



• Application

Medium Voltage Protected Aluminum Cable, known as cable aluminio protegido media tensión or conductor aluminio protegido in Spanish, finds its niche in compact primary medium voltage energy distribution networks. The cable's protective layer is specifically designed to withstand electrical routing and weathering challenges. This robust design enhances the reliability of overhead distribution networks by minimizing the risk of discharges and shutdowns, even in cases of occasional contact with grounded objects and trees.

• Performance

Electrical Performance: Designed for voltage ratings of 15kV, 25kV, and 35kV, ensuring suitability for various distribution network configurations.

Chemical Performance: Engineered to resist chemical degradation, UV radiation, and oil exposure, maintaining performance integrity in diverse environmental conditions.

Mechanical Performance: Features a minimum bending radius of 10 times the cable diameter, providing flexibility without compromising structural integrity.

• Construction

Conductor: Crafted from 1350 aluminum wires, compacted in class 2 cording, and equipped with longitudinal moisture blocking, compliant with NBR NM 280 standards.

Semiconductor Layer: Utilizes either thermostable material (XLPE) or thermoplastic (PE), with optional application for 15kV and 25kV cables and mandatory for 35kV cables, ensuring optimal electrical insulation.

Protective Layer: Applied concurrently with the semiconductor layer, this cover consists of one or two layers of thermostable material (XLPE) or two layers of polyethylene (LDPE/HDPE or XLPE/HDPE). In cases where two layers are present, the internal layer remains colorless, while the external layer adopts the designated coloration for easy identification and enhanced durability.

• Specification

-ABNT NBR 11873 – Cables covered with polymeric material for electrical energy distribution networks fixed in spacers, in voltages from 13.8 to 34.5 kV.

-ABNT NBR NM 280 – Insulated cable conductors (IEC 60228, MOD).

• Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

• Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



• National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

Technical Parameters

15kV Double Layer Protected Cable									
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer	Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	mm	mm	kg/km	daN	20 °C	90 °C	A
35	7.0	0.4	3.0	15	210	455	0.868	1.113	187
50	8.1	0.4	3.0	16	262	650	0.641	0.822	225
70	9.9	0.4	3.0	18	334	910	0.443	0.568	282
95	11.5	0.4	3.0	19	421	1,235	0.320	0.410	345
120	13.0	0.4	3.0	21	507	1,560	0.253	0.324	401
150	14.4	0.4	3.0	22	602	1,950	0.206	0.264	456
185	16.1	0.4	3.0	24	723	2,405	0.164	0.210	525
240	18.5	0.4	3.0	26	899	3,210	0.125	0.160	625
300	21.0	0.4	3.0	29	1,093	3,900	0.100	0.128	721

25kV Double Layer Protected Cable									
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer	Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	mm	mm	kg/km	daN	20 °C	90 °C	A
35	7.0	0.4	4.0	17	235	455	0.868	1.113	186
50	8.1	0.4	4.0	19	385	650	0.641	0.822	224
70	9.9	0.4	4.0	20	370	910	0.443	0.568	280
95	11.5	0.4	4.0	22	460	1,235	0.320	0.410	342
120	13.0	0.4	4.0	23	560	1,560	0.253	0.324	397
150	14.4	0.4	4.0	25	650	1,950	0.206	0.264	450
185	16.1	0.4	4.0	26	770	2,405	0.164	0.210	519
240	18.5	0.4	4.0	29	960	3,210	0.125	0.160	617
300	21.0	0.4	4.0	32	1,155	3,900	0.100	0.128	712

35kV Double Layer Protected Cable									
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer	Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	mm	mm	kg/km	daN	20 °C	90 °C	A
70	9.9	0.4	7.6	27	649	910	0.443	0.568	270
95	11.5	0.4	7.6	29	758	1,235	0.320	0.410	329
120	13.0	0.4	7.6	31	868	1,560	0.253	0.324	381
150	14.4	0.4	7.6	32	984	1,950	0.206	0.264	432
185	16.1	0.4	7.6	34	1,131	2,405	0.164	0.210	497
240	18.5	0.4	7.6	36	1,333	3,210	0.125	0.160	589
300	21.0	0.4	7.6	38	1,567	3,900	0.100	0.128	674

Technical Parameters

15kV XLPE/XLPE/XLPE Three Layer Protected Cable

Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
			Internal mm	External mm				20 °C	90 °C	
mm ²	mm	mm			mm	kg/km	daN	Ω/km	Ω/km	A
35	7.0	0.4	1.5	1.5	15	210	455	0.868	1.113	187
50	8.1	0.4	1.5	1.5	16	262	650	0.641	0.822	225
70	9.9	0.4	1.5	1.5	18	334	910	0.443	0.568	282
95	11.5	0.4	1.5	1.5	19	421	1,235	0.320	0.410	345
120	13.0	0.4	1.5	1.5	21	507	1,560	0.253	0.324	401
150	14.4	0.4	1.5	1.5	22	602	1,950	0.206	0.264	456
185	16.1	0.4	1.5	1.5	24	723	2,405	0.164	0.210	525
240	18.5	0.4	1.5	1.5	26	899	3,210	0.125	0.160	625
300	21.0	0.4	1.5	1.5	29	1,093	3,900	0.100	0.128	721

