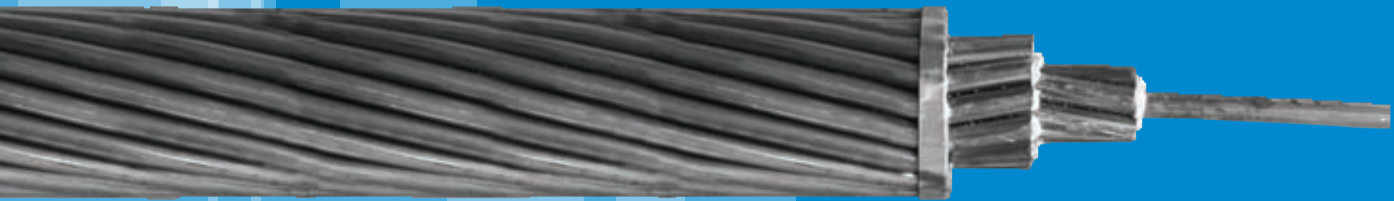


ISO 9001
BUREAU VERITAS
Certification



FEC Cables (M) Sdn. Bhd.



***Bare Aluminium Conductors,
ACSR and ABC Cables***

CORPORATE HISTORY

FEC Cables (M) Sdn. Bhd. was first established in 1967 and was previously known as Furukawa Electric Cables (M) Sdn. Bhd. In all the years until 2003, the company had been under the management and control of Furukawa Electric Co. Ltd. of Japan.

In 2003, the company was renamed FEC Cables (M) Sdn. Bhd. following the acquisition of its major equity stake by Permodalan Nasional Berhad, Malaysia's government-owned premier multi-billion dollar investment institution.

The Company had started a technical collaboration from world renowned cable manufacturer, The Furukawa Electric Co. Ltd Japan (Furukawa Japan).

FEC Cables has benefited enormously from the technical collaboration and the subsequent technology transfer with Furukawa Japan. FEC Cables inherited from Furukawa Japan not only its advanced technology and technical know-how but also the disciplines of producing quality products using material conforming to the international standards of manufacturing cables.

Today FEC Cables plays a prominent role as a forerunner in the cable industry.

FEC Cables has been actively involved in serving various industrial sectors, namely the power, telecommunications, construction as well as the oil and gas sectors.

INTRODUCTION OF COMPANY

When there is talk of high quality electric wires and cables, the one company that comes to mind is FEC Cables (Malaysia) Sdn. Bhd. FEC is a subsidiary of Permodalan Nasional Berhad and was formerly known as Furukawa Electric Cables (M) Sdn. Bhd. Having established its Shah Alam plant in 1967 on a 7-acre site at the Shah Alam Industrial Estate, Furukawa has come a long way.

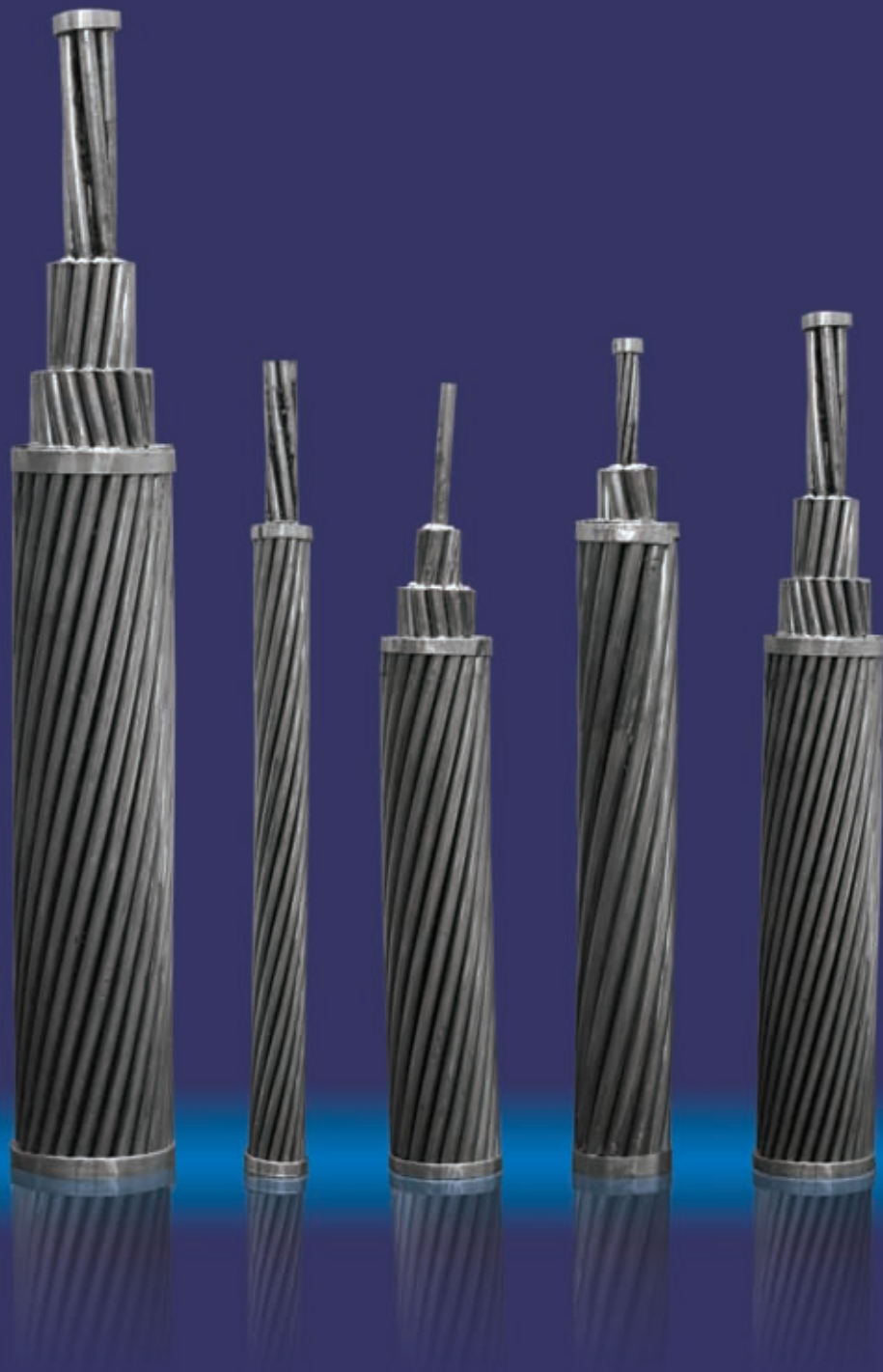
The technical collaboration with our Japanese counterpart, Furukawa Japan, has brought about an amazing success for us. In terms of quality, we have climbed the ladders of product manufacturing, steadily and successfully, pushing FEC towards the pinnacle of excellence.

