Application

Primarily used for overhead service applications such as street lighting, outdoor lighting, and temporary service for construction. To be used at voltages of 1000 volts phase - to - phase or less and at conductor temperatures not to exceed 70°C for polyethylene (PE) and Polyvinyl chloride (PVC) insulated conductors or 90°C for cross-linked polyethylene (XLPE) insulated conductors.

Specifications

• GB/T 12527（Equivalent to IEC 60502-1）Aerial Insulated Cables for Rated Voltages up to and Including 1kV

• IEC 60228 Conductors of insulated cables

Construction

Conductor: Conductors are stranded,circular compacted or uncompacted aluminum, copper , aluminum-alloy, ACSR etc.

Insulation: Thermoplastic polyethylene(PE),polyvinyl chloride (PVC) ,cross-linked polyethylene (XLPE),black color,weather and UV resistant.

Type	No. of Cores	Nominal size
		mm2
CU/PVC, AAC/PVC, AAAC/PVC, CU/PE, AAC/PE, AAAC/PE,	1	10 ~ 400
CU/XLPE, AAC/XLPE, AAAC/XLPE	2,4	10 ~ 120
AAC/PVC, AAC/PE, AAC/XLPE	3+k*	10 ~ 120

*The auxiliary core k is a load-bearing core or a neutral core with a load. According to the requirements of the factory, the cross-section of the auxiliary core is optional to match the main core. (A) means steel carrying stranded wire, (B) means aluminum alloy carrying stranded wire.

Parameter

GB/T 12527

(Equ. IEC 60502-1)

Nominal Size	Min. No. of Wires	Approx. Diameter of Conductor	Nominal Thickness of Insulation	Max. Diameter of Cable	Max. DC Resistance at 20 0C		Breaking Load
					Hard copper	Annealedcopper	Hard copper
mm2	No.	mm	mm	mm	Ω/km	Ω/km	N
10	6	3.8	1	6.5	1.906	1.83	3471
16	6	4.8	1.2	8	1.198	1.15	5486
25	6	6	1.2	9.4	0.749	0.727	8465
35	6	7	1.4	11	0.54	0.524	11731
50	6	8.4	1.4	12.3	0.399	0.387	16052
70	12	10	1.4	14.1	0.276	0.268	23461
95	15	11.6	1.6	16.5	0.199	0.193	31759
120	18	13	1.6	18.1	0.158	0.153	39911
150	18	14.6	1.8	20.2	0.128	0.124	49505
185	30	16.2	2	22.5	0.1021	0.0991	61846

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240	34	18.4	2.2	25.6	0.0777	0.0754	79823

Nominal Size	Min. No. of Wires	Approx. Diameter of Conductor	Nominal Thickness of Insulation	Max. Diameter of Cable	Max. DC Resistance at 20 0C		Breaking Load	
					AAC	AAAC	AAC	AAAC
mm2	No.	mm	mm	mm	Ω/km	Ω/km	N	N
10	6	3.8	1	6.5	3.08	3.574	1650	2514
16	6	4.8	1.2	8	1.91	2.217	2517	4022
25	6	6	1.2	9.4	1.2	1.393	3762	6284
35	6	7	1.4	11	0.868	1.007	5177	8800
50	6	8.4	1.4	12.3	0.641	0.744	7011	12569
70	12	10	1.4	14.1	0.443	0.514	10354	17596
95	15	11.6	1.6	16.5	0.32	0.371	13727	23880
120	15	13	1.6	18.1	0.253	0.294	17339	30164
150	15	14.6	1.8	20.2	0.206	0.239	21033	37706
185	30	16.2	2	22.5	0.164	0.19	26732	46503
240	30	18.4	2.2	25.6	0.125	0.145	34679	60329
300	30	20.8	2.2	27.2	0.1	0.116	43349	75411
400	53	23.2	2.2	30.7	0.0778	0.0904	55707	100548

