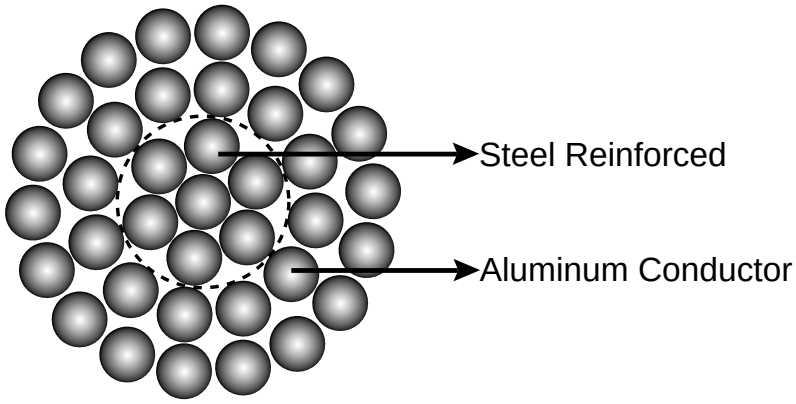
Aluminum Conductor Steel Reinforced (ACSR) Cables



APPLICATION

ACSR conductors are widely used for electrical power transmission over long distances, since they are ideal for long overhead lines spans. They are also used as a messenger for supporting overhead electrical cables.

STANDARD

Basic design to BS 215-2 / BS EN 50182 / IEC 61089 / ASTM B 232/B 232M / DIN 48204 / JIS C 3110 standards

CONSTRUCTION

ACSR conductors are formed by several wires of aluminium 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 aluminium. Galvanized steel core consist normally of 1, 7 or 19 wires. The diameters of steel and aluminium wires can be the same, or different.

By varying the relative proportions of aluminium and steel, the required characteristics for any particular application can be reached. A higher U. T. S. Can be obtained, by increasing steel content, and a higher current carrying capacity by increasing aluminium content.

ELECTRICAL PROPERTIES

Density@20°C	Aluminium: 2.703 kg/dm
	Galvanised Steel: 7.80 kg/dm
Temperature Coefficient@20°C	Aluminium: 0.00403 (°C)
Resistivity@20°C	Aluminium: Should not exceed 0.028264

Linear Expansivity	Aluminium: 23 x10 (°C)
	Galvanised Steel: 11.5 x10 (1/°C)

SERVICE CONDITIONS

Ambient Temperature	-5°C - 50°C
Wind Pressure	80 – 130kg/m^2
Seismic Acceleration	0.12 - 0.05g
Isokeraunic Level	10 – 18
Relative Humidity	5 – 100%

CONSTRUCTION PARAMETERS

- **BS 215-2**

Code	Nominal Area				Stranding		Overall Diameter		Weight(CU)			Rated Strength	Electrical Resistance @20º
	AL		Steel	Total	AL	Steel	Core	Total	AL	Steel	Total		
	Nominal	Teorical											
	mm^2	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	mm	Kg/Km	Kg/Km	Kg/Km	KN	Ω/Km
Mole	10	10.62	1.77	12.39	6/1.50	1/1.50	1.50	4.5	29	14	43	4.14	2.706
Squirrel	20	20.94	3.49	24.43	6/2.11	1/2.11	2.11	6.33	57	28	85	7.88	1.368
Gopher	25	26.24	4.38	30.62	6/2.36	1/2.36	2.36	7.08	71	35	106	9.61	1.093
Weasel	30	31.61	5.27	36.88	6/2.59	1/2.59	2.59	7.77	87	41	128	11.45	0.9077
Fox	35	36.66	6.11	42.77	6/2.79	1/2.79	2.79	8.37	101	48	149	13.2	0.7822
Ferret	40	42.41	7.07	49.48	6/3.00	1/3.00	3.0	9.0	117	55	172	15.2	0.6766
Rabbit	50	52.88	8.82	61.7	6/3.35	1/3.35	3.35	10.05	145	69	214	18.35	0.5426
Mink	60	63.18	10.53	73.71	6/3.66	1/3.66	3.66	10.98	171	84	255	2.18	0.4545
Shunk	60	63.27	37.03	100.3	12/2.59	7/2.59	7.77	12.95	178	287	465	5.3	0.4567
Beaver	70	74.82	12.47	87.29	6/3.99	1/3.99	3.99	11.97	203	99	302	2.57	0.3825
Horse	70	73.37	42.63	116.2	12/2.79	7/2.79	8.37	13.95	203	335	538	61.2	0.3936
Racoon	75	79.2	13.2	92.4	6/4.1	1/4.1	4.1	12.3	216	104	320	27.2	0.3622

