





# MEDIUM VOLTAGE POWER CABLES

# Voltage Power Content of Medium

- \* 5.8/10kV Single Core Medium Voltage Power Cables
- \* 5.8/10kV Three Cores Medium Voltage Power Cables
- \* 6.35/11kV Single Core Medium Voltage Power Cables
- \* 6.35/11kV Three Cores Medium Voltage Power Cables
- \* 8.7/15kV Single Core Medium Voltage Power Cables
- \* 8.7/15kV Three Cores Medium Voltage Power Cables
- \* 12/20kV Single Core Medium Voltage Power Cables
- \* 12/20kV Three Cores Medium Voltage Power Cables
- \* 18/30kV Single Core Medium Voltage Power Cables
- \* 18/30kV Three Cores Medium Voltage Power Cables
- \* 19/33kV Single Core Medium Voltage Power Cables
- \* 19/33kV Three Cores Medium Voltage Power Cables
- \* 20.3/35kV Single Core Medium Voltage Power Cables
- \* 20.3/35kV Three Cores Medium Voltage Power Cables
- \* 26/45kV Single Core Medium Voltage Power Cables
- \* 26/45kV Three Cores Medium Voltage Power Cables



# 5.8/10kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 5.8/10kV kV (Um: 12.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standard: IEC 60502-2, VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene
   (PE)

## **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/ XLPE/SC/PVC; Cu/ XLPE/SC/AWA/PVC; N2XSY;
   N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A); YXC7(Q)V
- For the Cables with Aluminium Conductor:
   Al/ XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
   NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
   YAXC7VY2(A)V; YAXC7(Q)V

# **APPLICATION**

These cables refer to power cables with a rated voltage of 5,8/10 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Cables with Aluminium Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 5.8/10kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 5,8/10 kV (Um: 12.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standard: IEC 60502-2 or VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or
- Double Steel Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

#### CODE of CABLE

- For the Cables with Copper Conductor: CU/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY; N2XSEYR(FL)2Y; YXC8VZ2V-R;YXC8VZ3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
  Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY;
  NA2XSEYBY; NA2XSEYGbY; NA2XSEYR(FL)2Y;
  YAXC8VZ2V-R, YAXC8VZ3V-R; YAXC8VZ4V-R;
  YXC8VZ2(Q)2Y-R

# APPLICATION-

These cables refer to ARMOURED Power Cables with a rated voltage of 5,8/10 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

## **SECTION RANGE**

- For the Power Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 6.35/11kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES



# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 6,35/11kV (Um: 13.200V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standard: IEC 60502-2, VDE 0276-620, BS 6622

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- · Inner layer of semi-conducting material
- XLPE Insulation
- · Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over core
- Metallic Armour : Aluminium Wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

#### **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/ XLPE/SC/AWA/PVC; N2XSYR(A)Y
- For the Cables with Aluminium Conductor: Al/XLPE/SC/AWA/PVC; NA2XSYR(A)Y

# APPLICATION -

These cables refer to power cables with a rated voltage of 6,35/11kV. These cables have very low electrical loss compare to their similar and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy and where is a risk of mechanical damage.

Due to having **ARMOUR**, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 6.35/11kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 6.35/11 kV (Um: 13.200V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2, VDE 0276-620
   BS 6622

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- · Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

#### CODE of CABLE

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYR(FL)2Y; YXC8VZ2V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor: Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY; NA2XSEYR(FL)2Y; YAXC8VZ2(A)V-R, YXC8VZ2(A)

# APPLICATION -

These cables refer to XLPE insulated, PVC sheathed ARMOURED Power cables with a rated voltage of 0,6/1 kV. These cables used for electricity supply in a low voltage installation system. They are suitable for installation indoors, outdoors, underground, in cables ducts and power and switching stations, local energy distributions, industrial plants, and places where is risk of mechanical damage. Due to having ARMOURED, these cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm² up to 400mm²
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 8.7/15kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 8.7/15kV (Um: 18.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-1; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

# **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/ XLPE/SC/PVC; Cu/ XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)V
- For the Cables with Aluminium Conductor:
  Al/XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
  NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
  YAXC7VY2(A)V; YAXC7(Q)V

# **APPLICATION**

These cables refer to power cables with a rated voltage of 8,7/15 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

## **SECTION RANGE**

- For the Power Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 8.7/15kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 0,6/1kV (Um: 18.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-1; VDE 0271; BS 5467

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- · Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or Double Steel
   Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