Putting our customers' demands and needs as our number one priority, we opened our second plant in 1995, on a 27-acre freehold land site in Bukit Raja Industrial area, Klang. In our quest for excellence, we equip the plant with the latest technological aids for the manufacture of a wide range of low and medium voltage cables.

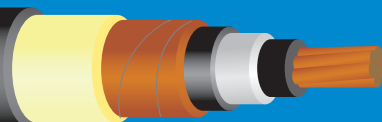
The certification of the ISO 9001 for both plants only proves that we do not compromise on quality and customer satisfaction. Our dedicated and hard-working employees are the backbone of our success. This was greatly helped by the state-of-the-art technology equipment which has led us towards excellence.

Moving towards a new century, we pledge to continually strive towards progressive and dynamic growth as FEC Cables continues its efforts in contributing to the development of Malaysia.



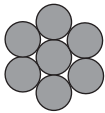


Bare Aluminium Conductors, ACSR and ABC Cables

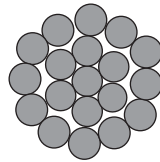


1) STRANDED HARD-DRAWN ALL ALUMINIUM CONDUCTOR(AAC)	
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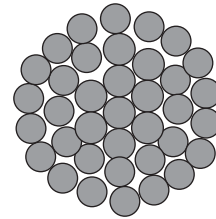
Stranded Hard-Drawn All Aluminium Conductor (AAC)



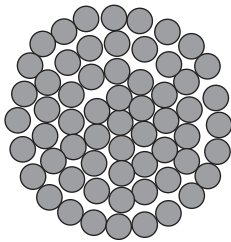
7(1+6)



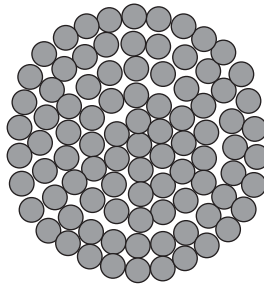
19(1+6+12)



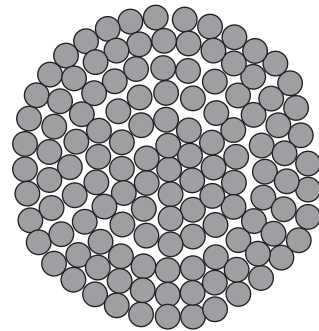
37(1+6+12+18)



61(1+6+12+18+24)



91(1+6+12+18+24+30)



127(1+6+12+18+24+30+36)



Stranded Hard-Drawn All Aluminium Conductor

Code Name	Nominal Area	Construction No. /Wire Diameter	Calculated Area	Approx. Overall Diameter	Approx. Weight	Calculated Min. Breaking Load	DC Resistance at 20°C
	mm ²	No. /mm	mm ²	mm	kg/km	kN	ohm/km
Midge	22	7/2.06	23.33	6.18	64	3.99	1.227
Ant	50	7/3.10	52.83	9.30	145	8.28	0.5419
Fly	60	7/3.40	63.55	10.20	174	9.90	0.4505
Wasp	100	7/4.39	106.0	13.17	290	16.00	0.2702
Hornet	150	19/3.25	157.6	16.25	434	24.70	0.1825
Chafer	200	19/3.78	213.2	18.90	587	32.40	0.1349
Cockroach	250	19/4.22	265.7	21.10	731	40.40	0.1083
Butterfly	300	19/4.65	322.7	23.25	888	48.75	0.08916
Centipede	400	37/3.78	415.20	26.46	1145	63.10	0.06944

Stranded Hard-Drawn All Aluminium Conductor

Code name	Nominal area	Construction No./Wire diameter	Calculated area	Approx. overall diameter	Approx. weight	Calculated min. breaking load	DC resistance at 20°C
	mm ²	No./mm	mm ²	mm	kg/km	kN	ohm/km
Gnat	-	7/2.21	26.90	6.63	73	4.83	1.0643
Mosquito	-	7/2.59	36.90	7.77	101	6.27	0.7749
Ladybird	-	7/2.79	42.80	8.37	117	7.28	0.6678
Bluebottle	;-	7/3.66	73.60	10.98	201	11.78	0.3880
Earwig	-	7/3.78	78.60	11.34	215	12.57	0.3638
Grasshopper	-	7/3.91	84.10	11.73	230	13.46	0.3400
Clegg	-	7/4.17	95.60	12.51	261	15.30	0.2989
Beetle	-	19/2.67	106.4	13.35	292	18.08	0.2701
Bee	-	7/4.90	132.0	14.70	361	21.12	0.2165
Caterpillar	-	19/3.53	185.9	17.65	511	29.75	0.1546
Spider	-	19/3.99	237.6	19.95	653	38.01	0.1210
Moth	;-	19/5.00	373.1	25.00	1025	59.69	0.0770
Drone	-	37/3.58	372.4	25.06	1027	59.59	0.0774
Maybug	-	37/4.09	486.1	28.63	1340	77.78	0.593
Scorpion	-	37/4.27	529.8	29.89	1461	84.77	0.0544
Cicada	-	37/4.65	628.3	32.55	1732	100.54	0.0459

