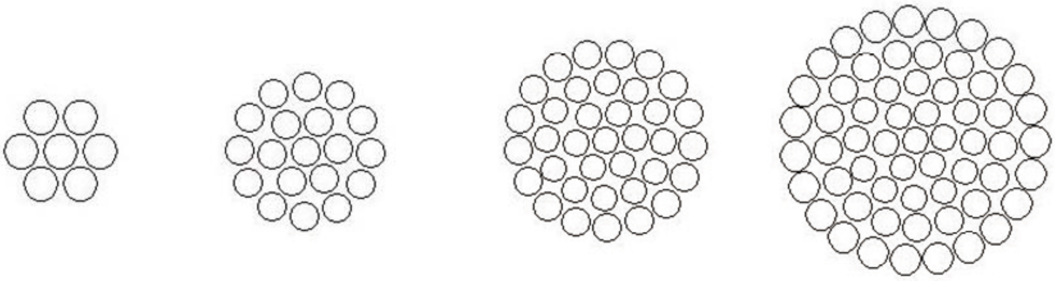
上海鑫之机电设备有限公司

TRIGOLD POWER CO.,LTD.

CABLES

Contents

ALL ALUMINIUM STRANDED CONDUCTOR
AAC



General

Main applications
These conductors are formed by several aluminum wires, being stranded in concentric layers. All the wires have the same nominal diameter.

In the compacted conductors during the stranding process, the initial circular shape is varied on the wires with which reductions are attained on the outer diameter of the wire and in the gaps between the wires.

In this way, in its application for insulated cables, a reduction of the amount of insulation and covering to be used is attained, as well as an improved application of same.

Properties

As regards copper, these conductors have a great economical advantage on the low voltage overhead lines with bare conductors and insulated cables, on tie installations of distribution of medium and low voltages.

Composition	Final modulus of elasticity mpa	Coefficient of linear expansion /°C
7	60000	23.0×10^{-6}
19	57000	23.0×10^{-6}
37	57000	23.0×10^{-6}
61	54000	23.0×10^{-6}
91	52500	23.0×10^{-6}
127	50000	23.0×10^{-6}

Main applications

BARE CONDUCTORS:
Low voltage lines.
Linking bridges between the dead-end clamps of the high voltage lines installed with aluminum conductors steel reinforced.
High voltage bus bars at the sub-stations.

Insulated Cables:

Medium and low voltages lines with the application of all types of insulations and coverings.

ALL ALUMINIUM STRANDED CONDUCTOR
AAC

ASTM B231

Code name	Total Area		Stranding and wire diameter	Approximate Overall Diameter	Linear Mass	Nomial breaking load	Maximum Resista-nce at 20℃
	AWG or MCM	mm²	mm	mm	kg/km	daN	Ω /km
Peach bell	6	13.29	7/1.554	4.67	37	249	2.1692
Rose	4	21.16	7/1.961	5.89	58	396	1.3624
Iris	2	33.61	7/2.474	7.42	93	597	0.8577
Pansy	1	42.39	7/2.776	8.33	117	732	0.6801
Poppy	1/0	53.48	7/3.119	9.36	147	873	0.5390
Aster	2/0	67.42	7/3.503	10.51	186	1100	0.4276
Phlox	3/0	85.03	7/3.932	11.80	234	1347	0.3390
Oxlip	4/0	107.23	7/4.417	13.26	296	1698	0.2688
Valerian	250	126.71	19/2.913	14.57	349	2062	0.2275
Sneezewort	250	126.71	7/4.80	14.4	349	2007	0.2275
Laurel	266.8	135.16	19/3.01	15.05	373	2200	0.2133
Daisy	266.8	135.16	7/4.96	14.9	373	2141	0.2133
Peony	300	152.0	19/3.193	15.97	419	2403	0.1896
Tulip	336.4	170.45	19/3.381	16.91	470	2695	0.1691
Daffodil	350	177.35	19/3.447	17.24	489	2804	0.1625
Canna	397.5	201.42	19/3.673	18.36	555	3184	0.1431
Goldentuft	450	228	19/3.909	19.55	629	3499	0.1264
Syringa	477	241.68	37/3.882	20.19	666	3849	0.1193
Cosmos	477	241.68	19/4.023	20.12	666	3708	0.1193
Hyacinth	500	253.35	37/2.951	20.65	698	4035	0.1138
Zinnia	500	253.35	19/4.12	20.6	698	3888	0.1138
Dahlia	556.5	282	19/4.346	21.73	777	4327	0.1022
Mistletoe	556.5	282	37/3.114	21.79	777	4362	0.1022
Meadowsweet	600	304	37/3.233	22.63	838	4703	0.0948
Orchid	636	322.25	37/3.33	23.31	888	4985	0.0894
Flag	700	354.71	61/2.72	24.48	978	5146	0.0813
Verbena	700	354.71	37/3.493	24.45	978	5487	0.0813
Nasturtium	715.5	362.58	61/2.75	24.76	1000	5874	0.0795
Violet	715.5	362.85	37/3.533	24.74	1000	5609	0.0795
Cattail	750	380	61/2.817	25.35	1048	5985	0.0759
Petunia	750	380	37/3.617	25.32	1048	5875	0.0759
Lilac	795	402.84	61/2.90	26.11	1111	6345	0.0715
Artubus	795	402.84	37/3.724	26.06	1111	6232	0.0715
Snapdragon	900	456.06	61/3.086	27.78	1257	6978	0.0632
Cockscomb	900	456.06	37/3.962	27.73	1257	6848	0.0632
Goldenrod	954	483.42	61/3.177	28.6	1333	7896	0.0596
Magnolia	954	483.42	37/4.079	28.55	1333	7258	0.0596
Camellia	1000	506.71	61/3.251	29.36	1397	7753	0.0569
Hawkweed	1000	506.71	37/4.176	29.23	1397	7608	0.0569
Larkspur	1033.5	523.68	61/3.307	29.76	1444	8012	0.0550
Bluebell	1033.5	523.68	37/4.244	29.72	1444	7863	0.0550
Marigold	1113	563.93	61/3.432	30.89	1555	8628	0.0511
Hawthorn	1192.5	604.26	61/3.551	31.05	1666	9245	0.0477
Narcissus	1272	644.51	61/3.668	33.02	1777	9861	0.0477
Columbine	1351.5	684.84	61/3.78	34.01	1888	10478	0.0421
Carnation	1431	725.10	61/3.89	35.03	1999	10768	0.0398
Gladiolus	1510.5	765.35	61/4.00	35.09	2110	11365	0.0376
Coreopsis	1590	805.68	61/4.099	36.51	2221	11964	0.0358
Jess amine	1750	886.71	61/4.302	38.72	2445	13168	0.0325
Cowslip	2000	1013.42	91/3.76	41.40	2791	15300	0.0285
Lupine	2500	1266.67	91/4.21	46.30	3524	18700	.0.0230
Trillium	3000	1520.13	127/3.90	50.75	4232	22500	0.0192
Blue Bonnet	3500	1773.50	127/4.21	54.80	4985	26200	0.0166

ALL ALUMINIUM STRANDED CONDUCTOR
AAC

BS 215-Part1

Code Name	Nominal Aluminum Area mm^2	Stranding and Wire Diameter mm	Sectional Area mm^2	Approximate Overall Diameter mm	Linear Mass kg/km	Calculated D.C. Resistance at 20℃ Ω/km	Calculated Breaking Load dan	Final Modulus of elasticity hbar	Coefficient of linear expansion /℃
Midge	22	7/2.06	23.33	6.18	64	1.227	399	5900	$23X10^{-6}$
Aphis	25	3/3.35	26.40	7.2	73	1.081	411	5900	$23X10^{-6}$
Gnat	25	7/2.21	26.8	6.6	73	1.066	459	5900	$23X10^{-6}$
Weevil	30	3/3.66	31.6	7.9	86	0.9082	486	5900	$23X10^{-6}$
Mosquito	35	7/2.59	37.0	7.8	101	0.7762	603	5900	$23X10^{-6}$
Ladybird	40	7/2.79	42.8	8.4	117	0.6689	687	5900	$23X10^{-6}$
Ant	50	7/3.10	52.83	9.30	145	0.5419	828	5900	$23X10^{-6}$
Fly	60	7/3.40	63.55	10.20	174	0.4505	990	5900	$23X10^{-6}$
Bluebottle	70	7/3.66	73.7	11.0	202	0.3881	1134	5900	$23X10^{-6}$
Earwig	75	7/3.78	78.5	11.4	215	0.3644	1194	5900	$23X10^{-6}$
Grasshopper	80	7/3.91	84.1	11.7	230	0.3406	1278	5900	$23X10^{-6}$
Clegg	90	7/4.17	95.6	12.5	262	0.2994	1453	5900	$23X10^{-6}$
Wasp	100	7/4.39	106.0	13.17	290	0.2702	1600	5900	$23X10^{-6}$
Beetle	100	19/2.67	106.0	13.4	293	0.2704	1742	5900	$23X10^{-6}$
Bee	125	7/4.90	132.0	14.7	361	0.2169	1944	5900	$23X10^{-6}$
Cricket	150	7/5.36	157.9	16.1	432	0.1818	2385	5900	$23X10^{-6}$
Hornet	150	19/3.25	157.6	16.25	434	0.1825	2570	5600	$23X10^{-6}$
Caterpillar	175	19/3.53	186	17.7	512	0.1547	2863	5600	$23X10^{-6}$
Chafer	200	19/3.78	213.2	18.90	587	0.1349	3240	5600	$23X10^{-6}$
Spider	225	19/3.99	236.9	20.0	652	0.1211	3601	5600	$23X10^{-6}$
Cockroach	250	19/4.22	265.7	21.10	731	0.1083	4040	5600	$23X10^{-6}$
Butterfly	300	19/4.65	322.7	23.25	888	0.08916	4875	5600	$23X10^{-6}$
Moth	350	19/5.00	373.2	25.0	1027	0.07711	5637	5600	$23X10^{-6}$
Drone	350	37/3.58	373.3	25.1	1029	0.07741	5745	5600	$23X10^{-6}$
Locust	400	19/5.36	428.5	26.8	1179	0.06710	6473	5600	$23X10^{-6}$
Centipede	400	37/3.78	415.2	26.46	1145	0.06944	6310	5600	$23X10^{-6}$
Maybug	450	37/4.09	486.9	28.6	1342	0.05931	7401	5600	$23X10^{-6}$
Scorpion	500	37/4.27	529.5	29.9	1460	0.05441	7998	5600	$23X10^{-6}$
Cicada	600	37/4.65	628.6	32.6	1733	0.04588	9495	5600	$23X10^{-6}$
Tarantula	750	37/5.23	794.6	36.6	2191	0.03627	12010	5600	$23X10^{-6}$

ALLALUMINUMSTRANDED CONDUCTOR
AAC

IEC1089

Code Number	Area	Number of wires	Diameter		Linear Mass	Rated Strength	D.C. Resistance
			Wire	Cond.			
	mm^2		mm	mm	kg/km	KN	Ω /km
10	10	7	1.35	4.05	27.4	1.95	2.8633
16	16	7	1.71	5.12	43.8	3.04	1.7896
25	25	7	2.13	6.40	68.4	4.50	1.1453
40	40	7	2.70	8.09	109.4	6.80	0.7158
63	63	7	3.39	10.2	172.3	10.39	0.4545
100	100	19	2.59	12.9	274.8	17.00	0.2877
125	125	19	2.89	14.5	343.6	21.25	0.2302
160	160	19	3.27	16.4	439.8	26.40	0.1798
200	200	19	3.66	18.3	549.7	32.00	0.1439
250	250	19	4.09	20.5	687.1	40.00	0.1151
315	315	37	3.29	23.0	867.9	51.97	0.0916
400	400	37	3.71	26.0	1102.0	64.00	0.0721
450	450	37	3.94	27.5	1239.8	72.00	0.0641
600	500	37	4.15	29.0	1377.6	80.00	0.0577
560	560	37	4.39	30.7	1542.9	89.60	0.0515
630	630	61	3.63	32.6	1738.3	100.80	0.0458
710	710	61	3.85	34.6	1959.1	113.60	0.0407
800	800	61	4.09	36.8	2207.4	128.00	0.0361
900	900	61	4.33	39.0	2483.3	144.00	0.0321
1000	1000	61	4.57	41.1	2759.2	160.00	0.0289
1120	1120	91	3.96	43.5	3093.5	179.20	0.0258
1250	1250	91	4.18	46.0	3452.6	200.00	0.0231
1400	1400	91	4.43	48.7	3866.9	224.00	0.0207
1500	1500	91	4.58	50.4	4143.1	240.00	0.0193

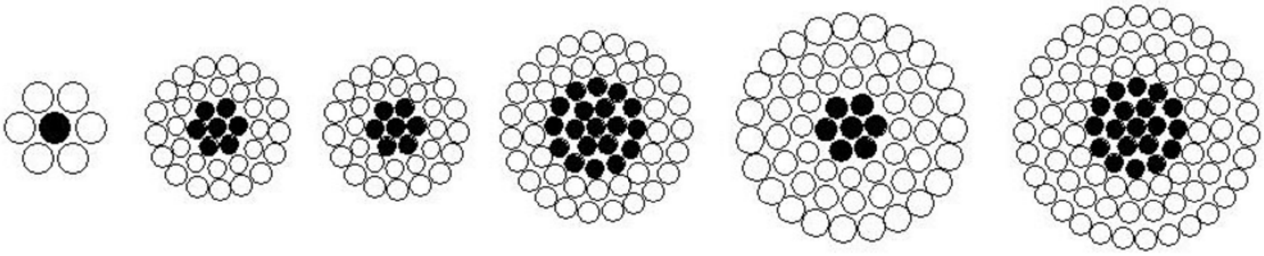
ALL ALUMINIUM CONDUCTOR
AAC

GB/T1179-2008

Nominal Aluminum Area mm²	NO/ DIA mm	Calculated Area mm²	Overall Dia. mm	Unit Weight kg/km	MAX. D.C. Resistance (20℃) Ω/km JL	Rated Breaking Load kN JL	Linear Expansion Coefficient 1/℃	Elastic Modulus Mpa
10	7/1. 35	10	4. 05	27. 4	2. 8633	1. 95	$23*10^{-6}$	59000
16	7/1. 71	16. 08	5. 12	43. 8	1. 7896	3. 04	$23*10^{-6}$	59000
25	7/2. 13	24. 9	6. 4	68. 4	1. 1453	4. 50	$23*10^{-6}$	59000
35	7/2. 50	34. 36	7. 5	94. 0	0. 8333	6. 01	$23*10^{-6}$	59000
40	7/2. 70	40. 08	8. 1	109. 4	0. 71158	6. 80	$23*10^{-6}$	59000
50	7/3. 0	49. 48	9. 0	135. 3	0. 5787	8. 41	$23*10^{-6}$	59000
63	7/3. 39	63. 18	10. 2	172. 3	0. 4545	10. 39	$23*10^{-6}$	59000
70	7/3. 60	71. 25	10. 8	194. 9	0. 4019	11. 40	$23*10^{-6}$	59000
95	7/4. 16	95. 14	12. 5	260. 2	0. 3010	15. 22	$23*10^{-6}$	59000
100	19/2. 59	100. 1	12. 9	274. 8	0. 2877	17. 00	$23*10^{-6}$	56000
120	19/2. 85	121. 21	14. 3	333. 2	0. 2374	20. 61	$23*10^{-6}$	56000
125	19/2. 89	124. 6	14. 5	343. 6	0. 2302	21. 25	$23*10^{-6}$	56000
150	19/3. 15	148. 07	15. 8	407. 0	0. 1943	24. 43	$23*10^{-6}$	56000
160	19/3. 27	159. 6	16. 4	439. 8	0. 1798	26. 40	$23*10^{-6}$	56000
185	19/3. 5	182. 8	17. 5	502. 4	0. 1574	30. 16	$23*10^{-6}$	56000
200	19/3. 66	199. 9	18. 3	549. 7	0. 1439	32. 00	$23*10^{-6}$	56000
210	19/3. 75	209. 85	18. 8	576. 8	0. 1371	33058	$23*10^{-6}$	56000
240	19/4. 0	238. 76	20. 0	656. 3	0. 1205	38. 20	$23*10^{-6}$	56000
250	19/4. 09	249. 63	20. 5	687. 1	0. 1151	40. 00	$23*10^{-6}$	56000
300	37/3. 20	297. 57	22. 4	819. 8	0. 0969	49. 10	$23*10^{-6}$	56000
315	37/3. 29	314. 55	23. 0	867. 9	0. 0916	51. 97	$23*10^{-6}$	56000
400	37/3. 71	400	26. 0	1102. 0	0. 0721	64. 00	$23*10^{-6}$	56000
450	37/3. 94	451. 1	27. 5	1239. 8	0. 0641	72. 00	$23*10^{-6}$	56000
500	37/4. 15	500. 5	29. 0	1377. 6	0. 0577	80. 00	$23*10^{-6}$	56000
500*	37/4. 16	502. 9	29. 0	1385. 5	0. 0573	80. 46	$23*10^{-6}$	56000
560	37/4. 39	560	30. 7	1542. 9	0. 0515	89. 60	$23*10^{-6}$	56000
630	61/3. 63	631. 3	32. 6	1738. 3	0. 0458	100. 80	$23*10^{-6}$	54000

ALUMINIUM CONDUCTOR STEEL REINFORCED

ACSR



General

These conductors are formed by several wires of aluminum and galvanized steel, stranded in concentric layers.

The wire or wires which form the core are made of galvanized steel and the external layer or layers are of aluminum.

Normally these conductors have a galvanized steel core of 1,7,19 or 37 wires, surrounded by concentric layers of aluminum wires.

The diameters of the steel and aluminum wires can be alike or different.

By varying the relative proportions of aluminum and steel ratios, the ideal conductor can be produced for any particular application.

In this way, if a high tensile strength conductor is required, the number of steel wires can be increased until the required strength is reached.

When a conductor with high current carrying capacity and a comparatively low strength is required, this is attained with a high aluminum content

Properties

In comparison with copper, these conductors have considerable technical and economical advantages in the installation of overhead lines.

Its characteristics, and low weight, combined with its high breaking strength, are gathered which makes it possible to have large span runs, without having to revert to excessive mechanical stresses or to heavy metallic towers.

Due to the greater diameter of the conductors, electric losses by the corona Effect are greatly reduced.

By making use of these properties Economical electric energy Transmission is attained at very High voltages and distances.

Composition	Final modulus of elasticity mpa①	Coefficient of linear expansion /℃①
6+1	79000	$19.1x10^{-6}$
9+3	88000	$17.1x10^{-6}$
12+7	103500	$15.4x10^{-6}$
18+1	66000	$21.2x10^{-6}$
30+7	75500	$18.0x10^{-6}$
54+7	69000	$19.3x10^{-6}$
72+19	61000	$21.5x10^{-6}$
84+7	66000	$20.4x10^{-6}$

Main applications

Overhead lines of medium, high and very high voltages.

Steel wires
① for these values, diameters of steel and aluminum wires are alike.

ALUMINIUM CONDUCTOR STEEL REINFORCED
ACSR

ASTM B232

Code name	Area				Stranding and diameter		Approximate overall diameter	Linear mass			Rated tensile strength	Maximum D.C. Resistance at 20℃ Ω/km
	Aluminum		Steel	Total	Aluminum	Steel		Aluminum	Steel	Total		
	AWG or MCM	mm²	mm²	mm²	mm	mm	mm	kg/km	kg/km	kg/km	daN	
Wren	8	8.34	1.39	9.73	6/1.33	1/1.33	3.99	22.9	10.8	33.7	308	3.43035
Turkey	6	13.29	2.19	15.48	6/1.68	1/1.68	5.04	37	17	54	524	2.1586
Swan	4	21.16	3.55	24.71	6/2.12	1/2.12	6.36	58.0	27	85	832	1.3557
Swante	4	21.16	5.35	26.5	7/1.96	1/2.61	6.53	58.0	42	100	1053	1.3557
Swallow	3	36.69	4.45	31.14	6/2.38	1/2.38	7.14	73.3	34.6	107.9	1021	1.07124
Sparrow	2	33.61	5.61	39.22	6/2.67	1/2.67	8.01	92.0	44	136	1270	0.8535
Sparate	2	33.61	8.52	42.13	7/2.47	1/3.30	8.24	92.0	67	159	1611	0.8535
Robin	1	42.39	7.10	49.49	6/3.00	1/3.00	9.00	116	55	171	1585	0.6767
Raven	0	53.48	8.90	62.38	6/3.37	1/3.37	10.11	147	69	216	1932	0.5367
Quail	2/0	67.42	11.23	78.65	6/3.78	1/3.78	11.34	185	88	273	2362	0.4255
Pigeon	3/0	85.03	14.19	99.22	6/4.25	1/4.25	12.75	233	110	343	2941	0.3373
Penguin	4/0	107.23	17.87	125.10	6/4.77	1/4.77	14.31	294	139	433	3706	0.2675
Waxwing	266.800	135.16	7.48	142.64	18/3.09	1/3.09	15.45	373	58	431	3027	0.2133
Partridge	266.800	135.16	22.00	157.16	26/2.57	7/2.00	16.28	374	172	546	5029	0.2143
Ostrich	300.000	152.00	24.71	176.71	26/2.73	7/2.12	17.28	421	193	614	5652	0.1906
Merlin	336.400	170.45	9.48	179.93	18/3.47	1/3.47	17.35	470	74	544	3823	0.1691
Linnet	336.400	170.45	27.81	198.26	26/2.57	7/2.25	18.31	472	217	689	6271	0.1699
Oriole	336.400	170.45	39.81	210.26	30/2.69	7/2.69	18.83	473	311	784	7745	0.1704
Chickadee	397.500	201.42	11.16	212.58	18/3.77	1/3.77	18.85	555	87	642	4399	0.1431
Brant	397.500	201.42	26.13	227.55	24/3.27	7/2.18	19.61	558	204	762	6469	0.1438
Ibis	397.500	201.42	32.77	234.19	26/3.14	7/2.44	19.88	558	256	814	7211	0.1438
Lark	397.500	201.42	46.97	248.39	30/2.92	7/2.92	20.44	560	367	927	8869	0.1442
Pelican	477.000	241.68	13.42	255.10	18/4.12	1/4.14	20.70	666	105	771	5216	0.1193
Flicker	477.000	241.68	31.29	272.97	24/3.58	7/2.39	21.49	670	245	915	7666	0.1199
Hawk	477.000	241.68	39.42	281.10	26/3.44	7/2.67	21.79	670	308	978	8665	0.1199
Hen	477.000	241.68	56.39	298.07	30/3.20	7/3.20	22.40	671	441	1112	10534	0.1201
Osprey	556.500	282.00	15.68	297.68	18/4.47	1/4.47	22.35	777	122	899	6088	0.1022
Parakeet	556.500	282.00	36.58	318.58	24/3.87	7/2.58	23.22	781	286	1067	8822	0.1027
Dove	556.500	282.00	45.94	327.94	26/3.72	7/2.89	23.55	781	359	1140	10103	0.1027
Eagle	556.500	282.00	65.81	347.81	30/3.46	7/3.46	24.21	783	515	1298	13392	0.1030
Duck	605.000	306.58	39.74	346.32	54/2.69	7/2.69	24.20	847	311	1158	9588	0.0945
Squab	605.000	306.58	49.94	365.52	26/3.87	7/3.01	24.51	850	390	1240	10841	0.0945
Wood duck	605.000	306.58	71.55	378.13	30/3.16	7/3.61	25.25	851	560	1411	12884	0.0947
Teal	605.000	306.58	69.87	376.45	30/3.61	19/2.16	25.24	851	548	1399	13359	0.0947
Kingbird	636.000	322.26	17.90	340.16	18/4.78	1/4.78	23.88	889	139	1028	6956	0.08945
Rook	636.000	322.26	41.81	364.07	24/4.14	7/2.76	24.84	893	326	1219	10083	0.08989
Grosbeak	636.000	322.26	52.45	374.71	26/3.97	7/3.09	25.15	893	409	1302	11180	0.08989
Scoter	636.000	322.26	75.22	394.48	30/3.70	7/3.70	25.88	895	589	1484	13544	0.09011
Egret	636.000	322.26	73.55	395.81	30/3.70	19/2.22	25.90	894	576	1470	14055	0.09011
Swift	636.000	322.26	8.96	331.22	36/3.38	1/3.38	23.62	888	70	958	6052	0.08945
Flamingo	666.600	337.74	43.81	381.55	24/4.23	7/2.82	25.40	936	342	1278	10566	0.08577
Gannet	666.600	337.74	55.03	392.77	26/4.07	7/3.16	25.76	939	429	1365	11733	0.08577
Stilt	715.500	362.58	46.97	409.55	24/4.39	7/2.92	26.31	1005	367	1372	11335	0.07989
Starling	715.500	362.58	59.03	421.61	26/4.21	7/3.28	26.68	1005	461	1466	12591	0.07989
Redwing	715.500	362.58	82.58	445.16	30/3.92	19/2.35	27.43	1006	647	1653	15394	0.08009
Tern	795.000	402.84	27.87	430.71	45/3.38	7/2.25	27.03	1116	217	1333	9737	0.07191
Condor	795.000	402.84	52.19	455.03	54/3.08	7/3.08	27.72	1116	408	1524	12445	0.07911
Cuckoo	795.000	402.84	52.19	455.03	24/4.62	7/3.08	27.74	1116	408	1522	12394	0.07191

ALUMINIUM CONDUCTOR STEEL REINFORCED
ACSR

ASTM B232 (continued)

