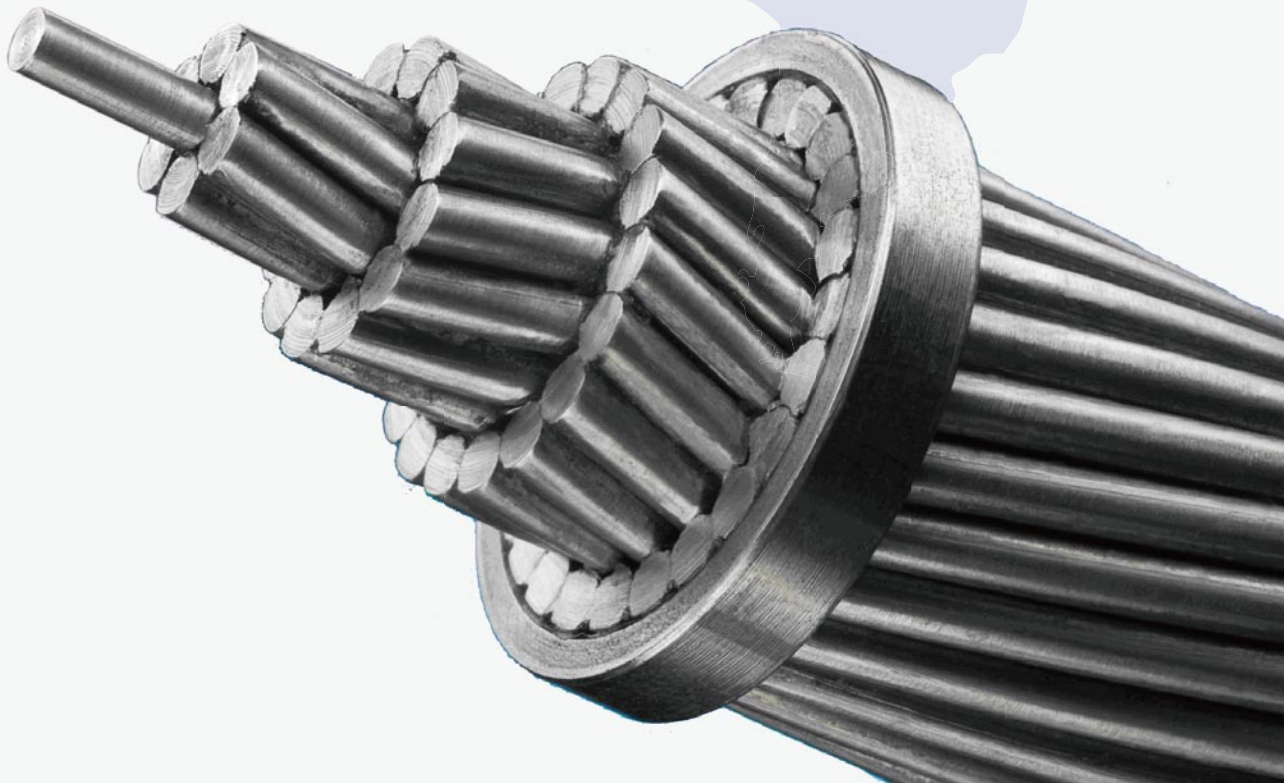




Caledonian

Aluminum Conductor Cables





Caledonian

Company Profile

Caledonia & Addison, branded under Caledonia & Addimax, established in 1978, offers one of the most complete lines of fiber and copper cabling solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS -British Standard; LPCB Fire Performance Standard. ISO Standard etc. Caledonian & Addison offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian & Addison has continually expanded its global presence in Europe and Asia.

Caledonian & Addison produces a wide range of cables for communication, power and electronics in its primary plants in UK, Turkey, Malaysia, Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as China, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services and vertically integrated with our E-commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning, we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.



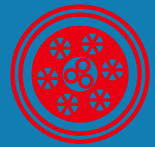


Table of Contents

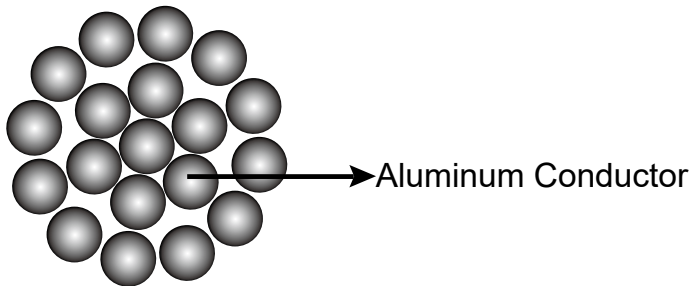
All Aluminum Conductor (AAC) Cables.....	4
All Aluminum Alloy Conductor (AAAC) Cables.....	12
Aluminum Conductor Steel Reinforced (ACSR) Cables.....	20
LV Aerial Bundled Conductor (ABC) Cables.....	33
MV Aerial Bundled Conductor (ABC) Cables.....	41



Caledonian

Caledonian Aluminium Conductor Cables

All Aluminum Conductor (AAC) Cables



APPLICATION

AAC conductor is also known as aluminium stranded conductor . It is manufactured from electrolytically refined aluminium, with a minimum purity of 99.7%.

STANDARD

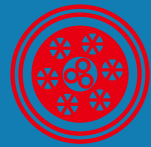
Basic design to BS 215-1 / BS EN 50182 / IEC 61089 / ASTM B 231/B 231M / DIN 48201-5 standards

CONSTRUCTION

Concentric lay stranded Aluminium Conductor (AAC) is made up of one or more strands of hard drawn 1350 aluminum alloy. These conductors are used in low, medium and high voltage overhead lines. AAC has seen extensive use in urban areas where spans are usually short but high conductivity is required. The excellent corrosion resistance of aluminium has made AAC a conductor of choice in coastal areas. Because of its relatively poor strength to weight ratio, AAC had limited use in transmission lines and rural distribution because of long spans utilized. All aluminium conductors are made up of one or more strands of aluminium wire dep.

ELECTRICAL PROPERTIES

Density@20°C	2.703 kg/dm
Temperature Coefficient@20°C	0.00403 (°C)
Resistivity@20°C	0.028264
Linear Expansivity	23 x10 ⁻⁶ (°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 Part 1

Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	Nominal	Theorical						
	mm ²	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
Midge	22	23.33	7/2.06	6.18	64	3.99	1.227	106
Gnat	25	26.8	7/2.21	6.6	73.8	4.83	1.0643	122
Mosquito	35	37	7/2.59	7.8	102.1	6.27	0.7749	141
Ladybird	40	42.8	7/2.79	8.4	117.9	7.28	0.6678	157
Ant	50	52.83	7/3.1	9.3	145	8.28	0.5419	175
Fly	60	63.55	7/3.4	10.2	174	9.9	0.4505	196
Wasp	100	106	7/4.39	13.17	290	16	0.2702	268
Hornet	150	157.6	19/3.25	16.25	434	25.7	0.1825	342
Charfer	200	213.2	19/3.78	18.9	587	35.4	0.1349	412
Cockroach	250	265.7	19/4.22	21.1	731	40.4	0.1083	471
Butterfly	300	322.7	19/4.65	23.25	888	48.75	0.08916	530
Centipede	400	415.2	37/3.78	26.46	1145	63.1	0.06944	616
Maybug	475	486,1	37/4,09	28,6	1342	0.05571	0,05900	740
Skorpion	500	529,8	37/4,27	29,9	1460	0.04916	0,05400	887
Cicada	600	628,3	37/4,65	32,6	1733	0.03423	0,04500	1056

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



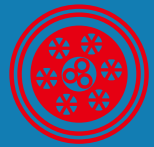
Caledonian

Caledonian Aluminium Conductor Cables

- **BS EN 50182**

Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	Nominal	Teorical						
	mm ²	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
Gnat	25	26.9	7/2.21	6.63	73	4.83	1.0643	115
Mosquito	35	36.9	7/2.59	7.77	101	6.27	0.7749	140
Ladybird	40	42.8	7/2.79	8.37	117	7.28	0.6678	154
Bluebottle	70	73.6	7/3.66	10.98	201	11.78	0.388	215
Earwig	75	78.6	7/3.78	11.34	215	12.57	0.3638	223
Grasshopper	80	84.1	7/3.91	11.73	230	13.45	0.34	233
Clegg	90	95.6	7/4.17	12.51	261	15.3	0.2989	252
Beetle	100	106.4	19/2.67	13.35	292	18.08	0.2701	269
Bee	120	132	7/4.90	14.7	361	21.12	0.2165	307
Caterpillar	180	185.9	19/3.53	17.65	511	29.75	0.1546	379
Spider	220	237.6	19/3.99	19.95	653	38.01	0.121	440
Moth	350	373.1	19/5.00	25	1025	59.69	0.077	579
Drone	350	372.4	37/3.58	25.06	1027	59.59	0.0774	577
Maybug	450	486.1	37/4.09	28.63	1341	77.78	0.0593	677
Scorpion	500	529.8	37/4.27	29.89	1461	84.77	0.0544	713
Cicada	600	628.3	37/4.65	32.55	1733	100.54	0.0459	788