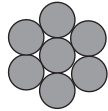
Stranded Hard-Drawn All Aluminium Conductor

Code name	Total area		Construction No./Wire diameter	Approx. overall diameter	Approx. weight	Calculated min. breaking load	DC resistance at 20°C
	AWG or MCM	mm ²	No./mm	mm	kg/km	kN	ohm/km
Peachbell	6.0	13.30	7/1.56	4.68	37	2.53	2.169
Rose	4.0	21.10	7/1.96	5.88	58	3.91	1.362
Iris	2.0	33.60	7/2.47	7.41	93	5.99	0.8574
Pansy	1.0	42.40	7/2.78	8.34	117	7.30	0.6801
Poppy	1/0.0	53.50	7/3.12	9.36	147	8.84	0.5390
Aster	2/0.0	67.40	7/3.50	10.50	186	11.10	0.4276
Phlox	3/0.0	85.00	7/3.93	11.79	234	13.50	0.3390
Oxlip	4/0.0	107.2	7/4.42	13.26	295	17.00	0.2688
Valerian	250.0	126.7	19/2.91	14.55	349	20.70	0.2275
Sneezewort	250.0	126.7	7/4.80	14.40	349	20.10	0.2275
Laurel	266.8	135.2	19/3.01	15.05	372	22.10	0.2133
Daisy	266.8	135.2	7/4.96	14.88	372	21.40	0.2133
Peony	300.0	152.0	19/3.19	15.95	418	24.30	0.1896
Tulip	336.4	170.5	19/3.38	16.90	470	27.30	0.1695
Daffodil	350.0	177.3	19/3.45	17.25	488	28.40	0.1625
Canna	397.5	201.4	19/3.67	18.35	555	31.60	0.1432
Goldentuft	450.0	228.0	19/3.91	19.55	628	35.00	0.1264
Syringa	477.0	242.0	37/2.88	20.16	665	38.60	0.1193
Cosmos	477.0	242.0	19/4.02	20.10	665	37.00	0.1193
Hyacinth	500.0	253.3	37/2.95	20.65	697	40.50	0.1137
Zinna	500.0	253.3	19/4.12	20.60	697	38.90	0.1137
Dahlia	556.5	282.0	19/4.35	21.75	776	43.30	0.1023
Mistletoe	556.5	282.0	37/3.12	21.84	776	44.30	0.1023
Meadowsweet	600.0	304.0	37/3.23	22.61	836	47.50	0.0948
Orchid	636.0	323.3	37/3.33	23.31	887	50.40	0.0893
Heuchera	650.0	329.4	37/3.37	23.59	907	51.70	0.0875

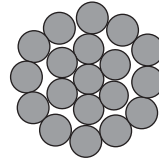
Stranded Hard-Drawn All Aluminium Conductor

Code name	Total area		Construction No./Wire diameter	Approx. overall diameter	Approx. weight	Calculated min. breaking load	DC resistance at 20°C
	AWG or MCM	mm ²	No./mm	mm	kg/km	kN	ohm/km
Flag	700.0	354.7	61/2.72	24.48	976	57.10	0.0813
Verbena	700.0	354.7	37/3.49	24.43	976	55.40	0.0813
Nasturtium	715.5	362.60	61/2.75	24.75	999	58.40	0.0795
Violet	715.5	362.60	37/3.53	24.71	999	56.70	0.0795
Cattail	750.0	380.0	61/2.82	25.38	1046	60.30	0.0759
Petunia	750.0	380.0	37/3.62	25.34	1046	58.60	0.0759
Lilac	795.0	402.8	61/2.90	26.10	1110	63.80	0.0715
Arbutus	795.0	402.8	37/3.72	26.04	1109	61.80	0.0715
Snapdragon	900.0	456.0	61/3.09	27.81	1256	70.80	0.0632
Coskscomb	900.0	456.0	37/3.96	27.72	1256	68.40	0.0632
Goldenrod	954.0	483.4	61/3.18	28.62	1331	75.00	0.0596
Magnolia	954.0	483.4	37/4.08	28.56	1331	72.60	0.0596
Camellia	1000.0	506.7	61/3.25	29.25	1394	78.30	0.0569
Hawkweed	1000.0	506.7	37/4.18	29.26	1395	76.20	0.0569
Larkspur	1033.5	523.7	61/3.31	29.79	1442	81.30	0.0550
Bluebell	1033.5	523.7	37/4.25	29.75	1441	78.80	0.0550
Marigold	1113.0	564.0	61/3.43	30.87	1553	87.30	0.0511
Hawthorn	1192.5	604.2	61/3.55	31.95	1662	93.50	0.0447
Narcissus	1272.0	644.5	61/3.67	33.03	1774	98.10	0.0447
Columbine	1351.0	694.8	61/3.78	34.02	1884	104.00	0.0421
Carnation	1431.0	725.1	61/3.89	35.01	1997	108.00	0.0398
Gladiolus	1510.5	765.4	61/4.00	36.00	2108	114.00	0.0376
Coreopsis	1590.0	805.7	61/4.10	36.90	2216	120.00	0.0358
Jessamine	1750.0	886.7	61/4.30	38.70	2442	132.00	0.0325
Cowslip	2000.0	1013.0	91/3.77	41.47	2787	153.00	0.0284
Lupine	2500.0	1267.0	91/4.21	46.31	3519	186.00	0.0230
Trillium	3000.0	1520.0	127/3.90	50.70	4226	223.00	0.0191
Bluebonnet	3500.0	1773.0	127/4.22	54.86	4977	261.00	0.0166

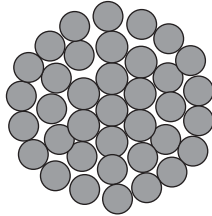
Bare Stranded All Aluminium Alloy Conductors (AAAC)



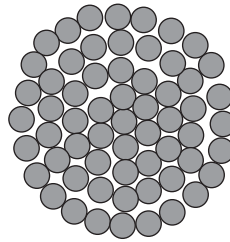
7(1+6)