Caledonian

Caledonian Aluminium Conductor Cables

Code	Nominal Area				Stranding		Overall Diameter		Weight(CU)			Rated Strength	Electrical Resistance @20°
	AL		Steel	Total	AL	Steel	Core	Total	AL	Steel	Total		
	Nominal	Teorical											
	mm^2	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	mm	Kg/Km	Kg/Km	Kg/Km	KN	Ω/Km
Otter	80	83.88	13.98	97.86	6/4.22	1/4.22	4.22	13.98	226	113	339	28.8	0.3419
Cat	90	95.44	15.86	111.3	6/4.5	1/4.5	4.5	15.9	258	128	386	32.7	0.3007
Hare	100	105	17.5	122.5	6/4.72	1/4.72	4.72	17.5	284	141	425	36.0	0.2733
Dog	100	105	13.5	118.5	6/4.72	7/1.57	4.71	14.15	288	106	394	32.7	0.2733
Hyena	100	105.8	20.4	126.2	7/4.39	7/1.93	5.79	14.57	250	200	450	40.9	0.2712
Leoperd	125	131.3	16.8	148.1	8/5.28	7/1.75	5.25	15.81	310	182	492	40.7	0.2184
Coyotte	125	132.1	20.1	152.2	26/2.54	7/1.91	5.73	15.89	410	112	522	46.4	0.2187
Congar	125	130.3	7.2	137.5	18/3.05	1/3.05	3.05	15.25	361	58	419	29.8	0.2189
Tiger	125	131.1	30.6	161.7	30/2.36	7/2.36	7.08	16.52	365	237	602	58	0.2202
Wolf	150	158.1	36.8	194.9	30/2.59	7/2.59	7.77	18.13	441	285	726	69.2	0.1828
Dingo	150	158.7	8.8	167.5	18/3.35	1/3.35	3.35	16.75	437	69	506	35.7	0.1815
Lynx	175	183.4	42.8	226.2	30/2.79	7/2.79	8.37	19.53	507	335	842	79.8	0.1576
Caracal	175	184.3	10.2	194.5	18/3.61	1/3.61	3.61	18.05	507	80	587	41.1	0.1563
Panther	200	212.1	49.4	261.5	30/3.00	7/3.00	9.0	21.0	586	388	974	92.25	0.1363
Jaguar	200	210.6	11.7	222.3	18/3.86	1/3.86	3.86	19.3	580	91	671	46.55	0.1367
Lion	225	238.5	55.7	294.2	30/3.18	7/3.18	9.54	22.26	657	438	1095	100.6	0.1212
Bear	250	264	61.6	325.6	30/3.35	7/3.35	10.05	23.45	728	485	1213	111.1	0.1090
Goat	300	324.3	75.7	400	30/3.71	7/3.71	11.13	25.79	894	595	1489	135.7	0.0891
Sheep	350	374.1	87.3	461.4	30/3.99	7/3.99	11.97	27.93	1031	687	1718	155.9	0.0770
Antilope	350	373.1	48.4	421.5	54/2.97	7/2.97	8.91	26.73	1040	371	1411	118.2	0.0772
Bizon	350	381.8	49.5	431.3	54/3.00	7/3.00	9.0	27.0	1064	380	1444	120.9	0.7573
Zebra	400	428.9	55.6	484.5	54/3.18	7/3.18	9.54	28.62	1185	436	1621	131.9	0.0674