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	Rated Strength	Electrical Resistance	Current Rating*
	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
10	10	7/1.35	4.05	27.4	1.95	2.8633	62
16	16	7/1.71	5.13	43.8	3.04	1.7896	84
25	25	7/2.13	6.39	68.4	4.5	1.1453	110
40	40	7/2.70	8.1	109.4	6.8	0.7158	147
63	63	7/3.39	10.17	172.3	10.39	0.4545	195
100	100	19/2.59	12.95	274.8	17	0.2877	259
125	125	19/2.89	14.45	343.6	21.25	0.2302	297
160	160	19/3.27	16.35	439.8	26.4	0.1798	345
200	200	19/3.66	18.3	549.7	32	0.1439	396
250	250	19/4.09	20.45	687.1	40	0.1151	454
315	315	37/3.29	23.03	867.9	51.97	0.0916	522
400	400	37/3.71	25.97	1102	64	0.0721	603
450	450	37/3.94	27.58	1239.8	72	0.0641	647
500	500	37/4.15	29.05	1377.6	80	0.0577	688
560	560	37/4.39	30.73	1542.9	89.6	0.0515	736
630	630	61/3.63	32.67	1738.3	100.8	0.0458	789
710	710	61/3.85	34.65	1959.1	113.6	0.0407	845
800	800	61/4.09	36.81	2207.4	128	0.0361	905
900	900	61/4.33	38.97	2483.3	144	0.0321	967
1000	1000	61/4.57	41.13	2759.2	160	0.0289	1026
1120*	1120	91/3.96	43.56	3093.5	179.2	0.0258	1091
1250*	1250	91/4.18	45.98	3452.6	200	0.0231	1157
1400*	1400	91/4.43	48.73	3866.9	224	0.0207	1226
1500*	1500	91/4.58	50.38	4143.1	240	0.0193	1270

* 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.

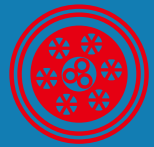


Caledonian

Caledonian Aluminium Conductor Cables

• **ASTM B 231/B 231M**

Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	AWG&MCM	mm ²						
Peachbell	6	13.3	7/1.56	4.68	36.6	2.53	2.1477	75
Rose	4	21.1	7/1.96	5.88	58.2	3.91	1.3606	99
Iris	2	33.6	7/2.47	7.41	92.6	5.99	0.8567	132
Pansy	1	42.4	7/2.78	8.34	116.6	7.3	0.6763	153
Poppy	1/0.0	53.5	7/3.12	9.36	147.2	8.84	0.5369	176
Aster	2/0.0	67.4	7/3.50	10.5	185.7	11.1	0.4267	203
Phlox	3/0.0	85	7/3.93	11.79	233.9	13.5	0.3384	234
Oxlip	4/0.0	107.2	7/4.42	13.26	295.2	17	0.2675	270
Valerian	250	126.7	19/2.91	14.55	348.6	20.7	0.2274	299
Sneezewort	250	126.7	7/4.80	14.4	348.8	20.1	0.2269	299
Laurel	266.8	135.2	19/3.01	15.05	372.2	22.1	0.2125	312
Daisy	266.8	135.2	7/4.96	14.88	372.3	21.4	0.2125	311
Peony	300	152	19/3.19	15.95	418.3	24.3	0.1892	335
Tulip	336.4	170.5	19/3.38	16.9	469.5	27.3	0.1686	359
Daffodil	350	177.3	19/3.45	17.25	487.9	28.4	0.1618	369
Canna	397.5	201.4	19/3.67	18.35	554.9	31.6	0.143	397
Goldentuft	450	228	19/3.91	19.55	627.6	35	0.126	429
Syringa	477	241.7	37/2.88	20.16	664.8	38.6	0.1192	444
Cosmos	477	241.7	19/4.02	20.1	664.8	37	0.1192	444
Hyacinth	500	253.3	37/2.95	20.65	696.8	40.5	0.1136	458
Zinnia	500	253.3	19/4.12	20.6	697.1	38.9	0.1134	458
Dahlia	556.5	282	19/4.35	21.75	775.8	43.3	0.1018	489
Mistletoe	556.5	282	37/3.12	21.84	775.7	44.3	0.1016	490
Meadowsweet	600	304	37/3.23	22.61	836.3	47.5	0.0948	511



Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	AWG&MCM	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
Orchid	636	322.3	37/3.33	23.31	886.9	50.4	0.0892	530
Heuchera	650	329.4	37/3.37	23.59	907.4	51.7	0.0871	538
Flag	700	354.7	61/2.72	24.48	975.8	57.1	0.0811	561
Varbena	700	354.7	37/3.49	24.43	975.7	55.4	0.0812	561
Nasturtium	715.5	362.6	61/2.75	24.75	998.5	58.4	0.0793	569
Violet	715.5	362.6	37/3.53	24.71	998.5	56.7	0.0794	568
Cattail	750	380	61/2.82	25.38	1046	60.3	0.0754	587
Petunia	750	380	37/3.62	25.34	1046	58.6	0.0755	586
Lilac	795	402.8	61/2.90	26.1	1110	63.8	0.0713	607
Arbutus	795	402.8	37/3.72	26.04	1109	61.8	0.0715	605
Snapdragon	900	456	61/3.09	27.81	1256	70.8	0.0628	654
Cockscomb	900	456	37/3.96	27.72	1256	68.4	0.0631	652
Goldenrod	954	483.4	61/3.18	28.62	1331	75	0.0593	677
Magnolia	954	483.4	37/4.08	28.56	1331	72.6	0.0594	676
Camellia	1000	506.7	61/3.25	29.25	1394	78.3	0.0568	695
Hawkweed	1000	506.7	37/4.18	29.26	1395	76.2	0.0566	696
Larkspur	1033.5	523.7	61/3.31	29.79	1442	81.3	0.0547	710
Bluebell	1033.5	523.7	37/4.25	29.75	1441	78.8	0.0547	710
Marigold	1113	564	61/3.43	30.87	1553	87.3	0.051	740
Hawthorn	1192.5	604.2	61/3.55	31.95	1662	93.5	0.0476	771
Narsissus	1272	644.5	61/3.67	33.03	1774	98.1	0.0445	802
Columbine	1351	694.8	61/3.78	34.02	1884	104	0.042	829
Carnation	1431	725.1	61/3.89	35.01	1997	108	0.0396	858
Gladiolus	1510.5	765.4	61/4.00	36	2108	114	0.0375	885
Coreopsis	1590	805.7	61/4.10	36.9	2216	120	0.0357	911



Caledonian

Caledonian Aluminium Conductor Cables

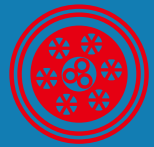
Code	Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	AWG&MCM	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
Jassamine	1750	886.7	61/4.30	38.7	2442	132	0.0324	962
Cowslip*	2000	1013	91/3.77	41.47	2787	153	0.0286	1032
Sagebrush*	2250	1140	91/3.99	43.89	3166	167	0.0255	1099
Lupine*	2500	1267	91/4.21	46.31	3519	186	0.0229	1163
Bitterrot*	2750	1393	91/4.42	48.62	3872	205	0.0208	1223
Trillium*	3000	1520	127/3.90	50.7	4226	223	0.0193	1271
Bluebonnet*	3500	1773	127/4.22	54.86	4977	261	0.0165	1373

* 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.

• DIN 48201 Part 5

Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
Nominal	Teorical						
mm ²	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
16	15.89	7/1.70	5.1	43	2.84	1.8022	83
25	24.25	7/2.10	6.3	66	4.17	1.181	108
35	34.36	7/2.50	7.5	94	5.78	0.8333	134
50	49.48	7/3.00	9	135	7.94	0.5787	168
50	48.35	19/1.80	9	133	8.45	0.5951	166
70	65.81	19/2.10	10.5	181	11.32	0.4372	200
95	93.27	19/2.50	12.5	256	15.68	0.3085	248
120	116.99	19/2.80	14	322	18.78	0.2459	285
150	147.11	37/2.25	15.8	406	25.3	0.196	328
185	181.62	37/2.50	17.5	500	30.54	0.1588	373
240	242.54	61/2.25	20.3	670	39.51	0.1191	445
300	299.43	61/2.50	22.5	827	47.7	0.0965	506



Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
Nominal	Teorical						
mm ²	mm ²	No. x mm	mm	kg/km	KN	Ω/Km	A
400	400.14	61/2.89	26	1104	60.86	0.0722	602
500	499.83	61/3.23	29.1	1379	74.67	0.0578	688
625*	626.2	91/2.96	32.6	1732	95.25	0.0462	786
800*	802.09	91/3.35	36.9	2218	118.39	0.036	907
1000*	999.71	91/3.74	41.1	2767	145.76	0.0289	1026

* 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.