Code name	Area				Stranding And Diameter		Approximate Overall Diameter	Linear mass			Rated Tensile Strength	Maximum D.C. Resistance at 20℃ Ω/km
	Aluminum		Steel	Total	Aluminum	Steel		Aluminum	Steel	Total		
	AWG or MCM	mm²	mm²	mm²	mm	mm	mm	kg/lm	kg/km	kg/km	daN	
Drake	795.000	402.84	65.51	468.45	26/4.44	7/3.45	28.11	1116	512	1628	13992	0.07191
Coot	795.000	402.84	11.16	414	36/3.77	1/3.77	26.41	1110	88	1198	7485	0.07156
Mallard	795.000	402.84	91.87	484.71	30/4.14	19/2.48	28.96	1119	719	1838	17118	0.07208
Ruddy	900.000	456.06	31.54	487.60	45/3.59	7/2.40	28.73	1263	247	1510	10931	0.06351
Canary	900.000	456.06	59.10	515.16	54/3.28	7/3.28	29.52	1263	461	1724	14095	0.06351
Rail	954.000	483.42	33.42	516.84	45/3.70	7/2.47	29.61	1339	262	1601	11585	0.05992
Catbird	954.000	483.42	13.42	496.84	36/4.14	1/4.14	28.95	1333	105	1438	8766	0.05331
Cardinal	954.000	483.42	62.65	546.07	54/3.38	7/3.38	30.42	1339	490	1829	14936	0.05504
Ortolan	1033.500	523.68	36.19	559.87	45/3.85	7/2.57	30.81	1451	283	1734	12310	0.05531
Tanager	1033.500	523.68	14.51	538.19	36/4.30	1/4.30	30.12	1443	113	1556	9493	0.05504
Curlew	1033.500	523.68	67.87	591.55	54/3.52	7/3.52	31.68	1451	530	1981	16180	0.05531
Blue jay	1113.000	563.93	39.03	602.96	45/4.00	7/2.66	31.98	1563	385	1868	13263	0.05136
Finch	1113.000	563.93	71.55	635.48	54/3.65	19/2.19	32.85	1570	580	2130	17441	0.05161
Bunting	1192.500	604.26	41.55	645.81	48/4.14	7/2.76	33.12	1674	327	2001	14179	0.04793
Grackle	1192.500	604.26	76.58	680.84	54/3.77	19/2.27	33.97	1682	600	2282	18678	0.04817
Bittern	1272.000	644.51	44.52	689.03	45/4.27	7/2.85	34.17	1785	349	2134	15148	0.04494
Pheasant	1272.000	644.51	81.63	726.19	54/3.90	19/2.34	35.10	1795	638	2433	19400	0.04816
Skylark	1272.000	644.51	17.87	662.38	36/4.78	1/4.78	33.42	1777	140	1917	11585	0.04472
Dipper	1351.500	684.84	47.10	731.94	45/4.40	7/2.92	35.16	1898	368	2266	16070	0.04230
Martin	1351.500	684.84	88.71	771.55	54/4.02	19/2.41	36.17	1906	679	2585	20506	0.04250
Bobolink	1431.000	725.10	50.32	775.42	45/4.53	7/3.02	36.24	2009	393	2402	17071	0.03994
Plover	1431.000	725.10	91.87	816.97	54/4.14	19/2.48	37.24	2019	719	2738	21824	0.04013
Nuthatch	1510.500	765.35	52.90	818.25	45/4.65	7/3.10	37.20	2120	414	2534	17789	0.03784
Parrot	1510.500	765.35	96.84	862.19	54/4.25	19/2.55	38.25	2132	759	2890	23020	0.03802
Lapwing	1590.000	805.68	55.48	861.16	45/4.77	7/3.18	38.16	2232	435	2667	18702	0.03595
Falcon	1590.000	805.68	102.13	907.81	54/4.36	19/2.62	39.26	2243	799	3042	24255	0.03613
Chukar	1780.000	902.7	73.51	902.72	84/3.70	19/2.22	40.70	2511	575	3086	22685	0.03245
Bluebird	2156.000	1092	88.80	1092.28	84/4.07	19/2.44	44.76	3036	697	3733	26830	0.02681
Kiwi	2167.000	1100	47.50	1099.20	72/4.41	7/2.94	44.07	3057	370	3427	22160	0.02684
Thrasher	2312.000	1170.8	65.15	1170.8	76/4.43	19/2.09	45.90	3256	511	3767	25300	0.02471
Grouse	80.000	40.52	14.13	54.65	8/2.54	1/4.24	9.32	112	110	222	2360	0.7115
Petrel	101.800	51.61	30.06	81.67	12/2.34	7/2.34	11.71	143	235	378	4715	0.5613
Minorca	110.800	56.13	32.77	88.90	12/2.44	7/2.44	12.22	156	256	412	5125	0.5161
Leghorn	134.600	68.19	39.81	108.00	12/2.69	7/2.69	13.46	189	311	500	6170	0.4248
Guinea	159.000	80.58	46.97	127.55	12/2.92	7/2.92	14.63	223	367	590	7255	0.3595
Dotterel	176.900	89.48	52.19	141.67	12/3.08	7/3.08	15.42	248	409	657	7850	0.3237
Dorking	190.800	96.71.10	56.39	153.10	12/3.20	7/3.20	16.03	268	441	709	8480	0.2995
Brahma	203.200	2.97	91.87	194.84	12/2.86	19/2.48	18.14	285	722	1007	12880	0.2813
Cochin	211.300	107.10	62.45	169.55	12/3.37	7/3.37	16.84	297	488	765	9390	0.2705

Zinc coating :3 Classes : Class A for ACSR/GA
(ASTM B 498) Class B for ACSR/GB
Class C for ACSR/GC

Rated tensile strength for class A(ACSR/GA)

ALUMINIUM CONDUCTOR STEEL REINFORCED
ACSR

BS215 –Part2

Code name	Nominal aluminum area mm	Stranding and wire diameter		Sectional area of aluminum mm^2	Total sectional area mm^2	Overall diameter mm	Linear mass kg/km	Calculated breaking load daN	Calculated D.C. resistance at 20℃ Ω/km	Final modulus of elasticity hbar	Coefficient of linear expansion /℃
		Aluminum	Steel								
Mole	10	6/1.50	1/1.50	10.62	12.39	4.50	43	414	2.706	7900	$19.1X10^{-6}$
Squirrel	20	6/2.11	1/2.11	20.94	24.43	6.33	85	788	1.368	7900	$19.1X10^{-6}$
Gopher	25	6/2.36	1/2.36	26.24	30.62	7.08	106	961	1.093	7900	$19.1X10^{-6}$
Weasel	30	6/2.59	1/2.59	31.61	36.88	7.77	128	1146	0.9077	7900	$19.1X10^{-6}$
Fox	35	6/2.79	1/2.79	36.66	42.77	8.37	149	1320	0.7822	7900	$19.1X10^{-6}$
Ferret	40	6/3.00	1/3.00	42.41	49.48	9.00	172	1520	0.6766	7900	$19.1X10^{-6}$
Rabbit	50	6/3.35	1/3.35	52.88	61.70	10.05	214	1835	0.5426	7900	$19.1X10^{-6}$
Mink	60	6/3.66	1/3.66	63.18	73.71	10.98	255	2180	0.4545	7900	$19.1X10^{-6}$
Skunk	60	12/2.59	7/2.59	63.27	100.30	12.95	465	5300	0.4567	7900	$15.3X10^{-6}$
Beaver	70	6/3.99	1/3.99	74.82	87.29	11.97	302	2570	0.3825	7900	$19.1X10^{-6}$
Horse	70	12/2.79	72/2.79	73.37	116.2	13.95	538	6120	0.3936	10500	$19.1X10^{-6}$
Raccoon	75	6/4.10	1/4.10	79.20	92.4	12.30	320	2720	0.3622	7900	$15.3X10^{-6}$
Otter	80	6/4.22	1/4.22	83.88	97.86	13.98	339	2880	0.3419	7900	$19.1X10^{-6}$
Cat	90	6/4.50	1/4.50	95.40	111.30	15.90	386	3270	0.3007	7900	$19.1X10^{-6}$
Hare	100	6/4.72	1/4.72	105.0	122.50	17.50	425	3600	0.2733	7900	$19.1X10^{-6}$
Dog	100	6/4.72	7/1.57	105.0	118.5	14.15	394	3270	0.2733	7500	$19.8X10^{-6}$
Hyena	100	7/4.39	7/1.93	105.8	126.2	14.57	450	4090	0.2712	7500	$19.8X10^{-6}$
Leopard	125	8/5.28	7/1.75	131.3	148.1	15.81	492	4070	0.2184	7500	$19.8X10^{-6}$
Coyote	125	26/2.54	7/1.91	132.1	152.2	15.89	522	4640	0.2187	8500	$17.0X10^{-6}$
Congar	125	18/3.05	1/3.05	130.3	137.5	15.25	419	2980	0.2189	6600	$21.2X10^{-6}$
Tiger	125	30/2.36	7/2.36	131.1	161.7	16.52	602	5800	0.2202	8000	$17.8X10^{-6}$
Dingo	150	18/3.35	1/3.35	158.7	167.5	16.75	506	3570	.1815	6600	$21.2X10^{-6}$
Wolf	150	30/2.59	7/2.59	158.1	194.9	18.13	726	6920	0.1828	8000	$17.8X10^{-6}$
Caracal	175	18/3.61	1/3.61	184.3	194.5	18.05	587	4110.	0.1563	6600	$21.2X10^{-6}$
Lynx	175	30/2.79	7/2.79	183.4	226.2	19.53	842	7980	0.1576	8000	$17.8X10^{-6}$
Jaguar	200	18/3.86	1/3.86	210.6	222.3	19.30	671	4655	0.1367	6600	$21.2X10^{-6}$
Panther	200	30/3.00	7/3.00	212.1	261.5	21.00	974	9225	0.1363	8000	$17.8X10^{-6}$
Lion	225	30/3.18	7/3.18	238.5	294.2	22.26	1095	10060	0.1212	8000	$17.8X10^{-6}$
Bear	250	30/3.35	7/3.35	264.0	325.6	23.46	1213	11110	0.1093	8000	$17.8X10^{-6}$
Goat	300	30/3.71	7/3.71	324.3	400.0	25.97	1489	13570	0.08910	8000	$17.8X10^{-6}$
Sheep	350	30/3.99	7/3.99	374.3	461.4	27.93	1718	15590	0.07704	8000	$17.8X10^{-6}$
Antilope	350	54/2.97	7/2.97	373.1	421.5	26.73	1411	11820	0.07727	6900	$19.3X10^{-6}$
Bizon	350	54/3.00	7/3.00	381.8	431.3	27.00	1444	12090	0.07573	6900	$19.3X10^{-6}$
Deer	400	30/4.27	7/4.27	429.3	529.5	28.89	1971	17850	0.0674	8000	$17.8X10^{-6}$
Zebar	400	54/3.18	7/3.18	428.9	484.5	28.62	1621	13190	0.0674	6900	$19.3X10^{-6}$
Elk	450	30/4.50	7/4.50	477.0	588.3	31.50	2190	19820	0.06056	8000	$17.8X10^{-6}$
Camel	450	54/3.35	7/3.35	475.2	536.8	30.15	1777	14570	0.06073	6900	$19.3X10^{-6}$
Moose	500	54/3.53	7/3.53	528.7	597.2	31.77	1999	16110	0.05470	6900	$19.3X10^{-6}$
Finch	500	54/3.65	19/2.29	564.7	642.9	33.35	2243	18070	0.0512	6800	$18.3X10^{-6}$

ALUMINIUM CONDUCTOR STEEL REINFORCED
ACSR

IEC1089

Code number	Area			Number of wires		Wire dia.		Diameter		Linear Mass	Rated Strength	D.C. Resistance
	Alum	Steel	Total			Alum	Steel	Core	Cond			
	mm²	mm²	mm²	Al	St	mm	mm	mm	mm	kg/km	kN	Ω/km
16	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.08	1.7934
25	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.13	1.1478
40	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	14.40	0.7174
63	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	21.63	0.4555
100	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	34.33	0.2869
125	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	29.17	0.2304
125	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	45.69	0.2310
160	160	8.89	169	18	1	3.36	3.36	3.36	16.8	508.3	36.18	0.1800
160	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	57.69	0.1805
200	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	44.22	0.1440
200	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	70.13	0.1444
250	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	68.72	0.1154
250	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	87.67	0.1155
315	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.3	79.03	0.0917
315	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	106.83	0.0917
400	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	98.36	0.0722
400	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	123.04	0.0723
450	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	107.47	0.0642
450	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	138.42	0.0643
500	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	199.41	0.0578
500	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	153.80	0.0578
560	560	38.7	599	45	7	3.98	2.65	7.96	31.8	1848.2	133.74	0.0516
560	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	172.59	0.0516
630	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	150.45	0.0459
630	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	191.77	0.0459
710	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	169.56	0.0407
710	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	216.12	0.0407
800	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	167.41	0.0361
800	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	205.33	0.0362
800	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	243.52	0.0362
900	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	188.33	0.0321
900	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	226.50	0.0322
1000	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	209.26	0.0259
1120	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	234.53	0.0258
1120	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	283.17	0.0258
1250	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	316.04	0.0232
1250	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	261.75	0.0231

ALL ALUMINIUM CONDUCTOR
ACSR

GB/T1179-2008

Nominal Aluminum Area mm²	NO./DIA mm		Calculated Area mm²			Overall Dia. mm	D.C. Resistance (20℃) Ω/km	Rated Breaking Load kN			Unit Weight kg/km
	Aluminum	Steel	Aluminum	Steel	Total			JL/G1A(LGJ)	JL/G2A	JL/G3A	
10/2	6/1. 50	1/1. 50	10. 6	1. 77	12. 37	4. 5	2. 7062	4. 14	4. 39	4. 63	42. 8
*16/3	6/1. 84	1/1. 84	16	2. 67	18. 7	5. 52	1. 7934	6. 08	6. 45	6. 83	64. 6
16/3	6/1. 85	1/1. 85	16. 13	2. 69	18. 82	5. 55	1. 7791	6. 13	6. 51	6. 88	65. 1
*25/4	6/2. 30	1/2. 30	24. 93	4. 17	29. 2	6. 9	1. 1478	9. 13	9. 71	10. 25	100. 9
25/4	6/2. 32	1/2. 32	25. 36	4. 23	29. 59	6. 96	1. 3020	12. 30	9. 85	10. 40	102. 4
35/6	6/2. 72	1/2. 72	34. 86	5. 81	40. 67	8. 16	0. 8230	12. 55	13. 36	14. 12	140. 8
40/6	6/2. 91	1/2. 91	40	6. 67	46. 7	8. 73	0. 7174	14. 40	15. 33	16. 20	161. 5
50/8	6/3. 20	1/3. 20	48. 25	8. 04	56. 29	9. 6	0. 5946	16. 81	17. 93	19. 06	194. 8
50/30	12/2. 32	7/2. 32	50. 73	29. 59	80. 32	11. 6	0. 5693	42. 61	46. 75	50. 60	371. 1
65/10	6/3. 66	1/3. 66	63	10. 5	73. 5	11. 0	0. 0456	21. 63	22. 37	24. 15	254. 4
70/10	6/3. 80	1/3. 80	68. 05	11. 34	79. 39	11. 4	0. 4217	23. 36	24. 16	26. 08	274. 8
70/40	12/2. 72	7/2. 72	69. 73	40. 67	110. 4	13. 6	0. 4141	58. 22	63. 91	69. 20	510. 2
95/15	26/2. 15	7/1. 67	94. 39	15. 33	109. 72	13. 6	0. 3059	34. 93	36. 61	38. 61	380. 2
95/20	7/4. 16	7/1. 85	95. 14	18. 82	113. 96	13. 9	0. 3020	37. 24	39. 31	41. 76	408. 2
95/55	12/3. 20	7/3. 20	96. 51	56. 3	152. 81	16. 0	0. 2992	77. 85	85. 74	93. 62	706. 1
100/17	6/4. 61	1/4. 61	100	16. 7	117	13. 8	0. 2869	34. 33	35. 50	38. 33	403. 8
120/7	18/2. 90	1/2. 90	118. 89	6. 61	125. 5	14. 5	0. 2422	27. 74	28. 67	29. 53	378. 5
120/20	26/2. 38	7/1. 85	115. 67	18. 82	134. 49	15. 1	0. 2496	42. 26	44. 90	47. 53	466. 1
120/25	7/4. 72	7/2. 10	122. 48	24. 25	146. 73	15. 7	0. 2346	47. 96	51. 76	54. 76	525. 7
120/70	12/3. 60	7/3. 60	122. 15	71. 25	193. 4	18. 0	0. 2364	97. 92	115. 02	115. 02	893. 7
125/7	18/2. 97	1/2. 97	125	6. 94	132	14. 9	0. 2304	29. 17	31. 04	31. 04	397. 9
125/20	26/2. 47	7/1. 92	125	20. 4	145	15. 7	0. 2310	45. 69	51. 39	51. 39	503. 9
150/8	18/3. 20	1/3. 20	144. 76	8. 04	152. 8	16. 0	0. 1990	32. 73	34. 98	34. 98	460. 9
150/20	24/2. 78	7/1. 85	145. 68	18. 82	164. 5	16. 7	0. 1981	46. 78	52. 05	52. 05	548. 5
150/25	26/2. 70	7/2. 10	148. 86	24. 25	173. 11	17. 1	0. 1940	53. 67	60. 47	60. 47	600. 1
150/35	30/2. 50	7/2. 50	147. 26	34. 36	181. 62	17. 5	0. 1962	64. 94	74. 22	74. 22	675. 0
160/9	18/3. 36	1/3. 36	160	8. 89	169	16. 8	0. 1800	36. 18	38. 67	38. 67	509. 3

ALL ALUMINIUM CONDUCTOR
ACSR

GB/T1179-2008

Nominal Aluminum Area	NO./DIA mm		Calculated Area mm^2			Overall Dia.	D.C. Resistance (20℃)	Rated Breaking Load kN			Unit Weight
mm^2	Aluminum	Steel	Aluminum	Steel	Total	mm	Ω/km	JL/G1A(LGJ)	JL/G2A	JL/G3A	kg/km
160/26	26/2. 8	7/2. 18	160	26. 1	186	17. 7	0. 1805	57. 69	61. 34	64. 99	644. 9
185/10	18/3. 60	1/3. 60	183. 22	10. 18	193. 4	18. 0	0. 1572	40. 51	41. 23	42. 96	583. 3
185/25	24/3. 15	7/2. 10	187. 34	24. 25	211. 29	18. 9	0. 1543	59. 23	62. 68	66. 07	704. 9
185/30	26/2. 98	7/2. 32	181. 34	29. 59	210. 93	18. 9	0. 1592	64. 56	68. 70	72. 55	731. 4
185/45	30/2. 80	7/2. 80	184. 73	43. 1	227. 83	19. 6	0. 1564	80. 54	86. 57	92. 18	846. 7
200/11	18/3. 76	1/3. 76	200	11. 1	211	18. 8	0. 1440	44. 22	45. 00	46. 89	636. 7
200/32	26/3. 13	7/2. 43	200	32. 6	233	19. 8	0. 1444	70. 13	74. 69	78. 93	806. 2
210/10	18/3. 80	1/3. 80	204. 14	11. 34	215. 48	19. 0	0. 1411	45. 14	45. 93	47. 86	649. 9
210/25	24/3. 33	7/2. 22	209. 02	27. 1	236. 12	20. 0	0. 1380	66. 19	69. 99	73. 78	787. 8
210/35	26/3. 22	7/2. 50	211. 73	34. 36	246. 09	20. 4	0. 1364	74. 11	78. 92	83. 38	852. 5
210/50	30/2. 98	7/2. 98	209. 24	48. 82	258. 06	20. 9	0. 1381	91. 23	98. 06	104. 41	959. 0
240/30	24/3. 60	7/2. 40	244. 29	31. 67	275. 96	21. 6	0. 1181	75. 19	79. 62	83. 74	920. 7
240/40	26/3. 42	7/2. 66	238. 84	38. 9	277. 74	21. 7	0. 1209	83. 76	89. 20	94. 26	962. 8
240/55	30/3. 20	7/3. 20	241. 27	56. 3	297. 57	22. 4	0. 1198	101. 74	109. 62	117. 50	1105. 8
250/25	22/3. 80	7/2. 11	250	24. 6	275	21. 6	0. 1154	68. 72	72. 16	75. 60	880. 6
250/40	26/3. 50	7/2. 72	250	40. 7	291	22. 2	0. 1155	87. 67	93. 37	98. 66	1007. 7
300/15	42/3. 00	7/1. 67	296. 88	15. 33	312. 21	23. 0	0. 0973	68. 41	70. 55	72. 70	938. 7
300/20	45/2. 93	7/1. 95	303. 42	20. 91	324. 33	23. 4	0. 0952	76. 04	78. 97	81. 90	1000. 8
300/25	48/2. 85	7/2. 22	306. 21	27. 1	333. 31	23. 8	0. 0944	83. 76	87. 56	91. 35	1057. 0
300/40	24/3. 99	7/2. 66	300. 09	38. 9	338. 99	23. 9	0. 0961	92. 36	97. 81	102. 86	1131. 0
300/50	26/3. 83	7/2. 98	299. 54	48. 82	348. 36	24. 3	0. 0964	103. 58	110. 42	116. 76	1207. 7
300/70	30/3. 60	7/3. 60	305. 36	71. 25	376. 61	25. 2	0. 0946	127. 23	132. 22	144. 33	1399. 6
315/22	45/2. 99	7/1. 99	315	21. 8	337	23. 9	0. 0917	79. 03	82. 08	85. 13	1039. 6
315/50	26/3. 93	7/3. 05	315	51. 3	366	24. 9	0. 0917	106. 83	114. 02	121. 20	1269. 7
400/20	42/3. 51	7/1. 95	406. 4	20. 91	427. 31	26. 9	0. 0710	89. 48	92. 42	95. 34	1284. 3
400/25	45/3. 33	7/2. 22	391. 88	27. 1	419. 01	26. 6	0. 0737	96. 37	100. 16	103. 96	1293. 5
400/28	45/3. 36	7/2. 24	400	27. 7	428	26. 9	0. 0722	98. 36	102. 23	106. 10	1320. 1

ALUMINUM CONDUCTOR ALUMINUM CLAD STEEL REINFORCED ACSR/AW

ASTM 549-88

Code Name	Size	Structure		Overall Dia. Mm	Calculated Nominal mm²	Weight Kg/km			Maximum Breaking Load KN	D.C. Resistance at20℃ ≯Ω/km
		Al. Clad St. Wire	Al. Wire			Al. Clad St. Wire	Al. Wire	Conductor		
Thrasher	2312000	19/2.068	76/4.430		64.992	423.8	3261	3685	246.96	0.02440
Kiwi	2167000	7/2.939	72/4.407		48.588	313.9	3058	3372	217.56	0.02613
Bluebird	2156000	19/2.441	84/4.069		90.012	589.4	3041	3630	261.66	0.02594
Chukar	1780000	19/2.220	84/3.698		975.45	487.6	2512	3000	219.52	0.03140
Falcon	1590000	19/2.616	54/4.359		907.8	677.0	2244	2921	235.20	0.03464
Lapwing	1590000	7/3.183	45/4.775		861.4	368.5	2232	2601	185.22	0.03513
Parrot	1510000	19/2.548	54/4.247		862.28	642.3	2130	2772	223.44	0.03649
Nuthatch	1510000	7/3.101	45/4.653		818.27	649.8	2120	2470	175.42	0.03700
Plover	1430000	19/2.482	54/4.135		818.02	609.4	2019	2628	211.68	0.03849
Bobolink	1431000	7/3.020	45/4.529		775.24	331.8	2009	2341	166.60	0.03905
Martin	1351500	19/2.410	54/4.018		771.48	574.6	1906	2481	199.92	0.04077
Dipper	1351500	7/2.934	45/4.402		732.13	313.1	1898	2211	157.78	0.04134
Pheasant	1272000	19/2.339	54/3.899		726.14	541.2	1795	2336	188.17	0.04329
Bittern	1272000	7/2.847	45/4.270		689.06	294.8	1785	2080	147.98	0.04393
Skylark	1272000	1/4.775	36/4.775		662.41	118.0	1777	1895	113.68	0.04431
Garckle	1192500	19/2.266	54/3.774		681.02	508.0	1682	2190	178.36	0.04620
Bunting	1192500	7/2.756	45/4.135		645.96	276.3	1674	1950	139.16	0.04685
Finch	1113000	19/2.189	54/3.647		635.5	474.0	1571	2045	166.60	0.04823
Bluejay	1113000	7/2.664	45/3.995		603.02	258.2	1553	1821	129.36	0.05019
Curlew	1033500	7/3.513	54/3.513		591.55	448.5	1450	1899	155.82	0.05302
Ortholan	1033500	7/2.565	45/3.848		559.87	239.3	1450	1689	120.54	0.05409
Tanager	954000	1/4.303	36/4.303		538.24	95.83	1443	1539	93.59	0.05456
Cardinal	954000	7/3.376	54/3.376		546.06	414.2	1339	41753	146.02	0.05741
Rail	954000	7/2.466	45/3.698		516.83	221.2	1339	1560	112.70	0.05857
Catbird	900000	1/4.135	36/4.135		496.83	88.50	1333	1422	86.44	0.05908
Canary	900000	7/3.279	54/3.279		515.11	390.7	1264	1655	135.24	0.06086
Ruddy	795000	7/2.395	45/3.592		487.54	208.6	1263	1472	105.89	0.06208
Mallard	795000	19/2.42	30/4.135		494.72	609.4	1119	1728	164.64	0.06690
Condor	795000	7/3.081	54/3.081		454.99	345.1	1115	1460	123.48	0.06893
Tem	795000	7/2.250	45/3.376		730.63	184.1	1116	1300	95.35	0.07028
Coot	795000	1/3.774	36/3.774		413.99	73.72	1110	1184	73.60	0.07093
Drake	795000	7/3.454	26/4.442		468.39	434.0	1116	1550	135.24	0.06814
Cutkoo	795000	7/3.081	24/4.623		454.99	345.3	1116	1461	121.52	0.06889
Redwing	715000	19/2.352	30/3.922		445.06	547.3	1007	1554	147.98	0.07438
Starling	715000	7/3.277	26/4.214		421.54	390.6	1005	1396	121.52	0.07571
Stlit	715000	7/2.924	24/4.387		409.21	311.0	1005	1316	109.76	0.07650
Gannet	666600	7/3.162	26/4.067		392.77	363.7	935.7	1299	114.66	0.08128
Flamingo	666600	7/2.822	24/4.234		381.59	289.7	936.3	1266	101.92	0.08213
Swift	636000	1/3.376	36/3.376		331.251	58.99	888.6	947.6	60.56	0.08863
Egret	636000	19/2.220	30/3.698		395.85	487.66	894.8	1382	132.30	0.08365
Scoter	636000	7/3.698	30/3.698		397.48	497.9	894.8	1393	129.36	0.08350
Grosbeak	636000	7/3.089	26/3.973		374.76	347.1	893.0	1240	109.76	0.08518