19(1+6+12)



37(1+6+12+18)



61(1+6+12+18+24)

Bare Stranded All Aluminium Alloy Conductor

Code name	Construction No./Wire diameter	Calculated area	Approx. overall diameter	Approx. weight	Calculated min. breaking load	DC resistance at 20°C
	No./mm	mm ²	mm	kg/km	kN	ohm/km
Box	7/1.85	18.8	5.55	51	5.55	1.7480
Acacia	7/2.08	23.9	6.24	65	7.02	1.3828
Almond	7/2.34	30.1	7.02	82	8.88	1.0926
Cedar	7/2.54	35.5	7.62	97	10.46	0.9273
Deodar	7/2.77	42.2	8.31	115	12.44	0.7797
Fir	7/2.95	47.8	8.85	131	14.11	0.6875
Hazel	7/3.30	59.9	9.90	163	17.66	0.5494
Pine	7/3.61	71.60	10.80	196	21.14	0.4591
Holly	7/3.91	84.1	11.70	230	24.79	0.3913
Willow	7/4.04	89.7	12.10	245	26.47	0.3665
Oak	7/4.65	118.9	13.95	325	35.07	0.2767
Mulberry	19/3.18	150.9	15.90	414	44.52	0.2192
Ash	19/3.48	180.7	17.40	496	53.31	0.1830
Elm	19/3.76	211.0	18.80	579	62.24	0.1568
Poplar	37/2.87	239.4	20.10	659	70.61	0.1387
Sycamore	37/3.23	303.2	22.60	835	89.40	0.1095
Upas	37/3.53	362.1	24.70	998	106.82	0.0917
Yew	37/4.06	479.0	28.40	1320	141.31	0.0693
Totara	37/4.14	498.1	29.42	1372	146.93	0.0666
Rubus	61/3.50	586.9	31.50	1622	173.13	0.0567
Sorbus	61/3.71	659.4	33.40	1823	194.53	0.0505
Araucaria	61/4.14	821.1	37.30	2270	242.24	0.0406