• BS EN 50182

Code	Stranding		Sectional Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Mole	6/1.50	1/1.50	10.6	1.77	12.4	4.5	42.8	4.14	2.7027	66
Squirrel	6/2.11	1/2.11	21	3.5	24.5	6.33	84.7	7.87	1.3659	101
Fox	6/2.79	1/2.79	36.7	6.11	42.8	8.37	148.1	13.21	0.7812	142
Mink	6/3.66	1/3.66	63.1	10.5	73.6	10.98	254.9	21.67	0.454	199
Skunk	12/2.59	7/2.59	63.2	36.9	100.1	12.95	463	52.79	0.4568	206
Beaver	6/3.99	1/3.99	75	12.5	87.5	11.97	302.9	25.76	0.382	221
Racoon	6/4.09	1/4.09	78.8	13.1	91.9	12.27	318.3	27.06	0.3635	228
Otter	6/4.22	1/4.22	83.9	14	97.9	12.66	338.8	28.81	0.3415	237
Cat	6/4.50	1/4.50	95.4	15.9	111.3	13.5	385.3	32.76	0.3003	256
Hare	6/4.72	1/4.72	105	17.5	122.5	14.16	423.8	36.04	0.273	271
Coyote	26/2.54	7/1.91	131.7	20.1	151.8	15.89	520.7	45.86	0.2192	311
Cougar	18/3.05	1/3.05	131.5	7.31	138.8	15.25	418.8	29.74	0.2188	308
Tiger	30/2.36	7/2.36	131.2	30.6	161.8	16.52	602.2	57.87	0.2202	313
Lion	30/3.18	7/3.18	238.3	55.6	293.9	22.26	1093.4	100.47	0.1213	450
Bear	30/3.35	7/3.35	264.4	61.7	326.1	23.45	1213.4	111.5	0.1093	480
Goat	30/3.71	7/3.71	324.3	75.7	400	25.97	1488.2	135.13	0.0891	543
Sheep	30/3.99	7/3.99	375.1	87.5	462.6	27.93	1721.3	156.3	0.0771	592
Antelope	54/2.97	7/2.97	374.1	48.5	422.6	26.73	1413.8	118.88	0.0773	586
Bison	54/3.00	7/3.00	381.7	49.5	431.2	27	1442.5	121.3	0.0758	593
Deer	30/4.27	7/4.27	429.6	100.2	529.8	29.89	1971.4	179	0.0673	643
Elk	30/4.50	7/4.50	477.1	111.3	588.4	31.5	2189.5	198.8	0.0606	684
Camel	54/3.35	7/3.35	476	61.7	537.7	30.15	1798.8	146.4	0.0608	677
Moose	54/3.53	7/3.53	528.5	68.5	597	31.77	1997.3	159.92	0.0547	720

Note: *The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre2, ambient temperature of 50° C & conductor temperature of 80°C.

- **IEC 61089**

Code	Nominal Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	Total	AL	Steel					
	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	Kg/Km	KN	Ω/Km	A
16	16	2.67	18.7	6/1.84	1/1.84	5.52	64.6	6.08	1.7934	85
25	25	4.17	29.2	6/2.30	1/2.30	6.9	100.9	9.13	1.1478	112
40	40	6.67	46.7	6/2.91	1/2.91	8.73	161.5	14.4	0.7174	150
63	63	10.5	73.5	6/3.66	1/3.66	10.98	254.4	21.63	0.4555	198
100	100	16.7	117	6/4.61	1/4.61	13.83	403.8	34.33	0.2869	263
125	125	6.94	132	18/2.97	1/2.97	14.85	397.9	29.17	0.2304	299
125	125	20.4	145	26/2.47	7/1.92	15.64	503.9	45.69	0.231	302
160	160	8.89	169	18/3.36	1/3.36	16.8	509.3	36.18	0.18	347
160	160	26.1	186	26/2.80	7/2.18	17.74	644.9	57.69	0.1805	351
200	200	11.1	211	18/3.76	1/3.76	18.8	636.7	44.22	0.144	398
200	200	32.6	233	26/3.13	7/2.43	19.81	806.2	70.13	0.1444	402
250	250	24.6	275	22/3.80	7/2.11	21.53	880.6	68.72	0.1154	458
250	250	40.7	291	26/3.50	7/2.72	22.16	1007.7	87.67	0.1155	461
315	315	21.8	337	45/2.99	7/1.99	23.91	1039.6	79.03	0.0917	526
315	315	51.3	366	26/3.93	7/3.05	24.87	1269.7	106.83	0.0917	530
400	400	27.7	428	45/3.36	7/2.24	26.88	1320.1	98.36	0.0722	607
400	400	51.9	452	54/3.07	7/3.07	27.63	1510.3	123.04	0.0723	610
450	450	31.1	481	45/3.57	7/2.38	28.56	1485.2	107.47	0.0642	651
450	450	58.3	508	54/3.26	7/3.26	29.34	1699.1	138.42	0.0643	655
500	500	34.6	535	45/3.76	7/2.51	30.09	1650.2	119.41	0.0578	693
500	500	64.8	565	54/3.43	7/3.43	30.87	1887.9	153.8	0.0578	697
560	560	38.7	599	45/3.98	7/2.65	31.83	1848.2	133.74	0.0516	741
560*	560	70.9	631	54/3.63	19/2.18	32.68	2103.4	172.59	0.0516	745
630	630	43.6	674	45/4.22	7/2.81	33.75	2079.2	150.45	0.0459	794