ALUMINUM CONDUCTOR ALUMINUM CLAD STEEL REINFORCED ACSR/AW

ASTM 549-88

Code Name	Size	Structure		Overall Dia. Mm	Calculated Nominal mm²	Weight Kg/km			Maximum Breaking Load KN	D.C. Resistance at20℃ ≯Ω/km
		Al Clad St. Wire	Al. Wire			Al. Clad St. Wire	Al. Wire	Conductor		
Rook	636000	7/2.756	24/4.135		364.06	276.3	893.0	1169	97.80	0.08623
Kingbird	636000	1/4.775	16/4.775		340.21	118.0	888.6	1007	66.74	0.08779
Teal	605000	19/2.164	30/3.607		376.48	463.3	851.4	1315	126.42	0.08958
Wood duck	605000	7/3.607	30/3.607		378.14	473.7	851.4	1325	126.13	0.08777
Squab	605000	7/3.012	26/3.874		356.48	330.0	849.1	1179	104.76	0.08958
Peacock	605000	7/2.690	24/4.034		346.38	263.2	849.9	1113	93.20	0.09047
Eagle	556500	7/3.459	30/3.459		347.78	435.6	783.0	1219	119.36	0.09545
Dove	556500	7/2.891	26/3.716		327.95	304.0	781.1	1085	96.43	0.09736
Prarkeet	556500	7/2.578	24/3.888		318.54	241.8	781.3	1023	85.55	0.09840
Osprcy	556500	1/4.456	18/4.465		297.66	103.2	777.0	880.2	58.80	0.1004
Hen	477000	7/3.203	30/3.203		298.11	373.6	671.4	1045	103.98	0.1114
Hawk	477000	7/2.675	26/3.439		281.04	260.3	669.2	929.5	84.18	0.1137
Ficker	477000	7/2.388	24/3.581		273.05	207.4	669.5	877	74.19	0.1148
Peilcan	477000	1/4.135	18/4.135		255.13	88.50	666.5	755	50.86	0.1171
Lark	397500	7/2.927	30/2.924		248.41	311.3	559.5	870.8	87.22	0.1336
Lbis	397500	7/2.441	26/3.139		234.16	216.7	557.5	774.2	70.07	0.1365
Brant	397500	7/2.179	24/3.269		227.5	172.7	558.2	730.9	62.43	0.1378
Chickadee	397500	1/3.744	18/3.774		212.59	73.72	555.2	628.9	43.22	0.1405
Oriole	336400	7/2.690	30/2.690		210.28	263.5	473.5	737	74.38	0.1579
Linnet	336400	7/2.245	26/2.888		198.21	183.3	472.0	655.3	59.88	0.1612
Merlin	336400	1/3.472	18/3.472		179.968	62.39	469.8	532.2	37.93	0.1661
Ostrich	300000	7/2.121	26/2.728		176.73	163.6	421.1	584.7	53.90	0.1807
Partridge	2668800	7/2.002	26/2.573		157.24	145.8	374.4	520.2	48.02	0.2031
Waxwing	2668800	1/3.091	18/3.091		142.704	49.45	372.3	421.8	30.28	0.2095
Penguin	(4/0)	1/4.770	6/4.770		125.07	117.8	294.1	411.9	31.10	0.2534
Pigeon	(3/0)	1/4.247	6/4.247		99.2	93.36	233.2	326.6	27.93	0.3196
Quail	(2/0)	1/3.782	6/3.782		78.67	74.03	185.0	259	22.74	0.4030
Raven	(1/0)	1/3.371	6/3.371		62.435	58.81	145.9	205.7	18.91	0.5072
Robin	(1)	1/3.000	6/3.000		49.479	46.58	116.4	163	15.29	0.6404
Sqarate	(2)	1/3.299	7/2.474		42.188	56.33	92.29	148.6	15.58	0.7852
Sparrow	(2)	1/2.672	6/2.672		39.237	36.95	92.32	129.3	12.25	0.0873
Swanate	(4)	1/2.614	7/1.961		26.517	35.37	58.01	93.38	10.09	1.250
Swan	(4)	1/2.118	6/2.118		24.673	23.22	58.00	81.22	7.92	1.285
Turkey	(6)	1/1.679	6/1.679		15.494	14.59	36.44	51.03	5.07	2.045
Cochin	211300	7/3.371	12/3.371		169.58	413.8	296.7	710.5	88.20	0.2259
Brahma	203200	19/2.482	16/2.863		194.92	611.9	285.4	897.3	123.48	0.2162
Dorkin	190800	7/3.203	12/3.203		153.09	373.6	267.9	641.5	81.24	0.2502
Dotterel	176900	7/3.084	12/3.084		141.93	345.3	248.3	594.6	75.56	0.298
Guinea	159000	7/2.294	12/2.924		127.58	311.3	223.2	534.5	67.91	0.3002
Leghom	134600	7/2.690	12/2.690		107.98	263.5	188.9	452.4	57.72	0.3546
Minorca	110800	7/2.441	12/2.441		88.90	217.0	155.6	372.6	47.92	0.4307
Patrel	101800	7/2.339	12/2.339		81.66	199.2	142.8	342.0	44.00	0.4691
Grouse	80000	1/4.242	8/2.540		54.67	93.14	111.8	204.9	21.66	0.6360

ALUMINUM CLAD STEEL WIRE
ACS

General

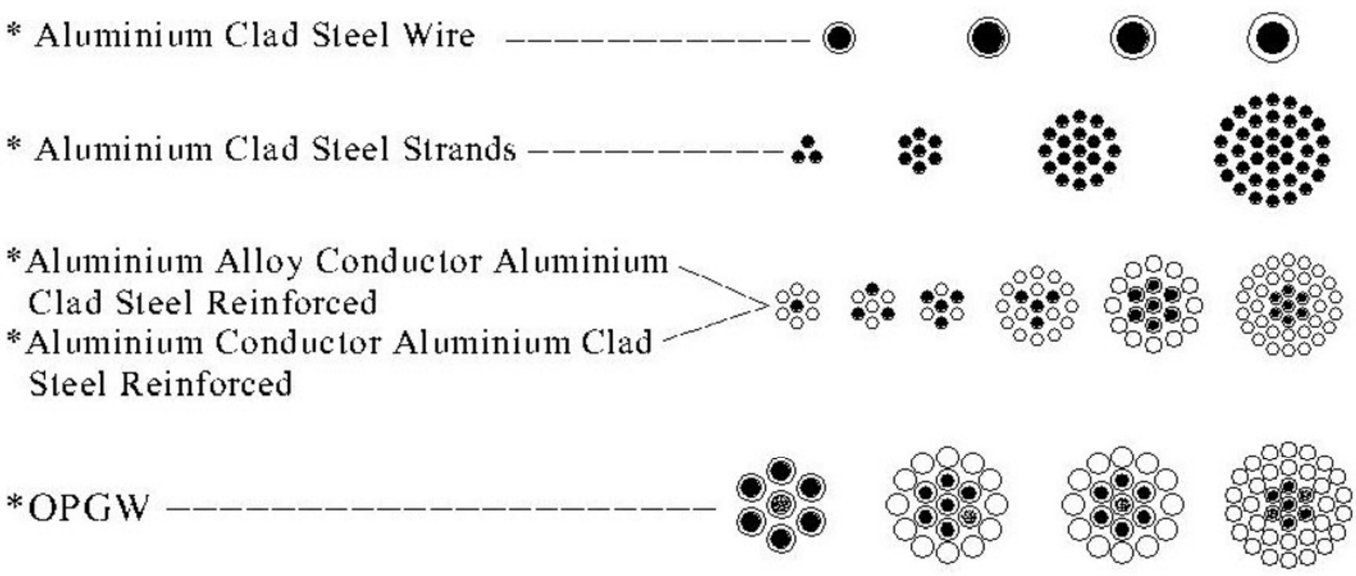
Series Products of Aluminum Clad Steel Conductor

A、 Aluminum Clad Steel wire for OPGW: LB27、LB30、LB40 etc.
B、 Aluminum Clad Steel Strands for long-stride: JLB20、JLB27、JLB30、JLB40 etc.
C、 Aluminum Clad Steel Strands for electrical railway: LBGJ70(19)、LBGJ50(7) etc.
D、 Aluminum Conductor Aluminum Clad Steel Reinforced-ACSR/AW for power transmission line: JL/LB14、JL/LB20、JL/LB30 etc.
E、 Aluminum Conductor Aluminum Clad Steel Reinforced-ACSR/AW for electrical railway: LBGLJ-70/10 LBGLJ-240/30 etc.
F、 Aluminum Alloy Conductor Aluminum Clad Steel Reinforced for long-stride: JLHA1/LB1A、JLHA2/LB1B etc.
G、 Thermo-resistance Aluminum Alloy Conductor Aluminum Clad Steel Reinforced for high current carrying capacity: $JNRLH_{58}$/LB1A、$JNRLH_{60}$/LB1B etc.

Table

Type		Conductivity I. A. C. S	Thickness of A1.	Ratio of AL. and St.	Density G/cm³	Modulus of Elasticity Gpa	Coefficient of Linear expansion	Coefficient of Resistance Temperature 1/℃
Standard	Normal							
	LB14	14%	Thinner	13%: 87%	7.14	170	$12.0x10^{-6}$	0.0034
LB1(A)	LB20(A)	20.3%	Standard	25%: 75%	6.59	162	$13.0x10^{-6}$	0.0036
LB1(B)	LB20(B)	20.3%	Standard	25%: 75%	6.53	155	$12.6x10^{-6}$	0.0036
LB2	LB27	27%	Middle	37%: 63%	5.91	140	$13.4x10^{-6}$	0.0036
LB3	LB30	30%	Middle	43%: 57%	5.61	132	$13.8x10^{-6}$	0.0038
LB4	LB40	40%	Thickness	62%: 38%	4.64	109	$15.5x10^{-6}$	0.0040

Structure



ALUMINUM CLAD STEEL WIRE
ACS

Main properties:

Aluminum Clad Steel wire is a high –strength steel core evenly, successively coated with a layer of aluminum. It's characteristics is high –strength, anti- corrosion , high conductivity –etc. It is widely use as strength – reinforced core of OPGW overhead power conductor, metallic net, bracket, wire, rail with anti-corrosive characteristics. our ACS products can meet the request of Standard of ASTM ,BS ,etc

ASTM B415-92

Code Number	Diameter mm	Nominal section mm^2	20℃ resistivity (Ω/km)	Max. tensile strength kg/mm^2	Breaking load KN	Calculated quality kg/km
4	5.189	21.15	4.010	109.0	22.59	139.34
5	4.620	16.77	5.056	116.0	19.07	110.50
6	4.114	13.30	6.375	123.0	16.04	87.62
7	3.665	10.55	8.038	130.1	13.45	69.48
8	3.264	8.367	10.135	137.1	11.24	55.11
9	2.906	6.632	12.783	137.1	8.92	43.71
10	2.588	5.261	16.116	137.1	7.07	34.66
11	2.304	4.168	20.322	137.1	5.60	27.49
12	2.052	3.310	25.627	137.1	4.45	21.80

Note: Tolerance of diameter:

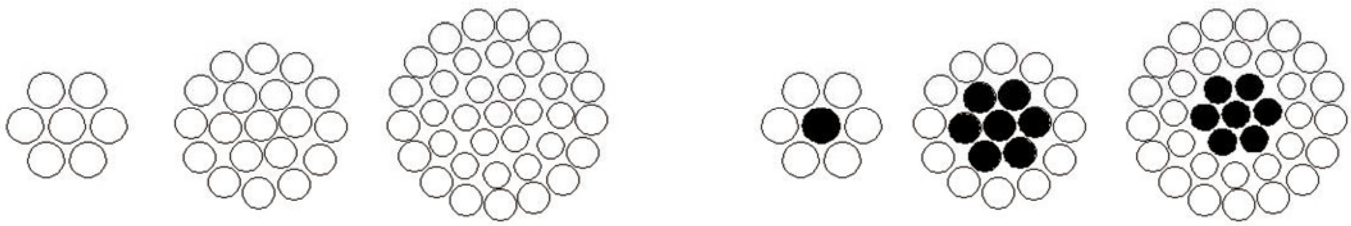
1. Dia. ≤2.67mm±0.04mm
2. Dia. >2.67mm±1.5%

ALUMINUM CLAD STEEL STRANDS

ACS **ASTM B416-88**

No./Dia. mm	Nominal mm^2	Diameter mm	Overall Dia. mm	Breaking Load KN	Mass kg/km	D.C. Resistance Ω/km
37/5	620.6	4.620	32.36	634.75	4170	0.1394
37/6	492.2	4.115	28.70	534.30	3307	0.1758
37/7	390.3	3.665	25.65	447.57	2622	0.2216
37/8	309.5	3.264	22.83	374.26	2080	0.2794
37/9	245.5	2.906	20.35	296.45	1649	0.3524
37/10	194.6	2.588	18.11	235.30	1308	0.4443
19/5	318.7	4.620	23.11	326.05	2128	0.2699
19/6	252.7	4.114	20.57	274.20	1688	0.3403
19/7	200.4	3.665	18.31	229.91	1339	0.4292
19/8	159.0	3.264	16.31	192.18	1062	0.5411
19/9	126.1	2.906	14.53	152.39	842	0.6821
10/10	99.93	2.588	12.93	120.83	668	0.8603
7/5	117.4	4.620	13.87	120.15	781	0.7428
7/6	93.09	4.115	12.34	101.04	620	0.9197
7/7	73.87	3.665	11.00	84.72	491	1.1598
7/8	58.56	3.264	9.779	70.81	390	1.4627
7/9	46.44	2.906	8.712	56.13	309	1.8442
7/10	36.82	2.588	7.772	44.53	245	2.3255
7/11	29.18	2.304	6.909	35.31	194	2.9325
7/12	23.16	2.052	6.147	28.01	145	3.6976
3/5	50.32	4.620	9.957	54.36	334	1.6985
3/6	39.90	4.115	8.864	45.69	265	2.1418
3/7	31.64	3.665	7.899	38.32	211	2.1009
3/8	25.10	3.264	7.036	32.03	167	3.4057
3/9	19.90	2.907	6.274	25.04	132	4.2947
3/10	15.78	2.588	5.588	20.14	105	5.4168

ALL ALUMINIUM ALLOY CONDUCTOR
ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED
AAAC



General

These conductors are formed by several aluminum alloy wires or either by several of these, with other wires of galvanized steel, stranded in concentric layers.

The center wire or wires which form the core are made of alloy or steel and the outer layer are of alloy.

Normally the compositions of these conductors are the same as the ones pertaining to the aluminum or aluminum-steel conductors.

In the case of alloy conductors. all the wire have the same nominal diameter and in the case of alloy conductors with a steel core. The diameter of the alloy and steel wires can be the same or different.

The basic composition of this alloy pertains to the Aluminum-Magnesium-Silicon group. Which is also known in Europe as Almelec or Aldrey-After their drawing they must undergo a thermal treatment at a temperature of approximately 170℃.

Properties

As regards aluminum, the wires of this alloy have a double tensile strength. Its electrical conductivity is 15% lower(53% instead of 61%)and the weight is the same.

By making use of these characteristics, in many cases an alloy conductor can replace the Aluminum Conductors Steel reinforced with a similar installation cost.

The Aluminum Alloy Steel Reinforced conductors have a much higher strength and its usage is ideal on long spans or under very severe mechanical conditions.

Main applications

Low, medium, high and very high voltages lines.

Composition	Final modulus of elasticity mpa	Coefficient of linear expansion
7	62000	23.0×10^{-6}
19	60000	23.0×10^{-6}
37	57000	23.0×10^{-6}
61	54000	23.0×10^{-6}
91	52000	23.0×10^{-6}
127	50500	23.0×10^{-6}

Composition	Final modulus of elasticity mpa	Coefficient of linear expansion
6+1①	80000	19.1×10^{-6}
9+3	93000	17.0×10^{-6}
12+7	108000	15.3×10^{-6}
18+19	124000	14.2×10^{-6}
30+7	84000	18.0×10^{-6}
42+19	96500	16.3×10^{-6}
54+7	70000	18.0×10^{-6}
24+37	130000	13.5×10^{-6}

① Steel wires

AAAC

ASTM B399

Code word	Conductor size	Stranding	Sectional area	Diameter of conductor	Linear mass	Rated strength	D.C. resistance at 20℃
	AWG (MCM)	No./mm	mm²	mm	kg/km	kgf	ohms/km
	4	7/1.96	21.14	5.89	57.89	685	1.3557
Alton	48.69(4)	7/2.12	24.67	6.35	67.56	799	1.5860
	2	7/2.47	33.65	7.42	92.14	1091	0.9987
Ames	77.47(2)	7/2.67	39.26	8.02	107.50	1275	0.8547
	1/0	7/3.12	53.49	9.35	146.50	1733	0.6259
Azusa	123.3(1/0)	7/3.37	62.46	10.11	171.00	2019	0.5365
	2/0	7/3.50	67.45	10.52	184.70	2090	0.4974
Anaheim	155.4(2/0)	7/3.78	78.75	11.35	215.16	2447	0.4264
	3/0	7/3.93	85.00	11.79	232.70	2641	0.3945
Amherst	195.7(3/0)	7/4.25	99.20	12.75	271.50	3079	0.3373
	4/0	7/4.42	107.20	13.26	293.70	3334	0.3119
Altiance	246.9(4/0)	7/4.77	125.10	14.30	342.60	3885	0.2678
	250.0	19/2.91	126.70	14.58	346.90	3977	0.2651
	300.0	19/3.19	152.10	15.89	418.60	4772	0.2206
Butte	312.8	19/3.26	158.50	16.31	434.00	4976	0.2112
	350.0	19/3.45	177.30	17.25	485.50	5333	0.1886
Canton	394.5	19/3.66	199.00	18.31	547.40	6016	0.1676
		19/3.69	202.70	18.44	555.10	6098	0.1649
	450.0	19/3.91	228.00	19.56	624.40	6862	0.1468
Cairo	456.4	19/3.98	235.80	19.89	645.70	7097	0.1431
	500.0	19/4.12	253.40	20.60	693.60	7617	0.1322
	550.0	37/3.10	278.70	21.67	762.90	8555	0.1200
Darien	559.5	19/4.36	283.50	21.79	776.30	8525	0.1181
	660.0	37/3.23	304.00	22.63	832.00	9330	0.1105
	650.0	37/3.37	329.40	23.57	909.80	10105	0.1015
Elgin	652.4	19/4.71	330.60	23.55	970.60	9942	0.1012
	700.0	37/3.49	354.50	24.46	910.60	10401	0.09464
Flint	740.8	37/3.59	375.40	25.15	1028	11013	0.08944
	750.0	37/3.62	380.20	25.32	1041	11216	0.08796
	800.0	37/3.73	405.40	26.14	1109	11930	0.08285
	900.0	37/3.96	456.30	27.74	1249	13460	0.07351
Greeley	927.2	37/4.02	469.80	28.14	1287	13868	0.07133
	1000.0	37/4.18	506.70	29.24	1388	14887	0.06597
	1077.4	61/3.38	483.40	30.42	1496	15907	0.06120
	1165.1	61/3.51	523.70	31.59	1617	17233	0.05675
	1250.0	61/3.63	633.30	32.67	1733	18354	0.05306
	1259.6	61/3.65	564.00	32.85	1748	18558	0.05248
	1348.8	61/3.78	604.20	34.02	1872	19884	0.04893
	1439.2	61/3.90	644.50	35.10	1997	21209	0.04597
	1500.0	61/3.98	760.00	35.82	2081	22127	0.04414
	1750.0	61/4.30	886.70	38.70	2429	25798	0.03781

ALL ALUMINIUM ALLOY CONDUCTOR
AAAC

BS3242

Code word	Conductor size	Stranding	Sectional area	Diameter of conductor	Linear mass	Rated strength	D.C. resistance at 20℃
	mm²	No./mm	mm²	mm	kg/km	kgf	Ω/km
Box	15	7/1.85	18.82	5.55	51	537	1.7495
Acacia	20	7/2.08	23.79	6.24	65	680	1.3840
Almond	25	7/2.34	30.10	7.02	82	861	1.0934
Cedar	30	7/2.54	35.47	7.62	97	1014	0.9281
	35	7/2.77	42.18	8.31	115	1205	0.7804
Fir	40	7/2.95	47.87	8.85	131	1367	0.6880
Hazel	50	7/3.30	59.87	9.9	164	1711	0.5498
Pine	60	7/3.61	71.65	10.83	196	2048	0.4594
	70	7/3.91	84.05	11.73	230	2402	0.3917
Willow	75	7/4.04	89.73	12.12	245	2565	0.3669
	80	7/4.19	96.52	12.57	264	2758	0.3441
	90	7/4.44	108.00	13.32	298	3112	0.3023
Oak	100	7/4.65	118.90	13.95	325	3398	0.2769
	100	19/2.82	118.70	14.1	326	3393	0.2787
Mulberry	125	19/3.18	150.90	15.9	415	4312	0.2192
Ash	150	19/3.48	180.70	17.4	497	5164	0.1831
Elm	175	19/3.76	211.00	18.8	580	6030	0.1568
Poplar	200	37/2.87	239.40	20.09	659	8841	0.1385
	225	37/3.05	270.30	21.35	744	7724	0.1227
Sycamore	250	37/3.22	303.20	22.54	835	8664	0.1093
Upas	300	37/3.53	362.10	24.71	997	10350	0.09156
Walnut	350	37/3.81	421.80	26.67	1162	12053	0.07860
Yew	400	37/4.06	479.00	28.42	1319	13685	0.06921
Totara	425	37/4.14	498.10	28.98	1372	14233	0.06656
Rubus	500	61/3.50	586.90	31.5	1620	16771	0.05662
Araucaria	700	61/4.14	821.10	37.26	2266	23450	0.04047

ALL ALUMINIUM ALLOY CONDUCTOR
AAAC

IEC1089

Code number	Area	Number of wires	Diameter of wire	Diameter of cond.	Linear mass	Rated strength	D.C. resistance
	mm^2		mm	mm	kg/km	KN	ohm/km
16	18.4	7	1.83	5.49	50.4	5.43	1.7896
25.	28.8	7	2.29	6.87	78.7	8.49	1.1453
40	46.0	7	2.89	8.67	125.9	13.58	0.7158
63	72.5	7	3.36	10.8	198.3	21.39	0.4545
100	115	19	2.78	13.9	316.3	33.95	0.2877
125	144	19	3.10	15.5	395.4	42.44	0.2302
160	184	19	3.51	17.55	506.1	54.32	0.1798
200	230	19	3.93	19.65	632.7	67.91	0.1439
250	288	19	4.39	21.95	790.8	84.68	0.1151
315	363	37	3.53	24.71	998.9	106.95	0.0916
400	460	37	3.98	27.86	1268.4	135.81	0.0721
450	518	37	4.22	29.54	1426.9	152.79	0.0641
500	575	37	4.45	31.15	1585.5	169.76	0.0577
560	645	61	3.67	33.03	1778.4	190.14	0.0516
630	725	61	3.89	35.01	2000.7	213.90	0.0458
710	817	61	4.13	37.17	2254.8	241.07	0.0407
800	921	61	4.38	39.42	2540.6	271.62	0.0361
900	1036	91	3.81	41.91	2861.1	305.58	0.0632
1000	1151	91	4.01	44.11	3179.0	339.53	0.0289
1120	1289	91	4.25	46.75	3560.5	380.27	0.0258
1250	1439	91	4.49	49.39	3973.7	424.41	0.0231

ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED
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ASTM B711

Conductor area mm^2	Alloy area mm^2	Steel area mm^2	Number of alloy wires	Diameter of alloy wire mm	Number of steel wires	Diameter of steel wire mm	Diameter of conductor mm	Linear mass kg/km	Rated tensile strength daN	Maximum D.C. resistance at 20℃ Ω/km
163	140	23	26	2.62	7	2.04	16.6	560	7500	0.240
173	140	33	30	2.44	7	2.44	17.1	650	8740	0.240
186	160	26	26	2.80	7	2.18	17.7	645	8560	0.210
198	160	38	30	2.61	7	2.61	18.3	740	10600	0.210
209	180	29	26	2.97	7	2.31	18.8	725	9510	0.187
222	180	42	30	2.76	7	2.76	19.3	825	11200	0.187
232	200	32	26	3.13	7	2.43	19.8	800	10600	0.168
247	200	47	30	2.91	7	2.91	20.4	920	12400	0.168
260	224	36	26	3.31	7	2.57	21.0	900	11800	0.150
276	224	52	30	3.08	7	3.08	21.6	1025	13900	0.150
291	250	41	26	3.50	7	2.72	22.2	1010	12900	0.135
308	250	58	30	3.26	7	3.26	22.8	1145	15600	0.135
326	280	46	26	3.70	7	2.88	23.4	1140	14400	0.120
345	280	65	30	3.45	7	3.45	24.2	1280	17100	0.120
367	315	52	15	3.93	7	3.06	24.9	1276	16300	0.107
387	315	72	30	3.66	19	2.20	25.6	1433	19000	0.107
413	355	58	26	4.17	7	3.24	26.4	1433	18300	0.0950
436	355	81	30	3.88	19	2.33	27.2	1614	21100	0.0950
465	400	65	26	4.43	7	3.45	28.1	1612	20700	0.0842
491	400	91	30	4.12	19	2.47	28.8	1816	23700	0.0842
509	450	59	54	3.26	19	1.98	29.5	1703	21500	0.0748
563	500	63	54	3.43	19	2.06	30.9	1873	22900	0.0673
631	560	71	54	3.63	19	2.18	32.7	2101	25700	0.0601
710	630	80	54	3.85	19	2.31	34.6	2365	28600	0.0534
800	710	90	54	4.09	19	2.45	36.8	2665	32200	0.0474
901	800	101	54	4.34	19	2.60	39.0	3000	36300	0.0420
973	900	73	84	3.69	19	2.21	40.6	3062	35500	0.0374
1081	1000	81	84	3.89	19	2.33	42.8	3395	39100	0.0337
1211	1120	91	84	4.12	19	2.47	45.3	3803	43900	0.0300
1352	1250	102	84	4.35	19	2.61	47.8	4250	49000	0.0270

ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED
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IEC1089

Code number	Areas			Number of wires		Wire dia.		Diameter		Linear mass	Rated strength	D.C. Resistance at 20℃
	Alum	Steel	Total			Alum	Steel	Core	Cond			
	mm^2	mm^2	mm^2	Al	St	mm	mm	mm	mm	kg/km	KN	Ω /km
16	18.4	3.07	21.5	6	1	1.98	1.98	1.98	5.93	74.4	9.02	1.7934
25	28.8	4.80	33.6	6	1	2.47	2.47	2.47	7.41	116.2	13.96	1.1478
40	46.0	7.67	53.7	6	1	3.13	3.13	3.13	9.38	185.9	22.02	0.7174
63	72.5	12.1	84.6	6	1	3.92	3.92	3.92	11.8	292.8	34.68	0.4555
100	115	6.39	121	18	1	2.85	2.85	2.85	14.3	366.4	41.24	0.2880
125	144	7.99	152	18	1	3.19	3.19	3.19	16.0	458.0	51.23	0.2304
125	144	23.4	167	26	7	2.65	2.06	6.19	16.8	579.9	69.86	0.2310
160	184	10.2	194	18	1	3.61	3.61	3.61	18.0	586.2	65.58	0.1800
160	184	30.0	214	26	7	3.00	2.34	7.01	19.0	742.3	88.52	0.1805
200	230	12.8	243	18	1	4.04	4.04	4.04	20.2	732.8	81.97	0.1440
200	230	37.5	268	26	7	3.36	2.61	7.83	21.3	927.9	110.64	0.1444
250	288	28.3	316	22	7	4.08	2.27	6.80	23.1	1013.5	117.09	0.1151
250	288	46.9	335	26	7	3.75	2.92	8.76	23.8	1159.6	138.31	0.1155
315	383	25.1	388	45	7	3.20	2.14	6.41	25.8	1196.5	136.28	0.0917
315	383	59.0	422	26	7	4.21	3.28	9.83	26.7	1461.4	171.90	0.0917
400	460	31.8	492	45	7	3.61	2.41	7.22	28.9	1519.4	172.10	0.0722
400	460	59.7	520	54	7	3.29	3.29	9.88	29.7	1738.3	201.46	0.0723
450	518	35.8	554	45	7	3.83	2.55	7.66	30.6	1709.3	193.61	0.0642
450	518	67.1	585	54	7	3.49	3.49	10.5	31.5	1955.6	226.64	0.0643
500	575	39.8	615	45	7	4.04	2.69	8.07	32.3	1899.3	215.12	0.0578
500	575	74.6	650	54	7	3.68	3.68	11.1	33.2	2172.9	251.82	0.0578
560	645	44.6	689	45	7	4.27	2.85	8.54	34.2	2127.2	240.93	0.0516
560	645	81.6	726	54	19	3.90	2.34	11.7	35.1	2420.9	283.21	0.0516
630	725	31.3	756	72	7	3.58	2.39	7.16	35.8	2248.0	249.62	0.0459
630	725	91.8	817	54	19	4.13	2.48	12.4	37.2	2723.5	318.61	0.0459
710	817	35.3	852	72	7	3.80	2.53	7.60	38.0	2533.4	281.32	0.0407
710	817	104	921	54	19	4.39	2.63	13.2	39.5	3069.4	359.06	0.0407
800	921	39.8	961	72	7	4.04	2.96	8.07	40.4	2854.6	316.98	0.0361
800	921	76.7	997	84	7	3.74	3.74	11.2	41.1	3145.1	356.03	0.0362
900	1036	44.8	1081	72	7	4.28	4.85	8.56	42.8	3211.4	356.60	0.0321
900	1036	86.3	1122	84	7	3.96	3.96	11.9	43.6	3538.3	400.53	0.0322
1000	1151	93.7	1245	84	19	4.18	2.61	12.5	45.9	3916.8	446.37	0.0289
1120	1289	105	1394	84	19	4.42	2.65	13.3	48.6	4386.8	499.93	0.0258

ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED AACSR

GB/T1179-2008

Nominal Aluminum Area	NO./DIA mm		Calculated Area mm^2			Overall Dia.	D.C. Resistance (20℃)	Rated Breaking Load kN		Unit Weight
mm^2	Aluminum	Steel	Aluminum	Steel	Total	mm	Ω/km	JLHA1/G1A(LHA1GJ)	JLHA1/G3A	kg/km
10/2	6/1.50	1/1.50	10.6	1.77	12.37	4.5	3.1444	5.51	6.01	42.8
16/3	6/1.85	1/1.85	16.13	2.69	18.82	5.55	2.0671	8.39	9.14	65.1
18/3	6/1.99	1/1.99	18.6	3.1	21.7	5.97	1.7934	9.67	10.53	75.1
25/4	6/2.32	1/2.32	25.36	4.23	29.59	6.96	1.3144	13.06	14.21	102.4
30/5	6/2.48	1/2.48	29.0	4.84	33.9	7.45	1.1478	14.96	16.27	117.3
35/6	6/2.72	1/2.72	34.86	5.81	40.67	8.16	0.9563	17.96	19.52	140.8
35/7	6/3.14	1/3.14	46.5	7.75	54.2	9.42	0.7174	23.63	25.79	187.7
50/8	6/3.20	1/3.20	48.25	8.04	56.29	9.6	0.6909	24.53	26.78	194.8
50/30	12/2.32	7/2.32	50.73	29.59	80.32	11.6	0.6614	50.22	58.21	371.1
70/10	6/3.80	1/3.80	68.05	11.34	79.39	11.4	0.4899	33.91	36.63	274.8
70/12	6/3.94	1/3.94	73.2	12.2	85.4	11.8	0.4555	36.48	39.41	295.6
70/40	12/2.72	7/2.72	69.73	40.67	110.4	13.6	0.4812	69.03	80.01	510.2
95/15	26/2.15	7/1.67	94.39	15.33	109.72	13.6	0.3554	48.62	52.91	380.2
95/20	7/4.16	7/1.85	95.14	18.82	113.96	13.9	0.3470	50.80	57.26	408.2
95/55	12/3.20	7/3.20	96.51	56.3	152.81	16.0	0.3477	93.29	109.06	706.1
115/6	18/2.87	1/2.87	116	6.46	123	14.3	0.2880	45.12	46.86	369.9
120/7	18/2.90	1/2.90	118.89	6.61	125.5	14.5	0.2815	46.17	47.96	378.5
120/20	26/3.38	7/1.85	115.67	18.82	134.49	15.1	0.2900	59.61	64.13	466.1
120/25	7/4.72	7/2.10	122.48	24.25	146.73	15.7	0.2826	64.50	73.74	525.7
120/70	12/3.60	7/3.60	122.15	71.25	193.4	18.0	0.2747	116.85	133.95	893.7
145/8	18/3.21	1/3.21	145	8.07	153	16.0	0.2304	56.08	58.34	462.3
145/23	26/2.67	7/2.07	145	23.7	169	16.9	0.2310	74.88	81.50	585.4
150/8	18/3.20	1/3.20	144.76	8.04	152.8	16.0	0.2312	55.90	58.14	460.9
150/20	24/2.78	7/1.85	145.68	18.82	164.5	16.7	0.2295	69.37	73.88	548.5
150/25	26/2.70	7/2.10	148.86	24.25	173.11	17.1	0.2254	76.75	83.54	600.1

ALUMINIUM ALLOY CONDUCTOR STEEL REINFORCED
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GB/T1179-2008

Nominal Aluminum Area mm²	NO./DIA mm		Calculated Area mm²			Overall Dia. mm	D.C. Resistance (20℃) Ω/km	Rated Breaking Load kN		Unit Weight kg/km
	Aluminum	Steel	Aluminum	Steel	Total			JLHA1/G1A(LHA1GJ)	JLHA1/G3A	
185/10*	18/3. 63	1/3. 63	186	10. 3	196	18. 1	0. 1800	69. 92	72. 40	591. 8
185/10	18/3. 60	1/3. 60	183. 22	10. 18	193. 4	18. 0	0. 1826	68. 91	71. 36	583. 3
185/25	24/3. 15	7/2. 10	187. 34	24. 25	211. 29	18. 9	0. 1787	59. 23	96. 05	704. 9
185/30*	26/3. 02	7/2. 35	186	30. 3	216	19. 1	0. 1805	94. 94	103. 11	749. 4
185/30	26/2. 98	7/2. 32	181. 34	29. 59	210. 93	18. 9	0. 1848	64. 56	100. 66	731. 4
185/45	30/2. 80	7/2. 80	184. 73	43. 1	277. 83	19. 6	0. 1810	80. 54	120. 81	846. 7
210/10	18/3. 80	1/3. 80	204. 14	11. 34	215. 48	19. 0	0. 1639	76. 78	79. 50	649. 9
210/25	24/3. 33	7/2. 22	209. 02	27. 1	236. 12	20. 0	0. 1559	99. 64	107. 23	787. 8
210/35	26/3. 22	7/2. 50	211. 73	34. 36	246. 09	20. 4	0. 1585	107. 98	117. 26	852. 5
210/50	30/2. 98	7/2. 98	209. 24	48. 82	258. 06	20. 9	0. 1598	123. 66	136. 84	959. 0
230/13	18/4. 05	1/4. 05	232	12. 9	245	20. 3	0. 1444	87. 40	90. 50	739. 8
230/38	26/3. 37	7/2. 62	232	37. 8	270	21. 4	0. 1444	118. 67	128. 89	936. 7
240/30	24/3. 60	7/2. 40	244. 29	31. 67	275. 96	21. 6	0. 1372	113. 05	124. 05	920. 7
240/40	26/3. 42	7/2. 66	238. 84	38. 9	277. 74	21. 7	0. 1405	121. 97	132. 47	962. 8
240/55	30/3. 20	7/3. 20	241. 27	56. 3	297. 57	22. 4	0. 1392	140. 34	156. 11	1105. 8
290/28	22/4. 10	7/2. 28	290	28. 5	319	23. 2	0. 1154	124. 02	131. 72	1023. 2
290/45	26/3. 77	7/2. 93	290	47. 3	338	23. 9	0. 1155	145. 43	158. 21	1170. 9
300/15	42/3. 00	7/1. 67	296. 88	15. 33	312. 21	23. 0	0. 0113	114. 42	118. 71	938. 7
300/20	45/2. 93	7/1. 95	303. 42	20. 91	324. 33	23. 4	0. 1106	123. 07	128. 93	1000. 8
300/25	48/2. 85	7/2. 22	306. 21	27. 1	333. 31	23. 8	0. 1094	131. 23	138. 81	1057. 0
300/40	24/3. 99	7/2. 66	300. 09	38. 9	338. 99	23. 9	0. 1114	138/87	149. 38	1131. 0
300/50	26/3. 83	7/2. 98	299. 54	48. 82	348. 36	24. 3	0. 1120	150. 01	163. 19	1207. 7
300/70	30/3. 60	7/3. 60	305. 36	71. 25	376. 31	25. 2	0. 1099	174. 57	191. 66	1399. 6
365/25	45/3. 22	7/2. 15	366	25. 3	391	25. 7	0. 0917	148. 56	155. 64	1207. 9
365/60	26/4. 23	7/3. 29	366	59. 6	426	26. 8	0. 0917	180. 86	197. 55	1475. 3
400/20	42/3. 51	7/1. 95	406. 4	20. 91	427. 31	26. 9	0. 0825	152. 48	158. 34	1284. 3

ALUMINUM ALLOY CONDUCTOR ALUMINUM CLAD STEEL REINFORCED AACSR/AW

It is consisted of ACS Stranding wire and hard aluminum alloy wires. It's characteristics are anti-corrosion, high tensile strength. It is widely used in mound area, heavy ice area, long- stride overhead power transmission line.

Nominal section mm²	Structure		Calculated section mm²			Diameter mm	D.C. Resistance at20℃ ≯Ω/km	Calculated Breaking Load N	Calculated quality kg/km	Delivery length m
	High strength Al. alloy	Al. Clad St. Wire	High strength Al. alloy	Al. Clad St. Wire	Total					
35/6	6/2.72	1/2.72	34.86	5.81	40.67	8.16	0.8974	17723	133.6	3000
50/30	12/2.32	7/2.32	50.73	29.59	80.32	11.60	0.5378	49037	334.2	3000
70/10	6/3.80	1/3.80	68.05	11.34	79.39	11.40	0.4598	33910	260.8	2000
70/40	12/2.72	7/2.72	69.73	40.67	110.40	13.60	0.3913	67404	459.4	2000
95/20	7/4.16	7/1.85	95.14	18.82	113.96	13.87	0.3257	50668	384.4	2000
95/55	12/3.20	7/3.20	96.51	56.30	152.81	16.00	0.2827	93293	635.8	2000
120/25	7/4.72	7/2.10	122.48	24.25	146.73	15.74	0.2530	65252	495.6	2000
120/70	12/3.60	7/3.60	122.15	71.25	193.40	18.00	0.2234	116852	804.7	2000
150/25	26/2.70	7/2.10	148.86	24.25	173.11	17.10	0.2118	75051	570.1	2000
150/35	30/2.50	7/2.50	147.26	34.36	181.62	17.50	0.2088	85657	632.3	2000
185/25	24/3.15	7/2.10	187.04	24.25	211.29	18.90	0.1705	87456	675.1	2000
185/30	26/2.98	7/2.32	181.34	29.59	210.93	18.88	0.1738	91486	694.8	2000
210/25	24/3.33	7/2.22	209.02	27.10	236.12	19.98	0.1526	97737	754.5	2000
210/35	26/3.22	7/2.50	211.73	34.36	246.09	20.38	0.1489	106608	810.0	2000
240/30	24/3.60	7/2.40	244.29	31.67	275.96	21.60	0.1306	111785	881.8	2000
240/55	30/3.20	7/3.20	241.27	56.30	297.57	22.40	0.1274	140341	1036.0	2000
300/40	24/3.99	7/2.66	300.09	38.90	338.99	23.94	0.1063	137318	1083.2	2000
300/70	30/3.60	7/3.60	305.36	71.25	376.61	25.20	0.1007	174566	1311.2	2000
400/35	48/3.22	7/2.50	390.88	34.36	425.24	26.82	0.0630	164833	1305.3	1500
400/50	54/3.07	7/3.07	399.73	51.82	451.55	27.63	0.0799	182911	1445.0	1500
400/95	30/4.16	19/2.50	407.75	93.27	401.02	29.14	0.0755	321035	1740.6	1500
500/35	45/3.75	7/2.50	497.01	34.36	531.37	30.00	0.0657	194355	1598.1	1500
500/45	48/3.6	7/2.80	488.58	43.10	531.68	30.00	0.0664	201316	1632.5	1500
500/65	54/3.44	7/3.44	501.88	65.06	566.94	30.96	0.09637	234676	1814.3	1500
630/45	45/4.20	7/2.80	623.45	43.10	666.55	33.60	0.0524	243799	2004.6	1200
630/55	48/4.12	7/3.20	639.92	56.30	969.22	34.32	0.0507	263502	2137.2	1200
630/80	54/3.87	19/2.32	653.19	80.32	715.51	34.82	0.0504	288437	2284.7	1200
720/50	45/4.53	7/3.02	725.16	50.14	775.40	36.18	0.0450	283616	2332.0	1000
720/90	54/4.135	19/2.482	725.26	91.92	817.08	37.22	0.0441	329546	2609.8	1000
800/55	45/4.80	7/3.20	814.30	56.30	870.60	38.40	0.0401	318432	2618.3	1000
800/100	54/4.33	19/2.60	795.17	100.88	896.05	38.98	0.0402	361442	2862.2	1000
1000/45	72/4.21	7/2.80	1002.27	43.10	1045.37	42.08	0.0329	363129	3052.5	1000
1000/125	54/4.84	19/2.90	993.51	125.49	119.01	43.54	0.0322	451006	3572.6	1000

ALUMINUM ALLOY CONDUCTOR ALUMINUM CLAD STEEL REINFORCED AACSR/AW

It is consisted of ACS Stranding wire and hard aluminum alloy wires. It's characteristics are anti-corrosion, high tensile strength. It is widely used in mound area, heavy ice area, long- stride overhead power transmission line.

Nominal section mm²	Structure		Calculated section mm²			Diameter mm	D.C. Resistance at20℃ ≯Ω/km	Calculated Breaking Load N	Calculated quality kg/km	Delivery length m
	Thermo-resistance Al. alloy	Al. Clad St. Wire	Thermo-resistance Al. alloy	Al .Clad St. Wire	Total					
50/30	12/2.32	7/2.32	50.73	29.59	80.32	11.60	0.4956	41174	334.2	3000
70/10	6/3.80	1/3.80	68.05	11.34	79.39	11.40	0.4186	24043	260.8	2000
70/40	12/2.72	7/2.72	69.73	40.67	110.40	13.60	0.3606	56596	459.4	2000
95/20	7/4.16	7/1.85	95.14	18.82	113.96	13.87	0.2968	35921	384.9	2000
95/55	12/3.20	7/3.20	96.51	56.30	152.81	16.00	0.2605	77851	635.8	2000
120/25	7/4.72	7/2.10	122.48	24.25	146.73	15.74	0.2306	46267	495.6	2000
120/70	12/3.60	7/3.60	122.15	71.25	193.40	18.00	0.2058	97920	804.7	2000
150/25	26/2.70	7/2.10	148.86	24.25	173.11	17.10	0.1928	51977	570.1	2000
150/35	30/2.50	7/2.50	147.26	34.36	181.62	17.50	0.1905	62832	632.3	2000
185/25	24/3.15	7/2.10	187.04	24.25	211.29	18.90	0.1551	57530	675.1	2000
185/30	26/2.98	7/2.32	181.34	29.59	210.93	18.88	0.1582	63378	694.8	2000
210/25	24/3.33	7/2.22	209.02	27.10	236.12	19.98	0.1388	64293	754.5	2000
210/35	26/3.22	7/2.50	211.73	34.36	246.09	20.38	0.1356	72732	810.0	2000
240/30	24/3.60	7/2.40	244.29	31.67	275.96	21.60	0.1187	73920	881.8	2000
240/55	30/3.20	7/3.20	241.27	56.30	297.57	22.40	0.1163	101737	1036.0	2000
300/40	24/3.99	7/2.60	300.09	38.90	338.99	23.94	0.0967	90804	1083.2	2000
300/70	30/3.60	7/3.60	305.36	71.25	376.61	25.20	0.0919	127235	1311.2	2000
400/35	48/3.22	7/2.50	390.88	34.36	425.24	26.82	0.0754	102292	1305.3	1500
400/50	54/3.07	7/3.07	399.73	51.82	451.55	27.63	0.07279	122952	1445.0	1500
400/95	30/4.16	19/2.50	407.75	93.27	501.02	29.14	0.0689	167833	1740.6	1500
500/35	45/3.75	7/2.50	497.01	34.36	531.37	30.00	0.0596	117319	1598.1	1500
500/45	48/3.6	7/2.80	488.58	43.10	531.68	30.00	0.0603	125586	1632.5	1500
500/65	54/3.44	7/3.44	501.88	65.06	566.94	30.96	0.0579	154975	1814.3	1500
630/45	45/4.20	7/2.80	623.45	43.10	666.55	33.60	0.0475	147165	2004.6	1200
630/55	48/4.12	7/3.20	639.92	56.30	696.22	34.32	0.0460	164314	2137.2	1200
630/80	54/3.87	19/2.32	653.19	80.32	715.51	34.82	0.0458	189982	2284.7	1200
720/50	45/4.53	7/3.02	725.16	50.14	775.40	36.18	0.0409	171199	2332.0	1200
720/90	54/4.135	19/2.482	725.26	91.92	817.08	37.22	0.0401	217146	2609.8	1200
800/55	45/4.80	7/3.20	814.30	56.30	870.60	38.40	0.0364	192215	2618.3	1000
800/100	54/4.33	19/2.60	795.17	100.88	896.05	38.98	0.0366	238191	2862.3	1000
1000/45	72/4.21	7/2.80	1002.27	43.10	1045.37	42.08	0.0299	207777	3052.5	1000
1440/120	84/4.67	19/2.80	1438.81	116.99	1555.80	51.36	0.0206	358902	4752.6	500

ALUMINIUM CONDUCTOR ALLOY REINFORCED ACAR

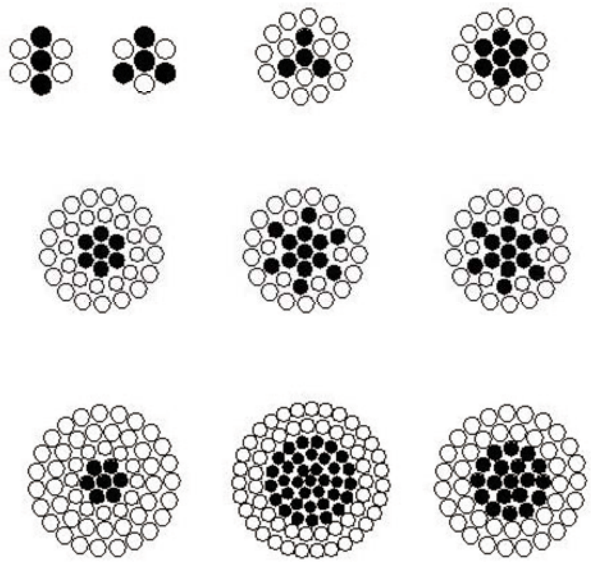
General

Concentric layers stranded conductors made from round aluminum 1350 – H19 wires and round aluminum alloy 6201 – T81 core wires for use as overhead electrical conductors.

Stranding	Final modulus of elasticity mpa	Coefficient of linear expansion 1/℃
7	62000	$23x10^{-6}$
19	60000	$23x10^{-6}$
37	57000	$23x10^{-6}$
61	54000	$23x10^{-6}$
91	52500	$23x10^{-6}$

Properties

In varying relative sections of pure aluminum and 6201 – T80 alloy, these conductors offer various properties, intermediate between AAC, ACSR and AAAC.



Recommended stranding

Total No.of wires	Number or 1350-H19 Wires/ Number or 6201-T81 Wires/			
7	4/3			
19	15/4	12/7		
37	33/4	30/7	24/13	18/19
61	54/7	48/13	42/19	33/28
91		72/19	63/28	54/37

ALUMINIUM CONDUCTOR ALLOY REINFORCED ACAR

ASTM B524

Size of conductor		Stranding		Outside diameter inch	Area mm^2	Wire diameter mm	Overall diameter of conductor mm^2	Linear mass kg/km	Rated tensile strength daN	Maximum D.C. resistance at 20℃ Ω/km
AWG of kcmil	Cross section square lich	1350-H19	6201-T81							
30.6	0.0240	4x0.0661	3x0.0661	0.198	15.5	1.679	5.03	43	367	1.983
4	0.0328	4x0.0772	3x0.0772	0.232	21.2	1.961	5.89	59	498	1.454
48.7	0.0382	4x0.0834	3x0.0834	0.250	24.7	2.118	6.35	68	573	1.246
2	0.0521	4x0.0974	3x0.0974	0.292	33.6	2.474	7.42	93	777	0.913
77.5	0.0608	4x0.1052	3x0.1052	0.316	39.3	2.672	8.03	109	893	0.721
1/0	0.0829	4x0.1228	3x0.1228	0.368	53.5	3.119	9.35	148	1195	0.575
123.3	0.0968	4x0.1327	3x0.1327	0.398	62.5	3.371	10.11	173	1395	0.492
2/0	0.1045	4x0.1379	3x0.1379	0.414	67.4	3.503	10.52	187	1470	0.455
155.4	0.1221	4x0.1490	3x0.1490	0.447	78.7	3.785	11.35	218	1700	0.390
3/0	0.1317	4x0.1548	3x0.1548	0.464	85	3.932	11.80	235	1820	0.361
195.7	0.1537	4x0.1672	3x0.1672	0.502	99.1	4.247	12.74	274	2130	0.310
4/0	0.1663	4x0.1739	3x0.1739	0.522	107	4.417	13.25	297	2300	0.286
246.9	0.1939	4x0.1878	3x0.1878	0.563	125	4.77	14.31	346	2682	0.245
250	0.1963	15x0.1147	4x0.1147	0.574	127	2.913	14.56	350	2430	0.235
250	0.1963	12x0.1147	7x0.1147	0.574	127	2.913	14.56	350	2750	0.240
300	0.2358	15x0.1257	4x0.1257	0.629	152	3.193	15.96	420	2885	0.195
300	0.2358	12x0.1257	7x0.1257	0.629	152	3.193	15.96	420	3275	0.200
350	0.2748	15x0.1357	4x0.1357	0.679	177	3.447	17.24	490	3315	0.168
350	0.2748	12x0.1357	7x0.1357	0.679	177	3.447	17.24	490	3735	0.172
400	0.3142	15x0.1451	4x0.1451	0.726	203	3.685	18.44	560	3745	0.147
400	0.3142	12x0.1451	7x0.1451	0.726	203	3.685	18.44	560	4230	0.135
450	0.3534	15x0.1539	4x0.1539	0.770	228	3.909	19.55	630	4150	0.130
450	0.3534	12x0.1539	7x0.1539	0.770	228	3.909	19.55	630	4710	0.133
500	0.3926	15x0.1622	4x0.1622	0.811	253	4.120	20.60	700	4620	0.117
500	0.3926	12x0.1622	7x0.1622	0.811	253	4.120	20.60	700	5240	0.120
500	0.3924	33x0.1162	4x0.1162	0.813	253	2.951	20.65	700	4440	0.116
500	0.3924	30x0.1162	7x0.1162	0.813	253	2.951	20.65	700	4795	0.117
500	0.3924	24x0.1162	13x0.1162	0.813	253	2.951	20.65	700	5285	0.120
500	0.3924	18x0.1162	19x0.1162	0.813	253	2.951	20.65	700	5860	0.123
550	0.4318	15x0.1701	4x0.1701	0.851	279	4.321	21.66	770	5060	0.107
550	0.4318	12x0.1701	7x0.1701	0.851	279	4.321	21.66	770	5770	0.110

ALUMINIUM CONDUCTOR ALLOY REINFORCED ACAR

ASTM B524(Continued)

Size of conductor		Stranding		Outside diameter inch	Area mm^2	Wire diameter mm	Overall diameter of conductor mm^2	Linear mass kg/km	Rated tensile strength daN	Maximum D.C. resistance at 20℃ Ω/km
AWG of kcmil	Cross section square lich	1350-H19	6201-T81							
550	0.4320	33x0.1219	4x0.1219	0.853	279	2.951	21.66	770	4800	0.105
550	0.4320	30x0.1219	7x0.1219	0.853	279	2.951	21.66	770	5195	0.105
550	0.4320	24x0.1219	13x0.1219	0.853	279	2.951	21.66	770	5730	0.109
550	0.4320	18x0.1219	19x0.1219	0.853	279	2.951	21.66	770	6395	0.111
600	0.4712	15x0.1777	4x0.1777	0.889	304	4.513	22.58	840	5550	0.0978
600	0.4712	12x0.1777	7x0.1777	0.889	304	4.513	22.58	840	6260	0.100
600	0.4709	33x0.1273	4x0.1273	0.891	304	3.23	22.63	840	5240	0.096
600	0.4709	30x0.1273	7x0.1273	0.891	304	3.23	22.63	840	5680	0.097
600	0.4709	24x0.1273	13x0.1273	0.891	304	3.23	22.63	840	6260	0.100
600	0.4709	18x0.1273	19x0.1273	0.891	304	3.23	22.63	840	7020	0.102
650	0.5102	33x0.1325	4x0.1325	0.928	329	3.36	23.57	910	5680	0.089
650	0.5102	30x0.1325	7x0.1325	0.928	329	3.36	23.57	910	6130	0.090
650	0.5102	24x0.1325	13x0.1325	0.928	329	3.36	23.57	910	6800	0.092
650	0.5102	18x0.1325	19x0.1325	0.928	329	3.36	23.57	910	7600	0.095
700	0.5494	33x0.1375	4x0.1375	0.963	355	3.49	24.46	980	6040	0.083
700	0.5494	30x0.1375	7x0.1375	0.963	355	3.49	24.46	980	6530	0.084
700	0.5494	24x0.1375	13x0.1375	0.963	355	3.49	24.46	980	7150	0.086
700	0.5494	18x0.1357	19x0.1357	0.963	355	3.49	24.46	980	7950	0.088
750	0.5892	33x0.1424	4x0.1424	0.997	380	3.62	25.32	1050	6400	0.077
750	0.5892	30x0.1424	7x0.1424	0.997	380	3.62	25.32	1050	6930	0.078
750	0.5892	24x0.1424	13x0.1424	0.997	380	3.62	25.32	1050	7600	0.080
750	0.5892	18x0.1424	19x0.1424	0.997	380	3.62	25.32	1050	8440	0.082
800	0.6280	33x0.1470	4x0.1470	1.029	405	3.73	26.15	1120	6800	0.072
800	0.6280	30x0.1470	7x0.1470	1.029	405	3.73	26.15	1120	7370	0.073
800	0.6280	24x0.1470	13x0.1470	1.029	405	3.73	26.15	1120	8080	0.075
800	0.6280	18x0.1470	19x0.1470	1.029	405	3.73	26.15	1120	9010	0.077
850	0.6679	33x0.1516	4x0.1516	1.061	431	3.85	26.95	1190	7100	0.068
850	0.6679	30x0.1516	7x0.1516	1.061	431	3.85	26.95	1190	7720	0.069
850	0.6679	24x0.1516	13x0.1516	1.061	431	3.85	26.95	1190	8530	0.071
850	0.6679	18x0.1516	19x0.1516	1.061	431	3.85	26.95	1190	9500	0.072
900	0.7072	33x0.1560	4x0.1516	1.092	456	3.96	27.75	1260	7550	0.064
900	0.7072	30x0.1560	7x0.1560	1.092	456	3.96	27.75	1260	8170	0.065
900	0.7072	24x0.1560	13x0.1560	1.092	456	3.96	27.75	1260	9015	0.067
900	0.7072	18x0.1560	19x0.1560	1.092	456	3.96	27.75	1260	9950	0.068