25kV XLPE/XLPE/XLPE Three Layer Protected Cable

Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
			Internal mm	External mm				20 °C	90 °C	
mm ²	mm	mm			mm	kg/km	daN	Ω/km	Ω/km	A
35	7.0	0.4	2.0	2.0	17	235	455	0.868	1.113	186
50	8.1	0.4	2.0	2.0	26	556	650	0.641	0.822	224
70	9.9	0.4	2.0	2.0	27	649	910	0.443	0.568	280
95	11.5	0.4	2.0	2.0	29	758	1,235	0.320	0.410	342
120	13.0	0.4	2.0	2.0	31	868	1,560	0.253	0.324	397
150	14.4	0.4	2.0	2.0	32	984	1,950	0.206	0.264	450
185	16.1	0.4	2.0	2.0	34	1,131	2,405	0.164	0.210	519
240	18.5	0.4	2.0	2.0	36	1,333	3,210	0.125	0.160	617
300	21.0	0.4	2.0	2.0	38	1,567	3,900	0.100	0.128	712

35kV XLPE/XLPE/XLPE Three Layer Protected Cable

Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
			Internal mm	External mm				20 °C	90 °C	
mm ²	mm	mm			mm	kg/km	daN	Ω/km	Ω/km	A
70	9.9	0.4	3.8	3.8	27	649	910	0.443	0.568	270
95	11.5	0.4	3.8	3.8	29	758	1,235	0.320	0.410	329
120	13.0	0.4	3.8	3.8	31	868	1,560	0.253	0.324	381
150	14.4	0.4	3.8	3.8	32	984	1,950	0.206	0.264	432
185	16.1	0.4	3.8	3.8	34	1,131	2,405	0.164	0.210	497
240	18.5	0.4	3.8	3.8	36	1,333	3,210	0.125	0.160	589
300	21.0	0.4	3.8	3.8	38	1,567	3,900	0.100	0.128	674

Technical Parameters

15kV XLPE/XLPE/HDPE(PE/LDPE/HDPE) Three Layer Protected Cable										
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	Internal mm	External mm	mm	kg/km	daN	20 °C	90 °C	A
35	7.0	0.4	1.5	1.5	15	210	455	0.868	1.043	145
50	8.1	0.4	1.5	1.5	16	262	650	0.641	0.770	174
70	9.9	0.4	1.5	1.5	18	334	910	0.443	0.532	218
95	11.5	0.4	1.5	1.5	19	421	1,235	0.320	0.384	266
120	13.0	0.4	1.5	1.5	21	507	1,560	0.253	0.304	309
150	14.4	0.4	1.5	1.5	22	602	1,950	0.206	0.248	351
185	16.1	0.4	1.5	1.5	24	723	2,405	0.164	0.197	403
240	18.5	0.4	1.5	1.5	26	899	3,210	0.125	0.150	479
300	21.0	0.4	1.5	1.5	29	1,093	3,900	0.100	0.120	550

25kV XLPE/XLPE/HDPE(PE/LDPE/HDPE) Three Layer Protected Cable										
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	Internal mm	External mm	mm	kg/km	daN	20 °C	90 °C	A
35	7.0	0.4	2.0	2.0	17	235	455	0.868	1.043	144
50	8.1	0.4	2.0	2.0	26	556	650	0.641	0.770	173
70	9.9	0.4	2.0	2.0	27	649	910	0.443	0.532	216
95	11.5	0.4	2.0	2.0	29	758	1,235	0.320	0.384	263
120	13.0	0.4	2.0	2.0	31	868	1,560	0.253	0.304	305
150	14.4	0.4	2.0	2.0	32	984	1,950	0.206	0.248	342
185	16.1	0.4	2.0	2.0	34	1,131	2,405	0.164	0.197	398
240	18.5	0.4	2.0	2.0	36	1,333	3,210	0.125	0.150	472
300	21.0	0.4	2.0	2.0	38	1,567	3,900	0.100	0.120	543

35kV XLPE/XLPE/HDPE(PE/LDPE/HDPE) Three Layer Protected Cable										
Nominal Cross Section Area	Approx. Conductor Dia.	Nominal Thickness of Semiconduc Layer	Nominal Thickness of Protective Layer		Approx. Outer Dia.	Approx. Weight	Breaking Load	Max. Electrical Resistance		Max. Current Intensity
mm ²	mm	mm	Internal mm	External mm	mm	kg/km	daN	20 °C	90 °C	A
70	9.9	0.4	3.8	3.8	27	649	910	0.443	0.532	207
95	11.5	0.4	3.8	3.8	29	758	1,235	0.320	0.384	252
120	13.0	0.4	3.8	3.8	31	868	1,560	0.253	0.304	291
150	14.4	0.4	3.8	3.8	32	984	1,950	0.206	0.248	330
185	16.1	0.4	3.8	3.8	34	1,131	2,405	0.164	0.197	379
240	18.5	0.4	3.8	3.8	36	1,333	3,210	0.125	0.150	448
300	21.0	0.4	3.8	3.8	38	1,567	3,900	0.100	0.120	512