Code	Nominal Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	Total	AL	Steel					
	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	Kg/Km	KN	Ω/Km	A
630*	630	79.8	710	54/3.85	19/2.31	34.65	2366.3	191.77	0.0459	798
710	710	49.1	759	45/4.48	7/2.99	35.85	2343.2	169.56	0.0407	851
710*	710	89.9	800	54/4.09	19/2.45	36.79	2666.8	216.12	0.0407	856
800*	800	34.6	835	72/3.76	7/2.51	37.61	2480.2	167.41	0.0361	910
800*	800	66.7	867	84/3.48	7/3.48	38.28	2732.7	205.33	0.0362	912
800*	800	101	901	54/4.34	19/2.61	39.09	3004.9	243.52	0.0362	916
900*	900	38.9	939	72/3.99	7/2.66	39.9	2790.2	188.33	0.0321	972
900*	900	75	975	84/3.69	7/3.69	40.59	3074.2	226.5	0.0322	974
1000*	1000	43.2	1043	72/4.21	7/2.80	42.08	3100.3	209.26	0.0289	1031
1120*	1120	47.3	1167	72/4.45	19/1.78	44.5	3464.9	234.53	0.0258	1096
1120*	1120	91.2	1211	84/4.12	19/2.47	45.31	3811.5	283.17	0.0258	1100
1250*	1250	102	1352	84/4.35	19/2.61	47.85	4253.9	316.04	0.0232	1165
1250*	1250	52.8	1303	72/4.70	19/1.88	47	3867.1	261.75	0.0231	1163

* The items marked with "*" are not in our current product range and the details are for information only.
(*) Note: The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre2, ambient temperature of 50° C & conductor temperature of 80°C.

• ASTM B 232/B 232M

Code	Stranding		Stranding			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Turkey	13.3	2.22	6/1.68	1/1.68	5.04	15.52	53.6	4.98	2.1499	76
Swan	21.18	3.53	6/2.12	1/2.12	6.36	24.71	85.3	7.83	1.3501	101
Swanate	21.12	5.35	7/1.96	1/2.61	6.53	26.47	99.6	9.79	1.3539	102
Sparrow	33.59	5.6	6/2.67	1/2.67	8.01	39.19	135.7	11.92	0.8512	135
Sparate	33.54	8.55	7/2.47	1/3.30	8.24	42.09	158.7	15.08	0.8525	135