Aluminum Conductor Composite Core

ACCC **GB size**

Nominal Area	Structure		Calculated Area			Out Dia.	DC Resistance	Rated tensile strength	Weight	Core weight	Al weight
mm^2	No of Al wire	Core Dia. mm	Al area mm^2	Core area mm^2	Total mm^2	mm	Ω/km (20℃)	kN	kg/km	kg/km	kg/km
150/20	16	5.0	155.5	19.6	175.1	15.35	0.1796	51.3	465.5	37.3	428.2
160/20	16	5.0	160.0	19.6	179.7	15.55	0.1744	51.6	478.1	37.3	440.7
160/25	16	5.5	159.6	23.8	183.4	15.70	0.1749	60.5	484.7	45.1	439.6
170/25	16	5.5	175.0	23.8	198.8	16.35	0.1595	61.3	527.1	45.1	482.0
200/25	16	5.5	199.9	23.8	223.6	17.35	0.1397	62.8	595.6	45.1	550.5
200/30	16	6.0	199.5	28.3	227.8	17.50	0.1399	72.5	603.1	53.7	549.4
230/30	16	6.0	226.1	28.3	254.3	18.50	0.1235	74.0	676.3	53.7	622.6
240/30	16	6.0	237.1	28.3	265.4	18.90	0.1177	74.7	706.7	53.7	653.0
250/30	16	6.0	249.8	28.3	278.1	19.35	0.1118	75.4	741.7	53.7	688.0
250/35	16	6.5	249.5	33.2	282.7	19.50	0.1119	86.0	750.2	63.0	687.1
265/35	16	6.5	264.1	33.2	297.3	20.00	0.1057	86.8	790.3	63.0	727.3
290/35	16	6.5	287.3	33.2	320.4	20.77	0.0972	88.1	854.1	63.0	791.1
315/35	16	6.5	314.8	33.2	348.0	21.65	0.0887	89.7	930.0	63.0	867.0
315/40	16	7.0	314.6	38.5	353.1	21.80	0.0887	101.2	939.6	73.1	866.5
320/40	16	7.0	323.7	38.5	362.2	22.08	0.0862	101.7	964.6	73.1	891.5
360/40	18	7.0	358.1	38.5	396.6	23.11	0.0780	103.7	1059.2	73.1	986.1
380/45	18	7.5	382.6	44.2	426.8	23.97	0.0730	117.4	1137.6	83.9	1053.7
400/35	22	6.5	399.3	33.2	432.5	24.15	0.0699	94.6	1162.8	63.0	1099.8
400/40	22	7.0	399.7	38.5	438.2	24.30	0.0698	106.1	1173.9	73.1	1100.8
400/45	22	7.5	399.8	44.2	443.9	24.45	0.0698	118.4	1184.9	83.9	1101.0
450/40	22	7.0	449.5	38.5	488.0	25.65	0.0621	108.9	1311.0	73.1	1237.9
450/45	22	7.5	449.8	44.2	494.0	25.80	0.0621	121.2	1322.8	83.9	1238.9
480/40	22	7.0	482.2	38.5	520.7	26.50	0.0579	110.8	1401.1	73.1	1328.0
500/45	22	7.5	498.6	44.2	542.8	27.05	0.0560	124.0	1457.1	83.9	1373.2
500/50	22	8.0	498.9	50.3	549.2	27.20	0.0560	137.2	1469.4	95.5	1374.0
500/55	22	8.5	498.8	56.7	555.6	27.35	0.0560	151.2	1481.6	107.8	1373.8
550/55	36	8.5	546.3	56.7	603.0	28.50	0.0514	153.9	1619.6	107.8	1511.8
560/55	36	8.5	558.9	56.7	615.7	28.80	0.0502	154.6	1654.7	107.8	1546.9
560/65	36	9.0	558.9	63.6	622.5	28.95	0.0502	169.5	1667.6	120.9	1546.7
570/65	36	9.0	567.5	63.6	631.1	29.15	0.0494	170.0	1691.3	120.9	1570.4
630/55	36	8.5	629.3	56.7	686.1	30.41	0.0446	158.7	1849.4	107.8	1741.6
630/65	36	9.0	629.2	63.6	692.8	30.55	0.0446	173.5	1862.0	120.9	1741.2
630/70	36	9.5	629.1	70.9	700.0	30.70	0.0446	189.2	1875.7	134.7	1741.1
640/70	36	9.5	638.2	70.9	709.1	30.90	0.0440	189.7	1900.9	134.7	1766.2
710/70	36	9.5	708.3	70.9	779.2	32.40	0.0396	193.7	2094.9	134.7	1960.2
710/80	36	10.0	708.3	78.5	786.8	32.55	0.0396	210.3	2109.4	149.2	1960.2
740/80	36	10.5	739.6	86.6	826.2	33.35	0.0379	229.4	2211.4	164.5	2046.9
800/80	36	10.0	799.7	78.5	878.2	34.40	0.0351	215.5	2362.4	149.2	2213.2
800/85	36	10.5	799.8	86.6	886.4	34.55	0.0351	232.9	2377.9	164.5	2213.4
900/80	56	10.0	896.2	78.5	974.7	36.25	0.0315	221.1	2617.3	149.2	2492.3
950/80	56	10.0	956.0	78.5	1034.5	37.35	0.0295	224.5	2807.7	149.2	2658.5
1050/80	56	10.0	1057.6	78.5	1136.1	39.15	0.0267	230.4	3090.4	149.2	2941.2
1070/80	56	10.0	1069.2	78.5	1147.7	39.35	0.0264	231.1	3122.7	149.2	2973.4
1315/85	56	10.5	1315.4	86.6	1402.0	43.50	0.0214	262.6	3822.7	164.5	3658.2

Aluminum Conductor Composite Core

ACCC **US size**

ITEM	Nominal Area	Structure		Calculated Area			Out Dia.	DC Resistance	Rated tensile strength	Weight	Core weight	Al weight
	mm2	No of Al wire	Core Dia. mm	Al area mm^2	Core area mm^2	Total mm^2	mm	Ω/km (20℃)	kN	kg/km	kg/km	kg/km
PASADENA	150/28	16	5.97	154.49	28.0	182.5	15.65	0.1807	69.3	478.6	53.2	425.5
LINNET	220/28	16	5.97	220.63	28.0	248.6	18.29	0.1265	73.1	660.8	53.2	607.6
ORIOLE	220/40	16	7.11	224.14	39.7	263.8	18.82	0.1246	98.6	692.7	75.4	617.3
WACO	230/47	16	7.75	238.09	47.2	285.3	19.56	0.1173	115.5	745.3	89.6	655.7
LAREDO	270/40	16	7.11	272.90	39.7	312.6	20.50	0.1023	101.4	827.0	75.4	751.6
IRVING	310/60	16	8.76	313.74	60.3	374.0	22.40	0.0890	148.1	978.5	114.5	864.1
HAWK	310/40	16	7.11	313.18	39.7	352.9	21.79	0.0891	103.7	937.9	75.4	862.5
DOVE	360/47	18	7.75	365.06	47.2	412.2	23.55	0.0765	122.8	1095.0	89.6	1005.4
GROSBEAK	420/52	19	8.13	418.13	51.9	470.0	25.15	0.0668	136.1	1250.1	98.6	1151.5
LUBBOCK	460/60	22	8.76	458.62	60.3	518.9	26.42	0.0609	156.5	1377.5	114.5	1263.0
GALVESTON	510/60	22	8.76	509.34	60.3	569.6	27.69	0.0548	159.4	1517.2	114.5	1402.7
DRAKE	520/71	22	9.53	517.49	71.3	588.8	28.14	0.0542	183.7	1567.7	135.5	1425.2
CURLEW	520/87	22	10.54	537.09	87.2	624.3	28.96	0.0522	219.2	1652.2	165.8	1479.2
PLANO	540/60	36	8.76	548.42	60.3	608.7	28.63	0.0512	161.6	1632.3	114.5	1517.8
CORPUS CHRISTI	560/60	36	8.76	568.88	60.3	629.1	29.11	0.0493	162.8	1688.9	114.5	1574.4
ARLINGTON	580/71	36	9.53	592.90	71.3	664.2	29.90	0.0473	188.1	1776.4	135.5	1640.9
CARDINAL	620/60	36	8.76	626.90	60.3	687.2	30.43	0.0448	166.2	1849.4	114.5	1734.9
FORT WORTH	660/71	36	9.53	665.42	71.3	736.7	31.50	0.0422	192.2	1977.1	135.5	1841.5
EL PASO	680/60	36	8.76	689.83	60.3	750.1	31.80	0.0407	169.8	2023.6	114.5	1909.1
BEAUMONT	720/71	36	9.53	730.52	71.3	801.8	32.87	0.0384	196.0	2157.2	135.5	2021.7
SAN ANTONIO	750/75	36	9.78	752.88	75.1	828.0	33.40	0.0373	205.5	2226.3	142.7	2083.6
BITTERN	800/60	36	8.76	804.74	60.3	865.0	34.16	0.0349	176.4	2341.6	114.5	2227.1
DALLAS	910/75	56	9.78	933.42	75.1	1008.5	36.88	0.0302	215.9	2738.6	142.7	2595.8
HOUSTON	980/87	56	10.54	998.00	87.2	1085.2	38.25	0.0282	245.7	2941.2	165.8	2775.4
LAPWING	990/75	56	9.78	1006.58	75.1	1081.7	38.20	0.0280	220.1	2942.0	142.7	2799.3
FALCON	1040/87	56	10.54	1054.63	87.2	1141.9	39.24	0.0267	249.0	3098.7	165.8	2932.9
CHUKAR	1140/79	56	10.03	1150.93	79.0	1229.9	40.74	0.0245	236.8	3350.9	150.1	3200.7
BLUEBIRD	1390/87	56	10.54	1396.25	87.2	1483.5	44.75	0.0202	268.7	4048.7	165.8	3883.0

Aluminum Conductor Composite Core

ACCC **International size**

ITEM	Nominal Area	Structure		Calculated Area			Out Dia.	DC Resistance	Rated tensile strength	Weight	Core weight	Al weight
	mm2	No of Al wire	Core Dia. mm	Al area mm^2	Core area mm^2	Total mm^2	mm	Ω/km (20℃)	kN	kg/km	kg/km	kg/km
HELSINKI	150/28	16	5.97	154.49	28.0	182.5	15.65	0.1807	69.3	478.6	53.2	425.5
HAGEN	220/28	16	5.97	220.63	28.0	248.6	18.29	0.1265	73.1	660.8	53.2	607.6
REYKJAVIK	220/40	16	7.11	224.14	39.7	263.8	18.82	0.1246	98.6	692.7	75.4	617.3
MONTE CARLO	240/87	16	10.54	236.75	87.2	324.0	20.78	0.1179	201.9	817.8	165.8	652.0
GLASGOW	240/47	16	7.75	237.22	47.2	284.4	19.53	0.1177	115.5	742.9	89.6	653.3
CASABLANCA	270/40	16	7.11	272.90	39.7	312.6	20.50	0.1023	101.4	827.0	75.4	751.6
OSLO	310/60	16	8.76	313.74	60.3	374.0	22.40	0.0890	148.1	978.5	114.5	864.1
LISBON	310/40	16	7.11	313.18	39.7	352.9	21.79	0.0891	103.7	937.9	75.4	862.5
AMSTERDAM	365/47	18	7.75	365.06	47.2	412.2	23.55	0.0765	122.8	1095.0	89.6	1005.4
BRUSSELS	420/52	19	8.13	418.13	51.9	470.0	25.15	0.0668	136.1	1250.1	98.6	1151.5
STOCKHOLM 2L	460/60	22	8.76	457.45	60.3	517.7	26.39	0.0610	156.4	1374.3	114.5	1259.8
STOCKHOLM 3L	460/60	22	8.76	457.45	60.3	517.7	26.39	0.0613	156.4	1380.5	114.5	1259.8
WARSAW	510/60	22	8.76	510.16	60.3	570.4	27.71	0.0550	159.4	1526.4	114.5	1405.0
DUBLIN	520/71	22	9.53	517.49	71.3	588.8	28.14	0.0542	183.7	1567.7	135.5	1425.2
HAMBURG	550/60	36	8.76	548.42	60.3	608.7	28.63	0.0512	161.6	1632.3	114.5	1517.8
KOLKATA	540/71	36	9.53	538.03	71.3	609.4	28.63	0.0521	184.9	1624.5	135.5	1489.0
MILAN	570/60	36	8.76	568.88	60.3	629.1	29.11	0.0493	162.8	1688.9	114.5	1574.4
ROME	590/71	36	9.53	592.90	71.3	664.2	29.90	0.0473	188.1	1776.4	135.5	1640.9
VIENNA	630/60	36	8.76	626.90	60.3	687.2	30.43	0.0448	166.2	1849.4	114.5	1734.9
BUDAPEST	665/71	36	9.53	665.42	71.3	736.7	31.50	0.0422	192.2	1977.1	135.5	1841.5
PRAGUE	690/60	36	8.76	688.89	60.3	749.2	31.78	0.0407	169.7	2021.0	114.5	1906.5
MUMBAI	680/71	36	9.53	678.50	71.3	749.8	31.78	0.0413	193.0	2013.3	135.5	1877.7
MUNICH	730/71	36	9.53	729.06	71.3	800.4	32.84	0.0385	195.9	2153.2	135.5	2017.7
LONDON	750/75	36	9.78	752.88	75.1	828.0	33.40	0.0373	205.5	2226.3	142.7	2083.6
PARIS	800/60	36	8.76	804.74	60.3	865.0	34.16	0.0349	176.4	2341.6	114.5	2227.1
BORDEAUX	860/87	56	10.54	861.96	87.2	949.2	35.76	0.0327	237.9	2562.9	165.8	2397.1
ANTWERP	930/75	56	9.78	932.33	75.1	1007.4	36.86	0.0302	215.8	2735.5	142.7	2592.8
BERLIN	1000/87	56	10.54	995.18	87.2	1082.4	38.20	0.0283	245.6	2933.3	165.8	2767.6
MADRID	1000/87	56	10.54	995.18	87.2	1082.4	38.20	0.0283	245.6	2933.3	165.8	2767.6
ATHENS	1400/87	56	10.54	1396.25	87.2	1483.5	44.75	0.0202	268.7	4048.7	165.8	3883.0

COVERED LINE WIRE-ALUMINUM CONDUCTOR

1. Applications

Covered Line Wire is used primarily for 600V overhead secondary distribution lines. It is not an electrically insulated conductor and is treated as bare conductor when installed.

2. Construction

Conductors are aluminum alloy 1350-H19, 6201-T81, or ACSR conductors, concentrically stranded and covered for weather proofing with polyethylene, high density polyethylene (HDPE) or cross linked polyethylene (**XLPE**).

3. Standards

ASTM B-230, B-232 and B-399

ICEA S-61-402 and S-66-524

4. Note

The code words as given apply to conventional polyethylene line wire.

Available in 500 ft coils or long lengths on reels. The data is approximate and subject to normal manufacturing tolerances.

For 6201 aluminum conductors diameter equivalent to ACSR construction or 1350 aluminum equivalent.

Ampacity ratings based on 75℃ conductor temperature; 25℃ ambient temperature elevation sea level; Emissvity 0.91 coefficient of absorption 0.95; Wind speed 2ft./sec. in sun.

To determine current ampacity by conductor size, please consult The National Electric Code, latest edition.

COVERED LINE WIRE-ALUMINUM CONDUCTOR

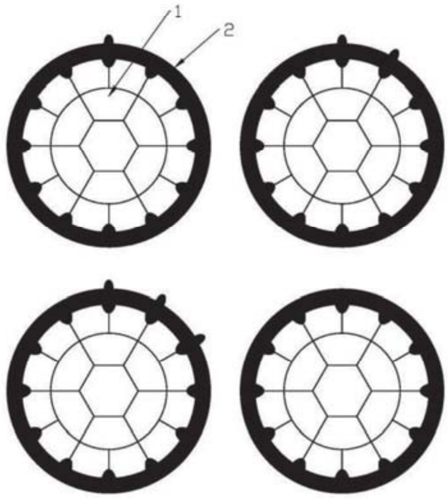
Code Name	Size	No. of Wires	Insulation Thickness	Nominal		Rated Strength	Nominal Weight				Ampacity
				Bare	OD		Aluminum	Total			
								LDPE	HDPE	XLPE	
	AWG or		mm	mm	mm	kg	Kg/km	Kg/km	Kg/km	Kg/km	A
AAC											
Plim	6	7	0.762	4.674	6.198	255	36.61	50.66	51.27	51.27	100
Apricot	4	7	0.762	5.715	7.239	400	58.19	75.57	76.33	76.33	135
Peach	2	7	1.143	7.417	9.703	612	92.56	126.09	127.55	127.55	180
Nectarine	1	7	1.143	8.433	11.481	789	116.67	167.31	169.52	169.52	210
Quince	1/0	7	1.524	9.347	12.395	903	147.48	203.70	206.14	206.14	240
Haw	1/0	19	1.524	9.474	12.522	980	147.48	204.49	206.96	206.96	240
Orange	2/0	7	1.524	11.786	14.834	1139	186.02	257.90	261.02	261.02	280
Lronwood	2/0	19	1.524	10.643	13.691	1211	186.02	250.41	253.21	253.21	280
Fig	3/0	7	1.524	13.259	16.307	1377	233.64	315.53	319.08	319.08	320
Lemon	3/0	19	1.524	11.938	14.986	1501	233.64	306.53	309.70	309.70	320
Olive	4/0	7	1.524	13.259	16.307	1728	296.12	378.04	381.58	381.58	370
Pomegranate	4/0	19	1.524	13.411	16.459	1823	296.12	379.09	382.69	382.69	370
Sassafras	250	19	1.524	14.580	17.628	2043	348.68	439.88	443.84	443.84	420
Mulberry	266.8	19	1.524	14.605	17.653	2182	372.19	463.59	467.55	467.55	460
Basswood	300	19	1.524	15.951	18.999	2404	419.66	520.91	525.30	525.30	478
Anona	336.4	19	1.524	16.916	19.964	2697	469.51	578.04	582.75	582.75	795
Chinquapin	350	19	1.524	17.221	20.269	2790	488.12	598.98	603.79	603.79	525
Molles	397.5	19	2.032	18.390	22.454	3123	555.06	707.29	713.88	713.88	550
Sumac	450	37	2.032	19.609	23.673	3719	628.00	791.79	798.89	798.89	600
Huckleberry	477	37	2.032	20.193	24.257	3810	665.21	834.63	841.98	841.98	610
AAAC											
Maple	6	7	0.762	5.029	6.553	503	42.41	59.53	61.01	61.01	78
Hornbeam	4	7	0.762	6.350	7.874	798	67.56	89.29	90.78	90.78	145
Linden	2	7	1.143	8.026	10.312	1270	107.44	147.33	147.33	147.33	190
Oilnut	1/0	7	1.524	8.839	11.887	2023	170.99	238.11	247.03	247.03	250
Watcrash	2/0	7	1.524	11.354	14.402	2445	215.63	291.68	302.01	302.01	290
Shellbark	3/0	7	1.524	12.751	15.799	3080	271.59	358.65	370.55	370.55	335
Planetree	4/0	7	1.524	14.300	17.348	3883	342.57	443.47	456.86	456.86	385
ACSR											
Walnut	6	6/1	0.762	5.029	6.553	540	36.46	69.94	71.43	71.43	105
Butternut	4	6/1	0.762	6.350	7.874	844	58.04	107.15	107.15	108.64	135
Hickory	4	7/1	0.762	6.528	8.052	1070	58.04	120.54	122.03	123.52	135
Pignut	2	6/1	1.143	8.026	10.312	1293	92.27	175.60	177.09	178.58	180
Beech	2	7/1	1.143	8.357	10.643	1651	92.27	199.41	199.41	202.39	180
Chestnut	1	6/1	1.143	13.970	11.303	1610	116.37	217.27	218.76	220.25	210
Almond	1/0	6/1	1.524	10.109	13.157	1987	146.73	282.75	284.24	287.21	235
Pecan	2/0	6/1	1.524	11.354	14.402	2404	184.98	348.23	349.72	349.72	290
Filbert	3/0	6/1	1.524	12.751	15.799	3003	233.34	430.08	433.05	437.52	305
Buckeye	4/0	6/1	1.524	14.300	17.348	3787	294.21	531.27	535.74	540.20	345
Hackberry	266.8	18/1	1.524	15.469	18.517	3121	372.63	525.32	528.30	534.25	356

LV-ABC 0.6/1 kV

LOW VOLTAGE AERIAL BUNCHED CABLE, 1, 2, 3 & 4 CORES, ALUMINIUM CONDUCTOR XLPE INSULATED

Standards: TCVN 6447, AS 3560

- **Construction:** Al/XLPE
  - (1) Conductor: Stranded compacted circular aluminium
  - (2) Insulation: XLPE
- **Cable identification:** by ribs on black insulation
  - For 2 cores cable
    - Phase core: 1 rib
    - Neutral core: not less than 10 ribs or no rib
  - For 3 cores cable
    - Phase 1: 1 rib
    - Phase 2: 2 ribs
    - Neutral core: not less than 10 ribs or no rib
  - For 4 cores cable
    - Phase 1: 1 rib
    - Phase 2: 2 ribs
    - Phase 3: 3 ribs
    - Neutral core: not less than 10 ribs or no rib



- **Characteristics:**
  - Rated voltage (U_o/U): 0.6/1kV
  - Max. conductor temperature in normal operation: 90℃
  - Max. conductor temperature in short-circuit for 5s max duration: 250℃
  - Min. bend radius: 8 x D (D: overall diameter of cable)

Nominal cross section area	Diameter of conductor	Nominal insulation thickness	Break load 1 core	Approx. overall diameter				DC resistance of conductor at 20℃	Approx. mass of cable			
				1C	2C	3C	4C		1C	2C	3C	4C
mm²	mm	mm	kN	mm				Ω/km	kg/km			
16	4.75	1.3	2.2	7.4	14.7	15.9	17.8	1.910	66	133	199	265
25	5.85	1.3	3.5	8.5	16.9	18.3	20.4	1.200	96	193	289	386
35	6.90	1.3	4.9	9.5	19.0	20.5	23.0	0.868	126	252	379	505
50	8.15	1.5	7.0	11.2	22.3	24.1	27.0	0.641	177	355	533	711
70	9.75	1.5	9.8	12.8	25.5	27.5	30.9	0.443	234	469	704	938
95	11.45	1.7	13.3	14.9	29.7	32.1	35.9	0.320	321	644	966	1,288
120	12.85	1.7	16.8	16.3	32.5	35.1	39.3	0.253	387	778	1,167	1,555
150	14.30	1.7	21.0	17.7	35.4	38.2	42.8	0.206	481	965	1,447	1,930
185	15.95	2.0	25.9	20.0	39.9	43.1	48.3	0.164	601	1,207	1,810	2,413
240	18.25	2.2	33.6	22.7	45.3	48.9	54.8	0.125	783	1,572	2,357	3,145

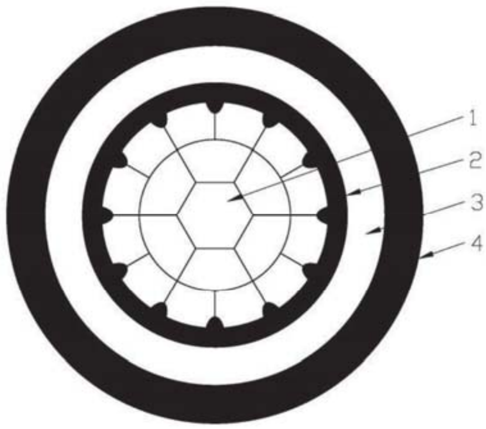
* Besides the above mentioned list we can also provide other sizes depending on customer's requirement

MV-SAC 6.35/11(12) kV

SPACED AERIAL CABLE, SINGLE-CORE, ALUMINIUM CONDUCTOR, XLPE INSULATED, HDPE OR PVC SHEATHED

Standards: IEC 60228, IEC 60502-2

- **Construction:** AL/SC/XLPE/HDPE or AL/SC/XLPE/PVC
  (1) Conductor: Aluminum (class 2, compacted circular)
  (2) Conductor screen: Semi-conductive compound
  (3) Insulation: XLPE
  (4) Outer sheath: HDPE or PVC



- **Cable identification:**
  - Insulation: Natural color of XLPE
  - Outer sheath: Black
- **Characteristics:**
  - Rated voltage: 6.35/11(12)kV
  - Max. conductor temperature in normal use: 90℃
  - Min. bend radius: 8 x D (D: overall diameter of cable)

Nominal area	Diameter of conductor	Nominal thickness of insulation	Nominal thickness of outer sheath	Overall diameter	DC resistance of conductor at 20℃	Approx. weight PVC sheathed
mm²	mm	mm	mm	mm	Ω/km	kg/km
25	5.85	3.4	1.5	17.2	1.200	306
35	6.90	3.4	1.5	18.4	0.868	356
50	8.15	3.4	1.6	19.7	0.641	426
70	9.75	3.4	1.6	21.4	0.443	513
95	11.45	3.4	1.7	23.2	0.320	625
120	12.85	3.4	1.7	24.7	0.253	720
150	14.30	3.4	1.8	26.3	0.206	842
185	15.95	3.4	1.8	28.0	0.164	979
240	18.25	3.4	1.9	30.5	0.125	1205

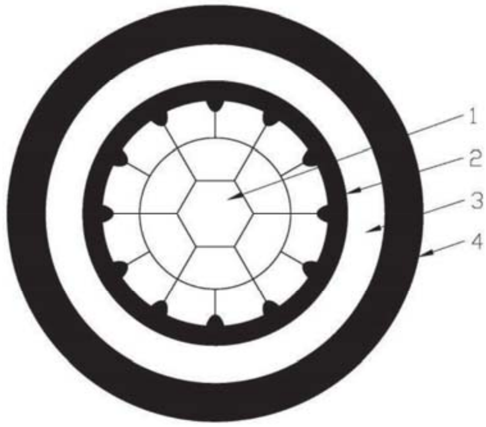
*Besides above list we can also provide others size depend on customer's requirement

MV-SAC 8.7/15(17.5) kV

SPACED AERIAL CABLE, SINGLE-CORE, ALUMINIUM CONDUCTOR, XLPE INSULATED, HDPE OR PVC SHEATHED

Standards: IEC 60228, IEC 60502-2

- **Construction:** AL/SC/XLPE/HDPE or AL/SC/XLPE/PVC
  - (1) Conductor: Aluminum (class 2, compacted circular)
  - (2) Conductor screen: Semi-conductive compound
  - (3) Insulation: XLPE
  - (4) Outer sheath: HDPE or PVC
- **Cable identification:**
  - Insulation: Natural color of XLPE
  - Outer sheath: Black
- **Characteristics:**
  - Rated voltage: 8.7/15(17.5)kV
  - Max. conductor temperature in normal use: 90℃
  - Min. bend radius: 8 x D (D: overall diameter of cable)



Nominal area	Diameter of conductor	Nominal thickness of insulation	Nominal thickness of outer sheath	Overall diameter	DC resistance of conductor at 20℃	Approx. weight PVC sheathed
mm^2	mm	mm	mm	mm	Ω/km	kg/km
25	5.85	4.5	1.6	19.6	1.200	377
35	6.90	4.5	1.6	20.7	0.868	432
50	8.15	4.5	1.7	22.1	0.641	506
70	9.75	4.5	1.7	23.8	0.443	599
95	11.45	4.5	1.8	25.6	0.320	718
120	12.85	4.5	1.8	27.1	0.253	818
150	14.30	4.5	1.9	28.6	0.206	947
185	15.95	4.5	1.9	30.4	0.164	1090
240	18.25	4.5	2.0	32.8	0.125	1325