BS 6485,BS 7884

PVC-Covered Conductors For Overhead Power Lines

Nominal cross-sectional area	Stranding and Wire Diameter	Approximate Overall Diameter of Bare Conductor	Maximum Resistance per kilometre at 20 °C	Approximate Breaking Load	Approximate Overall Diameter of Covered Conductor		Approximate Mass per kilometre of Covered Conductor	
					Type 8	Type 16	Type 8	Type 16
mm²	mm	mm	Ω	kN	mm	mm	kg	kg
CU/PVC								
14	7/1.60	4.8	1.303	5.744	6.8	8.4	160	190
16	3/2.65	5.7	1.106	6.59	7.7	9.3	180	220
32	3/3.75	8.06	0.552	12.71	10.5	12.1	350	390
35	7/2.50	7.5	0.5337	14.097	9.9	11.5	360	400
70	7/3.55	10.65	0.2646	26.88	13.5	14.7	690	750
100	7/4.30	12.9	0.181	37.64	15.7	16.9	990	1060

PVC-Covered Conductors For Overhead Power Lines

Nominal cross-sectional area	Stranding and Wire Diameter	Approximate Overall Diameter of Bare Conductor	Maximum Resistance per kilometre at 20 °C	Approximate Breaking Load	Approximate Overall Diameter of Covered Conductor	Approximate Mass per kilometre of Covered Conductor
					Type 16	Type 16
mm²	mm	mm	Ω	kN	mm	kg
COPPER-ALLOY / PVC						
12	3/2.30	4.95	1.78	7.2	8.2	170
22	7/2.00	6	1.011	12.94	9.6	270
38	7/2.60	7.8	0.5983	21.69	11.8	430
75	7/3.70	11.1	0.2954	40.23	15.1	810
125	19/2.90	14.5	0.1784	68.75	18.5	1310
150	19/3.20	16	0.1465	82.16	20	1570

Aerial Insulated Cables for Rated Voltages Up To And Including 1kV AAC/XLPE

Number of Cores and Size	Min. No. of Wires	Nominal Insulation Thickness	Approx. Diameter of Cable	Max. DC. Resistance at 20℃	Breaking Load	Approx . weight
mm2	No.	mm	mm	Ω/km	kN	kg/km
1x10	6	1	5.8	3.08	1.65	41
1x16	6	1.2	7.2	1.91	2.517	65
1x25	6	1.2	8.4	1.2	3.762	94
1x35	6	1.4	9.8	0.868	5.177	129
1x50	6	1.4	10.9	0.641	7.011	166
1x70	12	1.4	12.6	0.443	10.354	229
1x95	15	1.6	14.8	0.32	13.727	315
1x120	15	1.6	16	0.253	17.339	386
1x150	15	1.8	18.1	0.206	21.033	476
1x185	30	2	20.1	0.164	26.732	594
1x240	30	2.2	22.8	0.125	34.679	777
1x300	30	2.2	24.9	0.1	43.349	955
1x400	53	2.2	27.6	0.0778	55.707	1205
2x10	6	1	11.6	3.08	1.65	84
2x16	6	1.2	14.4	1.91	2.517	131
2x25	6	1.2	16.8	1.2	3.762	189
2x35	6	1.4	19.6	0.868	5.177	261
2x50	6	1.4	21.8	0.641	7.011	336
2x70	12	1.4	25.2	0.443	10.354	463
2x95	15	1.6	29.6	0.32	13.727	637
2x120	15	1.6	32	0.253	17.339	779

4x10	6	1	14	3.08	1.65	167
4x16	6	1.2	17.4	1.91	2.517	262
4x25	6	1.2	20.3	1.2	3.762	378
4x35	6	1.4	23.7	0.868	5.177	522
4x50	6	1.4	26.4	0.641	7.011	672
4x70	12	1.4	30.5	0.443	10.354	926
4x95	15	1.6	35.8	0.32	13.727	1274
4x120	15	1.6	38.7	0.253	17.339	1558

BS 6485,BS 3242

PVC-Covered Conductors For Overhead Power Lines

Nominal cross-sectional area	Stranding and Wire Diameter	Approximate Overall Diameter of Bare Conductor	Maximum Resistance per kilometre at 20 °C	Approximate Breaking Load	Approximate Overall Diameter of Covered Conductor	Approximate Mass per kilometre of Covered Conductor
					Type 16	Type 16
mm²	mm	mm	Ω	kN	mm	kg
AAAC / PVC						
25	7/2.34	7.02	1.094	8.44	10.6	170
50	7/3.30	9.9	0.5498	16.8	13.9	280
100	7/4.65	13.95	0.2769	33.3	18	470
150	19/3.48	17.4	0.183	50.65	21.4	680
200	19/3.76	18.8	0.1568	59.1	22.8	780