Caledonian

Caledonian Aluminium Conductor Cables

Code	Stranding		Stranding			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Robin	42.41	7.07	6/3.00	1/3.00	9	49.48	171.1	14.86	0.6742	156
Raven	53.52	8.92	6/3.37	1/3.37	10.11	62.44	216.1	18.33	0.5343	180
Quail	67.33	11.22	6/3.78	1/3.78	11.34	78.55	272	22.46	0.4247	207
Pigeon	85.12	14.19	6/4.25	1/4.25	12.75	99.31	343	28.02	0.3359	239
Penguin	107.22	17.87	6/4.77	1/4.77	14.31	125.09	432.7	35.36	0.2667	275
Waxwing	134.98	7.5	18/3.09	1/3.09	15.45	142.48	430.2	29.8	0.2129	313
Partridge	134.87	21.99	26/2.57	7/2.00	16.28	156.86	545.9	47.15	0.2141	316
Ostrich	152.19	24.71	26/2.73	7/2.12	17.28	176.9	613.4	53.38	0.1897	341
Merlin	170.22	9.46	18/3.47	1/3.47	17.35	179.68	542.8	37.36	0.1688	361
Linnet	170.55	27.83	26/2.89	7/2.25	18.31	198.38	687.5	59.16	0.1693	365
Oriole	170.5	39.78	30/2.69	7/2.69	18.83	210.28	783.3	72.06	0.1698	367
Chickadee	200.93	11.16	18/3.77	1/3.77	18.85	212.09	641.3	43.15	0.143	400
Brant	201.56	26.13	24/3.27	7/2.18	19.62	227.69	761	61.83	0.1433	403
Ibis	201.34	32.73	26/3.14	7/2.44	19.88	234.07	812.4	68.05	0.1434	404
Lark	200.9	46.88	30/2.92	7/2.92	20.44	247.78	925.2	84.07	0.1441	406
Pelican	242.31	13.46	18/4.14	1/4.14	20.7	255.77	769.7	51.15	0.1186	448
Flicker	241.58	31.4	24/3.58	7/2.39	21.49	272.98	913.5	72.06	0.1195	450
Hawk	241.65	39.19	26/3.44	7/2.67	21.77	280.84	975.1	81.84	0.1195	451
Hen	241.27	56.3	30/3.20	7/3.20	22.4	297.57	1110.6	98.3	0.12	453
Osprey	282.47	15.69	18/4.47	1/4.47	22.35	298.16	897.7	59.6	0.1017	492
Parakeet	282.31	36.6	24/3.87	7/2.58	23.22	318.91	1065.6	83.18	0.1023	495
Dove	282.59	45.92	26/3.72	7/2.89	23.55	328.51	1138.6	94.3	0.1022	497
Eagle	282.07	65.82	30/3.46	7/3.46	24.22	347.89	1295.6	114.76	0.1026	499
Peacock	306.13	39.78	24/4.03	7/2.69	24.19	345.91	1158.9	90.74	0.0943	520
Squab	305.83	49.81	26/3.87	7/3.01	24.51	355.64	1237	101.41	0.0944	521

Code	Stranding		Stranding			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Wood Duck	307.06	71.65	30/3.61	7/3.61	25.27	378.71	1408.4	121.43	0.0943	525
Teal*	307.06	69.62	30/3.61	19/2.16	25.24	376.68	1396.6	124.54	0.0943	525
Kingbird	323.01	17.95	18/4.78	1/4.78	23.9	340.96	1026.6	68.05	0.089	533
Swift	323.02	8.97	36/3.38	1 /3.38	23.66	331.99	956.5	60.05	0.089	532
Rook	323.07	41.88	24/4.14	7/2.76	24.84	364.95	1217.5	95.19	0.0894	537
Grosbeak	321.84	52.49	26/3.97	7/3.09	25.15	374.33	1300.8	104.97	0.0897	537
Scoter	322.56	75.26	30/3.70	7/3.70	25.9	397.82	1480.7	127.66	0.0897	541
Egret*	322.56	73.54	30/3.70	19/2.22	25.9	396.1	1469	130.77	0.0897	541
Flamingo	337.27	43.72	24/4.23	7/2.82	25.38	380.99	1276.6	99.64	0.0856	551
Gannet	338.26	54.9	26/4.07	7/3.16	25.76	393.16	1363.3	110.31	0.0854	553
Stilt	363.27	46.88	24/4.39	7/2.92	26.32	410.15	1370.4	107.2	0.0795	576
Starling	361.93	59.15	26/4.21	7/3.28	26.68	421.08	1463.7	118.32	0.0798	577
Redwing*	362.06	82.41	30/3.92	19/2.35	27.43	444.47	1650.6	143.23	0.0799	580
Coot	401.86	11.16	36/3.77	1/3.77	26.39	413.02	1195.8	73.39	0.0715	607
Tern	403.77	27.83	45/3.38	7/2.25	27.03	431.6	1331.8	94.3	0.0715	610
Condor	402.33	52.15	54/3.08	7/3.08	27.72	454.48	1520.7	118.32	0.0718	612
Cuckoo	402.33	52.15	24/4.62	7/3.08	27.72	454.48	1522.2	117.43	0.0718	612
Drake	402.56	65.44	26/4.44	7/3.45	28.11	468	1626.4	131.66	0.0717	615
Mallard*	403.84	91.78	26/4.44	7/3.45	28.96	495.62	1836	159.24	0.0717	619
Ruddy	455.5	31.67	45/3.59	7/2.40	28.74	487.17	1507.3	104.53	0.0634	656
Canary	456.28	59.15	54/3.28	7/3.28	29.52	515.43	1723.1	134.33	0.0633	660
Catbird	484.61	13.46	36/4.14	1/4.14	28.98	498.07	1434.4	86.74	0.0593	679
Rail	483.84	33.54	45/3.70	7/2.47	29.61	517.38	1598.1	110.76	0.0597	680
Cardinal	484.53	62.81	54/3.38	7/3.38	30.42	547.34	1825.9	142.34	0.0596	685
Tanager	522.79	14.52	36/4.30	1/4.30	30.1	537.31	1553.5	93.85	0.055	710

