

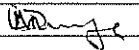
THE KENYA POWER & LIGHTING COMPANY LIMITED

SPECIFICATION

for

POWDER FUSE MOUNT, 11kV

REVISION RECORD

REVISION	DESCRIPTION OF REVISION	PREPARED BY	DATE	APPROVAL
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SPECIFICATION FOR POWDER FUSE MOUNT, 11kV

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FOREWORD

This specification has been prepared by the R&D Department, KPLC and it lays down requirements for Powder Fuse Mount, 11kV. The specification is intended for procurement of the equipment.

This specification was prepared to establish and promote uniform requirements for powder fuse mount, 11kV. It lays down the minimum requirements for the materials to be used in the company.

1.0 SCOPE

This standard specifies requirements for powder fuse mount to be used on overhead lines operating at 11kV.

2.0 REFERENCES

IEC 282-1: High Voltage Fuses – Part 1: Current Limiting Fuses.

BS 2692-1: Fuses for Voltages Exceeding 1000V a.c. – Part 1: Current Limiting Fuses.

3.0 DEFINITIONS

The definitions given in the reference standard apply.

4.0 REQUIREMENTS

4.1 Operating Conditions

The powder fuse mount shall be suitable for continuous outdoor operation in Tropical areas with the following conditions:

Altitude: From sea level upto 2200mm above sea level

Humidity : High at the Coast upto 90% and lower inland upto 50%

Temperature : 1°C to 40°C

Pollution : Heavy

4.2 Design and Construction

4.2.1 The fuse mount shall be single pole and of steel channel base pattern.

It shall be supplied complete with the following:

- (a) Insulators to suit voltage requirements and ratings given in Clause 4.3
- (b) Fuse clips to accommodate British Standard Powder Fuses of 63.5 mm dia and 76.2 mm dia (IEC equivalent is Type II fuse).

The fuse clip centres shall be suitable for 359 mm long fuses.

- (c) Terminal pads 6 mm thick and each having a single hole of 13 mm diameter.
Each terminal pad shall be complete with a bolt for termination.

4.2.2 The fuse clips and terminal pads shall be suitable for ratings specified in clause 4.3 of this specification. The fuse clips shall be Nickel plated Copper and the terminal pads shall be Tinned Copper.

4.2.3 The design of the fuse mount shall be such that when mounted vertically no movement of the fuse occurs.

The fuse clips, bolt, wing nut and fuse positioner shall ensure a sound electrical and mechanical connection.

4.2.4 All materials in the construction of the fuse mount shall be capable of withstanding the levels of corrosion expected in service.
The steel channel base, its accessories and any other steel parts shall be hot dip galvanized to BS 729.

4.2.5 The fuse mount shall be supplied complete with all accessories necessary for mounting on two steel channel steady bars each U2200 x 100 x 50 mm on H-pole.
The steel channel steady bar mounting points consists of 22 mm dia slots.

4.3 Rating

The ratings of the powder fuse mount shall be as indicated herein:

Rated voltage	12kV
Rated Current	200A
Rated Shorttime Current	13kA, 3s
Rated Lighting Impulse withstand voltage (at altitude of 2200m)	95kV
Rated Power frequency Withstand Voltage (at altitude of 2200m)	38kV

4.4 Instructions, Marking and Packing

4.4.1 Instructions

Installation instructions and details printed in the English language shall be included in each package.

4.4.2 Marking

The following information shall be legibly and indelibly marked on the fuse mount base:

- (a) Manufacturer's name and Type/Model number
- (b) The standard of manufacture

- (c) Rated voltage, rated current, rated short time current, rated power frequency withstand voltage and rated lightning impulse withstand voltage.

4.4.3 Packing

The powder fuse mount shall be packed in sets of three in such a manner as to protect it from any damage during transportation and repeated handling.

5 TESTS

- 5.1 Type tests and routine tests shall be in accordance with IEC 282-1
- 5.2 Copies of Type Tests Certificates (for similar equipment) shall be submitted with the offer for evaluation.
- 5.3 In case of tender award, Routine Test Certificates for the powder fuse mount to be supplied shall be submitted to KPLC for approval before shipment/delivery of the goods.

6 INFORMATION AND DESIGN APPROVAL *(in case of award)*

Drawings and technical details for the powder fuse mount to be supplied shall be submitted to the purchaser (KPLC) for approval before manufacture commences.

