

1. COMPACTED COPPER CONDUCTOR
2. CONDUCTOR SEMI-CON
3. XLPE INSULATION
4. INSULATION SEMI-CON
5. COPPER TAPE SCREEN
6. FR PVC BEDDING
7. STEEL WIRE ARMOUR
8. FR PVC OUTER SHEATH

# **NEELKANTH CABLES LIMITED**

# **DATA SHEET**

# THREE CORE XLPE ARMOURED REDUCED FLAME PROPAGATION (FR) MEDIUM VOLTAGE CABLE

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

Make NEELKANTH CABLES LIMITED Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV 12 kV Maximum Operating Voltage (Um) Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

# Application

These Medium Voltage Three 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 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

The Insulation of XLPE (Cross-Linked Polyethylene) Rated Voltage, Lightning Overoltage, Switching Overvoltage, and Withstand the Various Voltage Insulation

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

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 SANS 1339

PVC or Polypropylene yarn Filler (Optional)

The Inner-sheath Comprises a layer of Extruded as per Requirement PVC Applied Under the Armour, Inner-sheath Compound Complying with SANS Inner

Sheath/Bedding

The Armour Consists of Round Galvanised Steel Wire for Three Core Cable, Applied over the Inner-sheath.Armour Material Compllying with SANS Armour

1411-6

The Over all Outer-sheath Comprises a layer of Extruded as per Requirement PVC-FR and Applied Over the Armour to Insulate the Mettalic Screen **Outer Sheath** 

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 1411-2.

Colour: Black with Red Stripe or as per Requirement

**Technical Characteristic** 

Voltage Grade 6.35/11 kV

Test Voltage 22 kV for 5 Minute ( 3.5 Uo r.m.s)

Temperature Rating -15°C to +90°C SANS 6291 Partial Discharge Resistivity of Semi-conducting Screen SANS 6284-2 SANS 60332 Part-3-24 Flame Retardent

Minimum Installation Bending Radius 12(D+d)

D= Nominal Diameter of the Cable, d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/PVC-FR/SWA/PVC-FR ELECTRIC CABLE, YEAR Marking over the sheath

OF MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

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COMPACTED COPPER CONDUCTOR
 CONDUCTOR SEMI-CON
 XLPE INSULATION
 INSULATION
 INSULATION SEMI-CON
 COPPER TAPE SCREEN
 COPPER TAPE SCREEN
 COPPER TAPE SCREEN

5. COPPER TAPE SCREEN 6. LHFR PVC BEDDING 7. STEEL WIRE ARMOUR 8. LHFR OUTER SHEATH

# **NEELKANTH CABLES LIMITED**

#### **DATA SHEET**

# THREE CORE XLPE ARMOURED, REDUCED HALOGEN EMISSION, REDUCED FLAME PROPAGATION (LHFR) MEDIUM VOLTAGE CABLE

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

NEEL KANTH CARLES LIMITED Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product ThreeCore 16 Sq.mm up to 300 Sq.mm

Application

These Medium Voltage Three 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

Annealed Plain Copper Compacted Round Stranded Conductors to carry Current and withstand Pulling Stresses During Cable Laying. Conductor

Conductors Complying with SANS 1411-1 Class-2

Inner Semi-Conducting 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 Screen

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 SANS 1411-4

Core Semi-Conducting Screen

Metallic 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

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 SANS 1339

Filler (Optional) PVC or Polypropylene yarn

The Inner-sheath Comprises a layer of Extruded as per Requirement PVC-LHFR Applied Under the Armour, Inner-sheath Compound Complying with Inner

Sheath/Bedding SANS 1411-2

The Armour Consists of Round Galvanised Steel Wire for Three Core Cable, Applied over the Inner-sheath. Armour Material Compllying with SANS 1411-Armour

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**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 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 1411-2.