# **CODE of CABLE**

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY, N2XSEYR(FL)2Y; YXC8VZ2V-R; YXC8VZ3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
   Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY;
   NA2XSEYBY; NA2XSEYGbY; NA2XSEYR(FL)2Y;
   YAXC8VZ2V-R; YAXC8VZ3V-R; YAXC8VZ4V-R;
   YXC8VZ2(Q)2Y-R

# APPLICATION -

These cables refer to ARMOURED Power Cables with a rated voltage of 8,7/15 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

## **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm² up to 400mm²

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 12/20kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 12/20kV kV (Um: 24.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IIEC 60502-2, VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene
   (PE)

# CODE of CABLE

- For the Cables with Copper Conductor:
   Cu/XLPE/SC/PVC; Cu/XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)V
- For the Cables with Aluminium Conductor:
   Al/XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
   NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
   YAXC7VY2(A)V; YAXC7(Q)V

# **APPLICATION**

These cables refer to Power Cables with a rated voltage of 12/20 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 12/20kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 12/20 kV (Um: 24.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2, VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- · Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour: Galvanized Steel Wires or Double Steel Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene
   (PE)

# **CODE of CABLE**

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY, N2XSEYR(FL)2Y; YXC8VZ2V-R; YXC8VZ3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
   Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY;
   NA2XSEYBY; NA2XSEYGbY; NA2XSEYR(FL)2Y;
   YAXC8VZ2V-R, YAXC8VZ3V-R; YAXC8VZ4V-R;
   YXC8VZ2(Q)2Y-R

# APPLICATION -

These cables refer to ARMOURED power cables with a rated voltage of 12/20 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

## **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm² up to 400mm²
- For the Power Cables with Aluminum Conductor:
   From 35mm<sup>2</sup> up to 400mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 18/30kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 18/30kV (Um: 36.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

## **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/XLPE/SC/PVC; Cu/XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)V
- For the Cables with Aluminium Conductor:
   Al/XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
   NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
   YAXC7VY2(A)V; YAXC7(Q)V

# **APPLICATION**

These cables refer to power cables with a rated voltage of 18/30 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

#### SECTION RANGE

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 18/30kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 18/30 kV (Um: 36.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or Double Steel
   Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinylchloride (PVC) or Polyethelene (PE)

#### **CODE of CABLE**

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY, N2XSEYR(FL)2Y; YXC8VZ2V-R, YXC8V Z3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
   Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY;
   NA2XSEYBY; NA2XSEYGbY; NA2XSEYR(FL)2Y;
   YAXC8VZ2V-R, YAXC8VZ3V-R; YAXC8VZ4V-R;
   YXC8VZ2(Q)2Y-R V

# APPLICATION-

These cables refer to ARMOURED power cables with a rated voltage of 18/30 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 19/33kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 19/33kV (Um: 39.600V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

#### CODE of CABLE

- For the Cables with Copper Conductor:
   Cu/XLPE/SC/PVC; Cu/XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)
- For the Cables with Aluminium Conductor:
  Al/ XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY
  NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
  YAXC7VY2(A)V; YAXC7(Q)V

# APPLICATION

These cables refer to power cables with a rated voltage of 19/33 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

# **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 19/33kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 19/33 kV (Um: 39.600V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or Double Steel
   Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinylchloride (PVC) or Polyethelene (PE)

#### CODE of CABLE

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY, N2XSEYR(FL)2Y; YXC8VZ2V-R, YC8VZ3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
  Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY;
  NA2XSEYBY; NA2XSEYGbY; NA2XSEYR(FL)2Y;
  YAXC8VZ2V-R, YAXC8VZ3V-R; YAXC8VZ4V-R;
  YXC8VZ2(Q)2Y-R

# APPLICATION -

These cables refer to ARMOURED Power Cables with a rated voltage of 19/33 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions.. They are also used under normal and salty water if specially produced.

# **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm² up to 400mm²

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 20.3/35kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 20.3/35kV (Um: 42.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- · Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinyl chloride (PVC) or Polyethylene (PE)

#### **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/XLPE/SC/PVC; Cu/XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)V
- For the Cables with Aluminium Conductor:
  Al/ XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
  NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
  YAXC7VY2(A)V; YAXC7(Q)V

# APPLICATION

These cables refer to power cables with a rated voltage of 20,3/35 kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm² up to 630mm²

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 20.3/35kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 20.3/35kV (Um: 42.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminum Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- · Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or Double Steel
   Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinylchloride (PVC) or Polyethelene (PE)

# **CODE of CABLE**

- \* For the Cables with Copper Conductor:

  Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY;

