

Spaced Aerial Cable Application

This kind of spaced aerial cable (SAC cable) is used for aerial power transmission at 15/25/35 maximum system voltage. The phase to phase voltage is 10/20/33KV. This standard applies of supported 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.

Spaced Aerial Cable 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.

Spaced Aerial Cable Specifications

- ICEA S-66-524 Cross-Linked-Thermosetting-Polyethylene-Insulated Wire and Cable for The Transmission and Distribution of Electrical Energy
- GB/T 14049 (Equal to IEC 60502-2) Aerial Insulated Cables For Rated Voltage of 10kV

15kV SAC Spaced Aerial Cable

Nominal Size	Min.No. of Wires	Covering Thickness			Cable Diameter	Min. Breaking Load	Weight
		Conductor Shield	Inner Layer	Outer Layer			
mm ²	No.	mm	mm	mm	mm	N	kg/km
3-Layer 15kV AAC/XLPE/XLPE							
25	6	0.60	1.91	1.91	15.2	3762	218
35	6	0.60	1.91	1.91	16.2	5177	258
50	6	0.60	1.91	1.91	17.3	7011	307
70	12	0.60	1.91	1.91	19.0	10354	387
95	15	0.60	1.91	1.91	20.8	13727	482
120	15	0.60	1.91	1.91	22.0	17339	564
150	15	0.60	1.91	1.91	23.7	21033	660
185	30	0.60	1.91	1.91	25.3	26732	780
240	30	0.60	1.91	1.91	27.6	34679	968

25kV SAC Cable

Nominal Size	Min. No. of Wires	Covering Thickness			Cable Diameter	Min. Breaking Load	Weight
		Conductor Shield	Inner Layer	Outer Layer			
mm ²	No.	mm	mm	mm	mm	N	kg/km
3-Layer 25kV AAC/XLPE/XLPE							
25	6	0.70	3.18	3.18	20.1	3762	351
35	6	0.70	3.18	3.18	21.1	5177	398
50	6	0.70	3.18	3.18	22.2	7011	455
70	12	0.70	3.18	3.18	23.9	10354	548
95	15	0.70	3.18	3.18	25.7	13727	657
120	15	0.70	3.18	3.18	26.9	17339	748
150	15	0.70	3.18	3.18	28.6	21033	856
185	30	0.70	3.18	3.18	30.2	26732	989
240	30	0.70	3.18	3.18	32.5	34679	1195

35kV SAC Cable

Nominal Size	Min. No.	Covering Thickness	Cable Diameter	Min. Breaking Load	Weight
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mm ²	of Wires	Conductor Shield	Inner Layer	Outer Layer	mm	N	kg/km
	No.	mm	mm	mm			
3-Layer 35kV AAC/XLPE/XLPE							
25	6	0.70	4.45	3.18	22.6	3762	433
35	6	0.70	4.45	3.18	23.6	5177	485
50	6	0.70	4.45	3.18	24.7	7011	545
70	12	0.70	4.45	3.18	26.4	10354	645
95	15	0.70	4.45	3.18	28.2	13727	761
120	15	0.70	4.45	3.18	29.4	17339	856
150	15	0.70	4.45	3.18	31.1	21033	971
185	30	0.70	4.45	3.18	32.7	26732	1110
240	30	0.70	4.45	3.18	35.0	34679	1324

15kV SAC Cable

Nominal Size	Min. No. of Wires	Covering Thickness			Cable Diameter	Min. Breaking Load	Weight
		Conductor Shield	Inner Layer	Outer Layer			
mm ²	No.	mm	mm	mm	mm	N	kg/km
3-Layer 15kV AAC/XLPE/HDPE							
25	6	0.60	1.91	1.91	15.2	3762	221
35	6	0.60	1.91	1.91	16.2	5177	261
50	6	0.60	1.91	1.91	17.3	7011	310
70	12	0.60	1.91	1.91	19.0	10354	390
95	15	0.60	1.91	1.91	20.8	13727	486
120	15	0.60	1.91	1.91	22.0	17339	568
150	15	0.60	1.91	1.91	23.7	21033	664
185	30	0.60	1.91	1.91	25.3	26732	785
240	30	0.60	1.91	1.91	27.6	34679	973

25kV SAC Cable

Nominal Size	Min. No. of Wires	Covering Thickness			Cable Diameter	Min. Breaking Load	Weight
		Conductor Shield	Inner Layer	Outer Layer			
mm ²	No.	mm	mm	mm	mm	N	kg/km
3-Layer 25kV AAC/XLPE/HDPE							
25	6	0.70	3.18	3.18	20.1	3762	356
35	6	0.70	3.18	3.18	21.1	5177	404
50	6	0.70	3.18	3.18	22.2	7011	461
70	12	0.70	3.18	3.18	23.9	10354	555
95	15	0.70	3.18	3.18	25.7	13727	664
120	15	0.70	3.18	3.18	26.9	17339	755
150	15	0.70	3.18	3.18	28.6	21033	864
185	30	0.70	3.18	3.18	30.2	26732	997
240	30	0.70	3.18	3.18	32.5	34679	1203

35kV SAC Cable

Nominal Size	Min. No. of Wires	Covering Thickness			Cable Diameter	Min. Breaking Load	Weight
		Conductor Shield	Inner Layer	Outer Layer			
mm ²	No.	mm	mm	mm	mm	N	kg/km
3-Layer 35kV AAC/XLPE/HDPE							

25	6	0.70	4.45	3.18	22.6	3762	439
35	6	0.70	4.45	3.18	23.6	5177	491
50	6	0.70	4.45	3.18	24.7	7011	552
70	12	0.70	4.45	3.18	26.4	10354	652
95	15	0.70	4.45	3.18	28.2	13727	768
120	15	0.70	4.45	3.18	29.4	17339	864
150	15	0.70	4.45	3.18	31.1	21033	980
185	30	0.70	4.45	3.18	32.7	26732	1119
240	30	0.70	4.45	3.18	35.0	34679	1334