Soft Drawn Copper Conductor
SDCU

Standard IEC 60228

Conductor Class 2 stranded copper as per IEC 60228.

Applications Bare soft or annealed copper conductors are recommended to be used for circuit ground connections as well as machinery and equipment grounding.

Nominal Area	Number of Strands	Approx. Overall Diameter
mm^2	No.	mm
1.5	7	1.5
2.5	7	2
4	7	2.5
6	7	3.1
10	7	4
16	7	5
25	7	6
35	7	7
50	7	8.1
70	19	9.7
95	19	11.4
120	37	12.9
150	37	14.3
185	37	16
240	37	18.4
300	61	20.7
400	61	23.2
500	61	26.7
630	61	30.4

Hard Drawn Copper Conductor
HDCU

Standard BS 7884

Conductor Plain bare hard drawn copper conductors as per BS 7884.

Applications Hard drawn copper conductors are used in overhead electrical distribution networks.

Area		Approx. Overall Diameter	Nominal Break Load	Nominal DC. Resistance at 20 °C
Nominal mm²	Actual mm²	mm	KN	Ohm/Km
10	10.02	4.1	3.8	1.8290
14	14.08	4.8	5.3	1.3030
16	15.90	5.1	5.9	1.1540
25	24.23	6.3	9.1	0.7563
32	33.28	7.4	12.4	0.5497
35	34.38	7.5	12.9	0.5337
50	48.37	9.0	17.7	0.3819
70	65.84	10.5	24.1	0.2806
95	93.30	12.5	31.1	0.1980
120	117.04	14.0	42.8	0.1578
125	125.55	14.5	45.9	0.1471
150	152.87	16.0	55.9	0.1208
150	147.17	15.8	53.9	0.1264
185	181.70	17.5	66.5	0.1024

All Aluminum Conductors
AAC

Standard BS 215

Conductor Hard drawn aluminum conductor consists of wires concentrically applied in successive layers in opposite direction.

Applications All aluminum bare conductors are used for aerial distribution lines having relatively short spans, aerial feeders and bus bars of substations.

Code Name	Area		Stranding and Wire Diameter	Approx. Overall Diameter	Nominal Break Load	Nominal DC. Resistance at 20 °C
	Nominal mm^2	Actual mm^2	mm	mm	KN	Ohm/Km
MIDGE	22	23.33	7 / 2.06	6.2	4.0	1.2270
APHID	25	26.40	3 / 3.35	7.2	4.1	1.0830
GNAT	25	26.80	7 / 2.21	6.6	4.6	1.0660
WEEVIL	30	31.60	3 / 3.66	7.9	4.9	0.9070
MOSQUITO	35	37.00	7 / 2.59	7.8	6.0	0.7763
LADYBIRD	40	42.80	7 / 2.79	8.4	6.9	0.6689
ANT	50	52.83	7 / 3.10	9.3	8.3	0.5419
FLY	60	63.55	7 / 3.40	10.2	9.9	0.4505
BLUEBOTTLE	70	73.70	7 / 3.66	11.0	11.3	0.3887
EARWING	75	78.50	7 / 3.78	11.3	11.9	0.3645
GRASSHOPPER	80	84.10	7 / 3.91	11.7	12.8	0.3406
CLEGG	90	95.60	7 / 4.17	12.5	14.5	0.2996
WASP	100	106.00	7 / 4.39	13.2	16.0	0.2702
BEETLE	100	106.60	19 / 2.67	13.4	17.4	0.2704
BEE	125	132.00	7 / 4.90	14.7	19.9	0.2169
CRICKET	150	157.90	7 / 5.36	16.1	23.9	0.1813
HORNET	150	157.60	19 / 3.25	16.3	27.7	0.1825
CATERPILLAR	175	186.00	19 / 3.53	17.7	28.6	0.1547
CHAFER	200	213.20	19 / 3.78	18.9	32.4	0.1349
SPIDER	225	236.90	19 / 3.99	20.0	36.0	0.1211
COCKROACH	250	265.70	19 / 4.22	21.1	40.4	0.1083
BUTTERFLY	300	322.70	19 / 4.65	23.3	48.7	0.08916
MOTH	350	373.20	19 / 5.00	25.0	56.4	0.07711
DRONE	350	373.30	37 / 3.58	25.1	57.5	0.07742
LOCUST	400	428.50	19 / 5.36	26.8	64.7	0.06711
CENTIPEDE	400	415.20	37 / 3.78	26.5	63.1	0.06944
MAYBUG	450	486.90	37 / 4.09	28.6	74.0	0.05931
SCORPION	500	529.50	37 / 4.27	29.9	80.0	0.05442
CICADA	600	628.60	37 / 4.65	32.6	95.0	0.04589
TARANTULA	750	794.80	37 / 5.23	36.6	120.1	0.03627