TECHNICAL DATA

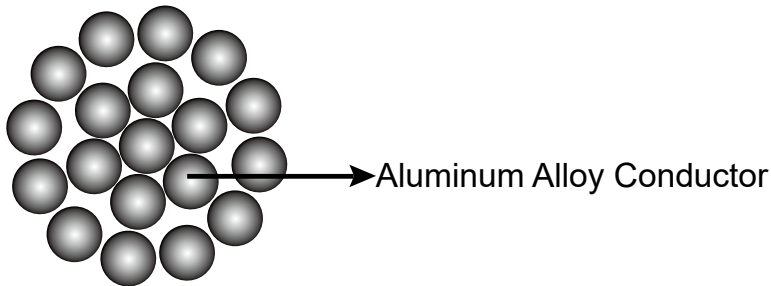
Numbers of Wires	Final Modules of Elasticity		Coefficient of linear Expansion	
	Kg/mm ²	lb/in ²	1/C°	1/F°
7	6000	8.5 x 10 ⁶	23.0 x 10 ⁻⁶	112.8 x 10 ⁻⁶
19	5700	8.1 x 10 ⁶	23.0 x 10 ⁻⁶	112.8 x 10 ⁻⁶
37	5700	8.1 x 10 ⁶	23.0 x 10 ⁻⁶	112.8 x 10 ⁻⁶
61	5500	7.8 x 10 ⁶	23.0 x 10 ⁻⁶	112.8 x 10 ⁻⁶
91	5500	7.8 x 10 ⁶	23.0 x 10 ⁻⁶	112.8 x 10 ⁻⁶



Caledonian

Caledonian Aluminium Conductor Cables

All Aluminum Alloy Conductor (AAAC) Cables



APPLICATION

AAAC is mainly used as bare overhead transmission cable and as primary and secondary distribution cable. It is also suitable for laying across basins, rivers and valleys where special geographical features exist.

STANDARD

Basic design to BS 3242 / BS EN 50182 / IEC 61089 / ASTM B 399/B 399M / DIN 48201 -6 standards

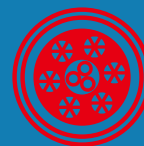
CONSTRUCTION

AAAC cable consists of aluminum alloy wires. The aluminum alloy wires are concentrically stranded.

This section deals with heat-treatable magnesium silicon type aluminium alloys to the applicable International Standard, the electrical and mechanical properties of which all fall within the values suggested by relevant standard. Conductors to all other recognized specifications can also be supplied. The alloys referred to have higher strength but lower conductivity than pure aluminium. Being lighter, alloy conductors can sometimes be used to advantage in place of the more conventional ACSR; Having lower breaking loads than the latter, their use becomes particularly favourable when ice and wind loadings are low.

ELECTRICAL PROPERTIES

Density@20°C	2.70 kg/dm
Temperature Coefficient@20°C	0.00360 (°C)
Resistivity@20°C	0.0326 Ohms mm ² /m



Linear Expansivity	23 x10 ⁻⁶ (°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 3242

Code	AL Nominal Area	Cu Nominal Area Equivalent	Total Area	Stranding	Overall Diameter	Weight
	mm ²	mm ²	mm ²	No.×mm	mm	kg/km
-	-	6.45	11.7	7/1.47	4.41	32.2
Box	-	9.68	18.8	7/1.85	5.55	51.7
Acacia	-	12.9	21.9	7/2.08	6.24	66.1
Almond	25	16.1	30.1	7/2.34	7.02	82.9
Ceda	30	19.4	35.5	7/2.54	7.62	97.8
-	40	22.6	42.2	7/2.77	8.31	116.4
Fir	50	25.8	47.8	7/2.95	8.85	131.8
Hazel	100	32.3	59.9	7/3.30	9.9	165
Pine	-	38.7	71.7	7/3.61	10.83	197.7
-	-	45.2	84.1	7/3.91	11.73	231.6
Willow	150	48.4	89.8	7/4.04	12.12	247.5
-	175	51.6	96.5	7/4.19	12.57	266.2
-	300	58.1	108.8	7/4.45	13.35	299.8
Oak	-	64.5	118.9	7/4.65	13.95	327.8



Caledonian

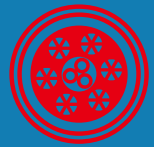
Caledonian Aluminium Conductor Cables

Code	AL Nominal Area	Cu Nominal Area Equivalent	Total Area	Stranding	Overall Diameter	Weight
	mm ²	mm ²	mm ²	No.×mm	mm	kg/km
-	-	80.6	118.8	19/2.82	14.1	327.6
Mulberry	-	96.8	151.1	19/3.18	15.9	416.7
Ash	-	113	180.7	19/3.48	17.4	498.1
Elm	-	129	211	19/3.76	18.8	582.1
Poplar	-	145	239	37/2.87	20.09	658.8
-	-	161	270.8	37/3.05	21.35	746.7
Sycamore	-	194	303	37/3.23	22.61	834.9
Upas	-	226	362.1	37/3.53	24.71	998.6
-	-	258	421.8	37/3.81	26.47	1163
Yew	-	-	479.9	37/4.06	28.42	1323

(*) 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.

• BS EN 50182

Code	Stranding	Nominal Area	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	No.×mm	mm ²	mm	kg/km	KN	Ω/Km	A
Box	7/1.85	18.8	5.55	51.4	5.55	1.748	87
Acacia	7/2.08	23.8	6.24	64.9	7.02	1.3828	101
Almond	7/2.34	30.1	7.02	82.2	8.88	1.0926	116
Cedar	7/2.54	35.5	7.62	96.8	10.46	0.9273	129
Deodar	7/2.77	42.2	8.31	115.2	12.44	0.7797	143
Fir	7/2.95	47.8	8.85	130.6	14.11	0.6875	155
Hazel	7/3.30	59.9	9.9	163.4	17.66	0.5494	178
Pine	7/3.61	71.6	10.83	195.6	21.14	0.4591	199
Holly	7/3.91	84.1	11.73	229.5	24.79	0.3913	219
Willow	7/4.04	89.7	12.12	245	26.47	0.3665	228



Code	Stranding	Nominal Area	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	No.×mm	mm ²	mm	kg/km	KN	Ω/Km	A
Oak	7/4.65	118.9	13.95	324.5	35.07	0.2767	272
Mulberry	19/3.18	150.9	15.9	414.3	44.52	0.2192	314
Ash	19/3.48	180.7	17.4	496.1	53.31	0.183	351
Elm	19/3.76	211	18.8	579.2	62.24	0.1568	386
Poplar	37/2.87	239.4	20.09	659.4	70.61	0.1387	416
Sycamore	37/3.23	303.2	22.61	835.2	89.4	0.1095	480
Upas	37/3.53	362.1	24.71	997.5	106.82	0.0917	535
Yew	37/4.06	479	28.42	1319.6	141.31	0.0693	633
Totara	37/4.14	498.1	28.98	1372.1	146.93	0.0666	648
Rubus	61/3.50	586.9	31.5	1622	173.13	0.0567	714
Sorbus	61/3.71	659.4	33.39	1822.5	194.53	0.0505	764
Araucaria	61/4.14	821.1	37.26	2269.4	242.24	0.0406	868
Redwood	61/4.56	996.2	41.04	2753.2	293.88	0.0334	970

(*) 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 60189

Code	Nominal Area	Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
16	18.4	7/1.83	5.49	50.4	5.43	1.7896	86
25	28.8	7/2.29	6.87	78.7	8.49	1.1453	113
40	46	7/2.89	8.67	125.9	13.58	0.7158	151
63	72.5	7/3.63	10.89	198.3	21.39	0.4545	200
100	115	19/2.78	13.9	316.3	33.95	0.2877	266
125	144	19/3.1	15.5	395.4	42.44	0.2302	305
160	184	19/3.51	17.55	506.1	54.32	0.1798	355



Caledonian

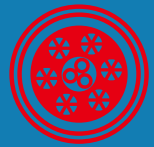
Caledonian Aluminium Conductor Cables

Code	Nominal Area	Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
200	230	19/3.93	19.65	632.7	67.91	0.1439	407
250	288	19/4.39	21.95	790.8	84.88	0.1151	466
315	363	37/3.53	24.71	998.9	106.95	0.0916	535
400	460	37/3.98	27.86	1268.4	135.81	0.0721	618
450	518	37/4.22	29.54	1426.9	152.79	0.0641	663
500	575	37/4.45	31.15	1585.5	169.76	0.0577	706
560	645	61/3.67	33.03	1778.4	190.14	0.0516	755
630	725	61/3.89	35.01	2000.7	213.9	0.0458	809
710	817	61/4.13	37.17	2254.8	241.07	0.0407	866
800	921	61/4.38	39.42	2540.6	271.62	0.0361	928
900*	1036	91/3.81	41.91	2861.1	305.58	0.0321	992
1000*	1151	91/4.01	44.11	3179	339.53	0.0289	1051
1120*	1289	91/4.25	46.75	3560.5	380.27	0.0258	1118
1250*	1439	91/4.49	49.39	3973.7	424.41	0.0231	1185