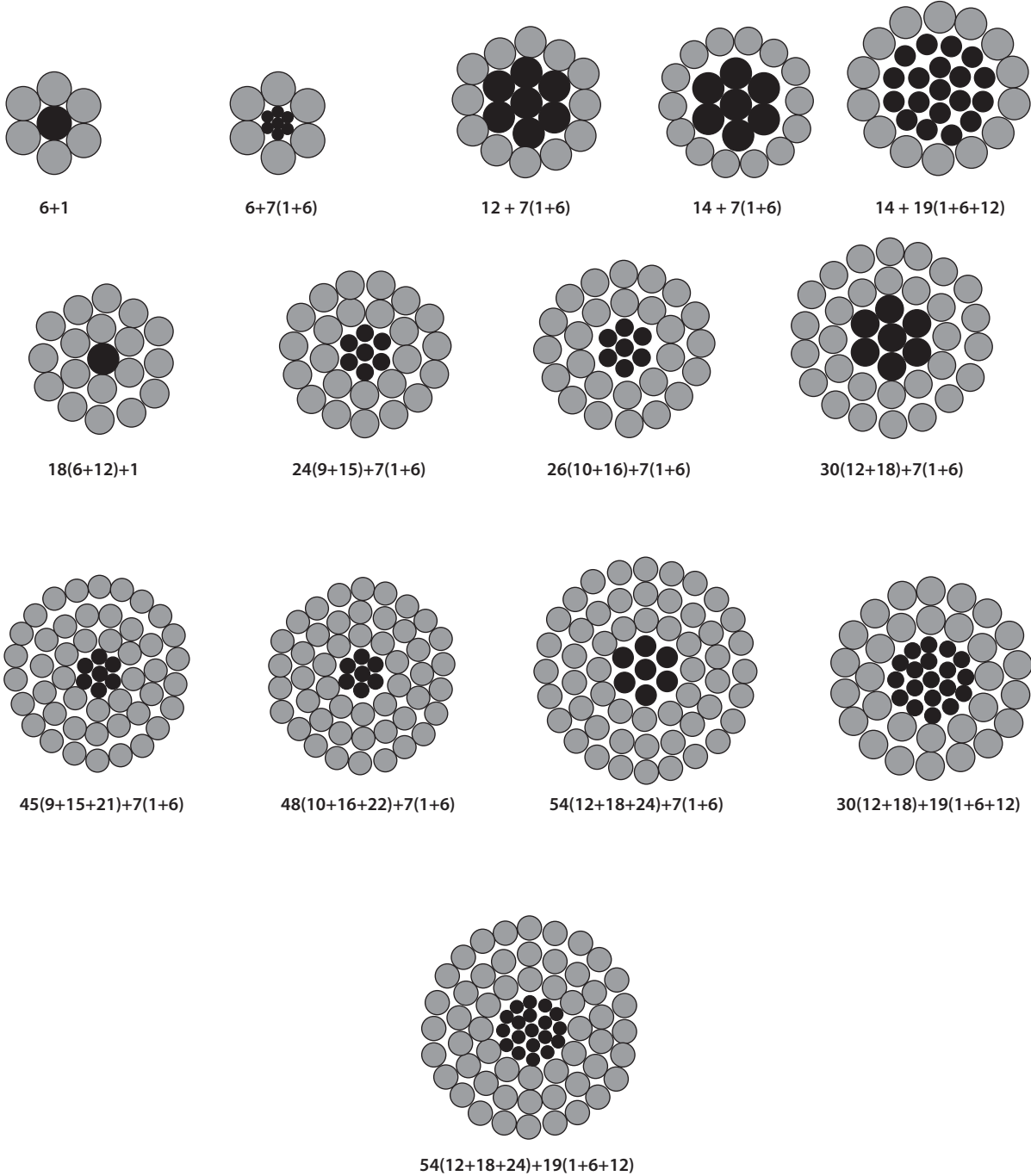


Bare Stranded All Aluminium Conductor

Total are		Construction No./Wire diameter	Approx. overall diameter	Approx. weight	Calculated min. breaking load	DC resistance at 20°C
AWG or MCM*	mm ²					
6	13.3	7/1.55	4.65	36	4.22	2.519
4	21.1	7/1.96	5.88	58	6.72	1.584
2	33.6	7/2.47	7.41	92	10.70	0.9958
0	53.5	7/3.12	9.36	147	17.00	0.6261
2/0	67.4	7/3.50	10.50	185	20.50	0.4968
3/0	85.0	7/3.93	11.79	233	25.90	0.3939
4/0	107.2	7/4.42	13.26	299	32.70	0.3124
250	126.70	19/2.91	14.55	347	39.00	0.2643
300	152.0	19/3.19	15.95	417	46.80	0.2204
350	177.3	19/3.45	17.25	486	52.30	0.1889
400	202.7	19/3.69	18.45	555	59.80	0.1655
450	228.0	19/3.91	19.55	624.4	67.30	0.1469
500	253.4	19/4.12	20.60	697	74.70	0.1322
550	278.7	37/3.10	21.70	763	83.90	0.1202
600	304.0	37/3.23	22.61	832	91.50	0.1101
650	329.4	37/3.37	23.59	901.3	95.00	0.1017
700	354.7	37/3.49	24.43	971	102.00	0.09439
750	380.0	37/3.62	25.34	1041	110.00	0.08816
800	405.4	37/3.73	26.11	1109	117.00	0.0826
900	456.0	37/3.96	27.72	1249	132.00	0.07341
1000	506.7	37/4.18	29.26	1388	146.00	0.06609

* Circular mils x 1000

Aluminium Conductor Steel Reinforced (ACSR)



Aluminium Conductor Steel Reinforced

Code name	Nominal aluminium area mm ²	Construction No./Wire diameter		Cross-sectional area			Approx. overall diameter	Approx. weight	Calculated breaking load	DC resistance at 20°C
		Aluminium	Steel	Aluminium	Steel	Total				
		No./mm	No./mm	mm ²	mm ²	mm ²				
Gopher	25	6/2.36	1/2.36	26.24	4.38	30.62	7.08	106	9.61	1.093
Weasel	30	6/2.59	1/2.59	31.61	5.27	36.88	7.77	128	11.45	0.9077
Ferret	40	6/3.00	1/3.00	42.41	7.07	49.48	9.00	172	15.20	0.6776
Rabbit	50	6/3.35	1/3.35	52.88	8.81	61.70	10.05	214	18.35	0.5426
Horse	70	12/2.79	7/2.79	73.37	42.80	116.2	13.95	538	61.20	0.3936
Dog	100	6/4.72	7/1.57	105.0	13.50	118.5	14.15	394	32.70	0.2733
Wolf	150	30/2.59	7/2.59	158.1	36.80	194.9	18.13	726	69.20	0.1828
Dingo	150	18/3.35	1/3.35	158.7	8.80	167.5	16.75	506	35.70	0.1815
Lynx	175	30/2.79	7/2.79	183.4	42.80	226.2	19.53	842	79.80	0.1576
Caracal	175	18/3.61	1/3.61	184.3	10.20	194.5	18.05	587	41.10	0.1563
Panther	200	30/3.00	7/3.00	212.1	49.20	261.5	21.00	974	92.25	0.1363
Jaguar	200	18/3.86	1/3.86	210.6	11.70	222.3	19.30	671	46.55	0.1367
Batang*	300	18/4.78	7/1.68	323.0	15.50	338.5	24.16	1010	69.67	0.08914
Zebra	400	54/3.18	7/3.18	428.9	55.60	484.5	28.62	1621	131.9	0.06740

* Not in BS 215 : Part 2 but in accordance to TNB's spec.

Aluminium Conductor Steel Reinforced

Code name	Construction No./Wire diameter		Cross-sectional area			Approx. overall diameter	Approx. weight	Calculated breaking load	DC resistance at 20°C
	Aluminium	Steel	Aluminium	Steel	Total				
	No./mm	No./mm	mm ²	mm ²	mm ²				
Mole	6/1.50	1/1.50	10.60	1.77	12.40	4.50	43	4.14	2.7027
Squirrel	6/2.11	1/2.11	21.00	3.50	24.50	6.33	85	7.87	1.3659
Fox	6/2.79	1/2.79	36.70	6.11	42.80	8.37	148	13.21	0.7812
Mink	6/3.66	1/3.66	63.10	10.50	73.60	11.00	255	21.67	0.4540
Skunk	12/2.59	7/2.59	63.20	36.90	100.1	13.00	463	52.79	0.4568
Beaver	6/3.99	1/3.99	75.00	12.50	87.50	12.00	303	25.76	0.3820
Racoon	6/4.10	1/4.10	79.20	13.20	92.40	12.30	318	27.06	0.3635
Otter	6/4.22	1/4.22	83.90	14.00	97.90	12.70	339	28.81	0.3415
Cat	6/4.50	1/4.50	95.40	15.90	111.3	13.50	385	32.76	0.3003
Hare	6/4.72	1/4.72	105.0	17.50	122.5	14.20	424	36.04	0.2730
Coyote	26/2.54	7/1.91	131.7	20.10	151.8	15.90	521	45.86	0.2192
Cougar	18/3.05	1/3.05	131.5	7.31	138.8	15.30	419	29.74	0.2188
Tiger	30/2.36	7/2.36	131.2	30.60	161.8	16.50	602	57.87	0.2202
Lion	30/3.18	7/3.18	238.3	55.60	293.9	22.30	1093	100.47	0.1213
Bear	30/3.35	7/3.35	264.4	61.70	326.1	23.50	1213	111.50	0.1093
Goat	30/3.71	7/3.71	324.3	75.70	400.0	26.00	1488	135.13	0.0891
Sheep	30/3.99	7/3.99	375.1	87.50	462.6	27.90	1721	156.30	0.0771
Antelope	54/2.97	7/2.97	374.1	48.50	422.6	26.70	1414	118.88	0.0773
Bison	54/3.00	7/3.00	381.7	49.50	431.2	27.00	1443	121.30	0.0758
Deer	30/4.27	7/4.27	429.6	100.2	529.8	29.90	1971	179.00	0.0673
Elk	30/4.50	7/4.50	477.1	111.3	588.4	31.50	2190	198.80	0.0606
Camel	54/3.35	7/3.35	476.0	61.70	537.7	30.20	1799	146.40	0.0608
Moose	54/3.53	7/3.53	528.5	68.50	597.0	31.80	1997	159.92	0.0547