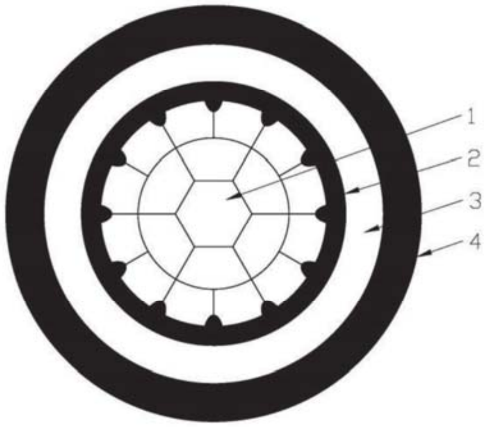
*Besides above list we can also provide others size depend on customer’s requirement

MV-SAC 19/33(36) kV

SPACED AERIAL CABLE, SINGLE-CORE, ALUMINIUM CONDUCTOR, XLPE INSULATED, HDPE OR PVC SHEATHED

Standards: IEC 60228, IEC 60502-2

- **Construction:** AL/SC/XLPE/HDPE or AL/SC/XLPE/PVC
  - (1) Conductor: Aluminum (class 2, compacted circular)
  - (2) Conductor screen: Semi-conductive compound
  - (3) Insulation: XLPE
  - (4) Outer sheath: HDPE or PVC
- **Cable identification:**
  - Insulation: Natural color of XLPE
  - Outer sheath: Black
- **Characteristics:**
  - Rated voltage: 19/33(36)kV
  - Max. conductor temperature in normal use: 90℃
  - Min. bend radius: 8 x D (D: overall diameter of cable)



Nominal area	Diameter of conductor	Nominal thickness of insulation	Nominal thickness of outer sheath	Overall diameter	DC resistance of conductor at 20℃	Approx. weight PVC sheathed
mm²	mm	mm	mm	mm	Ω/km	kg/km
25	5.85	8.0	1.8	27.1	1.200	662
35	6.90	8.0	1.9	28.2	0.868	729
50	8.15	8.0	1.9	29.5	0.641	820
70	9.75	8.0	1.9	31.2	0.443	932
95	11.45	8.0	2.0	33.1	0.320	1072
120	12.85	8.0	2.1	34.6	0.253	1190
150	14.30	8.0	2.1	36.1	0.206	1337
185	15.95	8.0	2.2	37.9	0.164	1501
240	18.25	8.0	2.2	40.3	0.125	1764

*Besides above list we can also provide others size depend on customer's requirement

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

<table>
<tr><th colspan="2">型号 Type</th><th rowspan="2">名称
Description</th><th rowspan="2">使用范围
Main applications</th></tr>
<tr><th>铜芯
Cu</th><th>铝芯
Al</th></tr>
<tr><td>YJV</td><td>YJLV</td><td>铜芯或铝芯交联聚乙烯绝缘聚氯乙烯护套电力电缆
Cu or Al conductor XLPE insulated PVC sheathed power cable</td><td rowspan="2">适用于室内敷设，可经受一定的敷设牵引，但不能承受机械外力作用的场合。单芯电缆不允许敷设在磁性管道中。

For laying indoor and outdoor, unable to bear external mechanical force but the tractive force during laying. Laying single core cable in magnetic duct is not permissible</td></tr>
<tr><td>YJY</td><td>YJLY</td><td>铜芯或铝芯交联聚乙烯绝缘聚乙烯护套电力电缆
Cu of Al conductor XLPE insulated PE sheathed power cable</td></tr>
<tr><td>YJV22</td><td>YJLV22</td><td>铜芯或铝芯交联聚乙烯绝缘钢带铠装聚氯乙烯护套电力电缆
Cu of Al conductor XLPE insulated steel tape armored PVC sheathed power cable</td><td rowspan="2">适用于埋地敷设，能承受机械外力作用，但不能承受大的拉力。

For laying underground, able to bear external mechanical force, but unable to bear large pulling force</td></tr>
<tr><td>YJV23</td><td>YJLV23</td><td>铜芯或铝芯交联聚乙烯绝缘钢带铠装聚乙烯护套电力电缆
Cu of Al conductor XLPE insulated steel tape armored PE sheathed power cable</td></tr>
<tr><td>YJV32</td><td>YJLV32</td><td>铜芯或铝芯交联聚乙烯绝缘细钢丝铠装聚氯乙烯护套电力电缆
Cu or Al conductor XLPE insulated steel wire armored PVC sheathed power cable</td><td rowspan="4">适用于高落差地区，能承受机械外力和相当的拉力。

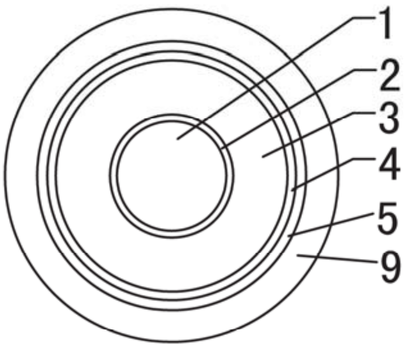
For laying underground along route with different level, able to bear external mechanical force and moderate pulling force.</td></tr>
<tr><td>YJV33</td><td>YJLV33</td><td>铜芯或铝芯交联聚乙烯绝缘细钢丝铠装聚乙烯护套电力电缆
Cu or Al conductor XLPE insulated steel wire armored PE sheathed power cable</td></tr>
<tr><td>YJV42</td><td>YJLV42</td><td>铜芯或铝芯交联聚乙烯绝缘粗钢丝铠装聚氯乙烯护套电力电缆
Cu or Al conductor XLPE insulated thick wire armored PVC sheathed power cable</td></tr>
<tr><td>YJV43</td><td>YJLV43</td><td>铜芯或铝芯交联聚乙烯绝缘粗钢丝铠装聚乙烯护套电力电缆
Cu or Al conductor XLPE insulated thick wire armored PE sheathed power cable</td></tr>
</table>

注：单芯钢带铠装电缆只允许用于直流供电系统；若用于交流线路，可采用铝线等铠装形式。

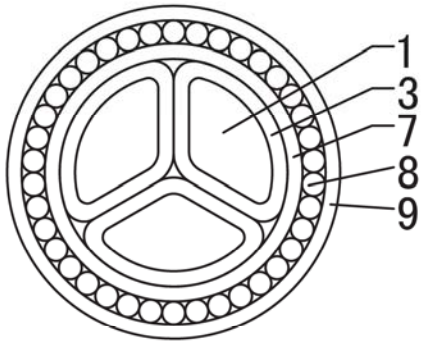
Remark: Steel tape armoured single-core cables are used only in D.C. power suppy system. If they are used in A.C. power supply system, aluminum wires or other types of armour are adopted.

产品结构示意图

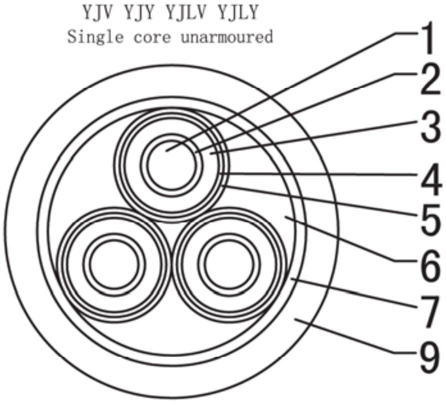
Constructed Profiles of the Products



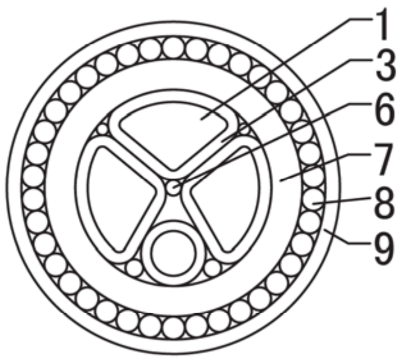
3.6/6kV 及以上单芯无铠装电缆
YJV YJY YJLV YJLY
Single core unarmoured



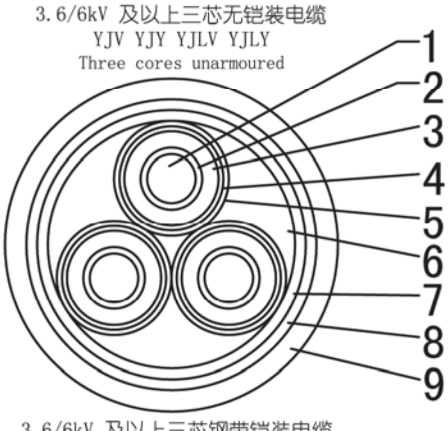
3.6/6kV 及以下三芯圆钢丝铠装电缆
YJV32 YJY32 YJLV32 YJLY32
Three cores steel wire armoured



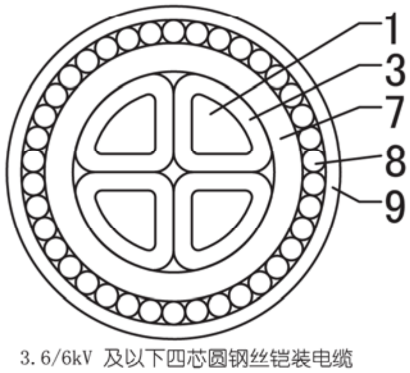
3.6/6kV 及以上三芯无铠装电缆
YJV YJY YJLV YJLY
Three cores unarmoured



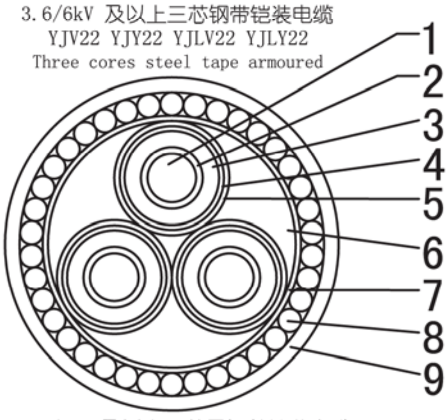
3.6/6kV 及以下3+1芯圆钢丝铠装电缆
YJV32 YJY32 YJLV32 YJLY32
3+0 cores steel wire armoured



3.6/6kV 及以上三芯钢带铠装电缆
YJV22 YJY22 YJLV22 YJLY22
Three cores steel tape armoured



3.6/6kV 及以下四芯圆钢丝铠装电缆
YJV32 YJY32 YJLV32 YJLY32
Four cores steel wire armoured



3.6/6kV 及以上三芯圆钢丝铠装电缆
YJV32 YJY32 YJLV32 YJLY32
YJV42 YJY42 YJLV42 YJLY42
Three cores steel wire armoured

1. 导体	1. Conductor
2. 导体屏蔽	2. Conductor Screen
3. 交联聚乙烯绝缘	3. XLPE Insulation
4. 绝缘屏蔽	4. Insulation Screen
5. 金属屏蔽	5. Metallic Screen
6. 填充	6. Filler
7. 隔离带（内护层）	7. Seperating Sheath (Inner Covering)
8. 铠装	8. Armour
9. 外护套	9. Oversheath

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

表 8 0.6/1kV 三大一小交联聚乙烯绝缘聚氯乙烯护套电力电缆
Table8 0.6/1kV (3+1)-Core XLPE Insulated PVC Sheathed Power Cables

芯数X截面 Core X Cross Section	绝缘标称厚度 Nom. Insulation Thickness	铠装钢带厚度 Thickness of Steel Tape	铠装钢丝直径 Dia. of Steel Wire	护套标称厚度 Nom. Sheath Thickness (mm)			电缆参考外径 Dia. of Cable (Approx) (mm)			电缆重量（非阻燃型）近似值 Cable weight (Approx) (kg/km)						20℃导体最大直流电阻 Max.D.C. Resistance of Conductor at 20℃ (Ω/km)		电缆载流量 Current Rating (A) 土壤敷设 Direct in Ground		空气敷设 Run in Air	
(mm²)	(mm)	(mm)	(mm)	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV	YJLV	YJV 22	YJLV 22	YJV 32	YJLV 32	铜 Cu	铝 Al	铜芯 Cu	铝芯 Al	铜芯 Cu	铝芯 Al
3x1.5+ 1x1.0	0.7 0.7	0.2	0.8	1.8	1.8	1.8	11	14	14	145	--	243	--	336	--	12.1 18.1	-- --	27	--	20	--
3x2.5+ 1.x1.5	0.7 0.7	0.2	0.8	1.8	1.8	1.8	12	14	15	191	135	293	237	392	336	7.41 12.1	12.1 18.1	35	27	26	20
3x4+ 1x2.5	0.7 0.7	0.2	1.25	1.8	1.8	1.8	13	15	17	255	165	365	276	591	501	4.61 7.41	7.41 12.1	45	36	34	27
3x6+ 1x4	0.7 0.7	0.2	1.25	1.8	1.8	1.8	14	17	18	338	203	459	324	706	571	3.08 4.61	4.61 7.41	57	46	43	35
3x10+ 1x6	0.7 0.7	0.2	1.25	1.8	1.8	1.8	17	19	21	498	277	638	417	928	708	1.93 3.08	3.08 4.61	77	59	60	47
3x16+ 1x10	0.7 0.7	0.2	1.6	1.8	1.8	1.8	19	22	24	732	376	892	536	1365	1009	1.15 1.83	1.94 3.08	105	80	83	64
3x25+ 1x16	0.9 0.7	0.2	1.6	1.8	1.8	1.8	23	25	28	1097	539	1285	726	1847	1289	0.727 1.15	1.20 1.91	125	100	105	82
3x35+ 1x16	0.9 0.7	0.2	1.6	1.8	1.8	1.8	25	27	30	1392	651	1594	853	2199	1457	0.524 1.15	0.868 1.91	155	120	125	100
3x50+ 1x25	1.0 0.9	0.2	1.6	1.8	1.9	2.0	28	31	34	1910	867	2150	1107	2852	1809	0.387 0.727	0.641 1.20	185	145	160	125
3x70+ 1x35	1.1 0.9	0.2	2.0	1.9	2.0	2.1	33	36	39	2650	1168	2925	1443	3992	2510	0.268 0.524	0.443 0.868	225	175	200	155
3x95+ 1x50	1.1 1.0	0.2	2.0	2.1	2.2	2.3	37	42	44	3579	1530	4316	2267	5139	3090	0.193 0.387	0.32 0.641	270	210	245	200
3x120+ 1x70	1.2 1.1	0.2	2.5	2.2	2.3	2.4	41	46	49	4550	1921	5368	2740	6736	4107	0.153 0.263	0.253 0.443	310	240	285	220
3x150+ 1x70	1.4 1.1	0.5	2.5	2.3	2.5	2.6	45	50	53	5442	2283	6326	3167	7801	4642	0.124 0.263	0.206 0.443	345	270	325	250
3x185+ 1x95	1.6 1.1	0.5	2.5	2.5	2.6	2.7	50	55	58	6849	2858	7846	3855	9476	5485	0.0991 0.193	0.164 0.32	390	305	375	295
3x240+ 1x120	1.7 1.2	0.5	2.5	2.7	2.8	2.9	56	61	65	8838	3633	9949	4745	11767	6563	0.0754 0.153	0.125 0.253	450	355	440	345
3x300+ 1x150	1.8 1.4	0.5	2.5	2.9	3.0	3.1	62	67	70	10964	4457	12815	5678	14155	7648	0.0601 0.124	0.100 0.206	515	400	505	395
3x40+ 1x185	2.0 1.6	0.5	3.15	3.1	3.3	3.4	70	75	79	13997	5655	15362	7021	18463	10122	0.047 0.0991	0.0778 0.164	588	459	586	467
3x500+ 1x240	2.2 1.7	0.5	3.15	3.4	3.5	3.6	78	83	88	17850	7145	19371	8665	22859	12153	0.0366 0.0754	0.0605 0.125	666	526	680	544

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

表 16　6/6、6/10kV 单芯交联聚乙烯绝缘聚氯乙烯护套电力电缆
Table16 6/6、6/10kV Single-Core XLPE Insulated PVC Sheathed Power Cables

芯数 X 截面 Core X Cross Section	绝缘标称厚度 Nom. Insulation Thickness	铠装钢带厚度 Thickness of Steel Tape	铠装钢丝直径 Dia. of Steel Wire (mm)		护套标称厚度 Nom. Sheath Thickness (mm)				电缆参考外径 Dia. of Cable (Approx) (mm)				电缆重量（非阻燃型）近似值 Cable weight (Approx) (kg/km)								20℃导体最大直流电阻 Max.D.C. Resistance of Conductor at 20℃ (Ω/km)		电缆载流量 Current Rating (A) 土壤敷设 Direct in Ground		空气敷设 Run in Air	
(mm²)	(mm)	(mm)	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV	YJLV	YJV 22	YJLV 22	YJV 32	YJLV 32	YJLV 42	YJLV 42	铜 Cu	铝 Al	铜芯 Cu	铝芯 Al	铜芯 Cu	铝芯 Al
1x25	3.4	0.2	1.6	4.0	1.6	1.8	1.8	2.0	20	24	26	33	596	443	872	719	1407	1254	2816	2663	0.727	1.20	160	120	165	130
1x35	3.4	0.2	1.6	4.0	1.6	1.8	1.8	2.0	21	25	27	34	714	501	1000	786	1564	1350	3050	2837	0.524	0.868	190	145	205	155
1x50	3.4	0.2	1.6	4.0	1.7	1.8	1.9	2.1	23	26	29	36	873	577	1170	875	1764	1469	3328	3032	0.387	0.641	225	175	245	190
1x70	3.4	0.2	1.6	4.0	1.7	1.8	1.9	2.1	25	28	31	37	1106	685	1425	1004	2059	1638	3686	3265	0.268	0.443	275	215	305	235
1x95	3.4	0.2	1.6	4.0	1.8	1.9	2.0	2.2	26	30	32	39	1392	810	1733	1151	2423	1841	4198	3617	0.193	0.320	330	255	370	290
1x120	3.4	0.2	2.0	4.0	1.8	1.9	2.1	2.2	28	31	35	41	1657	923	2015	1282	2970	2237	4583	3850	0.153	0.253	375	290	430	335
1x150	3.4	0.2	2.0	4.0	19	2.0	2.2	2.3	29	33	36	42	1955	1045	2332	1422	3330	2421	5002	4092	0.124	0.206	425	330	490	380
1x185	3.4	0.2	2.0	4.0	1.9	2.0	2.2	2.3	31	34	38	44	2326	1193	2723	1590	3790	2657	5495	4362	0.0991	0.164	480	370	560	435
1x240	3.4	0.5	2.0	4.0	2.0	2.2	2.3	2.4	34	38	40	46	2915	1430	3642	2157	4473	2988	6320	4834	0.0754	0.125	555	435	665	515
1x300	3.4	0.5	2.0	4.0	2.1	2.2	2.4	2.5	36	41	43	49	3527	1667	4302	2442	5178	3318	7062	5202	0.0601	0.1000	630	490	765	595
1x400	3.4	0.5	2.5	4.0	2.2	2.3	2.5	2.6	39	44	47	52	4403	2007	5264	2869	6646	4251	8180	5785	0.047	0.0778	725	565	890	695
1x500	3.4	0.5	2.5	4.0	2.3	2.4	2.7	2.7	43	47	51	55	5504	2440	6441	3377	7935	4871	9631	6567	0.0366	0.0605	825	650	1030	810
1x630	3.4	0.5	2.5	4.0	2.4	2.6	28	2.8	46	52	55	59	6918	2962	7962	4007	9602	5647	11398	7443	0.0283	0.0469	940	745	1190	950
1x800	3.4	0.5	2.5	4.0	2.5	2.7	2.9	2.9	51	56	59	63	8650	--	9813	--	11595	--	13385	--	0.0221	--	1050	--	1370	--

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

表 17　6/6、6/10kV 三芯交联聚乙烯绝缘聚氯乙烯护套电力电缆

Table17 6/6、6/10kV Three-Core XLPE Insulated PVC Sheathed Power Cables

芯数 X 截面 Core X Cross Section	绝缘标称厚度 Nom. Insulation Thickness	铠装钢带厚度 Thickness of Steel Tape	铠装钢丝直径 Dia. of Steel Wire (mm)		护套标称厚度 Nom. Sheath Thickness (mm)				电缆参考外径 Dia. of Cable (Approx) (mm)				电缆重量（非阻燃型）近似值 Cable weight (Approx) (kg/km)								20℃ 导体最大直流电阻 Max.D.C. Resistance of Conductor at 20℃ (Ω/km)		电缆载流量 Current Rating (A) 土壤敷设 Direct in Ground		电缆载流量 Current Rating (A) 空气敷设 Run in Air	
(mm²)	(mm)	(mm)	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV	YJLV	YJV 22	YJLV 22	YJV 32	YJLV 32	YJLV 42	YJLV 42	铜 Cu	铝 Al	铜芯 Cu	铝芯 Al	铜芯 Cu	铝芯 Al
3x25	3.4	0.5	2.0	4.0	2.2	2.4	2.5	2.6	40	45	49	53	1880	1421	2853	2393	4192	3743	5719	5260	0.727	1.20	125	100	120	90
3x35	3.4	0.5	2.5	4.0	2.3	2.4	2.5	2.7	43	48	51	56	2283	1641	3308	2667	4693	4063	6355	5714	0.524	0.868	155	120	140	110
3x50	3.4	0.5	2.5	4.0	2.4	2.5	2.6	2.8	46	51	54	59	2865	1978	3986	3099	5483	4608	7179	6290	0.387	0.641	180	140	165	130
3x70	3.4	0.5	2.5	4.0	2.5	2.7	2.8	2.9	50	55	58	63	3595	2331	4838	3573	6471	5221	8264	7000	0.268	0.443	220	170	210	165
3x95	3.4	0.5	2.5	4.0	2.6	2.8	2.9	3.0	54	59	62	67	4528	2780	5864	4115	7598	5866	9552	7803	0.193	0.320	265	210	255	200
3x120	3.4	0.5	2.5	4.0	2.7	2.9	3.0	3.1	57	63	66	70	5331	3127	6775	4571	8617	6431	10598	8394	0.153	0.253	300	235	290	225
3x150	3.4	0.5	2.5	4.0	2.8	3.0	3.1	3.2	60	66	69	73	6298	3564	7820	5086	9774	7060	11809	9075	0.124	0.206	340	260	330	255
3x185	3.4	0.5	2.5	4.0	2.9	3.1	3.2	3.4	64	69	73	76	7490	4086	9131	5727	11190	7808	13350	9946	0.0991	0.164	380	300	375	295
3x240	3.4	0.5	3.15	4.0	3.1	3.3	3.5	3.5	69	75	80	82	9377	4913	11192	6728	14355	9916	15712	11249	0.0754	0.125	435	345	435	345
3x300	3.4	0.5	3.15	4.0	3.3	3.5	3.6	3.7	75	81	85	87	11204	5615	13198	7609	16595	11033	17912	12323	0.0601	0.1000	485	390	495	390
3x400	3.4	0.8	3.15	4.0	3.5	3.7	3.9	3.9	81	89	92	94	13934	6736	17012	9814	19821	12655	21235	14037	0.047	0.0778	558	446	569	445
3x500	3.4	0.8	3.15	4.0	3.7	3.9	4.1	4.1	89	97	102	102	17394	8187	20807	11600	25448	16241	25448	16241	0.0366	0.0605	635	513	659	518
3x630	3.4	0.8	3.15	4.0	3.9	4.2	4.3	4.4	97	106	111	111	21756	9871	25580	13695	30625	18739	30625	18739	0.0283	0.0469	723	588	761	608

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

表 22　18/30kV 单芯交联聚乙烯绝缘聚氯乙烯护套电力电缆

Table22 18/30kV Single-Core XLPE Insulated PVC Sheathed Power Cables

芯数 X 截面 Core X Cross Section	绝缘标称厚度 Nom. Insulation Thickness	铠装钢带厚度 Thickness of Steel Tape	铠装钢丝直径 Dia. of Steel Wire (mm)		护套标称厚度 Nom. Sheath Thickness (mm)				电缆参考外径 Dia. of Cable (Approx) (mm)				电缆重量（非阻燃型）近似值 Cable weight (Approx) (kg/km)								20℃ 导体最大直流电阻 Max.D.C. Resistance of Conductor at 20℃ (Ω/km)		电缆载流量 Current Rating (A) 土壤敷设 Direct in Ground		电缆载流量 Current Rating (A) 空气敷设 Run in Air	
(mm²)	(mm)	(mm)	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV	YJLV	YJV 22	YJLV 22	YJV 32	YJLV 32	YJLV 42	YJLV 42	铜 Cu	铝 Al	铜芯 Cu	铝芯 Al	铜芯 Cu	铝芯 Al
1x50	8.0	0.5	2.0	4.0	2.0	2.1	2.2	2.4	33	38	40	46	1389	1093	2114	1818	2946	2651	4689	4394	0.387	0.641	225	175	245	190
1x70	8.0	0.5	2.0	4.0	2.0	2.2	2.3	2.5	35	40	42	48	1653	1232	2416	1995	3300	2879	5180	4760	0.268	0.443	275	215	305	235
1x95	8.0	0.5	2.0	4.0	2.1	2.3	2.3	2.5	37	42	44	50	1970	1388	2770	2188	3680	3098	5621	5039	0.193	0.320	330	255	370	285
1x120	8.0	0.5	2.5	4.0	2.1	2.3	2.4	2.6	39	43	47	51	2259	1525	3112	2379	4499	3765	6031	5297	0.153	0.253	375	290	425	330
1x150	8.0	0.5	2.5	4.0	2.2	2.4	2.5	2.6	40	45	48	53	2582	1672	3467	2557	4874	3964	6475	5565	0.124	0.206	420	325	485	375
1x185	8.0	0.5	2.5	4.0	2.2	2.4	2.5	2.7	42	47	50	54	2980	1848	3899	2766	5365	4232	6995	5862	0.0991	0.164	475	370	555	430
1x240	8.0	0.5	2.5	4.0	2.3	2.5	2.6	2.7	44	49	53	57	3612	2127	4610	3125	6159	4673	7862	6376	0.0754	0.125	555	430	650	505
1x300	8.0	0.5	2.5	4.0	2.4	2.6	2.7	2.8	47	52	55	59	4263	2403	5311	3451	6949	5089	8746	6886	0.0601	0.1000	630	490	745	580
1x400	8.0	0.5	2.5	4.0	2.5	2.7	2.8	2.9	50	55	58	63	5194	2799	6338	3942	8092	5696	9920	7525	0.047	0.0778	720	565	870	680
1x500	8.0	0.5	2.5	4.0	2.6	2.8	2.9	3.0	53	58	61	66	6317	3253	7531	4466	9362	6298	11286	8222	0.0366	0.0605	825	645	1000	790
1x630	8.0	0.5	2.5	4.0	2.7	2.9	3.0	3.1	57	62	65	70	7792	3837	9121	5166	11099	7144	13114	9159	0.0283	0.0469	940	740	1160	920
1x800	8.0	0.5	2.5	4.0	2.8	3.0	3.1	3.3	61	67	70	74	9588	--	11044	--	13164	--	15267	--	0.0221	--	1060	845	1330	1060

交联聚乙烯绝缘电力电缆
XLPE Insulated Power Cable

表 23　18/30kV 三芯交联聚乙烯绝缘聚氯乙烯护套电力电缆

Table23 18/30kV Three-Core XLPE Insulated PVC Sheathed Power Cables

芯数 X 截面 Core X Cross Section	绝缘标称厚度 Nom. Insulation Thickness	铠装钢带厚度 Thickness of Steel Tape	铠装钢丝直径 Dia. of Steel Wire (mm)		护套标称厚度 Nom. Sheath Thickness (mm)				电缆参考外径 Dia. of Cable (Approx) (mm)				电缆重量（非阻燃型）近似值 Cable weight (Approx) (kg/km)								20℃导体最大直流电阻 Max.D.C. Resistance of Conductor at 20℃ (Ω/km)		电缆载流量 Current Rating (A)			
																							土壤敷设 Direct in Ground		空气敷设 Run in Air	
(mm²)	(mm)	(mm)	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV YJLV	YJV22 YJLV22	YJV32 YJLV32	YJV42 YJLV42	YJV	YJLV	YJV 22	YJLV 22	YJV 32	YJLV 32	YJLV 42	YJLV 42	铜 Cu	铝 Al	铜芯 Cu	铝芯 Al	铜芯 Cu	铝芯 Al
3x50	8.0	0.5	3.15	4.0	3.1	3.3	3.4	3.5	69	75	80	82	4792	3905	6612	5725	9771	8884	11129	10241	0.387	0.641	180	140	165	130
3x70	8.0	0.5	3.15	4.0	3.2	3.4	3.5	3.6	73	79	84	86	5548	4283	7509	6244	10860	9595	12137	10872	0.268	0.443	220	170	210	165
3x95	8.0	0.8	3.15	4.0	3.3	3.5	3.7	3.7	77	83	88	90	6579	4831	8641	6892	12125	10376	13522	11774	0.193	0.320	265	210	255	196
3x120	8.0	0.5	3.15	4.0	3.4	3.7	3.8	3.8	80	88	92	93	7463	5259	10511	8307	13299	11095	14650	12446	0.153	0.253	300	235	286	221
3x150	8.0	0.5	3.15	4.0	3.5	3.8	3.9	3.9	84	91	95	96	8491	5757	11656	8922	14556	11822	16024	13290	0.124	0.206	336	256	326	251
3x185	8.0	0.5	4.0	4.0	3.6	3.9	4.1	4.1	87	95	100	100	9707	6303	13045	9641	17530	14126	17530	14126	0.0991	0.164	376	300	371	291
3x240	8.0	0.8	4.0	4.0	3.8	4.1	4.2	4.2	93	101	106	106	11694	7230	15285	10821	20042	15578	20042	15578	0.0754	0.125	435	341	425	338
3x300	8.0	0.8	4.0	4.0	4.0	4.2	4.4	4.4	98	106	111	111	13740	8151	17573	11984	22612	17023	22612	17023	0.0601	0.1000	485	390	482	380
3x400	8.0	0.8	4.0	4.0	4.2	4.5	4.6	4.6	104	113	118	118	16636	9438	20777	13579	26164	18966	26164	18966	0.047	0.0778	554	446	556	435
3x500	8.0	0.8	4.0	4.0	4.4	4.7	--	--	111	120	--	--	20211	11004	24680	15473	--	--	--	--	0.0366	0.0605	635	509	640	505

AERIAL BOUNDED CABLE
DUPLEX SERVICE DROP-ALUMINUM CONDUCTOR

1. Application

To supply 120 volt aerial service for temporary service at construction sites, outdoor or street lighting, For service at 600 volt or lower at a conductor temperature of 75℃ maximum.