(*) 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 399/B 399M

Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
AWG&MCM	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
6	13.2	7/1.55	4.65	36.2	4.18	2.5361	69
4	21.1	7/1.96	5.88	57.9	6.69	1.586	93
2	33.5	7/2.47	7.41	92	10.6	0.9987	123
0	53.5	7/3.12	9.36	146.8	17	0.62592	165
2/0	67.3	7/3.50	10.5	184.8	20.4	0.49738	190
3/0	84.9	7/3.93	11.79	233	25.7	0.3945	219



Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
AWG&MCM	mm ²	No.×mm	mm	kg/km	KN	Ω/Km	A
4/0	107	7/4.42	13.26	294.7	32.5	0.31188	253
250	126	19/2.91	14.55	346.7	38.8	0.26509	280
300	152	19/3.19	15.95	416.7	46.6	0.22059	313
350	178	19/3.45	17.25	487.3	52	0.1886	345
400	203	19/3.69	18.45	557.5	59.5	0.16486	375
450	228	19/3.91	19.55	626	66.8	0.14683	402
500	253	19/4.12	20.6	695	74.2	0.13224	429
550	279	37/3.10	21.7	766.2	83.9	0.11995	455
600	303	37/3.23	22.61	831.9	91	0.11049	478
650	330	37/3.37	23.59	905.5	94.9	0.1015	504
700	354	37/3.49	24.43	971.2	101	0.09464	525
750	381	37/3.62	25.34	1045	109	0.08796	549
800	404	37/3.73	26.11	1109	116	0.08285	569
900	456	37/3.96	27.72	1250	131	0.07351	612
1000	508	37/4.18	29.26	1393	146	0.06597	653
1250	631	61/3.63	32.67	1732	179	0.05306	743
1500	759	61/3.98	35.82	2082	215	0.04414	827
1750	886	61/4.30	38.7	2431	251	0.03781	904

(*) 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.



Caledonian

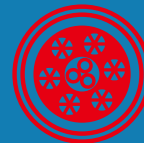
Caledonian Aluminium Conductor Cables

- DIN 48201 Part 6**

Nominal Area		Stranding	Overall Diameter	Weight	Rated Strength	Electrical Resistance	Current Rating*
Nominal	Teorical						
mm ²	mm ²	No. x mm	mm	kg/km	KN	Ω/Km	A
16	15.89	7/1.70	5.1	43	4.44	2.0742	78
25	24.25	7/2.10	6.3	66	6.77	1.3593	102
35	34.36	7/2.50	7.5	94	9.6	0.9591	126
50	49.48	7/3.00	9	135	13.82	0.666	158
50	48.35	19/1.80	9	133	13.5	0.6849	156
70	65.81	19/2.10	10.5	181	18.38	0.5032	189
95	93.27	19/2.50	12.5	256	26.05	0.3551	234
120	116.99	19/2.80	14	322	32.68	0.2831	269
150	147.11	37/2.25	15.8	406	41.09	0.2256	309
185	181.62	37/2.50	17.5	500	50.73	0.1828	352
240	242.54	61/2.25	20.3	670	67.74	0.1371	420
300	299.43	61/2.50	22.5	827	83.63	0.111	477
400	400.14	61/2.89	26	1104	111.76	0.0831	568
500	499.83	61/3.23	29.1	1379	139.6	0.0665	649
625*	626.2	91/2.96	32.6	1732	174.9	0.0531	742
800*	802.09	91/3.35	36.9	2218	224.02	0.0415	857
1000*	999.71	91/3.74	41.1	2767	279.22	0.0333	971

* 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.

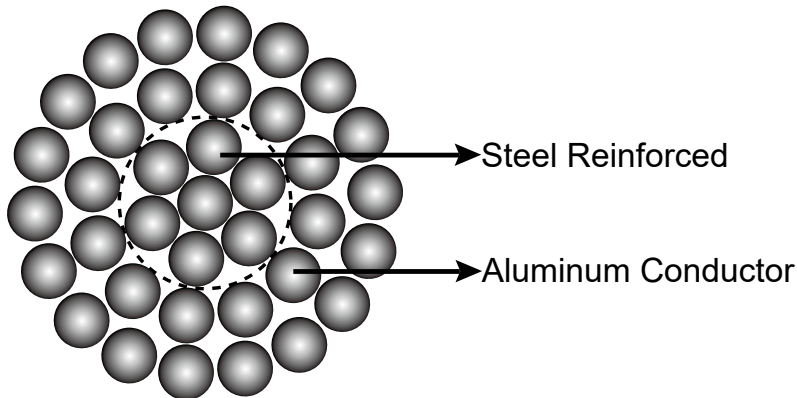


TECHNICAL DATA

Code	AL Nominal Area	Maximum Resistance DC at 20°		Current Rating	
				Temperate	Tropical
	mm ²	Ω / km	Ω / 1000ft	Amp	Amp
-	-	2.87	0.873	90	73
Box	-	1.79	0.544	121	98
Acacia	-	1.4	0.426	140	114
Almond	25	1.11	0.339	162	131
Ceda	30	0.944	0.288	180	145
-	40	0.794	0.242	200	162
Fir	50	0.7	0.213	217	175
Hazel	100	0.559	0.17	250	201
Pine	-	0.467	0.142	279	224
-	-	0.398	0.121	309	247
Willow	150	0.373	0.114	322	258
-	175	0.347	0.106	337	270
-	300	0.308	0.0938	343	290
Oak	-	0.282	0.0859	384	307
-	-	0.282	0.086	385	307
Mulberry	-	0.222	0.0676	448	356
Ash	-	0.185	0.0565	501	398
Elm	-	0.159	0.048	553	438
Poplar	-	0.14	0.0427	598	473
-	-	0.124	0.0337	647	511
Sycamore	-	0.111	0.0377	694	547
Upas	-	0.0925	0.0282	776	610
-	-	0.0794	0.0242	854	669
Yew	-	0.0698	0.0213	925	723



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

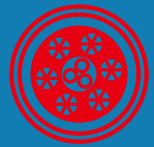
CONSTRUCTION

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

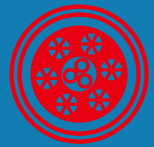
Code	Nominal Area				Stranding		Overall Diameter		Weight(CU)			Rated Strength	Electrical Resistance @20°
	AL		Steel	Total	AL	Steel	Core	Total	AL	Steel	Total		
	Nominal	Teorical											
	mm ²	mm ²	mm ²	mm ²	No.×mm	No.×mm	mm	mm	Kg/Km	Kg/Km	Kg/Km	KN	Ω/Km
Mole	10	10.62	1.77	12.39	6/1.50	1/1.50	1.50	4.5	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 @20°	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 v elocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre2, ambient temperature of 50° C & conductor temperature of 80°C.

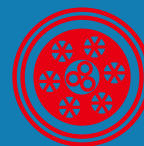


Caledonian

Caledonian Aluminium Conductor Cables

• IEC 61089

Code	Nominal Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	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 @20°	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

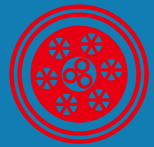
Code	Stranding		Nominal Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm ²	mm ²	mm ²	mm	Kg/Km	KN	Ω/Km	A
Turkey	6/1.68	1/1.68	13.3	2.22	15.52	5.04	53.6	4.98	2.1499	76
Swan	6/2.12	1/2.12	6.36	21.18	24.71	3.53	85.3	7.83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



