

ENERGYA POWER CABLES-ELSEWEDY HELAL

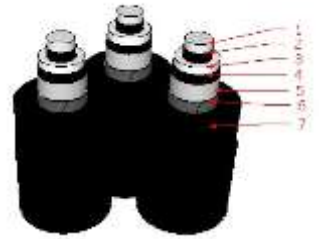
Technical Department

Technical Offer For Triplex Cables IN Princable of IEC 60502-2 & NFC 33-226

Twisted cable 18 /30(36) KV with compacted circular stranded Plain Aluminum conductor , Extruded by semi conducting layer as conductor screen, XLPE insulated, Extruded by semi conducting layer as insulation screen (Stripable type) Screened by AL FOIL , and extruded by colored Medium Density Poly Ethylene (MDPE) as an outer sheath

General Information:

Short Description: AL /XLPE/ MDPE
 Voltage: 18 / 30(36) KV
 Conductor: Stranded Aluminum Conductor according to IEC 60228 Class 2
 Inner Semi Conductor: Extruded Inner Semi Conductor (Bonded Type)
 Insulation / Temperature: Cross Linked Polyethylene 90°C
 Outer Semi Conductor: Extruded Outer Semi Conductor (Stripable Type)
 Semi Conductive Water Blocking Tape : Applied
 Screening Type : AL FOIL
 Sheathing Material / Color: MDPE / BLACK



Cable Marking:

ENERGYA POWER CABLES-ELSEWEDY HELAL No. Core X Size MM2 18/30 KV AL/XLPE/MDPE 2021 Meter Marking

NOTE:

Phases are Identified BY Tapes

Packing:

-Cable shall be supplied in lengths as indicated in technical schedule on wooden or steel reels up to the manufacturer.
 -Both ends of the cable shall be sealed to prevent the ingress of moisture during transportation and storage.
 -Each reel shall be marked with type, size and length of Cable, and weight. 6 AL foil -This information shall be written on metallic tag nailed properly to the flange.
 MDPE Sheath 7

Drawing Description

- 1 Aluminium Conductor
- 2 Inner Semi Conductor
- 3 XLPE Insulation
- 4 Outer Semi Conductor
- 5 Semi Conductive water blocking Tape
- 7

Tests:

Routine tests generally to IEC 60502-2 are performed on the cables and test certificate will be supplied on request.
 Electrical Resistance of the conductors shall be tested on IEC 60228.
 Voltage Test: No breakdown of The insulation shall occur, The applied Voltage and duration will be as Per IEC 60502-2

Electrical Data:

Maximum conductor operating temperature: 90 Maximum
 screen operating temperature: 80 Maximum conductor
 temperature during S.C: 250 Maximum Screen temperature during
 S.C: 160

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-Soil thermal resistivity 100 °C.Cm/Watt Laying conditions at trefoil formation are as below:
 -Burial depth 0.5 m
 -Ground temperature 20 °C
 -Air temperature 30 °C
 -Frequency 50 Hz

Specifications:

No. of Cores	Size (mm2)	Approximate Outer Diameter (mm)±4mm	Approximate Cable Weight (Kg/Km)±5%	Minimum Bending Radius (mm)	Cutting Length (MT) ± 10 %	Packing Type	Flange Diameter (mm)	Drum outer Width (mm)	min thickness of sheathing (mm)	Insulation Thickness (Nominal) (mm)	Inner S.C Thickness (Nominal) (mm)	Outer S.C Thickness Nominal (mm)
3 X 1 X 240		87	5088	1650	250	wooden drum	2450	1700	1.56	6.7	0.6	0.7

-Electrical Data:

Size (MM2)	Maximum Conductor DC Resistance at Max.	Conductor AC Resistance at Max.	Capacitance (mF/Km)	Charging Current (A/Km)	Dielectric Losses (W/Km)	Reactance at 50 Hz	Screen S.C.C	Conductor S.C.C for	Current Rating	
	Resistance at 20 °C (Ω/Km)	Operating Temp. and 50Hz (Ω/Km)				(ohm/km)			1sec (KA)	1 sec (KA)
3 X 1 X 240	0.125	0.161	0.236	1.334	96.06	0.161	2	22.488	468	513

-The above data is approximate and subjected to manufacturing tolerance.

Prepared By
AHMED ELGENEDY
 Technical Design Engineer

Approved By
M.ADEL
 Senior Technical Design Engineer
 EE8/25/2021

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