All Aluminum Alloy Conductors
AAAC

Standard BS EN 50183

Conductor Aluminum alloy conductor consists of wires concentrically applied in successive layers in opposite direction.

Applications Used as bare overhead conductor for primary and secondary distribution. Designed utilizing a high strength aluminum alloy to achieve a high strength-to-weight ratio; affords better sag characteristics. Aluminum alloy gives AAAC higher resistance to corrosion.

Code Name	Area	Stranding and Wire Diameter	Approx. Overall Diameter	Nominal Break Load	Nominal DC. Resistance at 20 °C
	mm²	mm	mm	KN	Ohm/Km
BOX	18.82	7 / 1.85	5.55	5.27	1.749
ACACIA	23.79	7 / 2.08	6.24	6.70	1.384
ALMOND	30.10	7 / 2.34	7.02	8.44	1.094
CEDAR	35.47	7 / 2.54	7.62	9.95	0.9281
FIR	47.84	7 / 2.95	8.85	13.40	0.688
HAZEL	59.87	7 / 3.30	9.90	16.80	0.5498
PINE	71.65	7 / 3.61	10.83	20.10	0.4595
WILLOW	89.73	7 / 4.04	12.12	25.17	0.3669
OAK	118.90	7 / 4.65	13.95	33.32	0.277
MULBERRY	150.90	19 / 3.18	15.90	42.30	0.219
ASH	180.70	19 / 3.48	17.40	50.64	0.183
ELM	211.00	19 / 3.76	18.80	59.13	0.157
POPLAR	239.40	37 / 2.87	20.09	67.00	0.1387
SYCAMORE	303.20	37 / 3.23	22.61	84.90	0.1093
UPAS	362.10	37 / 3.53	24.71	101.50	0.09155
YEW	479.00	37 / 4.06	28.42	134.20	0.69210
TOTARA	498.00	37 / 4.14	28.98	139.60	0.06656
RUBUS	586.90	61 / 3.50	31.50	164.50	0.05662
ARAUCARIA	821.10	61 / 4.14	37.26	230.00	0.04047

Aluminum Conductors Steel Reinforced ACSR

Standard BS 215

Conductor An outer layer of aluminum conductor concentrically stranded over the central core of galvanized solid or stranded steel wires to form aluminum steel reinforced conductor.

Applications 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.