Colour: Black with Blue Stripe or as per Requirement

**Technical Characteristic** 

Voltage Grade 6.35/11 kV

22 kV for 5 Minute ( 3.5 Uo r.m.s) Test Voltage

Temperature Rating -15°C to +90°C Partial Discharge SANS 6291 Resistivity of Semi-conducting Screen SANS 6284-2 SANS 60332 Part-3-24 Reduced Flame Retardent

Reduced Halogen Emission SANS 5956 Minimum Installation Bending Radius 12(D+d)

D= Nominal Diameter of the Cable. d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES . CABLE SIZE. 6.35/11 kV CU/XLPE/CTS/PVC-LHFR/SWA/PVC-LHFR ELECTRIC CABLE . Marking over the sheath

YEAR OF MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

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- COMPACTED COPPER CONDUCTOR CONDUCTOR SEMI-CON XIPE INSULATION INSULATION SEMI-CON COPPER TAPE SCREEN NHLSFR BEDDING

- **NEELKANTH CABLES LIMITED**

# **DATA SHEET**

THREE CORE XLPE ARMOURED, ZERO HALOGEN EMISSION, REDUCED SMOKE EMISSION, REDUCED FLAME PROPAGATION (NHLSFR) MEDIUM VOLTAGE CABI F

Three Core Cable Description: Copper Conductor. Semi-conducting conductor Screen. XLPE Insulated. Semi-conducting Insulation screen. Metallic screen over Individual Core, NHLSFR (Polyolefin) Inner Sheathed, Galvanised Steel Wire Armoured, Overall NHLSFR(Polyolefin) Outer Sheathed, Medium Voltage Cable.

NEELKANTH CABLES LIMITED Make Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

#### Application

These Medium Voltage Three 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 SANS 1411-1 Class-2

Inner Semi-Conducting 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 Overoltage, 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

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 Metallic Screen

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 SANS 1339

Filler (Optional) PVC or Polypropylene yarn

Inner Sheath/Bedding

The Inner-sheath Comprises a layer of Extruded as per Requirement NHLSFR (Polyolefin) Applied Under the Armour, Inner-sheath Compound

Complying with SANS 1411-5

Armour The Armour Consists of Round Galvanised Steel Wire for Three Core Cable, Applied over the Inner-sheath. Armour Material Compllying with SANS 1411-

6

**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 6.35/11 kV

Test Voltage 22 kV for 5 Minute ( 3.5 Uo r.m.s)

-15°C to +90°C Temperature Rating Partial Discharge SANS 6291 Resistivity of Semi-conducting Screen SANS 6284-2 SANS 60332 Part-3-24 Reduced Flame Retardent Zero Halogen Emission SANS 60754-2 Minimum Installation Bending Radius 12(D+d)

> D= Nominal Diameter of the Cable. d=Nominal Diameter of the Conductor

Marking & Packing Marking over the sheath

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/NHLSFR/SWA/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

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# **NEELKANTH CABLES LIMITED**

#### **DATA SHEET**

#### THREE CORE XLPE ARMOURED, UV STABILIZED POLYETHYLENE OUTER SHEATHED (PE) MEDIUM VOLTAGE CABLE

Three Core Cable Description: Copper Conductor, Semi-conducting conductor Screen, XLPE Insulated, Semi-conducting Insulation screen, Metallic screen over Individual Core, PVC-FR Inner Sheathed, Galvanised Steel Wire Armoured, Overall UV Stabilized Polyethylene (PE) Outer Sheathed, Medium Voltage Cable.

Make NEEL KANTH CABLES LIMITED Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

#### Application

These Medium Voltage Three Cores 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

Construction

Annealed Plain Copper Compacted Round Stranded Conductors to carry Current and withstand Pulling Stresses During Cable Laying. Conductor

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

The Insulation of XLPE ( Cross-Linked Polyethylene )Rated Voltage, Lightning Overroltage, Switching Overvoltage, and Withstand the Various Voltage Field Insulation

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 Capactive 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-FR, Applied Under the Armour, Inner-sheath Compound Complying with SANS

1411-2

The Armour Consists of Round Galvanised Steel Wire for Three Core Cable, Applied over the Inner-sheath.Armour Material Compllying with SANS 1411-6 Armour

**Outer Sheath** The Over all Outer-sheath Comprises a layer of Extruded as per Requirement Polyethylene (PE) 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 1411-7.