  N2XSEYGbY; N2XSEYR(FL)2Y; YXC8VZ2V-R; YXC8VZ3V-R;

  YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- \* For the Cables with Aluminium Conductor:
  Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY; NA2XSEYBY;
  NA2XSEYGbY; NA2XSEYR(FL)2Y;
  YAXC8VZ2V-R; YAXC8VZ3V-R; YAXC8VZ4V-R
  YXC8VZ2(Q)2Y-R

# APPLICATION -

These cables refer to ARMOURED Power Cables with a rated voltage of 20,3/35 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

# **SECTION RANGE**

- For the Power Cables with Copper Conductor:
   From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm² up to 400mm²

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request



# 26/45kV SINGLE CORE MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 26/45kV (Um: 54.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Outer sheath of Polyvinylchloride (PVC) or Polyethelene (PE)

#### **CODE of CABLE**

- For the Cables with Copper Conductor:
   Cu/ XLPE/SC/PVC; Cu/ XLPE/SC/AWA/PVC;
   N2XSY; N2XS(F)Y; N2XSYR(A)V; N2XS(FL)2Y; YXC7V;
   YXC7VY2(A)V; YXC7(Q)
- For the Cables with Aluminium Conductor:
   Al/ XLPE/SC/PVC; Al/ XLPE/SC/AWA/PVC; NA2XSY;
   NA2XS(F)Y; NA2XSYR(A)V; NA2XS(FL)2Y; YAXC7V;
   YAXC7VY2(A)V; YAXC7(Q)V

# **APPLICATION**

These cables refer to power cables with a rated voltage of 26/45kV. These cables have very low electrical loss compare to their similars and they are used in cable ducts, outdoor and indoor installations, underground where the short circuit levels are high such as urban and industrial areas fed by electrical energy. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 630mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor:
   From 35mm<sup>2</sup> up to 630mm<sup>2</sup>

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332 Category A-B and C upon special request.
- Cables can be supplied with aluminium wire armour upon special request.
- Cables can be supplied with Polyethylene Outer Sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request



# 26/45kV THREE CORES MEDIUM VOLTAGE POWER CABLES





# TECHNICAL DATA-

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: 250°C (max. 5 sec.)
- Rated Voltage: 26/45 kV (Um: 54.000V)
- Min. Bending Radius: 15x Cable Outer Diameter
- Production Standards: IEC 60502-2; VDE 0276-620

#### CONSTRUCTION

- Stranded Class 2 Copper or Aluminium Wire
- Inner layer of semi-conducting material
- XLPE Insulation
- Outer layer of semi-conducting material
- Semi-conducting tape
- Screen of copper wires
- Inner covering over laid-up cores
- Metallic Armour : Galvanised Steel Wires or Double Steel
   Tapes or Flat Steel Wires+ Steel Tape
- Outer sheath of Polyvinylchloride (PVC) or Polyethelene

# CODE of CABLE

- For the Cables with Copper Conductor: Cu/XLPE/CTS/PVC/SWA/PVC; N2XSEYRY; N2XSEYBY; N2XSEYGbY, N2XSEYR(FL)2Y; YXC8VZ2V-R, YC8Z3V-R; YXC8VZ4V-R; YXC8VZ2(Q)2Y-R
- For the Cables with Aluminium Conductor:
   Al/XLPE/CTS/PVC/SWA/PVC; NA2XSEYRY; NA2XSEY-BY; NA2XSEYGBY; NA2XSEYR(FL)2Y; YAXC8VZ2V-R, YAXC8VZ3V-R; YAXC8VZ4V-R; YXC8VZ2(Q)2Y-R

# APPLICATION -

These cables refer to ARMOURED Power Cables with a rated voltage of 26/45 kV. These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground in ducts and where is a risk of mechanical damage. Due to having ARMOUR, These cables can be used for heavy installation and mounting conditions. They are also used under normal and salty water if specially produced.

#### **SECTION RANGE**

- For the Power Cables with Copper Conductor: From 35mm<sup>2</sup> up to 400mm<sup>2</sup>
- For the Power Cables with Aluminium Conductor: From 35mm² up to 400mm²

- Cables can be supplied with special flame retardant PVC or Halogen Free Flame retardant(HFFR) outer sheath to comply with the flame test requirements of IEC 60332
- Category A-B and C upon special request.
- Cables can be supplied with Polyethylene outer sheath material upon special request.
- Cables can be supplied with Longitudinally or Radial+Longitudinally sealed watertight tape (Swellable tape) upon special request.
- Cables can be supplied without armour upon special request