Aluminium Conductor Steel Reinforced

Code name	Construction No./Wire diameter		Cross-sectional area			Approx. overall diameter	Approx. weight	Calculated breaking load	DC resistance at 20°C
	Aluminium	Steel	Aluminium	Steel	Total				
	No./mm	No./mm	mm ²	mm ²	mm ²				
Turkey	6/1.68	1/1.68	13.29	2.21	15.50	5.04	54	5.20	2.157
Swan	6/2.12	1/2.12	21.18	3.53	24.71	6.36	85	8.30	1.356
Swanate	7/1.96	1/2.61	21.12	5.35	26.47	6.53	100	10.50	1.356
Sparrow	6/2.67	1/2.67	33.59	5.60	39.19	8.01	136	12.70	0.8530
Sparate	7/2.47	1/3.30	33.54	8.55	42.09	8.24	159	16.10	0.8530
Robin	6/3.00	1/3.00	42.41	7.07	49.48	9.00	171	15.80	0.6765
Raven	6/3.37	1/3.37	53.52	8.92	62.44	10.11	216	19.40	0.5364
Quail	6/3.78	1/3.78	67.33	11.22	78.55	11.34	272	23.60	0.4255
Pigeon	6/4.25	1/4.25	85.12	14.19	99.30	12.75	343	29.50	0.3373
Penguin	6/4.77	1/4.77	107.2	17.87	125.1	14.31	433	37.10	0.2676
Waxwing	18/3.09	1/3.09	135.0	7.50	142.5	15.45	430	30.60	0.2133
Partridge	26/2.57	7/2.00	134.9	22.00	156.9	16.28	546	50.30	0.2142
Ostrich	26/2.73	7/2.12	152.2	24.71	176.9	17.28	613	56.50	0.1906
Linnet	26/2.89	7/2.25	170.6	27.83	198.4	18.31	688	62.70	0.1699
Oriole	30/2.69	7/2.69	170.5	39.80	210.3	18.83	783	77.00	0.1704
Chickdee	18/3.77	1/3.77	200.9	11.16	212.1	18.85	641	44.20	0.1432
Brant	24/3.27	7/2.18	201.6	26.13	227.7	19.61	761	64.90	0.1438
Iblis	26/3.14	7/2.44	201.3	32.73	234.1	19.88	812	72.50	0.1438
Lark	30/2.92	7/2.92	200.9	46.88	247.8	20.44	925	90.30	0.1442
Pelican	18/4.14	1/4.14	242.3	13.46	255.8	20.70	770	52.50	0.1193
Flicker	24/3.58	7/2.39	241.6	31.4	273.0	21.49	914	76.10	0.1199
Hawk	26/3.44	7/2.68	241.7	39.49	281.1	21.80	975	86.70	0.1199
Hen	30/3.20	7/3.20	241.3	56.30	297.6	22.40	1110	105.9	0.1202
Osprey	18/4.47	1/4.47	282.5	15.69	298.2	22.35	898	60.9	0.1022
Parakeet	24/3.87	7/2.58	282.3	36.60	318.9	23.22	1066	88.1	0.1028
Dove	26/3.72	7/2.89	282.6	45.92	328.5	23.55	1139	100.5	0.1028
Eagle	30/3.46	7/3.46	282.0	65.82	347.9	24.21	1296	123.7	0.1030
Peacock	24/4.03	7/2.69	306.1	39.78	345.9	24.20	1159	95.6	0.09449
Squab	26/3.87	7/3.01	305.8	49.81	355.6	24.51	1237	106.8	0.09449

