



**NEELKANTH CABLES LIMITED**  
**DATA SHEET**  
**SINGLE CORE XLPE ARMURED, REDUCED HALOGEN EMISSION, REDUCED FLAME PROPAGATION (LHFR) MEDIUM VOLTAGE CABLE**

Single Core Cable Description : Copper Conductor, Semi-conducting conductor Screen, XLPE Insulated, Semi-conducting Insulation screen, Metallic screen over Individual Core, LHFR- PVC Inner Sheathed, Aluminium Wire Armoured, Overall LHFR-PVC Outer Sheathed, Medium Voltage Cable.

Make: NEELKANTH CABLES LIMITED  
Reference Standard: As per SANS:1339:2017  
Voltage Rating (U<sub>o</sub> / U): 12.7/22 kV  
Maximum Operating Voltage (U<sub>m</sub>): 24 kV  
Operating Temperature: 90°C  
Max. Temp. During Short Circuit: 250°C

**Range of Product** Single Core 50 Sq.mm up to 1000 Sq.mm

**Application**  
These Medium Voltage Single Core Cables are Designed for Electricity Power Distribution, Suitable for Installation in Power Supply Stations, Commercial, Industrial and Urban Residential Networks, Indoors and in Cable Ducts, Outdoors, Undergrounds and as well as for Installation on Cable Trays for industries, Switchboards and the power Stations.

- Construction**
- Conductor** Annealed Plain Copper Compacted Round Stranded Conductors to carry Current and withstand Pulling Stresses During Cable Laying. Conductors Complying with SANS 1411-1 Class-2
  - Inner Semi-Conducting Screen** Extruded Layer of Semi-Conducting Screen over Conductor to Smooth the Electric Field at the Conductor and Firmly Bonded to the Insulation to exclude all air voids, and Prevent Concentration of electric field of the interface between the Insulation and the Inner Semi-Conductor. Semi-Conducting Compound Complying with SANS 1339
  - Insulation** The Insulation of XLPE ( Cross-Linked Polyethylene ) Rated Voltage, Lightning Overvoltage, Switching Overvoltage, and Withstand the Various Voltage Field Stress During the Cable Service Life. as per SANS 1411-4
  - Core Semi-Conducting Screen** Extruded Layer of Semi-Conducting Screen over the Insulation. The Screen is Tightly Fitted to the Insulation to Exclude all air Voids, Prevent Concentration of electric field of the interface between the Insulation and the Semi-Conductor. Semi-Conducting Compound Complying with SANS 1339
  - Metallic Screen** The Metallic Screen Shall Consist of either Copper Tapes or a Concentric layer of Copper Wires. The Metallic Layer may be applied over the Individual Cores. Metallic Screen Provide no Electric Field outer side the Cable, An Active Conductor for the Capacitive and Zero-Sequence short-circuit current, and Contribution to Mechanical Protection. as per SANS 1339
  - Filler (Optional)** PVC or Polypropylene yarn
  - Inner Sheath/Bedding** The Inner-sheath Comprises a layer of Extruded as per Requirement PVC-LHFR Applied Under the Armour, Inner-sheath Compound Complying with SANS 1411-2
  - Armour** The Armour Consists of Round Aluminium Wire for Single Core Cable, Applied over the Inner-sheath. Armour Material Complying with SANS 1411-6
  - Outer Sheath** The Over all Outer-sheath Comprises a layer of Extruded as per Requirement PVC-LHFR and Applied Over the Armour to Insulate the Metallic Screen From the Surrounding Medium, to Protect the Metallic Screen From Corrosion, to Reduce the contribution of cables to Fire Propagation, and Contribute to Mechanical Protection. Outer sheath Compound Complying with SANS 1411-2.  
Colour: Black with Blue Stripe or as per Requirement

**Technical Characteristic**

Voltage Grade: 12.7/22 kV  
Test Voltage: 44 kV for 5 Minute ( 3.5 U<sub>o</sub> r. m. s)  
Temperature Rating: -15°C to +90°C  
Partial Discharge: SANS 6291  
Resistivity of Semi-conducting Screen: SANS 6284-2  
Reduced Flame Retardent: SANS 60332 Part-3-24  
Reduced Halogen Emission: SANS 5956  
Minimum Installation Bending Radius: 15(D+d)  
D= Nominal Diameter of the Cable,  
d=Nominal Diameter of the Conductor

**Marking & Packing**

Marking over the sheath: NEELKANTH CABLES, CABLE SIZE, 12.7/22 kV CU/XLPE/CTS/PVC-LHFR/AWA/PVC-LHFR ELECTRIC CABLE, YEAR OF MANUFACTURING  
Sequentail Length Marking: Shall be provided on outer sheath at every one Meter  
Cable Length: Multiple of 250/500 or as per Requirement  
Type of Drum: Wooden Drum Fully Packed with Lagging

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Version	01	Issue Date: 29/04/2021