Colour: Black or as per Requirement

**Technical Characteristic** 

Voltage Grade 6.35/11 kV

Test Voltage 22 kV for 5 Minute ( 3.5 Uo r.m.s)

Temperature Rating -15°C to +90°C Partial Discharge SANS 6291 Resistivity of Semi-conducting Screen SANS 6284-2 Minimum Installation Bending Radius 12(D+d)

D= Nominal Diameter of the Cable, d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/PVC-FR/SWA/PE, ELECTRIC CABLE, YEAR OF Marking over the sheath

MANUFACTURING

Shall be provided on outer sheath at every one Meter Sequentail Length Marking

Cable Length Multiple of 250/500 or as per Requirement Wooden Drum Fully Packed with Lagging Type of Drum

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

6. FR PVC BEDDING 7. FR PVC OUTER SHEATH

# **NEELKANTH CABLES LIMITED**

## **DATA SHEET**

#### THREE CORE XLPE UNARMOURED REDUCED FLAME PROPAGATION (FR) MEDIUM VOLTAGE CABLE

Three Core Cable Description: Copper Conductor, Semi-conducting conductor Screen, XLPE Insulated, Semi-conducting Insulation screen, Metallic screen over Individual Core,FR- PVC Inner Sheathed, Overall FR-PVC Outer Sheathed, Medium Voltage Unarmoured Cable.

Make NEELKANTH CABLES LIMITED Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

#### Application

These Medium Voltage Three 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 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 Overoltage, Switching Overvoltage, and Withstand the Various Voltage

Field Stress During the Cable Service Life.as per SANS 1411-4

Core Semi-Conducting Screen

**Outer Sheath** 

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

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 Metallic Screen

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 SANS 1339

Filler (Optional) PVC or Polypropylene yarn

Inner

The Inner-sheath Comprises a layer of Extruded as per Requirement PVC Applied Under the Armour, Inner-sheath Compound Complying with SANS

Sheath/Bedding

The Over all Outer-sheath Comprises a layer of Extruded as per Requirement PVC-FR 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 1411-2.

Colour: Black with Red Stripe or as per Requirement

**Technical Characteristic** 

Voltage Grade 6.35/11 kV

Test Voltage 13 kV for 5 Minute (3.5 Uo r.m.s)

Temperature Rating -15°C to +90°C Partial Discharge SANS 6291 Resistivity of Semi-conducting Screen SANS 6284-2 SANS 60332 Part-3-24 Flame Retardent

Minimum Installation Bending Radius 15(D+d)

D= Nominal Diameter of the Cable, d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/PVC-FR/PVC-FR ELECTRIC CABLE, YEAR OF Marking over the sheath

MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

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

# **NEELKANTH CABLES LIMITED**

## **DATA SHEET**

## THREE CORE XLPE UNARMOURED, REDUCED HALOGEN EMIISSION, REDUCED FLAME PROPAGATION (LHFR) MEDIUM VOLTAGE CABLE

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

Make NEEL KANTH CABLES LIMITED As per SANS:1339:2017 Reference Standard

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C 250°C Max. Temp. During Short Circuit

Range of Product ThreeCore 16 Sq.mm up to 300 Sq.mm

### Application

These Medium Voltage Three 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 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

The Insulation of XLPE (Cross-Linked Polyethylene) Rated Voltage, Lightning Overoltage, Switching Overvoltage, and Withstand the Various Voltage Insulation

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

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 Metallic Screen

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 SANS 1339

Filler (Optional) PVC or Polypropylene yarn

The Inner-sheath Comprises a layer of Extruded as per Requirement PVC-LHFR Applied Under the Armour, Inner-sheath Compound Complying with Inner

Sheath/Bedding SANS 1411-2

**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 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 1411-2.

Colour: Black with Blue Stripe or as per Requirement

# **Technical Characteristic**

Voltage Grade 6.35/11 kV

Test Voltage 22 kV for 5 Minute (3.5 Uo 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

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/PVC-LHFR/PVC-LHFR ELECTRIC CABLE, YEAR Marking over the sheath