Caledonian

Caledonian Aluminium Conductor Cables

Code	Stranding		Nominal Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm2	mm2	mm2	mm	Kg/Km	KN	Ω/Km	A
Robin	6/3.00	1/3.00	42.41	7.0	49.48	9	171.1	14.86	0.6742	156
Raven	6/3.37	1/3.37	53.52	8.92	62.44	10.11	216.1	18.33	0.5343	180
Quail	6/3.78	1/3.78	67.33	11.22	78.55	11.34	272	22.46	0.4247	207
Pigeon	6/4.25	1/4.25	85.12	14.19	99.31	12.75	343	28.02	0.3359	239
Penguin	6/4.77	1/4.77	107.22	17.8	125.09	14.31	432.7	35.36	0.2667	275
Waxwing	18/3.09	1/3.09	134.98	7.5	142.48	15.45	430.2	29.8	0.2129	313
Partridge	26/2.57	7/2.00	134.87	21.99	156.86	16.28	545.9	47.15	0.2141	316
Ostrich	26/2.73	7/2.12	152.19	24.71	176.9	17.28	613.4	53.38	0.1897	341
Merlin	18/3.47	1/3.47	170.22	9.46	179.68	17.35	542.8	37.36	0.1688	361
Linnet	26/2.89	7/2.25	170.55	27.83	198.38	18.31	687.5	59.16	0.1693	365
Oriole	30/2.69	7/2.69	170.5	39.78	210.28	18.83	783.3	72.06	0.1698	367
Chickadee	18/3.77	1/3.77	200.93	11.16	212.09	18.85	641.3	43.15	0.143	400
Brant	24/3.27	7/2.18	201.56	26.13	227.69	19.62	761	61.83	0.1433	403
Ibis	26/3.14	7/2.44	201.34	32.73	234.07	19.88	812.4	68.05	0.1434	404
Lark	30/2.92	7/2.92	200.9	46.88	247.78	20.44	925.2	84.07	0.1441	406
Pelican	18/4.14	1/4.14	242.31	13.46	255.77	20.7	769.7	51.15	0.1186	448
Flicker	24/3.58	7/2.39	241.58	31.4	272.98	21.49	913.5	72.06	0.1195	450
Hawk	26/3.44	7/2.67	241.65	39.19	280.84	21.77	975.1	81.84	0.1195	451
Hen	30/3.20	7/3.20	241.27	56.3	297.57	22.4	1110.6	98.3	0.12	453
Osprey	18/4.47	1/4.47	282.47	15.69	298.16	22.35	897.7	59.6	0.1017	492
Parakeet	24/3.87	7/2.58	282.31	36.6	318.91	23.22	1065.6	83.18	0.1023	495
Dove	26/3.72	7/2.89	282.59	45.92	328.51	23.55	1138.6	94.3	0.1022	497
Eagle	30/3.46	7/3.46	282.07	65.82	347.89	24.22	1295.6	114.76	0.1026	499
Peacock	24/4.03	7/2.69	306.13	39.78	345.91	24.19	1158.9	90.74	0.0943	520
Squab	26/3.87	7/3.01	305.83	49.81	355.64	24.51	1237	101.41	0.0944	521



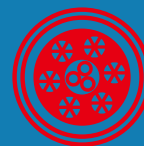
Code	Stranding		Nominal Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm2	mm2	mm2	mm	Kg/Km	KN	Ω/Km	A
Wood Duck	30/3.61	7/3.61	307.06	71.65	378.71	25.27	1408.4	121.43	0.0943	525
Teal*	30/3.61	19/2.16	307.06	69.62	376.68	25.24	1396.6	124.54	0.0943	525
Kingbird	18/4.78	1/4.78	323.01	17.95	340.9	23.9	61026.6	68.05	0.089	533
Swift	36/3.38	1 /3.38	323.02	8.97	331.99	23.66	956.5	60.05	0.089	532
Rook	24/4.14	7/2.76	323.07	41.88	364.95	24.84	1217.5	95.19	0.0894	537
Grosbeak	26/3.97	7/3.09	321.84	52.49	374.33	25.15	1300.8	104.97	0.0897	537
Scoter	30/3.70	7/3.70	322.56	75.26	397.82	25.9	1480.7	127.66	0.0897	541
Egret*	30/3.70	19/2.22	322.56	73.54	396.1	25.9	1469	130.77	0.0897	541
Flamingo	24/4.23	7/2.82	337.27	43.72	380.99	25.38	1276.6	99.64	0.0856	551
Gannet	26/4.07	7/3.16	338.26	54.9	393.16	25.76	1363.3	110.31	0.0854	553
Stilt	24/4.39	7/2.92	363.27	46.88	410.15	26.32	1370.4	107.2	0.0795	576
Starling	26/4.21	7/3.28	361.93	59.15	421.08	26.68	1463.7	118.32	0.0798	577
Redwing*	30/3.92	19/2.35	362.06	82.41	444.47	27.43	1650.6	143.23	0.0799	580
Coot	36/3.77	1/3.77	401.86	11.16	413.02	26.39	1195.8	73.39	0.0715	607
Tern	45/3.38	7/2.25	403.77	27.83	431.6	26.39	1331.8	94.3	0.0715	610
Condor	54/3.08	7/3.08	402.33	52.15	454.48	27.72	1520.7	118.32	0.0718	612
Cuckoo	24/4.62	7/3.08	402.33	52.15	454.48	27.72	1522.2	117.43	0.0718	612
Drake	26/4.44	7/3.45	402.56	65.44	468	28.11	1626.4	131.66	0.0717	615
Mallard*	26/4.44	7/3.45	403.84	91.78	495.62	28.96	1836	159.24	0.0717	619
Ruddy	45/3.59	7/2.40	455.5	31.67	487.17	28.98	1507.3	104.53	0.0634	656
Canary	54/3.28	7/3.28	456.28	59.15	517.38	29.61	1723.1	134.33	0.0633	660
Catbird	36/4.14	1/4.14	484.61	13.46	498.07	28.98	1434.4	86.74	0.0593	679
Rail	45/3.70	7/2.47	483.84	33.54	517.38	29.61	1598.1	110.76	0.0597	680
Cardinal	54/3.38	7/3.38	484.53	62.81	547.34	30.42	1825.9	142.34	0.0596	685
Tanager	36/4.30	1/4.30	522.79	14.52	537.31	30.1	1553.5	93.85	0.055	710



Caledonian

Caledonian Aluminium Conductor Cables

Code	Stranding		Nominal Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	Current Rating*
	AL	Steel	AL	Steel	Total					
	No.×mm	No.×mm	mm2	mm2	mm2	mm	Kg/Km	KN	Ω/Km	A
Orotlan	45/3.85	7/2.57	523.87	36.31	560.18	30.81	1730.5	118.32	0.0551	713
Curlew	54/3.51	7/3.51	522.51	67.73	590.24	31.59	1977.6	153.9	0.0553	716
Bluejay	45/4.00	7/2.66	565.49	38.9	604.39	31.98	1866	127.66	0.0511	745
Finch*	54/3.65	19/2.19	565.03	71.57	636.6	32.85	2127.8	164.58	0.0514	748
Bunting	45/4.14	7/2.76	605.76	41.88	647.64	33.12	1996.9	136.55	0.0477	776
Grackle*	54/3.77	19/2.27	602.79	76.89	679.68	33.97	2278.1	176.59	0.0481	777
Skylark	36/4.78	1/4.78	646.02	17.95	663.97	33.46	1913.6	115.65	0.0445	804
Bittern	45/4.27	7/2.85	644.4	44.66	689.06	34.17	2130.8	145.89	0.0448	805
Pheasant*	54/3.90	19/2.34	645.08	81.71	726.79	35.1	2431.4	183.26	0.045	808
Dipper	45/4.40	7/2.93	684.24	47.2	731.44	35.19	2263.2	154.79	0.0422	834
Martin*	54/4.02	19/2.41	685.39	86.67	772.06	36.17	2581.7	194.82	0.0423	838
Bobolink	45/4.53	7/3.02	725.27	50.14	775.41	36.24	2397.2	164.13	0.0398	862
Plover*	54/4.14	19/2.48	726.92	91.78	818.7	37.24	2734.9	206.39	0.0399	866
Nuthatch	45/4.65	7/3.10	764.2	52.83	817.03	37.2	2529.6	171.25	0.0378	888
Parrot*	54/4.25	19/2.55	766.06	97.03	863.09	38.25	2883.7	217.51	0.0379	892
Lapwing	45/4.78	7/3.18	807.53	55.6	863.13	38.22	2663.5	180.14	0.0358	916
Falcon*	54/4.36	19/2.62	806.23	102.43	908.66	39.26	3038.5	229.52	0.036	919
Chukar*	84/3.70	19/2.22	903.18	73.54	976.72	40.7	3083.1	217.51	0.0321	976
Bluebird*	84/4.07	19/2.44	1092.84	88.84	1181.68	44.76	3731.9	256.65	0.0266	1083
Kiwi*	72/4.41	7/2.94	1099.76	47.52	1147.28	44.1	3423.9	215.28	0.0264	1083
Thrasher*	76/4.43	19/2.07	1171.42	63.94	1235.36	45.79	3754.2	243.75	0.0248	1122
Grouse**	8/2.54	1/4.24	40.54	14.12	54.66	9.32	221.4	21.75	0.7089	153
Petrel**	12/2.34	7/2.34	51.61	30.1	81.71	11.7	377.7	42.08	0.5595	181
Minorca**	12/2.44	7/2.44	56.11	32.73	88.84	12.2	411.1	45.81	0.5146	191
Leghorn**	12/2.69	7/2.69	68.2	39.78	107.98	13.45	499.2	55.16	0.4234	215



Code	Stranding		Nominal Area			Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	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**	12/2.92	7/2.92	80.36	46.88	127.24	14.6	589.7	64.94	0.3593	238
Dotterel**	12/3.08	7/3.08	89.41	52.15	141.56	15.4	656.1	70.28	0.323	254
Dorking**	12/3.20	7/3.20	96.51	56.3	152.81	16	707.8	75.62	0.2992	267
Cochin**	12/3.37	7/3.37	107.04	62.44	169.48	16.85	783.9	84.07	0.2698	284
Brahma*&**	12/3.37	7/3.37	102.79	91.78	194.57	18.12	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 @20°	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



Caledonian

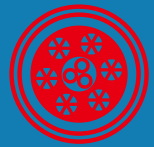
Caledonian Aluminium Conductor Cables

Nominal Sectional Area		Sectional Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°	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.