2. Construction

Concentric strand or compressed 1350-H19 conductor, polyethylene or cross linked polyethylene Insulation, concentric strand AAC, ACSR, or 6201 alloy neutral messenger.

3. Standards

ASTM B-230, B-231, B-232 and B-399
ICEA S-76-474

4. Note

Designated sizes are ACSR 6/1 diameter equivalent receptivity per ASTM-B-399 for 6201.
Conductor temperature of 75℃ ambient temperature of 40℃ emissvity 0.9; 2ft./sec. wind in sun.
Packaging: Available in 500ft coils and in long lengths on reels.
The data is approximate and subject to normal manufacturing tolerances.
To determine current ampacity by conductor size, please consult The National Electric Code, latest edition.

AERIAL BOUNDED CABLE
DUPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
AAC										
Pekingese	6-Solid	1.14	4.1	6.4	6-7	255	20.8	72.9	94	78
Collie	6-7	1.14	4.6	6.9	6-7	255	23.8	72.9	97	78
Cocker	6-7	1.52	4.6	7.7	6-7	255	32.7	72.9	106	78
Dachshund	4-Solid	1.14	5.2	7.5	6-7	400	26.8	114.6	141	103
Spaniel	4-7	1.14	5.9	8.2	6-7	400	29.8	116.1	146	103
Cairn	4-7	1.52	5.9	8.9	6-7	400	40.2	116.1	156	103
Doberman	2-7	1.14	7.4	9.7	2-7	612	38.7	184.5	223	136
Airedale	1-19	1.52	8.4	11.5	1-7	-	56.5	233.6	290	158
Basset	1/0-7	1.52	9.3	12.4	1/0-7	903	64.0	294.7	359	182
Malemure	1/0-19	1.52	9.4	12.5	1/0-7	903	64.0	294.7	359	182
AAAC										
Chihuahua	6-Solid	1.14	4.1	6.4	6-7	499	20.8	72.9	94	78
Vizsla	6-7	1.14	4.6	6.9	6-7	499	23.8	72.9	97	78
Harrier	4-Solid	1.14	5.2	7.5	4-7	798	26.8	116.1	143	103
Whippet	4-7	1.14	5.9	8.2	4-7	798	29.8	116.1	146	103
Schnauzer	2-7	1.14	7.4	9.7	2-7	1270	39.7	184.5	223	136
Afghan	1/0-7	1.52	9.3	12.4	1/0-7	2023	64.0	296.1	360	182
Heeler	1/0-19	1.52	9.4	12.5	1/0-7	2023	64.0	296.1	360	182
ACSR										
Srtter	6-Solid	1.14	4.1	6.4	6/6/01	540	20.8	72.9	94	78
Shepherd	6-7	1.14	4.6	6.9	6/6/01	540	23.8	72.9	97	78
Retriever	6-7	1.52	4.6	7.7	6/6/01	540	32.7	72.9	106	78
Eskimo	4-Solid	1.14	5.2	7.5	4/6/01	844	26.8	114.6	141	103
Terrier	4-7	1.14	5.9	8.2	4/6/01	844	29.8	116.1	146	103
Yorkshire	4-7	1.52	5.9	8.9	4/6/01	844	40.2	116.1	156	103
Chow	2-7	1.14	7.4	9.7	2/6/01	1293	38.7	184.5	223	136
Labrador	1-19	1.52	8.4	11.5	1/6/01	1610	56.5	233.6	290	158
Bloodhound	1/0-7	1.52	9.3	12.4	1/0-6/1	1987	64.0	294.7	359	182
Bull	1/0-19	1.52	9.4	12.5	1/0-6/1	1987	64.0	294.7	359	182

AERIAL BOUNDED CABLE
TRIPLEX SERVICE DROP-ALUMINUM CONDUCTOR

1. Application

To supply power from the utility's lines to the consumer's weather head. For service at 600 volt or less (phase to phase) at a conductor temperature of 75℃ maximum for polyethylene insulation or 90℃ maximum for crosslink insulation

2. Construction

Concentric strand or compressed 1350-H19 conductor, polyethylene or cross linked polyethylene insulation, concentric strand AAC, ACSR, or 6210 alloy neutral messenger.

3. Standards

ASTM B-230, B-231, B-232 and B-399
ICEA S-76-474

AERIAL BOUNDED CABLE
TRIPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
AAC										
Halotis	6-Solid	1.14	4.115	6.4	6-7	255	42	110	152	78
Pike	6-7	0.76	4.67	6.2	6-7	255	31	112	143	78
Patella	6-7	1.14	4.67	7.0	6-7	255	48	112	159	78
Albus	6-7	1.52	4.67	7.7	6-7	255	64	132	198	78
Fusus	4-Solid	1.14	5.182	7.5	4-7	400	52	177	229	103
Oyster	4-7	1.14	5.89	8.2	4-7	400	60	177	237	103
Argo	4-7	1.52	5.89	8.9	4-7	400	80	177	258	103
Clam	2-7	1.14	7.42	9.7	2-7	612	76	281	359	136
Thia	2-7	1.52	7.42	10.5	2-7	612	100	281	383	136
Mussel	2-7	1.14	7.42	9.7	2-7	612	76	281	359	136
Pyrula	1-7	1.52	8.33	11.4	1-7	744	113	356	467	158
Hyas	1-19	1.52	8.43	11.5	1-7	744	115	356	469	158
Murex	1/0-7	1.52	9.35	12.4	1/0-7	903	128	385	513	182
Purpura	1/0-19	1.52	9.47	12.5	1/0-7	903	130	385	513	182
Nasa	2/0-7	1.52	10.52	13.6	2/0-7	1139	146	566	710	210
Trophon	2/0-19	1.52	10.64	13.7	2/0-7	1139	147	566	713	210
Quahog	3/0-7	2.03	11.79	15.9	3/0-7	1379	214	713	926	242
Lone	3/0-19	2.03	11.94	16.0	3/0-7	1379	217	713	929	242
Melita	3/0-19	1.52	11.94	15.0	3/0-19	1501	168	713	881	242
Coquina	4/0-7	1.52	13.26	16.3	4/0-7	1737	191	899	1089	279
Tusk	4/0-7	2.03	13.26	17.3	4/0-7	1737	243	899	1141	279
Apus	4/0-19	2.03	13.41	17.5	4/0-7	1737	246	899	1144	279
Portunus	4/0-19	1.52	13.41	16.5	4/0-19	1823	194	899	1091	279
Chiton	266.8-19	2.03	14.88	18.9	266.8-19	2254	277	1133	1409	310
Nannynose	336.4-19	2.03	16.92	21.0	336.4-19	2790	321	1427	1749	330

AERIAL BOUNDED CABLE
TRIPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
AAAC										
Homarus	6-Solid	1.14	4.115	6.4	6-7	499	42	118	159	78
Minex	6-Solid	1.14	4.115	13.3	6-7	499	42	118	159	78
Cabera	6-7	1.14	4.65	6.9	6-7	499	48	118	165	78
Hippa	6-7	1.14	4.65	6.9	6-7	499	48	118	165	78
Artemia	4-Solid	1.14	5.182	7.5	6-7	499	52	162	214	103
Maira	4-7	1.14	5.89	8.2	6-7	499	60	188	247	103
Crab	4-7	1.14	5.89	8.2	6-7	499	60	162	222	103
Luidia	4-Solid	1.14	5.182	7.5	6-7	499	52	162	214	103
Prawn	4-Solid	1.14	5.182	7.5	4-7	798	52	188	240	103
Metalia	4-7	1.14	5.89	8.2	4-7	798	60	188	247	103
Barnacles	4-7	1.14	5.89	8.2	4-7	798	60	188	247	103
Solaster	2-7	1.14	7.42	9.7	4-7	798	76	258	333	136
Pagarus	2-7	1.52	7.42	10.5	4-7	798	100	258	357	136
Shrimp	2-7	1.14	7.42	9.7	2-7	1270	76	298	374	136
Lobster	2-7	1.52	7.42	10.5	2-7	1270	100	298	397	136
Encope	1-19	1.52	8.43	11.5	2-7	1270	115	347	461	158
Sanderab	1/0-7	1.52	9.35	12.4	2-7	1270	128	409	537	182
Echinus	1/0-19	1.52	9.47	12.5	2-7	1270	130	409	539	182
Gammarus	1/0-7	1.52	9.35	12.4	1/0-7	2023	128	473	601	182
Leda	1/0-19	1.52	9.47	12.5	1/0-7	2023	130	473	603	182
Crayfish	2/0-7	1.52	10.5	13.6	2-7	1270	146	487	631	210
Sipho	2/0-19	1.52	10.6	13.7	2-7	1270	147	487	634	210
Dungenese	2/0-7	1.52	10.5	13.6	2/0-7	2445	146	595	740	210
Cyclops	2/0-7	1.52	10.6	13.7	2/0-7	2445	147	595	743	210
Slug	3/0-7	1.52	11.8	14.8	1/0-7	2023	165	650	816	242

AERIAL BOUNDED CABLE
TRIPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		Mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
Fulgur	3/0-19	1.52	11.9	15.0	1/0-7	2023	168	650	819	242
Balanus	3/0-19	2.03	11.9	16.0	1/0-7	2023	216	650	868	242
Stonecrab	3/0-7	1.52	11.8	14.8	3/0-7	3080	165	752	917	242
Flustra	3/0-7	1.52	11.9	15.0	3/0-7	3080	168	752	920	242
Crisia	3/0-19	2.03	11.9	16.0	3/0-7	3080	216	752	969	242
Squid	4/0-7	1.52	13.3	16.3	2/0-7	2431	191	820	1011	279
Arca	4/0-19	1.52	13.4	16.5	2/0-7	2431	192	820	1012	279
Bugula	4/0-19	2.03	13.4	17.5	2/0-7	2431	246	820	1066	279
Kingerab	4/0-7	1.52	13.3	16.3	4/0-7	3883	191	948	1137	279
Lepas	4/0-19	1.52	13.4	16.5	4/0-7	3883	192	948	1140	279
Cassi	4/0-19	2.03	13.4	17.5	4/0-7	3883	246	948	1194	279
ACSR										
Paludina	6-Solid	1.14	4.115	6.401	6-6/1	540	42	112	170	79
Voluta	6-7	1.14	4.67	6.960	6-6/1	540	48	112	176	79
Bolma	6-7	1.52	4.67	7.722	6-6/1	540	64	112	194	79
Scallop	4-Solid	1.14	5.182	7.468	6-6/1	540	52	155	225	138
Strombus	4-7	1.14	5.89	8.179	6-6/1	540	60	155	232	138
Carnea	4-7	1.52	5.89	8.941	6-6/1	540	80	155	253	138
Whelk	4-Solid	1.14	5.182	7.468	4-6/1	844	52	177	258	138
Periwinkle	4-7	1.14	5.89	8.179	4-6/1	844	60	177	263	138
Calma	4-7	1.52	5.89	8.941	4-6/1	844	80	177	284	138
Cockle	2-7	1.14	5.89	8.179	4-6/1	844	60	247	335	183
Gebia	2-7	1.52	5.89	8.941	4-6/1	844	80	247	354	183
Comch	2-7	1.14	5.89	8.179	2-6/1	1293	80	281	384	183
Uca	2-7	1.52	5.89	8.941	2-6/1	1293	80	281	405	183

AERIAL BOUNDED CABLE
TRIPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
Vermeths	1-7	1.52	8.33	11.379	1-6/1	1610	113	354	522	210
Atya	1-19	1.52	8.33	11.379	1-6/1	1610	113	430	524	210
Janthina	1/0-7	1.52	8.33	11.379	2-6/1	1293	113	393	549	242
Ranella	1/0-19	1.52	9.47	12.522	2-6/1	1293	130	393	566	242
Neritina	1/0-7	1.52	9.35	12.395	1/0-6/1	1987	128	448	644	242
Cenia	1/0-19	1.52	9.47	12.522	1/0-6/1	1987	130	448	646	242
Cavolinia	2/0-7	1.52	10.5	13.564	1-6/1	1610	146	496	697	279
Clio	2/0-19	1.52	10.6	13.691	1-6/1	1610	147	496	698	279
Runcina	2/0-7	1.52	10.5	13.564	2/0-6/1	2404	146	564	796	279
Triton	2/0-19	1.52	10.6	13.691	2/0-6/1	2404	147	564	799	279
Sanddollar	3/0-7	1.52	11.8	14.834	1/0-6/1	1987	165	625	860	322
Aega	3/0-19	1.52	11.9	14.986	1/0-6/1	1987	168	625	862	322
Pisa	3/0-19	2.03	11.9	16.002	1/0-6/1	1987	216	625	911	322
Cherrystone	3/0-7	1.52	11.8	14.834	3/0-6/1	3003	165	711	987	322
Mursia	3/0-19	1.52	11.9	14.986	3/0-6/1	3003	168	711	990	322
Mysis	3/0-19	2.03	11.9	16.002	3/0-6/1	3003	216	711	990	322
Cuttlefish	4/0-7	1.52	13.3	16.307	2/0-6/1	2404	191	787	1066	372
Cerapu	4/0-19	1.52	13.4	16.459	2/0-6/1	2404	192	787	1069	372
Nepatus	4/0-19	2.03	13.4	17.475	2/0-6/1	2404	246	787	1121	372
Razor	4/0-7	1.52	13.3	16.307	4/0-6/1	3788	191	897	1226	372
Zuzara	4/0-19	1.52	13.4	16.459	4/0-6/1	3788	192	897	1229	372
Alima	4/0-19	2.03	13.4	17.475	4/0-6/1	3788	246	897	1281	372
Callista	266.8-19	2.03	15.1	19.126	3/0-6/1	3003	280	994	1384	410
Dosinia	266.8-19	2.03	15.1	19.126	266.8-18/1	3121	280	1133	1472	410
Cowry	336.4-19	2.03	16.9	20.980	4/0-6/1	3788	320	1253	1713	506
Limpet	336.4-19	2.03	16.9	20.980	336.4-18/1	3937	320	1429	1823	506

AERIAL BOUNDED CABLE
QUADRUPLEX SERVICE DROP-ALUMINUM CONDUCTOR

1. Application

Used to supply 3 phase power, usually from a pole-mounted transformer, to the use's service head where connection to the service entrance cable is made. To be used at voltages of 600 volts or less phase to phase and at conductor temperatures not to exceed 75℃ for polyethylene insulated conductors or 90℃ for cross linked polyethylene (XLPE) insulated conductors.

2. Construction

Conductors are concentrically stranded, compressed 1350-H19 aluminum. Insulated with either polyethylene or XLPE cross linked polyethylene. Neutral messengers are concentrically stranded 6201, AAC, or ACSR. One conductor is manufactured with an extruded ridge for phase identification.

3. Specifications

Quadruplex service drop cable meets or exceeds the following ASTM specifications:

B-230 Aluminum Wire, 1350=H19 for electrical Purposes.

B-231 Aluminum conductors, Concentric-Lay-Stranded.

B-232 Aluminum conductors, Concentric-Lay-Stranded, Coated Steel Reinforced (ACSR).

B-399 Concentric-Lay-Stranded, 6201-T81 Aluminum.

Service Drop cable meets or exceeds all applicable requirements of ICEA S-76-474.

4. Note

Designated sizes are: ACSR 6/1 diameter equivalent and AAC with equivalent receptivity per ASTM B-399 for 6201.

Conductor temperature of 90℃ for XLPE, 75℃ for Poly, ambient temperatures of 40℃; emissvity 0.9; 2ft./sec. wind in sun.

To determine current ampacity by conductor size, please consult The National Electric Code, latest edition.

AERIAL BOUNDED CABLE
QUADRUPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
AAC										
Quarter	6-Solid	1.143	4.115	6.401	6-7	255.371	63	149	211	78
Clydesdale	4-S0lid	1.143	5.182	7.468	4-7	399.613	79	237	315	103
Pinto	4-7	1.143	5.893	8.179	4-7	399.613	89	237	326	136
Mustang	2-7	1.143	7.417	9.703	2-7	612.347	115	377	491	158
Shire	1-19	1.524	8.433	11.481	1-19	743.888	171	475	646	158
Libyan	1/0-7	1.524	9.347	12.395	1/0-7	902.644	192	598	790	182
Criollo	1/0-19	1.524	9.474	12.522	1/0-19	902.644	193	598	793	182
Orloff	2/0-7	1.524	10.516	13.564	2/0-7	1138.511	217	754	973	210
Percheron	2/0-19	1.524	10.643	13.691	2/0-19	1138.511	220	754	976	210
Mongolian	3/0-7	1.524	11.786	14.834	3/0-7	1378.914	249	951	1199	242
Hanoverian	3/0-19	1.524	11.938	14.986	3/0-19	1378.914	251	951	1204	242
Singlefoot	4/0-7	1.524	13.259	16.307	4/0-7	1737.250	286	1199	1485	279
Oldenburg	4/0-19	1.524	13.411	16.459	4/0-19	1737.250	289	1199	1490	279
AAAC										
Bay	6-Solid	1.143	4.115	6.401	6-7	503.485	63	155	217	78
French-conch	6-7	1.143	4.674	6.960	6-7	503.485	71	155	226	78
German-conch	4-Solid	1.143	5.182	7.468	4-7	798.318	79	247	324	103
Arabian	4-7	1.143	5.893	8.179	4-7	784.711	89	247	336	103
Belgian	2-7	1.143	7.417	9.703	2-7	1270.052	115	391	506	136
Saddle	1-19	1.524	8.433	11.481	2-7	1270.052	171	466	637	158
Plow	1/0-7	1.524	9.347	12.395	1/0-7	2023.011	192	624	814	182
Sherland	1/0-19	1.524	9.474	12.522	1/0-7	2023.011	193	624	817	182
Dapple-grey	2/0-7	1.524	10.516	13.564	2/0-7	2444.850	217	786	1005	210

AERIAL BOUNDED CABLE
QUADRUPLEX SERVICE DROP-ALUMINUM CONDUCTOR

Code Name	Phase Conductors				Bare Natural		Weight			Ampacity
	Size & No. of Wires	Insulation Thickness	Nominal Diameter		Size & No. of Wires	Rated Strength	XLPE	Aluminum	Total	
			Bare	OD						
		mm	mm	mm		kg	Kg/km	Kg/km	Kg/km	A
Thoroughbred	2/0-19	1.524	10.643	13.691	2/0-7	2444.850	220	786	1007	210
Dobbin	3/0-7	1.524	11.786	14.834	3/0-7	3079.876	249	991	1238	242
Trotter	3/0-19	1.524	11.938	14.986	3/0-7	3079.876	251	991	1243	242
Pony	4/0-7	1.524	13.259	16.307	4/0-7	3880.730	286	1250	1534	279
Walking	4/0-19	1.524	13.411	16.459	4/0-7	3882.730	289	1250	1539	279
ACSR										
Morochuca	6-Solid	1.143	4.115	6.401	6-6/1	539.772	63	149	229	78
Chola	6-7	1.143	4.674	6.960	6-6/1	539.772	71	149	237	78
Morgan	4-Solid	1.143	5.182	7.468	4-6/1	843.667	79	238	344	103
Hackney	4-7	1.143	5.893	8.179	4-6/1	843.667	90	238	356	103
Palomino	2-7	1.143	7.417	9.703	2-6/1	1292.732	115	377	557	136
Albino	1-19	1.524	8.433	11.481	1-6/1	1610.245	171	473	699	158
Standardbred	1/0-7	1.524	9.347	12.395	1/0-6/1	1986.724	192	598	859	182
Costena	1/0-19	1.524	9.474	12.522	1/0-6/1	1986.724	193	598	862	182
Chicoteagues	2/0-7	1.524	10.516	13.564	2/0-6/1	2404.027	217	753	1060	210
Grullo	2/0-19	1.524	10.643	13.691	2/0-6/1	2404.027	220	753	1063	210
Mare	3/0-7	1.524	11.786	14.834	3/0-6/1	3002.766	249	951	1308	242
Suffolk	3/0-19	1.524	11.938	14.986	3/0-6/1	3002.766	251	951	1313	242
Stallion	4/0-7	1.524	13.259	16.307	4/0-6/1	3787.477	286	1198	1622	279
Appaloosa	4/0-19	1.524	13.411	16.459	4/0-6/1	3787.477	289	1198	1627	279

PVC INSULATED WIRE WITH RATED VOLTAGE UP TO 450/750V

GB 5023.1 ~ 7-1994
IEC 60227

1. Application

The PVC Insulated Wires belong to the series of laying wires, which are mainly suitable for laying at the fixed places. They are widely used as connectors of driving, lighting, electric equipment, instrument and telecommunication equipment with rated voltage up to 450/750V (U_0/U). Part of the plastic insulated wires are used at the equipment with AC rated voltage up to 300/300V.

2. Standards

The products adopt the standard GB 5023.1~7-1997 《PVC Insulated Wire with Rated Voltage up to 450/750V》, JB 8734.1~5-1998 《PVC Insulated Cable, Wire and Flexible Wire with Rated Voltage up to 450/750V》. Among them GB 5023.1~7-1997 is identical with IEC 60227, and the types are the same as the stipulations of the IEC, technical specification is just the same, and more we have extended the range of the types to be fit for the requirement of consumers.