Caledonian

Caledonian Aluminium Conductor Cables

Code	Stranding		Stranding			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Orotlan	523.87	36.31	45/3.85	7/2.57	30.81	560.18	1730.5	118.32	0.0551	713
Curlew	522.51	67.73	54/3.51	7/3.51	31.59	590.24	1977.6	153.9	0.0553	716
Bluejay	565.49	38.9	45/4.00	7/2.66	31.98	604.39	1866	127.66	0.0511	745
Finch*	565.03	71.57	54/3.65	19/2.19	32.85	636.6	2127.8	164.58	0.0514	748
Bunting	605.76	41.88	45/4.14	7/2.76	33.12	647.64	1996.9	136.55	0.0477	776
Grackle*	602.79	76.89	54/3.77	19/2.27	33.97	679.68	2278.1	176.59	0.0481	777
Skylark	646.02	17.95	36/4.78	1/4.78	33.46	663.97	1913.6	115.65	0.0445	804
Bittern	644.4	44.66	45/4.27	7/2.85	34.17	689.06	2130.8	145.89	0.0448	805
Pheasant*	645.08	81.71	54/3.90	19/2.34	35.1	726.79	2431.4	183.26	0.045	808
Dipper	684.24	47.2	45/4.40	7/2.93	35.19	731.44	2263.2	154.79	0.0422	834
Martin*	685.39	86.67	54/4.02	19/2.41	36.17	772.06	2581.7	194.82	0.0423	838
Bobolink	725.27	50.14	45/4.53	7/3.02	36.24	775.41	2397.2	164.13	0.0398	862
Plover*	726.92	91.78	54/4.14	19/2.48	37.24	818.7	2734.9	206.39	0.0399	866
Nuthatch	764.2	52.83	45/4.65	7/3.10	37.2	817.03	2529.6	171.25	0.0378	888
Parrot*	766.06	97.03	54/4.25	19/2.55	38.25	863.09	2883.7	217.51	0.0379	892
Lapwing	807.53	55.6	45/4.78	7/3.18	38.22	863.13	2663.5	180.14	0.0358	916
Falcon*	806.23	102.43	54/4.36	19/2.62	39.26	908.66	3038.5	229.52	0.036	919
Chukar*	903.18	73.54	84/3.70	19/2.22	40.7	976.72	3083.1	217.51	0.0321	976
Bluebird*	1092.84	88.84	84/4.07	19/2.44	44.76	1181.68	3731.9	256.65	0.0266	1083
Kiwi*	1099.76	47.52	72/4.41	7/2.94	44.1	1147.28	3423.9	215.28	0.0264	1083
Thrasher*	1171.42	63.94	76/4.43	19/2.07	45.79	1235.36	3754.2	243.75	0.0248	1122
Grouse**	40.54	14.12	8/2.54	1/4.24	9.32	54.66	221.4	21.75	0.7089	153
Petrel**	51.61	30.1	12/2.34	7/2.34	11.7	81.71	377.7	42.08	0.5595	181
Minorca**	56.11	32.73	12/2.44	7/2.44	12.2	88.84	411.1	45.81	0.5146	191
Leghorn**	68.2	39.78	12/2.69	7/2.69	13.45	107.98	499.2	55.16	0.4234	215