Aluminium Conductor Steel Reinforced

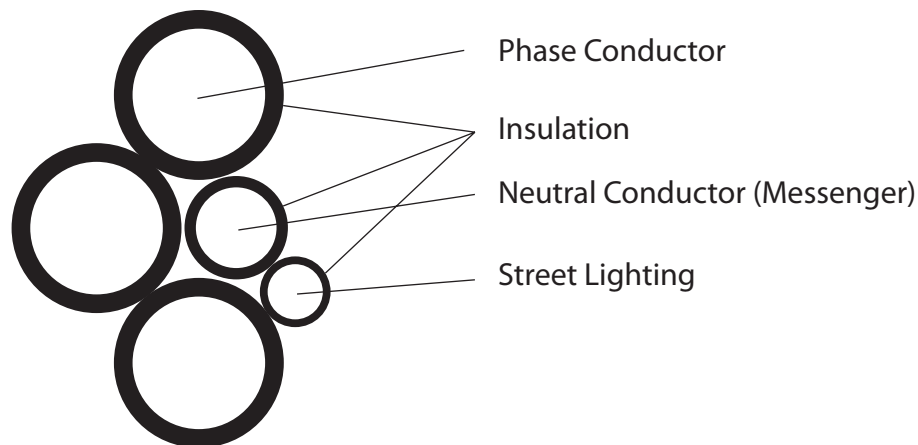
Code name	Construction No./Wire diameter		Cross-sectional area			Approx. overall diameter	Approx. weight	Calculated breaking load	DC resistance at 20°C
	Aluminium	Steel	Aluminium	Steel	Total				
	No./mm	No./mm	mm ²	mm ²	mm ²				
Wood Duc	30/3.61	7/3.61	307.1	71.65	378.7	25.25	1408	128.5	0.09473
Teal	30/3.61	19/2.16	307.1	69.62	376.7	25.24	1397	133.4	0.09475
Kingbird	18/4.78	1/4.78	323.0	17.95	341.0	23.88	1027	69.4	0.8942
Rook	24/4.14	7/2.76	323.1	41.88	365.0	24.84	1218	101.0	0.08989
Grosbeak	26/3.97	7/3.09	321.8	52.49	374.3	25.15	1301	112.1	0.08989
Scoter	30/3.70	7/3.70	322.6	75.26	397.8	25.88	1481	134.8	0.09011
Egret	30/3.70	19/2.22	322.6	73.50	396.1	25.90	1469	140.1	0.09012
Flamingo	24/4.23	7/2.82	337.3	43.72	381.0	25.40	1277	105.4	0.08576
Gannet	26/4.07	7/3.16	338.3	54.90	393.2	28.30	1363	117.4	0.08576
Stilt	24/4.39	7/2.92	363.3	46.88	410.2	26.31	1370	113.4	0.07989
Starling	26/4.21	7/3.28	361.9	59.15	421.1	26.68	1464	126.3	0.07992
Redwing	30/3.92	19/2.35	362.1	82.41	444.5	27.43	1651	153.9	0.08009
Tern	45/3.38	7/2.25	403.8	27.83	431.6	27.03	1332	98.3	0.07192
Condor	54/3.08	7/3.08	402.3	52.15	454.5	27.72	1521	125.4	0.07192
Cuckoo	24/4.62	7/3.08	402.3	52.15	454.5	27.74	1522	124.1	0.07190
Drake	26/4.44	7/3.45	402.6	65.44	468.0	28.11	1626	140.1	0.07192
Mallard	30/4.14	19/2.48	403.8	91.78	495.6	28.96	1836	170.8	0.07208
Ruddy	45/3.59	7/2.40	455.5	31.67	487.2	28.73	1507	108.3	0.06356
Canary	54/3.28	7/3.28	456.3	59.15	515.4	29.52	1723	141.9	0.06352
Rail	45/3.70	7/2.47	483.8	33.54	517.4	29.61	1598	115.2	0.05994
Cardinal	54/3.38	7/3.38	484.5	62.81	547.3	30.42	1826	150.3	0.05994
Ortolan	45/3.85	7/2.57	523.9	36.31	560.2	30.81	1731	123.2	0.05531
Curlew	54/3.52	7/3.52	525.5	68.12	593.6	31.68	1978	162.8	0.05531
Bluejay	45/4.00	7/2.66	565.5	38.90	604.4	31.98	1866	132.6	0.05161
Finch	54/3.65	19/2.19	565.0	71.57	636.6	32.85	2128	173.9	0.05161
Bunting	45/4.14	7/2.76	605.8	41.88	647.6	33.12	1997	141.9	0.04820
Grackle	54/3.77	19/2.27	602.8	76.89	679.7	33.97	2278	185.9	0.04820
Bittern	45/4.27	7/2.85	644.4	44.66	689.1	34.17	2131	151.7	0.04518

Aluminium Conductor Steel Reinforced

Code name	Construction No./Wire diameter		Cross-sectional area			Approx. overall diameter	Approx. weight	Calculated breaking load	DC resistance at 20°C
	Aluminium	Steel	Aluminium	Steel	Total				
	No./mm	No./mm	mm ²	mm ²	mm ²				
Pheasant	54/3.90	19/2.34	645.1	81.71	726.8	35.10	2431	193.9	0.04518
Dipper	45/4.40	7/2.92	684.2	46.88	731.1	35.16	2263	161.0	0.04259
Martin	54/4.02	19/2.41	685.4	86.67	772.1	36.17	2582	205.9	0.04259
Bobolink	45/4.53	7/3.02	725.3	50.14	775.4	36.24	2397	170.8	0.04016
Plover	54/4.14	19/2.48	726.90	91.78	818.70	37.24	2735	218.0	0.04016
Nuthatch	45/4.65	7/3.10	764.2	52.83	817.0	37.20	2530	178.4	0.03802
Parrot	54/4.25	19/2.55	766.1	97.0	863.1	38.25	2884	230.4	0.03802
Lapwing	45/4.77	7/3.18	804.2	55.60	859.8	38.16	2664	187.3	0.03612
Falcon	54/4.36	19/2.62	806.2	102.4	908.7	39.26	3039	242.9	0.03612

