1. COMPACTED COPPER CONDUCTOR
2. CONDUCTOR SEMI-CON
3. XLPE INSULATION
4. INSULATION SEMI-CON
5. COPPER TAPE SCREEN
6. NHLSFR OUTER SHEATH

NEELKANTH CABLES LIMITED

DATA SHEET

SINGLE CORE XLPE UNARMOURED, ZERO HALOGEN EMISSION, REDUCED SMOKE EMISSION,REDUCED FLAME PROPAGATION (NHLSFR) MEDIUM VOLTAGE CABLE

Single Core Cable Description : Copper Conductor,Semi-conducting conductor Screen,XLPE Insulated,Semi-conducting Insulation screen, Metallic screen over Individual Core, Overall NHLSFR(Polyolefin) Outer Sheathed,Medium Voltage Unarmoured Cable.

Make	NEELKANTH CABLES LIMITED
Reference Standard	As per IEC 60502-2
Voltage Rating (Uo / U)	3.6/6 kV
Maximum Operating Voltage (Um)	7.2 kV
Operating Temperature	90°C
Max. Temp. During Short Circuit	250°C

Range of Product Single Core 10 Sq.mm up to 1000 Sq.mm

Application

These Medium Voltage Single Core Cables are Designed for Electricity Power Distributation ,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 IEC 60228 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 IEC 60502-2

Insulation The Insulation of XLPE (Cross-Linked Polyethylene)Rated Voltage, Lightning Overoltage,Switching Overvoltage, and Withstand the Various Voltage Field Stress During the Cable Service Life.as per IEC 60502-2

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 IEC 60502-2

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 Capactive and Zero-Sequence short-circuit current,and Contribution to Mechanical Protection. as per IEC 60502-2

Filler (Optional) PVC or Polypropylene yarn

Outer Sheath The Over all Outer-sheath Comprises a layer of Extruded as per Requirement NHLSFR (Polyolefin) and Applied Over the Armour to Insulate the Mettalic Screen From the Surrounding Medium,to Protact the Mettalic Screen From Corrosion,to Reduce the contribution of cables to Fire Propagation,and Contribute to Mechanical Protection. Outer sheath Compound Complying with SANS 1411-5.

Colour: Black with White Stripe or as per Requirement

Technical Characteristic

Voltage Grade	3.6/6 kV
Test Voltage	12.5 kV for 5 Minute (3.5 Uo r.m.s)
Temperature Rating	-15ºC to +90ºC
Partial Discharge	IEC 60885-3
Resistivity of Semi-conducting Screen	IEC 60502-2
Reduced Flame Retardent	SANS 60332 Part-3-24
Zero Halogen Emission	SANS 60754-2
Minimum Installation Bending Radius	20(D+d) D= Nominal Diameter of the Cable, d=Nominal Diameter of the Conductor

Marking & Packing

Marking over the sheath	NEELKANTH CABLES , CABLE SIZE, 3.6/6 kV CU/XLPE/CTS/NHLSFR 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