OF MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

Multiple of 250/500 or as per Requirement Cable Length Type of Drum Wooden Drum Fully Packed with Lagging

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# **NEELKANTH CABLES LIMITED**

## DATA SHEET

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

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

NEELKANTH CABLES LIMITED Make Reference Standard As per SANS:1339:2017

Voltage Rating ( Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV Operating Temperature 90°C Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

### Application

These Medium Voltage Three 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

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 Overoltage, 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 Capactive 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 NHLSFR(Polyolefin) Applied Under the Armour, Inner-sheath Compound Complying

with SANS 1411-5

The Over all Outer-sheath Comprises a layer of Extruded as per Requirement NHLSFR (Polyolefin) and Applied Over the Armour to Insulate the Mettalic **Outer Sheath** 

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 6 35/11 kV

Test Voltage 22 kV for 5 Minute ( 3.5 Uo r.m.s)

Temperature Rating -15°C to +90°C SANS 6291 Partial Discharge Resistivity of Semi-conducting Screen SANS 6284-2 Reduced Flame Retardent SANS 60332 Part-3-24 Zero Halogen Emission SANS 60754-2 Minimum Installation Bending Radius

> D= Nominal Diameter of the Cable. d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/NHLSFR/NHLSFR ELECTRIC CABLE, YEAR OF Marking over the sheath

MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

15(D+d)

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1. COMPACTED COPPER CONDUCTOR 2. CONDUCTOR SEMI-CON 3. XLPE INSULATION 4. INSULATION SEMI-CON 5. COPPER TAPE SCREEN 6. FR PVC BEDDING 7. PE OUTER SHEATH

# **NEELKANTH CABLES LIMITED**

#### **DATA SHEET**

# THREE CORE XLPE UNARMOURED, UV STABILIZED POLYETHYLENE OUTER SHEATHED (PE) MEDIUM VOLTAGE CABLE

Three Core Cable Description: Copper Conductor, Semi-conducting conductor Screen, XLPE Insulated, Semi-conducting Insulation screen, Metallic screen over Individual Core, PVC-FR Inner Sheathed, Overall UV Stabilized Polyethylene (PE) Outer Sheathed, Medium Voltage Unarmoured Cable.

NEELKANTH CABLES LIMITED Make Reference Standard As per SANS:1339:2017

Voltage Rating (Uo / U) 6.35/11 kV Maximum Operating Voltage (Um) 12 kV 90°C Operating Temperature Max. Temp. During Short Circuit 250°C

Range of Product Three Core 16 Sq.mm up to 300 Sq.mm

These Medium Voltage Three Core Cores 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 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

The Insulation of XLPE ( Cross-Linked Polyethylene )Rated Voltage, Lightning Overoltage, Switching Overvoltage, and Withstand the Various Voltage Insulation

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 Capactive and Zero-Sequence short-circuit current, and

Filler (Optional) PVC or Polypropylene yarn

Inner The Inner-sheath Comprises a layer of Extruded as per Requirement PVC-FR Applied Under the Armour, Inner-sheath Compound Complying with

Sheath/Bedding SANS 1411-2

**Outer Sheath** The Over all Outer-sheath Comprises a layer of Extruded as per Requirement Polyethylene (PE) 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 1411-7.

Colour: Black or as per Requirement

**Technical Characteristic** 

Voltage Grade 6.35/11 kV

Test Voltage 22 kV for 5 Minute (3.5 Uo r.m.s)

Temperature Rating -15°C to +90°C Partial Discharge SANS 6291 Resistivity of Semi-conducting Screen SANS 6284-2 Minimum Installation Bending Radius 15(D+d)

D= Nominal Diameter of the Cable, d=Nominal Diameter of the Conductor

Marking & Packing

NEELKANTH CABLES, CABLE SIZE, 6.35/11 kV CU/XLPE/CTS/PVC-FR/PE, ELECTRIC CABLE, YEAR OF Marking over the sheath

MANUFACTURING

Sequentail Length Marking Shall be provided on outer sheath at every one Meter

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