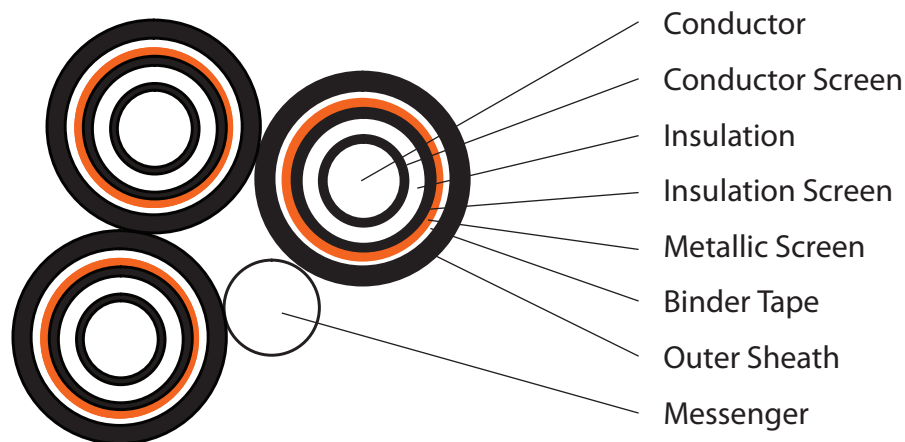
ABC

Low Voltage Aerial Cable



Cable Size			1 x 16 + 1 x 25	3 x 16 + 1 x 25	3 x 95 + 1 x 70 + 1 x 16	3 x 185 + 1 x 120 + 1 x 16
Phase Conductor						
Conductor	Cross-sectional area	mm ²	16	16	95	185
	Number of wires		7	7	19	37
	Number of cores		1	3	3	3
Nom. insulation thickness		mm	1.00	1.00	1.60	2.00
Approx. diameter of insulated core		mm	6.9	6.9	15.0	20.4
Max. DC resistance of conductor at 20°C		Ω/km	1.91	1.91	0.320	0.164
Messenger/Neutral Conductor						
Conductor	Cross-sectional area	mm ²	25	25	70	120
	Number of wires		7	7	19	19
	Number of cores		1	1	1	1
Nom. insulation thickness		mm	1.20	1.20	1.40	1.60
Approx. diameter of insulated core		mm	8.6	8.6	13.0	16.6
Max. DC resistance of conductor at 20°C		Ω/km	1.312	1.312	0.469	0.273
Calculated Breaking Load		kN	7.5	7.5	36.0	36.0
Lighting Conductor						
Conductor	Cross-sectional area	mm ²	*	*	16	16
	Number of wires		*	*	7	7
	Number of cores		*	*	1	1
Nom. insulation thickness		mm	*	*	1.0	1.0
Approx. diameter of insulated core		mm	*	*	6.9	6.9
Max. DC resistance of conductor at 20°C		Ω/km	*	*	1.91	1.91
Approx. overall diameter of cable		mm	15.5	19.2	40.5	49.3
Approx. overall weight of the cable		kg/km	160	290	1300	2360
Cable length per drum		m	1000	1000	500	500

Medium Voltage Aerial Cable



Cable Size			3 x 70 + 1 x 50	3 x 150 + 1 x 50	3 x 240 + 1 x 50
Phase Conductor					
Conductor	Cross-sectional area	mm ²	70	120	240
	Number of wires		19	37	37
	Number of cores		3	3	3
Min. thickness of conductor screen		mm	0.50	0.50	0.50
Nom. insulation thickness		mm	3.40	3.40	3.40
Min. thickness of insulation screen		mm	0.50	0.50	0.50
Nominal thickness of metallic screen		mm	0.105	0.105	0.105
Min. thickness of outer sheath		mm	2.30	2.30	2.30
Approx. overall diameter of cable		mm	25.9	30.7	34.6
Messenger/Neutral Conductor					
Cross-sectional area		mm ²	50	50	50
Number of wires			7	7	7
Number of cores			1	1	1
Calculated Breaking Load		kN	63.0	63.0	63.0
Standard Cable					
Approx. overall diameter of stranded cable		mm	60.6	70.9	79.3
Approx. net weight		kg/km	3000	4170	5320
Max. DC resistance of conductor at 20°C		Ω/km	0.443	0.206	0.125
Cable length per drum		m	500	500	500

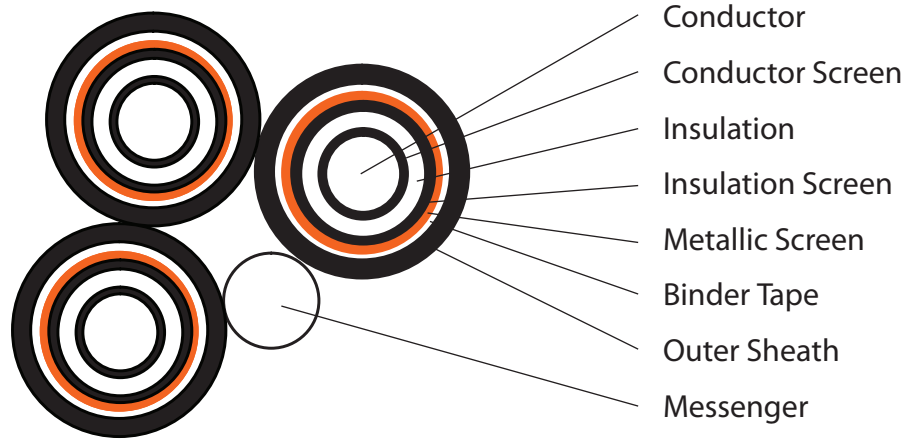
ABC

33 kV

SPECIFICATION

TNBD & IEC 60502-2

Medium Voltage Aerial Cable



Cable Size			3 x 70 + 1 x 50	3 x 150 + 1 x 50
Phase Conductor				
Conductor	Cross-sectional area	mm ²	70	150
	Number of wires		19	37
	Number of cores		3	3
Min. thickness of conductor screen		mm	0.50	0.50
Nom. insulation thickness		mm	8.00	8.00
Min. thickness of insulation screen		mm	0.50	0.50
Nominal thickness of metallic screen		mm	0.105	0.105
Min. thickness of outer sheath		mm	2.30	2.30
Approx. overall diameter of cable		mm	35.1	39.9
Messenger/Neutral Conductor				
Cross-sectional area		mm ²	50	50
Number of wires			7	7
Number of cores			1	1
Calculated Breaking Load		kN	63.0	63.0
Standard Cable				
Approx. overall diameter of stranded cable		mm	80.4	90.8
Approx. net weight		kg/km	4530	5880
Max. DC resistance of conductor at 20°C		Ω/km	0.443	0.206
Cable length per drum		m	500	500





FEC Cables (M) Sdn. Bhd.
(7293-W)

Factory 1

Persiaran Raja Muda, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia.
(P.O. Box 7006, 40700 Shah Alam)

Tel : 6 03 - 5519 1110 (Hotline) Fax : 6 03 - 5519 1296

Factory 2

No. 16, Jalan Keluli 2, Bukit Raja Industrial Area, 41050 Klang, Selangor Darul Ehsan, Malaysia.

Tel : 6 03 - 3343 5837 (Hotline) Fax : 6 03 - 3343 5843

Sales Office

Persiaran Raja Muda, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia

Tel : 6 03 - 5519 1110 (Hotline) Fax : 6 03 - 5519 1296 / 5513 8688

Email : sales@fecm.com.my

www.fec.com.my