www.caledonian-cables.co.uk



• JIS C 3110

Nominal Sectional Area	Sectional Area			Stranding		Overall Diameter	Weight	Breakign Load	Electrical Resistance @20°
	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

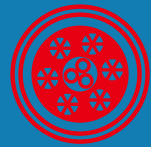
Numbers of Wires		Final Modules of Elasticity		Coefficient of linear Expansion	
AL	Steel	Kg/mm ²	lb/in ²	1/C°	1/F°
6	1	81	11.5 x10 ⁶	19.1 x10 ⁻⁶	10.6 x10 ⁻⁶
6	7	77	11.0 x10 ⁶	19.8 x10 ⁻⁶	11.0 x10 ⁻⁶
12	7	107	15.2 x10 ⁶	15.3 x10 ⁻⁶	8.5 x10 ⁻⁶
18	1	67	9.5 x10 ⁶	21.2 x10 ⁻⁶	11.8 x10 ⁻⁶
24	7	74	10.5 x10 ⁶	19.6 x10 ⁻⁶	10.9 x10 ⁻⁶



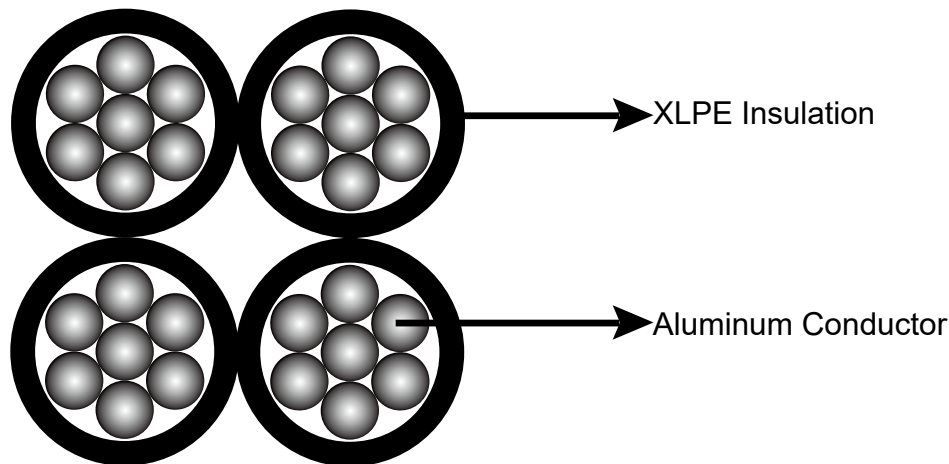
Caledonian

Caledonian Aluminium Conductor Cables

Numbers of Wires		Final Modules of Elasticity		Coefficient of linear Expansion	
AL	Steel	Kg/mm ²	lb/in ²	1/C°	1/F°
26	7	77	10.9 x10 ⁶	18.9 x10 ⁻⁶	10.5 x10 ⁻⁶
28	7	79	11.2 x10 ⁶	18.4 x10 ⁻⁶	10.2 x10 ⁻⁶
30	7	82	11.6 x10 ⁶	17.8 x10 ⁻⁶	9.9 x10 ⁻⁶
30	19	80	11.4 x10 ⁶	18.0 x10 ⁻⁶	10.0 x10 ⁻⁶
32	19	82	11.7 x10 ⁶	17.5 x10 ⁻⁶	9.7 x10 ⁻⁶
54	7	70	9.9 x10 ⁶	19.3 x10 ⁻⁶	10.7 x10 ⁻⁶
54	19	68	9.7 x10 ⁶	19.4 x10 ⁻⁶	10.8 x10 ⁻⁶



LV Aerial Bundled Conductor (ABC) Cables



APPLICATION

Aerial Bundle Cable (ABC cable) is a very innovative concept for overhead power distribution as compared to the conventional bare conductor overhead distribution system. It provides higher level of safety and reliability, lower power losses and ultimate system economy by reducing installation, maintenance and operative cost.

Caledonian LV Aerial Bundle Cables are designed to supply 600/1000 volt aerial service for temporary service at construction sites, as a service drop (power pole to service entrance), as a secondary cable (pole to pole) or street lighting. This over-head cable provides reinforced insulation acc. IEC 61140 and fulfill therefore Class II acc. IEC 61140. It is not flame retardant. But this could be if requested change to a flame retardant cable.

STANDARD

Basic design to BS 7870 / TNB Specification(IEC 60502) / HD 626 S1 / NFC 33-209 / AS/NZS 3560-1 standards

CONSTRUCTION

Conductor: Aluminium conductor, round stranded compressed (RM).

Insulation: XPLE compound, UV-resistant.

Core Identification: 1, 2 resp. 3 raised longitudinal ribs on the surface of the cores. The surface of the neutral core should have at least 12 ribs for cross-sections up to 50 mm² and a minimum of 16 ribs for cores above 50 mm². In the case of five core bundles the surface of the protective core should be smooth.

ELECTRICAL PROPERTIES

Rated Voltage	0.6/1kV
---------------	---------



Caledonian

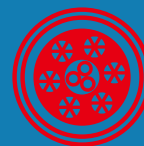
Caledonian Aluminium Conductor Cables

Test Voltage	4 Veff kV
Minimum Laying Temperature	-20°C
Operating Temperature	-40°C~ +90°C
Maximum Short-circuit Temperature	250°C
Maximum Conductor Temperature	80°C
Minimum Bending Radius	18×OD

CONSTRUCTION PARAMETERS

- BS 7870

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
1x16 RM	8,0	74	1.910	2.5	72
1x25 RM	9,0	106	1.200	4.0	107
1x35 RM	10,5	138	0.868	5.5	132
1x50 RM	11,8	182	0.641	8.0	165
1x70 RM	13,0	252	0.443	10.7	205
1x95 RM	15,4	333	0.320	13,7	240
1x120 RM	17,0	408	0,253	18,6	290
1x150 RM	19,0	502	0,206	23,2	334
1x185 RM	21,0	611	0,164	28,7	389
1x240 RM	24,0	801	0,125	37,2	467
2x16 RM	15,6	147	1.910	2,5	72
2x25 RM	18,0	208	1.200	4,0	107
2x35 RM	20,0	277	0,868	5,5	132
2x50 RM	23,5	361	0,641	8,0	165



Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
2x70 RM	25,4	505	0,443	10,7	205
2x95 RM	30,3	666	0,320	13,7	240
2x150 RM	38,0	1004	0,206	23,2	334
4x16 RM	18,8	286	1.910	2,5	72
4x25 RM	21,2	430	1.200	4,0	107
4x35 RM	24,1	553	0,868	5,5	132
4x50 RM	27,8	746	0,641	8,0	165
4x70 RM	31,8	1.009	0,443	10,7	205
4x95 RM	37,8	1.332	0,320	13,7	240
4x120 RM	54,4	1.632	0,253	18,6	290
4x50 + 1x25 RM	319	814	0,641/1,200	8,0/4,0	165/107
4x50 + 1x35 RM	319	845	0,641/0,868	8,5/5,5	165/132
4x70 + 1x25 RM	360	1105	0,443/1,200	10,7/4,0	205/107
4x70 + 2x25 RM	400	1217	0,443/1,200	10,7/4,0	205/107
4x95 + 1x25 RM	418	1438	0,320/1,200	13,7/4,0	240/107
4x95 + 2x25 RM	420	1544	0,320/1,200	13,7/4,0	240/107
4x120 + 1x25 RM	590	2050	0,253/1,200	18,6/4,0	290/107

Other cross-sections can be offered upon request.

• TNB Specification(IEC 60502)

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
1x16+1x25 RM	15.3	160	1.910	2,5	72



Caledonian

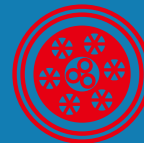
Caledonian Aluminium Conductor Cables

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
3x16+1x25 RM	19.0	290	1.200	4,0	107
3x25+1x25 RM	23.2	400	0,868	5,5	132
3x35+1x25 RM	25.6	500	0,641	8,0	165
3x50+1x35 RM	30.0	680	0,443	10,7	205
3x70+1x50 RM	34.9	920	0,320	13,7	240
3x95+1x70 RM	40.6	1270	0,253	18,6	290
3x120+1x70 RM	44.1	1510	0,206	23,2	334
3x150+1x95 RM	49.2	1870	0,164	28,7	389
3x185+1x120 RM	54.9	2340	0,125	37,2	467
3x25+1x25+1x16 RM	23.2	470	1.910	2,5	72
3x35+1x25+1x16 RM	25.6	560	1.200	4,0	107
3x50+1x35+1x16 RM	30.0	740	0,868	5,5	132
3x70+1x50+1x16 RM	34.9	980	0,641	8,0	165
3x95+1x70+1x16 RM	40.6	1330	0,443	10,7	205
3x120+1x70+1x16 RM	44.1	1580	0,320	13,7	240
3x150+1x95+1x16 RM	49.2	1940	0,206	23,2	334
3x185+1x120+1x16 RM	54.9	2410	0.106	30.8	332

Other cross-sections can be offered upon request.

