

Application

Aerial Insulated Cables with voltages from 13.8kV - 34.5kV of spacer cable. These conductors are intended primarily for the distribution of electrical energy under normal conditions of overhead (aerial) installations. They are considered as covered conductors therefore the cables carry no voltage rating. The conductors must be installed on insulators and/or spacers adequate for the service voltage. The user may want to give consideration to the dielectric compatibility of the covering, insulator, spacer.

Description

The conductors are stranded, circular compressed aluminum. The conductor screen is the extruded Semi-conducting conductor shield in Black. The inner Insulation is mainly natural color thermoplastic polyethylene (PE) or cross-linked polyethylene (XLPE). And the outer Insulation is mainly thermoplastic polyethylene (PE) or cross-linked polyethylene (XLPE) in Black or Grey with Weather or UV resistant. This standard covers both thermoplastic and cross linked polyethylene constructions, rated for 75°C or 90°C normal service temperature.

Specifications

• ABNT NBR 11873 Covered Cables With Polymeric Material for Overhead Distribution Lines in Spacers for Voltages 13.8 kV up to 34.5 kV

Parameter

NBR 11873

15kV Aerial Insulated Cables

Nominal section	Min.No.	Max. D.C. Resistance at 20 °C	Nominal Insulation Thickness	Cable Diameter	Min. Breaking Load	Weight
	of Wires					
mm ²	No.	Ω/km	mm	mm	daN	kg/km
15kV AAC/XLPE						
35	6	0.868	3	13	455	185
50	6	0.641	3	14.1	650	227
70	12	0.443	3	15.8	910	298
95	15	0.32	3	17.6	1235	384
120	15	0.253	3	18.8	1560	459
150	15	0.206	3	20.5	1950	546
185	30	0.164	3	22.1	2405	658
240	30	0.125	3	24.4	3120	834
300	30	0.1	3	26.5	3900	1018

25kV Aerial Insulated Cables

Nominal section	Min.No.	Max. D.C. Resistance at 20 °C	Approx.	Nominal Insulation Thickness	Cable Diameter	Min Breaking Load	Weight
	of Wires		Screen Thickness				
mm ²	No.	Ω/km	mm	mm	mm	daN	kg/km
25kV AAC/XLPE							
35	6	0.868	0.5	4	16.2	455	260
50	6	0.641	0.5	4	17.3	650	309
70	12	0.443	0.5	4	19	910	389
95	15	0.32	0.5	4	20.8	1235	485
120	15	0.253	0.5	4	22	1560	566
150	15	0.206	0.5	4	23.7	1950	662
185	30	0.164	0.5	4	25.3	2405	783
240	30	0.125	0.5	4	27.6	3120	972
300	30	0.1	0.5	4	29.7	3900	1167

35kV Aerial Insulated Cables

Nominal Section	Min.No. of wires	Max. D.C. Resistance at 20 °C	Approx.Screen Thickness	Nominal Insulation Thickness	Cable Diameter	Min Breaking Load	Weight
	No.						
35kV AAC/XLPE/HDPE							
70	12	0.443	0.6	7.6	26.5	910	653
95	15	0.32	0.6	7.6	28.3	1235	770
120	15	0.253	0.6	7.6	29.5	1560	865
150	15	0.206	0.6	7.6	31.2	1950	981
185	30	0.164	0.6	7.6	32.8	2405	1120
240	30	0.125	0.6	7.6	35.1	3120	1335
300	30	0.1	0.6	7.6	37.2	3900	1555