Code Name	Area *				Strand. Wire Diameter		Approx. Overall Diameter	Nominal	
	Nominal Al. mm²	Al. mm²	St. mm²	Total mm²	Al.	St.		Break Load	DC. Resistance at 20 °C
					No. / mm		mm	KN	Ohm/Km
MOLE	10	10.62	1.77	12.39	6 / 1.50	1 / 1.50	4.5	4.14	2.0760
SQUIRREL	20	20.94	3.49	24.43	6 / 2.11	1 / 2.11	6.3	7.88	1.3680
GOPHER	25	26.25	4.37	30.62	6 / 2.36	1 / 2.36	7.1	9.61	1.0930
WEASEL	30	31.61	5.27	36.88	6 / 2.59	1 / 2.59	7.8	11.45	0.9077
FOX	35	36.66	6.11	42.77	6 / 2.79	1 / 2.79	8.4	13.20	0.7822
FERRET	40	42.41	7.07	49.48	6 / 3.00	1 / 3.00	9.0	15.20	0.6766
RABBIT	50	52.88	8.82	61.70	6 / 3.35	1 / 3.35	10.1	18.35	0.5426
MINK	60	63.18	10.53	73.71	6 / 3.66	1 / 3.66	11.0	21.80	0.4545
SKUNK	60	63.27	36.93	100.20	12 / 2.59	7 / 2.59	13.0	53.00	0.4567
BEAVER	70	74.82	12.47	87.29	6 / 3.99	1 / 3.99	12.0	25.70	0.3825
HORSE	70	73.37	42.80	116.17	12 / 2.79	7 / 2.79	14.0	61.20	0.3936
RACOON	75	79.20	13.20	92.40	6 / 4.10	1 / 4.10	12.3	27.20	0.3622
OTTER	80	83.88	13.98	97.86	6 / 4.22	1 / 4.22	12.7	28.80	0.3419
CAT	90	95.40	15.90	111.30	6 / 4.50	1 / 4.50	13.5	32.70	0.3007
HARE	100	105.00	17.50	122.50	6 / 4.72	1 / 4.72	14.2	36.00	0.2733
DOG	100	105.00	13.50	118.50	6 / 4.72	7 / 1.57	14.2	32.70	0.2733
HYENA	100	105.80	20.44	126.24	7 / 4.39	7 / 1.93	14.6	40.90	0.2712
LEOPARD	125	131.30	16.80	148.10	6 / 5.28	7 / 1.75	15.8	40.70	0.2184
COYOTE	125	132.10	20.10	152.20	26 / 2.54	7 / 1.91	15.9	46.40	0.21870

* Al.: Aluminum
St.: Steel

Aluminum Conductors Steel Reinforced ACSR

Standard BS 215

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Applications 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.

Code Name	Area *				Strand. Wire Diameter		Approx. Overall Diameter	Nominal	
	Nominal Al. mm²	Al. mm²	St. mm²	Total mm²	Al.	St.		Break Load	DC. Resistance at 20 °C
					No. / mm		mm	KN	Ohm/Km
COUGAR	125	130.3	7.25	137.55	18/3.05	1/3.05	15.25	29.8	0.21890
TIGER	125	131.1	30.60	161.7	30/2.36	7/2.36	16.52	58.0	0.22020
WOLF	150	158.0	36.90	194.9	30/2.59	7/2.59	18.13	69.2	0.18280
DINGO	150	158.7	8.80	167.5	18/3.35	1/3.35	16.75	35.7	0.18150
LYNX	175	183.4	42.80	226.2	30/2.79	7/2.79	19.53	79.8	0.15760
CARACAL	175	184.2	10.30	194.5	18/3.61	1/3.61	18.05	41.1	0.15630
JAGUAR	200	210.6	11.70	222.3	18/3.86	1/3.86	19.30	46.6	0.13670
PANTHER	200	212.0	49.50	261.5	30/3.00	7/3.00	21.00	92.3	0.13630
LION	225	238.5	55.60	294.1	30/3.18	7/3.18	22.26	100.6	0.12120
BEAR	250	264.0	61.60	325.6	30/3.35	7/3.35	23.45	111.1	0.10930
GOAT	300	324.3	75.70	400.0	30/3.71	7/3.71	25.97	135.7	0.08910
SHEEP	350	374.1	87.30	461.4	30/3.99	7/3.99	27.93	155.9	0.07704
ANTELOPE	350	373.1	48.40	421.5	54/2.97	7/2.97	26.73	118.2	0.07727
BISON	350	381.8	49.50	431.3	54/3.00	7/3.00	27.00	120.9	0.07573
DEER	400	429.3	100.20	529.5	30/4.27	7/4.27	29.89	178.5	0.06726
ZEBRA	400	428.9	55.60	484.5	54/3.18	7/3.18	28.62	131.9	0.06740
ELK	450	477.0	111.30	588.3	30/4.50	7/4.50	31.50	198.2	0.06056
CAMEL	450	475.2	61.60	536.8	54/3.35	7/3.35	30.15	145.7	0.06073
MOOSE	500	528.7	68.50	597.2	54/3.53	7/3.53	31.77	161.1	0.05470

* Al.: Aluminum
St.: Steel