Code	Stranding		Stranding			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm^2	mm^2	mm^2	mm	Kg/Km	KN	Ω/Km	A
Guinea**	80.36	46.88	12/2.92	7/2.92	14.6	127.24	589.7	64.94	0.3593	238
Dotterel**	89.41	52.15	12/3.08	7/3.08	15.4	141.56	656.1	70.28	0.323	254
Dorking**	96.51	56.3	12/3.20	7/3.20	16	152.81	707.8	75.62	0.2992	267
Cochin**	107.04	62.44	12/3.37	7/3.37	16.85	169.48	783.9	84.07	0.2698	284
Brahma*&**	102.79	91.78	12/3.37	7/3.37	18.12	194.57	1003.8	114.76	0.2809	283

* The items, marked with "*" are not in our current product range and the details are for information only.
The items, marked with "" are ACSR Cables with high strength stranding.
(*) Note: The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre2, ambient temperature of 50° C & conductor temperature of 80°C.

- **DIN 48204**

Nominal Sectional Area		Sectional Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
AL	Steel	AL	Steel	Total	AL	Steel					
mm^2	mm^2	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	Kg/Km	KN	Ω/Km	A
16	2.5	15.27	2.54	17.8	6/1.80	1/1.80	5.4	62	5.81	1.8793	83
25	4	23.86	3.98	27.8	6/2.25	1/2.25	6.8	97	9.02	1.2028	109
35	6	34.35	5.73	40.1	6/2.70	1/2.70	8.1	140	12.7	0.8353	136
44	32	43.98	31.67	75.7	14/2.00	7/2.40	11.2	373	45.46	0.6573	166
50	8	48.25	8.04	56.3	6/3.20	1/3.20	9.6	196	17.18	0.5946	168
50	30	51.17	29.85	81	12/2.33	7/2.33	11.7	378	44.28	0.5644	181
70	12	69.89	11.4	81.3	26/1.85	7/1.44	11.7	284	26.31	0.413	211
95	15	94.39	15.33	109.7	26/2.15	7/1.67	13.6	383	35.17	0.3058	254
95	55	96.51	56.3	152.8	12/3.20	7/3.20	16	714	80.2	0.2992	267
105*	75	105.67	75.55	181.2	14/3.10	19/2.25	17.5	899	106.69	0.2736	284
120	20	121.57	19.85	141.4	26/2.44	7/1.90	15.5	494	44.94	0.2374	297

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Nominal Sectional Area		Sectional Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º	Current Rating*
AL	Steel	AL	Steel	Total	AL	Steel					
mm^2	mm^2	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	Kg/Km	KN	Ω/Km	A
120	70	122.15	71.25	193.4	12/3.60	7/3.60	18	904	98.16	0.2364	308
125	30	127.92	29.85	157.8	30/2.33	7/2.33	16.3	590	57.86	0.2259	308
150	25	148.86	24.25	173.1	26/2.70	7/2.10	17.1	604	54.37	0.1939	336
170	40	171.77	40.08	211.9	30/2.70	7/2.70	18.9	794	77.01	0.1682	369
185	30	183.78	29.85	213.6	26/3.00	7/2.33	19	744	66.28	0.1571	382
210	35	209.1	34.09	243.2	26/3.20	7/2.49	20.3	848	74.94	0.138	414
210	50	212.06	49.48	261.5	30/3.00	7/3.00	21	979	92.25	0.1363	420
230	30	230.91	29.85	260.8	24/3.50	7/2.33	21	874	73.09	0.1249	438
240	40	243.05	39.49	282.5	26/3.45	7/2.68	21.8	985	86.46	0.1188	453
265	35	263.66	34.09	297.8	24/3.74	7/2.49	22.4	998	82.94	0.1094	475
300	50	304.26	49.48	353.7	26/3.86	7/3.00	24.5	1233	105.09	0.0949	520
305	40	304.62	39.49	344.1	54/2.68	7/2.68	24.1	1155	99.3	0.0949	518
340	30	339.29	29.85	369.1	48/3.00	7/2.33	25	1174	92.56	0.0851	551
380	50	381.7	49.48	431.2	54/3.00	7/3.00	27	1448	120.91	0.0757	593
385	35	386.04	34.09	420.1	48/3.20	7/2.49	26.7	1336	104.31	0.0748	595
435	55	434.29	56.3	490.6	54/3.20	7/3.20	28.8	1647	136.27	0.0666	641
450	40	448.71	39.49	488.2	48/3.45	7/2.68	28.7	1553	120.19	0.0644	651
490	65	490.28	63.55	553.8	54/3.40	7/3.40	30.6	1860	152.85	0.059	689
550	70	549.65	71.25	620.9	54/3.60	7/3.60	32.4	2085	167.42	0.0526	737
560	50	561.7	49.48	611.2	48/3.86	7/3.00	32.2	1943	146.28	0.0514	744
680*	85	678.58	85.95	764.5	54/4.00	19/2.40	36	2564	209.99	0.0426	834