• HD 626 S1

Number of Cores xNominal Cross Section	Overall Diameter	Current Rating	Weight	Maximum Conductor Resistance	Minimum Breaking Load
No. xmm ²	mm	mm	Kg/Km	KN	A
2x16 RM	14.2	72	147	1.910	2,5
2x25 RM	17.2	107	208	1.200	4,0



Number of Cores xNominal Cross Section	Overall Diameter	Current Rating	Weight	Maximum Conductor Resistance	Minimum Breaking Load
No. xmm ²	mm	mm	Kg/Km	KN	A
2x35 RM	19.6	132	277	0,868	5,5
2x50 RM	22.4	165	361	0,641	8,0
4x16 RM	17.6	72	286	1.910	2,5
4x25 RM	20.3	107	430	1.200	4,0
4x35 RM	23.7	132	553	0,868	5,5
4x50 RM	27.1	165	746	0,641	8,0
4x70 RM	30.6	205	1009	0,443	10,7
4x95 RM	36.1	240	1332	0,320	13,7
4x120 RM	51.2	290	1632	0,253	18,6
4x35 + 1x35 RM	27.4	132/132	694	0,868/0,868	5,5/5,5
4x50 + 1x25 RM	30.5	165/107	814	0,641/1.200	8,0/4,0
4x50 + 1x35 RM	30.7	165/132	845	0,641/0,868	8,5/5,5
4x70 + 1x25 RM	34.8	205/107	1105	0,443/1.200	10,7/4,0
4x70 + 2x25 RM	38.7	205/107	1217	0,443/1.200	10,7/4,0
4x70 + 1x35 RM	36.0	205/132	1150	0,443/0,868	10,7/5,5
4x70 + 2x35 RM	38.2	205/132	1289	0,443/0,868	10,7/5,5
4x95 + 1x25 RM	40.2	240/107	1438	0,320/1.200	13,7/4,0
4x95 + 1x35 RM	42.1	240/132	1467	0,320/0,868	13,7/5,5
4x95 + 2x25 RM	40.9	240/107	1544	0,320/1.200	13,7/4,0

Other cross-sections can be offered upon request.

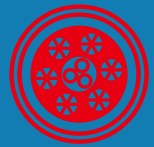


Caledonian

Caledonian Aluminium Conductor Cables

- NFC 33-209

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
2x10 RM	12.8	93	3.080	1.5	38
4x10 RM	15.4	183	3.080	1.5	38
2x16 RM	14.8	129	1.910	2.3	72
2x16 RM + 2x1.5 RE	14.8	176	1.910/12.100	2.3	72
4x16 RM	17.8	257	1.910	2.3	72
4x16 RM + 2x1.5 RE	17.8	304	1.910/12.100	2.3	72
2x25 RM	18.0	202	1.200	3.8	107
2x25 RM + 2x1,5 RE	18.0	249	1.200/12.100	3.8	107
4x25 RM	21.7	404	1.200	3.8	107
4x25 RM + 2x1,5 RE	21.7	451	1.200/12.100	3.8	107
2x35 RM	20.8	269	0.868	5.2	132
2x35 RM + 2x1,5 RE	20.8	316	0.868/12.100	5.2	132
4x35 RM	25.1	539	0.868	5.2	132
4x35 RM + 2x1,5 RE	25.1	586	0.868/12.100	5.2	132
2x50 RM	23.4	352	0.641	7.6	165
2x50 RM + 2x1,5 RE	23.4	399	0.641/12.100	7.6	165
1x54.6 RM + 3x25 RM	21.7	507	0.630/1.200	3.8	107
1x54.6 RM + 3x25 RM + 1x16 RM	24.3	573	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x25 RM + 2x16 RM	29.7	639	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x25 RM + 3x16 RM	31.1	705	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x35 RM	25.1	615	0.630/0.868	5.2	132



Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
1x54.6 RM + 3x35 RM + 1x16 RM	28.1	680	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 2x16 RM	34.3	748	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 3x16 RM	35.9	814	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 1x25 RM	28.1	714	0.630/0.868/1.200	5.2/3.8	132/107
1x54.6 RM + 3x50 RM	28.2	741	0.630/0.641	7.6	165
1x54.6 RM + 3x50 RM + 1x16 RM	31.6	806	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 2x16 RM	38.6	875	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 3x16 RM	40.4	940	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 1x25 RM	31.6	841	0.630/0.641/1.200	7.6/3.8	165/107
1x54.6 RM + 3x70 RM	33.0	950	0.630/0.443	10.2	205
1x54.6 RM + 3x70 RM + 1x16 RM	37.0	1014	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 2x16 RM	45.2	1083	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 3x16 RM	47.3	1148	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 1x25 RM	37.0	1048	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x70 RM + 2x25 RM	45.2	1150	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x70 RM + 3x25 RM	47.3	1250	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x95 RM	37.4	1176	0.630/0.320	13.5	240
1x54.6 RM + 3x95 RM + 1x16 RM	41.9	1243	0.630/0.320/1.910	13.5/2.3	240/72

Other cross-sections can be offered upon request.



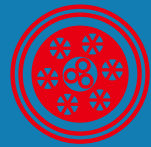
Caledonian

Caledonian Aluminium Conductor Cables

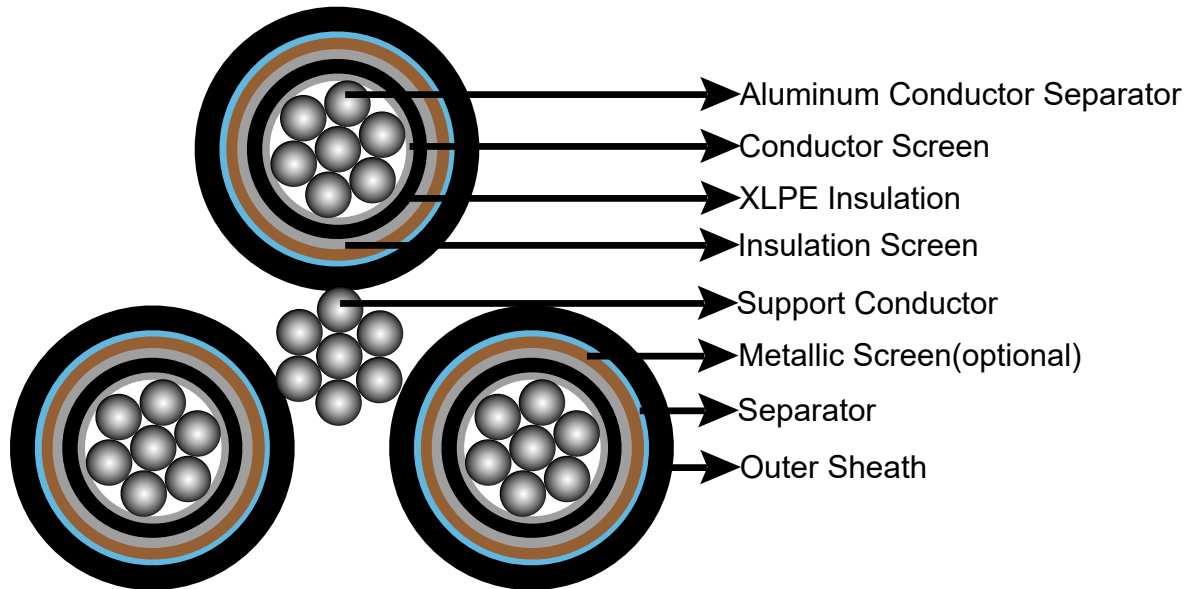
- AS/NZS 3560 Part 1

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	KN	A
2x16 RM	15.0	140	4.4	78
2x25 RM	17.6	210	7.0	105
2x35 RM	19.6	270	9.8	125
2x50 RM	22.8	370	11.4	150
2x95 RM	30.6	680	15.3	230
3x25 RM	19.0	310	8.8	97
3x35 RM	21.1	410	9.8	120
3x50 RM	24.6	550	11.4	140
4x16 RM	18.1	290	8.8	74
4x25 RM	21.2	410	14.0	97
4x35 RM	23.7	550	19.6	120
4x50 RM	27.5	740	28.0	140
4x70 RM	31.9	1000	39.2	175
4x95 RM	36.9	1370	53.2	215
4x120 RM	40.6	1690	67.2	250
4x150 RM	43.9	2020	84.0	280

Other cross-sections can be offered upon request.



MV Aerial Bundled Conductor (ABC) Cables



APPLICATION

Aerial bundled cables are mainly used for secondary overhead lines on poles or as feeders to residential premises.

STANDARD

Basic design to IEC 60502 / AS/NZS 3599-1 standards

CONSTRUCTION

Phase Conductor: Circular compacted stranded H68 aluminium to BS2627.

Conductor Screen: Extruded semi-conductive layer.

Insulation: XLPE.

Insulation Screen: Extruded semi-conductive layer.