3. Type, Name and Application

Type	Name	Application	Long-time Permissible Working Temperature (℃)
BV BLV	Copper Conductor, PVC Insulated Wire Aluminum Conductor, PVC Insulated Wire	Fixed laid in the circumstance of indoor, conduit etc.	70
BV	Heat Resistant Copper Conductor, PVC Insulated Wire at 90℃	Fixed laid in the circumstance of high temperature environment ang can be laid indoor, conduit etc.	90
BVR	Copper Conductor, PVC Insulated Flexible Wire	Fixed laid where flexibility is required.	70
BVV	Copper Conductor, PVC Insulated and PVC Sheathed Round Wire	Fixed laid where high mechanical protection and moisture are required. They can be laid in the air or underground.	70
BLVV	Aluminum Conductor, PVC Insulated and PVC Sheathed Round Wire		
BVVB	Copper Conductor, PVC Insulated and PVC Sheathed Flat Wire		
BLVVB	Aluminum Conductor, PVC Insulated and PVC Sheathed Flat Wire		
RV	Copper Conductor, PVC Insulated Flexible Wire	Mainly used at middle and light type movable equipment. Instrument and metess, power and lighting and the places where flexibility is required.	70
RVB	Copper Conductor, PVC Insulated Flexible Wire		
RVS	Copper Conductor, PVC Insulated Flexible Twisting Connector		
RVV	Copper Conductor, PVC Insulated and PVC Sheathed Round Flexible Wire (Light and Common Type)		

PVC INSULATED WIRE WITH RATED VOLTAGE UP TO 450/750V

Comprehensive Data of BV Wire

IEC 60227 -05

Nominal Sectional Area	Conductor No./Dia.	Nominal Insulated Thickness	Max.Overall Dia.	Max. D.C. Conductor Resistance at 20℃	Min. Insulated Resistance at 70℃	Weight
mm^2	mm	mm	mm	Ω/km	mΩ/km	Kg/km
0.5	1/0.80	0.6	2.4	36.0	0.015	8.1
0.75	1/0.97	0.6	2.6	24.5	0.012	10.6
1	1/1.13	0.6	2.8	18.1	0.011	13.2

Standards

IEC 60227 -01

Nominal Sectional Area	Conductor No./Dia.	Nominal Insulated Thickness	Max.Overall Dia.	Max. D.C. Conductor Resistance at 20℃		Min. Insulated Resistance at 70℃	Weight	
				Cu	Al		Cu	Al
mm^2	mm	mm	mm	Ω/km		mΩ/km	Kg/km	
1.5	1/1.38	0.7	3.3	12.1	/	0.011	19.2	/
1.5	7/0.52	0.7	3.5	12.1	/	0.010	20.6	/
2.5	1/1.78	0.8	3.9	7.41	11.8	0.010	30.8	15.0
4	1/2.25	0.8	4.4	4.61	7.39	0.0085	45.5	21.0
6	1/2.76	0.8	4.9	3.08	4.91	0.0070	65.0	29.0
10	7/1.35	1.0	7.0	1.83	3.08	0.0065	110.0	52.0
16	7/1.70	1.0	8.0	1.15	1.91	0.0060	170.0	70.0
25	7/2.14	1.2	10.0	0.727	1.20	0.0060	270.0	110.0
35	7/2.52	1.2	11.5	0.524	0.868	0.0040	364.0	150.0
50	19/1.78	1.4	13.0	0.387	0.641	0.0045	500.0	200.0
70	19/2.14	1.4	15.0	0.268	0.443	0.0035	688.0	269.0
95	19/2.52	1.6	17.5	0.193	0.320	0.0035	953.0	360.0
120	37/2.03	1.6	19.0	0.153	0.253	0.0032	1168.0	449.0
150	37/2.25	1.8	21.0	0.124	0.206	0.0032	1466.0	551.0
185	37/2.52	2.0	32.5	0.099	0.164	0.0032	1808.0	668.0

BVR Type Copper Conductor PVC Insulated Flexible Wire with Voltage 450/750V

Nominal Sectional Area	Conductor No./Dia.	Nominal Insulated Thickness	Max.Overall Dia.	Max. D.C. Conductor Resistance at 20℃	Min. Insulated Resistance at 70℃	Weight
mm^2	mm	mm	mm	Ω/km	mΩ/km	Kg/km
2.5	9/0.41	0.8	4.2	7.41	0.011	33.0
4	19/0.52	0.8	4.8	4.61	0.099	48.0
6	19/0.64	0.8	5.6	3.08	0.0084	68.0
10	49/0.52	1.0	7.6	1.83	0.0072	115.0
16	49/0.64	1.0	8.8	1.15	0.0062	176.0
25	98/0.58	1.2	11.0	0.727	0.0058	272.0
35	133/0.58	1.2	12.5	0.524	0.0052	384.0
50	133/0.68	1.4	16.5	0.387	0.0051	510.0
70	189/0.68	1.4	16.5	0.268	0.0045	714.0
95	259/0.68	1.6	19.5	0.139	0.0035	965.0
120	259/0.76	1.8	22.0	0.153	0.0032	1210.0
150	259/0.85	1.8	25.0	0.124	0.0032	1510.0

PVC INSULATED POWER CABLE

IEC 60502
Chinese Standard GB 12706-2008

1. Application

The general type cables are suitable for rated AC voltage 0.6/1kV and below electric distribution lines without flame-retardant or fire-resistant requirements.

The flame-retardant type cables are not easy to burn or their flame propagation is limited only in a certain length. These cables are suitable for high installation density places like power station, subway, tunnel, high-building, large industrial enterprise, oil field and mine etc.

The fire-resistance cables can not only operate in normal condition, but also can operate in fire during a certain time. These cables are suitable for power station, subway, high building and other high human density places where having fire-proof and fire-fight requirements.

2. Operating Features

Max. permissible operation temperature of conductor is 70℃.

Max. Permissible temperature of conductor during short (max. duration is not more than 5s) is not more than 165℃.

Ambient temperature of installation is not lower than 0℃.

3. Type, Name and Application

Type	Name	Application
VV VLV	Copper (Aluminum) conductor, PVC insulated PVC (PE) sheathed power cable	For laying in doors, inducts and kin tunnels, but unable to bear pulling force and pressure.
VV_{22} VLV_{22}	Copper (Aluminum) conductor, PVC insulated steel-tape armored PVC (PE) sheathed power cable	For laying in tunnels in doors, in tunnels and direct in ground, able to bear pulling force and pressure.
VV_{32} VLV_{32}	Copper (Aluminum) conductor, PVC insulated fine steel-wire armored PVC (PE) sheathed power cable	For laying down wells and under water, able to bear certain axis pulling force
VV_{42} VLV_{42}	Copper (Aluminum) conductor, PVC insulated think steel-wire armored PVC (PE) sheathed power cable	For laying down wells and under water, able to bear certain pulling force
ZR-VV ZR-VLV	Copper (Aluminum) conductor, PVC insulated PVC sheath flame retardant power cable	For laying in doors, inducts and kin tunnels, but unable to bear pulling force and pressure.
ZR-VV_{22} ZR-VLV_{22}	Copper (Aluminum) conductor, PVC insulated steel-tape armored PVC sheath flame retardant power cable	For laying in tunnels in doors, in tunnels and direct in ground, able to bear pulling force and pressure.
ZR-VV_{32} ZR-VLV_{32}	Copper (Aluminum) conductor, PVC insulated fine steel-wire armored PVC sheath flame retardant power cable	For laying down wells and under water, able to bear certain axis pulling force
ZR-VV_{42} ZR-VLV_{42}	Copper (Aluminum) conductor, PVC insulated thick steel-wire armored PVC sheath flame retardant power cable	For laying down wells and under water, able to bear certain pulling force
NH-VV	Copper (Aluminum) conductor, PVC insulated PVC sheath fire-resisting power cable	For laying in doors, inducts and kin tunnels, but unable to bear puling force and pressure.
NH-VV_{22}	Copper (Aluminum) conductor, PVC insulated steel-tape armored PVC sheath fire-resisting power cable	For laying in doors, inducts and in tunnels, able to bear puling force and pressure.

PVC INSULATED POWER CABLE

Technical Requirement

Nominal Cross Sectional Area of Conductor

Master Core	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
3+1 Neutral Core	-	-	1.5	2.5	4	6	10	16	16	25	35	50	70	70	95	120	150
3+2 Neutral Core	-	-	1.5	2.5	4	6	10	16	16	25	35	50	70	70	95	120	150

Nominal Thickness of Insulation

Insulated Thickness mm / Sectional Area mm^2 / Rated Voltage kV	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400	500	630	800	1000
0.6/1	0.8	0.8	0.8	1	1	1	1	1.2	1.2	1.4	1.4	1.6	1.6	1.8	2.0	2.2	2.4	2.6	2.8	2.8	2.8	3.0
3.6/6	-	-	-	-	-	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4

Resistance of Conductor

Nominal Sectional Area	D.C. Resistance is no more than at 20℃		Nominal Cross Section	D.C. Resistance is no more than at 20℃		Nominal Cross Section	D.C. Resistance is no more than at 20℃	
	Copper	Aluminum		Copper	Aluminum		Copper	Aluminum
mm^2	Ω/km	Ω/km	mm^2	Ω/km	Ω/km	mm^2	Ω/km	Ω/km
1.5	12.1	18.1	35	0.524	0.868	240	0.0754	0.125
2.5	7.41	12.1	50	0.387	0.641	300	0.0601	0.100
4	4.61	7.41	70	0.268	0.443	400	0.0470	0.0778
6	3.08	4.61	95	0.193	0.320	500	0.0366	0.0605
10	1.83	3.08	120	0.153	0.253	630	0.0283	0.0469
16	1.15	1.91	150	0.124	0.206	800	0.0221	0.0369
25	0.727	1.20	185	0.0991	0.164	1000	0.0176	0.0291

Insulation Resistance

Test Item	PVC Insulated Cable		XLPE Insulated Power Cable
	0.6/1 kV	3.6/6 kV	
Volume receptivity (ρΩ. Cm) Min. at 20℃ at top rated temperature Min.	10^{13}	10^{14}	/
	10^{10}	10^{11}	10^{12}
Ki insulation resistance constant (mΩ.km) Min. at 20℃ at top rated temperature Min.	36.7	367	/
	0.37	0.37	3.67

Voltage Test

U_0/U	Us	T
kV	kV	min
0.6/1	3.5	5
3.6/6	12.5	5

ALL ALUMINIUM CONDUCTORS TYPE 8 PVC INSULATION (AAC/PVC)

PVC thickness of Type 8: 0.8mm
Voltage 650V

BS 215: Part 1
BS 6485

Code Name	Nominal Area	Calculated Area	Wires No.	Wires Dia.	Approx. Overall Dia.	Nominal Breaking Load	Max. D.C. Resistance at 20℃	Alum. Weight	PVC Insulated Overall Diameter	PVC Insulated Total Weight	Packing Length
	mm^2	mm^2		mm	mm	KN	Ω/km	Kg/km	mm	Kg/km	m±5%
Midge	22	23.33	7	2.06	6.2	3.99	1.227	64	8.4	106	3000
Aphis	25	26.44	3	3.35	7.2	4.11	1.081	73	9.2	133	3000
Gnat	25	26.8	7	2.21	6.6	4.59	1.066	73	8.8	116	3000
Weevil	30	31.6	3	3.66	7.9	4.86	0.9082	86	10.1	158	3000
Mosouito	35	37	7	2.59	7.8	6.03	0.7762	101	10.0	158	3000
Ladybird	40	42.8	7	2.79	8.4	6.87	0.6689	117	10.6	177	3000
Ant	50	52.83	7	3.1	9.3	8.28	0.5419	145	11.5	212	3000
Fly	60	63.55	7	3.4	10.2	9.9	0.4505	174	12.4	249	2500
Blueeottle	70	73.55	7	3.66	11.0	11.34	0.3881	202	13.2	285	2500
Earwing	75	78.5	7	3.78	11.4	11.94	0.3644	215	13.6	302	2000
Grasshopper	80	84.1	7	3.91	11.7	12.78	0.3406	230	13.9	319	2000
Clegg	90	95.6	7	4.17	12.5	14.53	0.2994	262	14.7	359	2000
Wasp	100	108	7	4.39	13.21	16.0	0.2702	290	15.4	393	3000
Beetle	100	106.6	19	2.67	13.4	17.42	0.2704	293	15.6	387	3000
Bee	125	132	7	4.9	14.7	19.94	0.2169	361	16.5	482	2500
Cricket	150	157.9	7	5.36	16.1	23.85	0.1813	432	18.3	587	2000
Hornet	150	157.6	19	3.25	16.3	27.7	0.1825	434	18.5	638	3000
Caterpillar	175	186	19	3.53	17.7	28.63	0.1547	512	19.9	646	2500
Chafer	200	213.2	19	3.78	18.9	32.4	0.1349	287	21.1	733	2000
Spider	225	236.9	19	3.99	20.0	36.01	0.1211	652	22.2	809	2000
Cockroach	250	265.7	19	4.22	21.1	40.4	0.1083	731	23.3	900	3000
Butterfly	300	322.7	19	4.65	23.3	48.7	0.08916	888	25.5	1082	3000
Moth	350	373.2	19	5.0	25.0	56.37	0.07711	1027	27.2	1241	2500
Drone	350	373.3	37	3.58	25.1	57.45	0.07741	1029	27.3	1222	2500
Locust	400	428.5	19	5.36	26.8	64.73	0..0671	1179	29	1416	2000
Centipede	400	415.2	37	3.78	26.5	63.1	0.06944	1145	28.7	1363	2000
Maybug	450	486.9	37	4.09	28.6	74.01	0.05931	1342	30.8	1573	2000
Scorpion	500	529.5	37	4.27	29.9	79.98	0.05441	1460	32.1	1706	1500
Clcada	600	628.6	37	4.65	32.6	94.95	0.04586	1733	34.5	2010	1500
Tarantula	750	794.8	37	5.23	36.6	120.1	0.03627	2191	38.5	2519	1000

GALVANIZED STEEL WIRE STRAND

The galvanized steel wire is used for messenger wire, overhead ground or guy wire. It can also be used as the core of ACSR conductor.

The galvanizing thickness is as following per BS EN 10244-2: 2009. Other standard such as ASTM or GB is possible by specified..

Wire Diameter	Mass of a coating of Zinc g/m^2			
mm	Class A	Class B	Class C	Class Ax3
$1.00 \le d < 1.20$	165	80	60	-
$1.20 \le d < 1.40$	180	90	65	540
$1.40 \le d < 1.65$	195	100	70	585
$1.65 \le d < 1.85$	205	100	75	615
$1.85 \le d < 2.15$	215	115	80	645
$2.15 \le d < 2.50$	230	125	85	690
$2.50 \le d < 2.80$	245	125	95	735
$2.80 \le d < 3.20$	255	135	100	765
$3.20 \le d < 3.80$	265	135	105	795
$3.80 \le d < 4.40$	275	135	110	825
$4.40 \le d < 5.20$	280	150	110	840
$5.20 \le d < 8.20$	290	-	110	870
$8.20 \le d < 10.0$	300	-	110	900

Conversion
1 oz/ft^2=42.926 um
1 g/m^2=0.1407 um

The general specification of elongation is as follow

Grade	Min Elongation in 600mm
	%
350	12
480	12
700	8
850	6
1000	6
1150	4
1300	4

GALVANIZED STEEL WIRE STRAND

BS 183 : 1972

Number of Wires/Dia.	Approx. Strand Dia.	Minimum Breaking Load of Strand							Approx Weight
		Grade 350	Grade 480	Grade 700	Grade 850	Grade 1000	Grade 1150	Grade 1300	
	mm	kN	kN	kN	kN	kN	kN	kN	kg/km
7/2.00	6.0	7.70	10.55	15.40	-	22.00	25.30	28.60	170
7/2.36	7.1	10.70	14.70	21.40	-	30.60	35.20	39.80	240
7/2.65	8.0	13.50	18.50	27.00	-	38.60	44.40	50.20	300
7/3.00	9.0	17.30	23.75	34.65	-	49.50	56.90	64.30	392
7/3.15	9.5	19.10	26.20	38.20	-	54.55	62.75	70.90	430
7/3.25	9.8	20.30	27.85	40.65	-	58.05	66.80	75.50	460
7/3.65	11.0	25.60	35.15	51.25	-	73.25	84.20	95.20	570
7/4.00	12.0	30.90	42.20	61.60	-	88.00	101.0	114.00	690
7/4.25	12.8	34.75	47.65	69.50	-	99.30	114.0	129.00	780
7/4.75	14.0	43.40	59.45	86.80	-	124.0	142.7	161.3	970
19/1.00	5.0	5.22	7.16	10.45	-	14.92	17.16	19.40	120
19/1.25	6.3	8.16	11.19	16.32	-	23.32	26.81	30.31	180
19/1.40	7.0	10.24	14.04	20.47	-	29.25	33.64	38.02	230
19/1.60	8.0	13.37	18.34	26.75	-	38.20	43.93	49.66	300
19/2.00	10.0	20.90	28.65	41.78	50.74	59.69	68.64	77.6	470
19/2.50	12.5	32.65	44.80	65.29	79.28	93.27	107.3	121.3	730
19/3.00	15.0	47.00	64.50	94.00	114.1	134.3	154.5	174.6	1050
19/3.55	17.8	65.80	90.27	131.6	159.9	188.0	216.3	244.5	1470
19/4.00	20.0	83.55	114.6	167.1	203.0	238.7	274.6	310.4	1870
19/4.75	23.8	117.85	161.6	235.7	286.0	336.7	387.2	437.7	2630

GALVANIZED STEEL WIRE STRAND

ASTM A475 -2014

Approx. Strand Dia.	Number of Wires	Diameter of Single Wire	Minimum Breaking Load of Strand			
			Utilities Grade*	High Strength Grade	Exira-high Strength Grade	Approx Weight
Inch (mm)		Inch (mm)	lb (kN)	lb (kN)	lb (kN)	lb/1000ft (kg/km)
1/8 (3.18)	7	0.041 (1.04)	-	1330 (5.92)	1830 (8.14)	32 (48)
5/32 (3.97)	7	0.052 (1.32)	-	2140 (9.52)	2940 (13.08)	51 (76)
3/16 (4.76)	7	0.062 (1.57)	-	2850 (12.68)	3990 (17.75)	73 (109)
3/16 (4.76)	7	0.065 (1.65)	2400 (10.68)	-	-	80 (119)
7/32 (5.56)	3	0.104 (2.64)	-	3500 (15.57)	4900 (21.79)	88 (131)
7/32 (5.56)	7	0.072 (1.83)	-	3850 (17.13)	5400 (24.02)	98 (146)
1/4 (6.35)	3	0.120 (3.05)	3150 (14.01)	4730 (21.04)	6740 (29.98)	117 (174)
1/4 (6.35)	3	0.120 (3.05)	4500 (20.02)	-	-	117 (174)
1/4 (6.35)	7	0.080 (2.03)	-	4750 (21.13)	6650 (29.58)	121 (180)
9/32 (7.14)	3	0.130 (3.30)	-	5260 (23.39)	7500 (33.36)	137 (204)
9/32 (7.14)	7	0.093 (2.36)	4600 (20.46)	6400 (28.47)	8950 (39.81)	164 (244)
5/16 (7.94)	3	0.145 (3.68)	6500 (28.91)	6350 (28.25)	9100 (40.48)	171 (255)
5/16 (7.94)	7	0.104 (2.64)	-	8000 (35.59)	11 200 (49.82)	205 (305)
5/16 (7.94)	7	0.109 (2.77)	6000 (26.69)	-	-	225 (335)
3/8 (9.52)	3	0.165 (4.19)	8500 (37.81)	8 360 (37.19)	11 800 (52.49)	220 (328)
3/8 (9.52)	7	0.120 (3.05)	11 500 (51.16)	10 800 (48.04)	15 400 (68.50)	273 (407)
7/16 (11.11)	7	0.145 (3.68)	18 000 (80.07)	14 500 (64.49)	20 800 (92.52)	399 (595)
1/2 (12.70)	7	0.165 (4.19)	25 000 (111.21)	18 800 (83.63)	26 900 (119.66)	517 (770)
1/2 (12.70)	19	0.100 (2.54)	-	19 100 (84.96)	26 700 (118.77)	504 (751)
9/16 (14.29)	7	0.188 (4.78)	-	24 500 (108.98)	35 000 (155.69)	671 (1000)
9/16 (14.29)	19	0.113 (2.87)	-	24 100 (107.20)	33 700 (149.91)	637 (949)
5/8 (15.88)	7	0.207 (5.26)	-	29 600 (131.67)	42 400 (188.61)	813 (1211)
5/8 (15.88)	19	0.125 (3.18)	-	28 100 (124.99)	40 200 (178.82)	796 (1186)
3/4 (19.05)	19	0.150 (3.81)	-	40 800 (181.49)	58 300 (259.33)	1155 (1721)
7/8 (22.22)	19	0.177 (4.50)	-	55 800 (248.21)	79 700 (354.52)	1581 (2356)
1 (25.40)	19	0.200 (5.08)	-	73 200 (325.61)	104 500 (464.84)	2073 (3089)
1 (25.40)	37	0.143 (3.63)	-	71 900 (319.83)	102 700 (456.83)	2057 (3065)

*The utilities grade is used principally by communication and power and light industries

GALVANIZED STEEL WIRE STRAND

Chinese Standard YB/T 5004-2012

Structure	Single Wire Dia.	Overall Dia.	Nominal Area	Specific Tensile Strength /MPa					Approx Weight
				1270	1370	1470	1570	1670	
				Min. Breaking Load of Strand					
	mm	mm	mm^2	kN	kN	kN	kN	kN	kg/km
1x3	2.90	6.2	19.82	23.16	24.98	26.80	28.63	30.45	160.0
	3.20	6.4	24.13	28.19	30.41	32.63	34.85	37.07	195.0
	3.50	7.5	28.86	33.72	36.38	39.03	41.69	44.34	233.0
	4.00	8.6	37.70	44.05	47.52	50.99	54.45	57.92	304.0
1x7	1.00	3.0	5.50	6.43	6.93	7.44	7.94	8.45	43.7
	1.20	3.6	7.92	9.25	9.98	10.71	11.44	12.17	62.9
	1.40	4.2	10.78	12.60	13.59	14.58	15.57	16.56	85.6
	1.60	4.8	14.07	16.44	17.73	19.03	20.32	21.62	112.0
	1.80	5.4	17.81	20.81	22.45	24.09	25.72	27.36	141.0
	2.00	6.0	21.99	25.69	27.72	29.74	31.76	33.79	175.0
	2.20	6.6	26.61	31.10	33.55	36.00	38.45	40.88	210.0
	2.60	7.8	37.17	43.43	46.85	50.27	53.69	57.11	295.0
	3.00	9.0	49.50	57.86	62.42	66.98	71.54	76.05	411.9
	3.20	9.6	56.30	65.78	70.96	76.14	81.32	86.50	447.0
	3.50	10.5	67.35	78.69	84.89	91.08	97.28	103.48	535.0
	3.80	11.4	79.39	92.76	100.10	107.40	114.70	121.97	630.0
	4.00	12.0	87.96	102.8	110.90	119.00	127.00	135.14	698.0
1x19	1.60	8.0	38.20	43.66	47.10	50.54	53.98	57.41	304.0
	1.80	9.0	48.35	55.26	59.62	63.97	68.32	72.67	385.0
	2.00	10.0	59.69	68.23	73.60	78.97	84.34	89.71	475.0
	2.20	11.0	72.20	82.58	89.00	95.58	102.09	108.52	569.0
	2.30	11.5	78.94	90.23	97.33	104.40	111.50	118.65	628.0
	2.60	13.0	100.90	115.30	124.40	133.50	142.60	151.65	803.0
	2.90	14.5	125.50	143.40	154.70	166.00	177.30	188.63	999.0
	3.20	16.0	152.80	174.70	188.40	202.20	215.90	229.66	1220.0
	3.50	17.5	182.80	208.90	225.40	241.80	258.30	274.75	1460.0
	4.00	20.0	238.80	272.90	294.40	315.90	337.40	358.92	1900.0

BARE COPPER CONDUCTOR

Bare Copper Solid or Stranded Conductor (Hard Drawn)

Bare Conductor Hard Drawn Copper (American Standard Size: ASTM B2, B8)

Size	Section		Number of wires	Wire diameter	Conductor Diameter	Resistance DC @20℃	Minimum Wire Elongation Before Standing	Tensile Strength		Tensile Strength After Stranding		Total Weight
								Min	Max	Min	Max	
AWG/MCM	Cmils	mm^2		mm	mm	Ω/km	%	Kg/mm^2		kg		Kg/km
4	41.740	21.1	7	1.96	5.88	0.860	1.1	35.7	40.8	679	776	192
2	66.360	33.6	7	2.47	7.42	0.541	1.2	35.2	40.3	1065	1219	305
1/0	105.600	53.5	7	3.12	9.36	0.340	1.3	34.7	39.8	1670	1915	485
2/0	133.100	67.4	7	3.50	10.5	0.270	1.4	34.7	39.8	2104	2414	611
3/0	211.600	107.2	7	4.42	13.2	0.170	1.7	34.2	39.3	3296	3788	972
250	250.000	126.7	19	2.91	14.6	0.144	1.3	34.7	39.8	3953	4534	1149
300	300.000	152.0	19	3.19	16.0	0.120	1.3	34.7	39.8	4743	5441	1379
350	350.000	177.3	19	3.45	17.2	0.103	1.4	34.7	39.8	5534	6348	1609
400	400.000	202.7	19	3.69	18.4	0.090	1.5	34.7	39.3	6324	7161	1838
500	500.000	253.4	37	2.95	20.7	0.072	1.3	34.7	39.8	7905	9068	2298
600	600.000	304.0	37	3.23	22.6	0.060	1.4	34.7	39.8	9486	10881	2758
700	700.000	354.7	61	2.72	24.5	0.051	1.3	35.2	40.3	11230	12858	3216
750	750.000	380.0	61	2.82	25.3	0.048	1.3	35.2	40.3	12032	13776	3447
800	800.000	405.4	61	2.91	26.2	0.045	1.3	34.7	39.8	12649	14509	3676
900	900.000	456.0	61	3.09	27.8	0.040	1.3	34.7	39.8	14230	16322	4136
1000	1000.00	506.7	61	3.25	29.3	0.036	1.3	34.7	39.8	15811	18136	4596

Bare Conductor Hard Drawn Copper (Australian Standard Size: AS/NZS 1746)

Stranding and wire	Nominal overall diameter	Cross-sectional area	Approximate mass	Breaking load	Modulus of elasticity	Coefficient of linear expansion	DC resist At 20℃	Continuous current carrying capacity	Product code
no/mm	mm	mm^2	Kg/km	kN	Gpa	x 10^{-6}/℃	Ω/km	A	
7/1.00	3.00	5.50	49.3	2.32	120	17.0	3.25	78	ACUT35AA001
7/1.25	3.75	8.59	76.9	3.59	120	17.0	2.09	102	ACUT36AA001
7/1.75	5.25	16.8	151	6.89	120	17.0	1.06	154	ACUT37AA001
7/2.00	6.00	22.0	197	8.89	120	17.0	0.815	180	ACUT38AA001
7/2.75	8.25	41.6	375	16.2	120	17.0	0.433	265	ACUT39AA001
19/1.75	8.75	45.7	413	18.3	118	17.0	0.395	281	ACUT40AA001
19/2.00	10.0	59.7	538	23.6	118	17.0	0.303	330	ACUT41AA001
7/3.50	10.5	67.4	607	25.4	120	17.0	0.268	354	ACUT42AA001
7/3.75	11.3	77.3	696	28.8	120	17.0	0.233	385	ACUT63AA001
37/1.75	12.3	89.0	806	35.6	117	17.0	0.203	420	ACUT40AA001
19/2.75	13.8	113	1020	43.1	118	17.0	0.160	484	ACUT44AA001
19/3.00	15.0	134	1210	50.8	118	17.0	0.134	538	ACUT45AA001
37/2.50	17.5	182	1640	70.3	117	17.0	0.0996	642	ACUT46AA001
37/2.75	19.3	220	1990	83.9	117	17.0	0.0823	719	ACUT47AA001
37/3.00	21.0	262	2370	98.9	117	17.0	0.0691	796	ACUT48AA001
61/2.75	24.8	362	3290	138	117	17.0	0.0500	961	ACUT49AA001

STRUCTURE AND PRINCIPLE TECHNICAL PARAMETERS OF TJ HARD DRAWN COPPER

GB Standard

Nominal section	Structure (No./diameter)	Copper section	Conductor diameter	DC resistance 20℃	Breaking load	Unit weight	Drum length
mm^2	mm	mm^2	mm	Ω/km	N	Kg/km	m
10	7/1.33	9.73	3.99	1.870	3508	88	5000
16	7/1.68	15.5	5.04	1.200	5586	140	4000
25	7/2.11	24.5	6.33	0.740	8643	221	3000
35	7/2.49	34.5	7.47	0.540	12152	311	2500
50	7/2.97	48.5	8.91	0.390	17100	439	2000
70	19/2.174	68.3	10.70	0.280	24010	618	1500
95	19/2.49	92.5	12.45	0.200	32634	837	1200
120	19/2.80	117	14.00	0.158	41258	1058	1000
150	19/3.15	148	15.75	0.123	50764	1338	800
185	37/2.49	180	17.43	0.103	63504	1627	800
240	37/2.84	234	19.88	0.078	82614	2120	800
300	37/3.15	288	22.05	0.062	98980	2608	600
400	37/3.66	389	25.62	0.047	133770	3521	600