* The items marked with "*" are not in our current product range and the details are for information only.

(*) Note: The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre2, ambient temperature of 50° C & conductor temperature of 80°C.

• JIS C 3110

Nominal Sectional Area	Sectional Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20º
	AL	Steel	Total	AL	Steel				
mm^2	mm^2	mm^2	mm^2	No.×mm	No.×mm	mm	Kg/Km	KN	Ω/Km
25	24.9	4.2	29.1	6/2.30	1/2.30	6.9	101	8.89	1.15
32	31.9	5.3	37.2	6/2.60	1/2.60	7.8	129	11.17	0.899
58	57.7	9.6	67.3	6/3.50	1/3.50	10.5	233	19.40	0.497
95	95.4	15.9	111.3	6/4.50	1/4.50	13.5	385	31.16	0.301
120	124.7	29.1	153.8	30/2.3	7/2.3	16.1	574	54.29	0.233
160	159.3	37.2	196.5	30/2.6	7/2.6	18.2	733	68.40	0.182
200	198.2	46.2	244.4	30/2.9	7/2.9	20.3	912	84.67	0.147
240	241.2	59.3	300.5	30/3.2	7/3.2	22.4	1110	100.06	0.120
330	326.8	52.8	379.6	26/4.0	7/3.1	25.3	1320	107.31	0.0888
410	413.4	67.3	480.7	26/4.5	7/3.5	28.5	1673	136.32	0.0702
520	519.5	67.3	586.8	54/3.5	7/3.5	31.2	1969	152.88	0.0559
610	612.4	79.4	691.8	54/3.8	7/3.8	34.2	2320	179.83	0.0474
810	814.5	56.3	870.8	45/3.8	7/3.2	38.4	2700	181.10	0.0356

TECHNICAL DATA

Numbers of Wires		Final Modules of Elasticity		Coeficient of linear Expansion	
AL	Steel	Kg/mm^2	lb/in^2	1/Cº	1/Fº
6	1	81	11.5×10^6	19.1×10^{-6}	10.6×10^{-6}
6	7	77	11.0×10^6	19.8×10^{-6}	11.0×10^{-6}
12	7	107	15.2×10^6	15.3×10^{-6}	8.5×10^{-6}
18	1	67	9.5×10^6	21.2×10^{-6}	11.8×10^{-6}
24	7	74	10.5×10^6	19.6×10^{-6}	10.9×10^{-6}

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Numbers of Wires		Final Modules of Elasticity		Coeficient of linear Expansion	
AL	Steel	Kg/mm^2	lb/in^2	1/C°	1/F°
26	7	77	10.9×10^6	18.9×10^{-6}	10.5×10^{-6}
28	7	79	11.2×10^6	18.4×10^{-6}	10.2×10^{-6}
30	7	82	11.6×10^6	17.8×10^{-6}	9.9×10^{-6}
30	19	80	11.4×10^6	18.0×10^{-6}	10.0×10^{-6}
32	19	82	11.7×10^6	17.5×10^{-6}	9.7×10^{-6}
54	7	70	9.9×10^6	19.3×10^{-6}	10.7×10^{-6}
54	19	68	9.7×10^6	19.4×10^{-6}	10.8×10^{-6}