

مواصفات فنية لممانعات الصواعق
11KV

SPECIFICATIONS

FOR

METAL OXIDE SURGE ARRESTERS


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SCOPE

- **This Distribution Materials Specification describes the minimum technical requirements for design, materials, manufacturing, testing, inspection, delivery and performance requirement for surge arresters for 11KV and 33KV to be used in the overhead distribution system .**

- **The surge arresters and its fittings shall withstand effect of direct solar radiation at their installed locations. The temperature of exposed surfaces shall be regarded as 80C plus the effect of internal heating.**

SYSTEM PARAMETER	SYSTEM	
	11KV	33KV
Frequency	50 HZ	50 HZ
Nominal Voltage	11KV	33KV
Highest System Voltage	12KV	36KV
Creepage Distance	25/40mm/KV	25/40mm/KV

- This covers one type surge arrester namely Metal oxide non-linear resistor type gapless, designed for outdoor service and shall be housed in sealed casing to prevent ingress of moisture and dust.

Duty Class:

- Surge arrester distribution classes shall be as defined in IEC 60099-4.

- 10KA Arrester-heavy duty class.

- Over Pressure Relief Device:

Arrester shall be provided with a pressure relief device, a mean for relieving internal pressure in an arrester and preventing explosive shattering of the housing following prolonged passage of flow current or internal flashover of the arrester.

- Disconnection Feature:

Disconnecter shall be incorporated. It is a device for Disconnecting an arrester from the system in the event of arrester failure to prevent a persistent fault on the system and to give visible indication of the

All the insulator shall have the rated withstand voltage Given in Table No. 1. Creepage distance is based on Nominal line-to-line voltage and shall be 25/40mm/KV minimum for dry and wet areas respectively. Insulator sheds shall be designed to minimize trapping of contamination . It be made porcelain having glazed brown color.

MARKINGS:

Each arrester shall be provided with a name plate, bearing the following information as a minimum, in English and/or Arabic:

- Rated voltage .
- Nominal discharge current .
- Short circuit level .
- Maximum continuous operating voltage (MCOV).
- Manufacturer's name or trademark .
- Year of manufacture .
- Country of origin .
- Manufacturer serial number .

Type Tests:

All arrester shall be fully type tested in accordance with the IEC .

Routine Test:

Supplier shall provide detail of the routine tests, which will be performed on the arresters with the minimum requirement being following .

Leakage current test:- Measurement of the leakage Current of the arresters at voltage to 100%, 80% and 60% of the rated voltage .

Power frequency reference or low current .

Residual voltage test .

Insulator tests .