer to perform or have performed all relevant tests.
- 5.2 Certified true copies of previous test reports by the relevant National Testing/Standards Authority of the country of manufacture (or ISO/IEC 17025 accredited laboratory) shall be submitted with the offer for evaluation (all in English Language).
- 5.3 Routine and sample test reports for the fuse links to be supplied shall be submitted to KPLC for approval before shipment/delivery of the goods.

6. MARKING, LABELLING AND PACKING

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D. M. MWANGI

CHIEF ENGINEER

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- 6.1 The fuse links shall be supplied in protective packaging for the fuses to be stored until required for use.
- 6.2 The following information shall be marked indelibly and legibly on the fuse link:
- Manufacturer's Name
 - Type Designation
 - Rated Voltage, kV
 - Rated Current, A
 - Rated Breaking Current, kA
 - Indication that the fuse-link is designed for use in air

ANNEX A: Statement of Compliance and Technical Particulars (to be filled and signed by the Manufacturer for all clauses and submitted for tender evaluation)

Clause Number	Bidder's offer	Reference page on Manufacturer's catalogue, drawing, technical data or tests certificate to support the offer.

NB: - This schedule does not in any way substitute for detailed information required elsewhere in the specification.

Manufacturer's Declaration: Ion behalf of declare that the above specifications matrix conforms to a typical tender item type as clearly marked in the attached technical brochures & drawings, and being offered for this tender.

Signature DateStamp

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