Metallic Screen(optional): Copper wire screen or copper tape screen.

Separator: Semi-conductive swellable tape.

Outer Sheath: HDPE.

Support Conductor: Galvanized steel wires.

Assembly: Three XLPE insulated screened cores are bundled around the galvanized steel wires in a right hand lay.



Caledonian

Caledonian Aluminium Conductor Cables

CONSTRUCTION PARAMETERS

- IEC 60502 6.35/11 kV ABC for Overhead Distribution Lines**

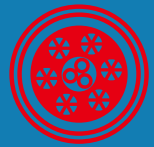
Number of Cores xNominal Cross Section	Phase Conductor			Messenger Suspension Unit			Continuous current rating at 300C ambient temp
	Stranding	Nominal Sectional Area	Maximum Conductor Resistance	Stranding	Nominal Sectional Area	Breaking Load	
No. xmm ²	No. xmm	mm ²	Ω/Km	No. xmm	mm ²	KN	A
3X50 + 1X25	19/1.78	50	0.641	7/3.0	25	60	116
3X70 + 1X50	19/2.14	70	0.443	7/3.15	50	62	210
3X95+ 1X50	19/2.52	95	0.32	7/3.0	50	60	173
3X185+1X120	37/2.52	185	0.164	7/4.67	120	150	259
3X150 +1X50	37/2.25	150	0.206	7/3.15	50	62	365
3X240 +1X50	61/2.25	240	0.125	7/3.15	50	62	500

Other cross-sections can be offered upon request.

- IEC 60502 19/33 kV ABC for Overhead Distribution Lines**

Number of Cores xNominal Cross Section	Phase Conductor			Messenger Suspension Unit			Continuous current rating at 300C ambient temp
	Stranding	Nominal Sectional Area	Maximum Conductor Resistance	Stranding	Nominal Sectional Area	Breaking Load	
No. xmm ²	No. xmm	mm ²	Ω/Km	No. xmm	mm ²	KN	A
3X50 + 1X25	19/1.78	50	0.641	7/3.0	25	60	165
3X150+ 1X50	37/2.25	150	0.206	7/3.0	50	60	315
3X185+1X70	37/2.52	185	0.164	7/3.57	70	91	355
3X70 +1X50	19/2.14	70	0.443	7/3.15	50	62	250
3X150 +1X50	37/2.25	150	0.206	7/3.15	50	62	370

Other cross-sections can be offered upon request.



• **AS/NZS 3599 Part 1 6.35/11 kV AL/XLPE /HDPE Non-screened Cables**

Number of Cores xNominal Cross Section	Phase Conductor				Messenger Suspension Unit	Nominal Sectional Area	Breaking Load
	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Thickness of Sheath	Stranding		
No. x mm ²	mm	mm	mm	mm	No. x mm	mm ²	KN
3x35	6.9	3.4	0.8	1.2	7/4.75	52.4	1370
3x50	8.1	3.4	0.8	1.2	7/4.75	54.6	1530
3x70	9.7	3.4	0.8	1.2	7/4.75	57.8	1790
3x95	11.4	3.4	0.8	1.2	7/4.75	61.3	2100
3x120	12.8	3.4	0.8	1.2	19/3.50	67.3	2540
3x150	14.2	3.4	0.8	1.2	19/3.50	70.1	2840
3x185	15.7	3.4	0.8	1.2	19/3.50	73.1	3190

Other cross-sections can be offered upon request.

• **AS/NZS 3599 Part 1 6.35/11 kV AL/XLPE /CWS/HDPE Screened Cables**

Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No. x mm ²	mm	mm	mm	No. x mm	mm	No. x mm	mm ²	KN
Light Duty Screen								
3x35	6.9	3.4	0.8	25/0.85	1.8	7/2.00	54.1	1820
3x35	6.9	3.4	0.8	25/0.85	1.8	19/2.00	58.1	2130
3x50	8.1	3.4	0.8	25/0.85	1.8	19/2.00	60.4	2300
3x70	9.7	3.4	0.8	25/0.85	1.8	19/2.00	63.6	2570
3x95	11.4	3.4	0.8	25/0.85	1.8	19/2.00	67.0	2900
3x120	12.8	3.4	0.8	25/0.85	1.8	19/2.00	69.8	3190
3x150	14.2	3.4	0.8	25/0.85	1.9	19/2.00	73.0	3530
3x185	15.7	3.4	0.8	25/0.85	1.9	19/2.00	76.0	3890



Caledonian

Caledonian Aluminium Conductor Cables

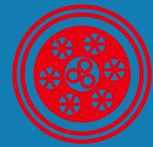
Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No. xmm ²	mm	mm	mm	No. xmm	mm	No. xmm	mm ²	KN
Heavy Duty Screen								
3x35	6.9	3.4	0.8	40/0.85	1.8	7/2.00	54.1	2050
3x35	6.9	3.4	0.8	40/0.85	1.8	19/2.00	58.1	2360
3x50	8.1	3.4	0.8	23/1.35	1.8	19/2.00	62.4	2820
3x70	9.7	3.4	0.8	32/1.35	1.8	19/2.00	65.6	3440
3x95	11.4	3.4	0.8	39/1.35	1.8	19/2.00	69.0	4030
3x120	12.8	3.4	0.8	39/1.35	1.8	19/2.00	71.8	4320
3x150	14.2	3.4	0.8	39/1.35	1.9	19/2.00	75.0	4670
3x185	15.7	3.4	0.8	39/1.35	1.9	19/2.00	78.0	5020

Other cross-sections can be offered upon request.

• AS/NZS 3599 Part 1 12.7/22 kV AL/XLPE /HDPE Non-screened Cables

Number of Cores xNominal Cross Section	Phase Conductor				Messenger Suspension Unit	Nominal Sectional Area	Breaking Load
	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Thickness of Sheath	Stranding		
No. xmm ²	mm	mm	mm	mm	No. xmm	mm ²	KN
3x35	6.9	5.5	0.8	1.2	7/4.75	61.0	1780
3x50	8.1	5.5	0.8	1.2	7/4.75	63.3	1970
3x70	9.7	5.5	0.8	1.2	7/4.75	66.5	2260
3x95	11.4	5.5	0.8	1.2	7/4.75	69.9	2600
3x120	12.8	5.5	0.8	1.2	19/3.50	75.9	3070
3x150	14.2	5.5	0.8	1.2	19/3.50	78.7	3390
3x185	15.7	5.5	0.8	1.2	19/3.50	81.7	3760

Other cross-sections can be offered upon request.



• **AS/NZS 3599 Part 1 12.7/22 kV AL/XLPE /CWS/HDPE Screened Cables**

Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No. xmm ²	mm	mm	mm	No. xmm	mm	No. xmm	mm ²	KN
Light Duty Screen								
3x35	6.9	5.5	0.8	25/0.85	1.8	7/2.00	62.7	2280
3x35	6.9	5.5	0.8	25/0.85	1.8	19/2.00	66.7	2580
3x50	8.1	5.5	0.8	25/0.85	1.8	19/2.00	69.0	2780
3x70	9.7	5.5	0.8	25/0.85	1.9	19/2.00	72.6	3110
3x95	11.4	5.5	0.8	25/0.85	1.9	19/2.00	76.0	3460
3x120	12.8	5.5	0.8	25/0.85	2.0	19/2.00	79.2	3810
3x150	14.2	5.5	1.0	25/0.85	2.0	19/2.00	82.8	4230
3x185	15.7	5.5	1.0	25/0.85	2.1	19/2.00	86.2	4650
Heavy Duty Screen								
3x35	6.9	5.5	0.8	40/0.85	1.8	7/2.00	62.7	2510
3x35	6.9	5.5	0.8	40/0.85	1.8	19/2.00	66.7	2810
3x50	8.1	5.5	0.8	23/1.35	1.8	19/2.00	71.0	3300
3x70	9.7	5.5	0.8	32/1.35	1.9	19/2.00	74.6	3970
3x95	11.4	5.5	0.8	39/1.35	1.9	19/2.00	78.0	4600
3x120	12.8	5.5	0.8	39/1.35	2.0	19/2.00	81.2	4950
3x150	14.2	5.5	1.0	39/1.35	2.0	19/2.00	84.8	5360
3x185	15.7	5.5	1.0	39/1.35	2.1	19/2.00	88.2	5790

Other cross-sections can be offered upon request.



Caledonian

Caledonian Aluminium Conductor Cables



TECHNICAL DATA

Nominal Cross Section	Continuous Current Rating		
	Still air	1m/s wind	2m/s wind
mm ²	A	A	A
35	105	145	165
50	125	170	200
70	150	215	250
95	180	260	300
120	205	300	350
150	230	340	395
185	265	390	450



Address:

**Marchants Industrial Centre, Mill Lane, Laughton, Lewes,
East Sussex, BN8 6AJ, UK**

Tel: 44(0) 207 4195087

Fax: 44(0) 207 8319489

www.caledonian-cables.co.uk

sales@caledonian-cables.co.uk