

All Aluminium Alloy Conductors (AAAC)



For transmission and distribution in electrical networks over long spans with high resistance to corrosion

Standard : BS 3242 / DIN 48201 / EN 50182 / ASTM B-232 / IEC 61089

Conductor : Hard drawn stranded aluminium alloy wires

TECHNICAL INFORMATION ACCORDING TO BS 3242 / EN50182

Code Name	Nominal Cross Section mm ²	Number & nominal wire diameter NR x mm	Approx. Overall diameter mm	Approx. Conductor weight Kg/km	Max DC Resistance at 20°C ohm/km	Calculated Breaking Load KN
BOX	19	7*1.85	5.55	51	1.7658	5.28
ACACIA	24	7*2.08	6.24	65	1.3969	6.68
ALMOND	30	7*2.34	7.02	82	1.1037	8.44
CEDAR	36	7*2.54	7.62	97	0.9367	9.94
DEODAR	42	7*2.77	8.31	115	0.7876	11.82
FIR	48	7*2.95	8.85	131	0.6944	13.41
HAZEL	60	7*3.30	9.9	164	0.5549	16.78
PINE	72	7*3.61	10.83	196	0.4637	20.08
HOLLY	84	7*3.91	11.73	230	0.3953	23.56
WILLOW	90	7*4.04	12.12	245	0.3702	25.15
OAK	119	7*4.65	13.95	325	0.2795	33.32
MULBERRY	151	19*3.18	15.90	415	0.2212	42.30
ASH	181	19*3.48	17.4	497	0.1847	50.65
ELM	211	19*3.76	18.80	580	0.1582	59.13
POPLAR	239	37*2.87	20.09	659	0.1397	67.10
SYCAMORE	303	37*3.23	22.61	835	0.1103	84.98
UPAS	362	37*3.53	24.71	997	0.0923	101.50
YEW	479	37*4.06	28.42	1319	0.0698	134.26
TOTARA	489	37x4.14	29	1372	0.0660	146.93
RUBUS	587	61x3.50	31.50	1622	0.0567	173.13
SORBUS	659	61x3.71	33.4	1822	0.0505	194.53
ARAUCARIA	821	61x4.14	37.30	2269	0.0406	242.24
REDWOOD	996	61x4.56	41	2753	0.0334	293.88

Code Name	Nominal Cross Section mm ²	Number & nominal wire diameter NR x mm	Approx. Overall diameter mm	Approx. Conductor weight Kg/km	Max DC Resistance at 20°C ohm/km	Calculated Breaking Load KN
ALTON	24.7	7x2.12	6.4	68	1.3576	7.84
AMES	39.3	7x2.67	8.00	108	0.8533	12.40
AZUSA	62.5	7x3.37	10.1	172	0.5364	19.00
ANAHEIM	78.7	7x3.78	11.4	217	0.4255	24.00
AMHERST	99.2	7x4.25	12.8	273	0.3379	30.20
ALLIANCE	125.1	7x4.77	14.3	345	0.2658	38.10
BUTTE	158.5	19x3.26	16.3	437	0.2114	46.70
CANTON	199.9	19x3.66	18.3	551	0.1675	59.00
CAIRO	235.8	19x3.98	19.9	650	0.1421	69.60
DARIEN	283.5	19x4.36	21.8	781	0.1181	83.60
ELGIN	330.6	19x4.71	23.5	911	0.1013	97.50
FLINT	375.4	37x3.59	25.2	1035	0.0892	108.00
GREELEY	469.8	37x4.02	28.1	1295	0.0712	136.00

TECHNICAL INFORMATION ACCORDING TO ASTM B-232 / IEC 61089

Code Name Al / Equiv	Alloy Cross Section mm ²	Number & nominal wire diameter NR x mm	Approx. Overall diameter mm	Approx. Conductor weight Kg/km	Max DC Resistance at 20°C ohm/km	Calculated Breaking Load KN
16	18.4	7x1.83	5.5	50	1.7896	5.43
25	28.8	7x2.29	6.90	79	1.1453	8.49
40	46	7x2.89	8.7	126	0.7158	13.58
63	72.5	7x3.63	10.90	198	0.4545	21.39
100	115	19x2.78	13.9	316	0.2877	33.95
125	144	19x3.10	15.50	395	0.2302	42.44
160	184	19x3.51	17.6	506	0.1798	54.32
200	230	19x3.93	19.60	633	0.1439	67.91
250	288	19x4.39	22	791	0.1151	84.88
315	363	37x3.53	24.70	999	0.0916	106.95
400	460	37x3.98	27.9	1268	0.0721	135.81
450	518	37x4.22	29.60	1427	0.0641	152.79
500	575	37x4.45	31.2	1586	0.0577	169.76
560	645	61x3.67	33.00	1778	0.0516	190.14
630	725	61x3.89	35	2001	0.0485	213.90
710	817	61x4.13	37.20	2255	0.0407	241.07
800	921	61x4.38	39.5	2541	0.0361	271.62
900	1036	91x3.81	41.80	2861	0.0321	305.58

Code Name	Alloy Cross Section	Number & nominal wire diameter	Approx. Overall diameter	Approx. Conductor weight	Max DC Resistance at 20°C	Calculated Breaking Load
Al Equiv	mm ²	NR x mm	mm	Kg/km	ohm/km	KN
1000	1151	91x4.01	44.1	3179	0.0289	339.53
1120	1289	91x4.25	46.70	3561	0.0258	280.27
1250	1439	91x4.49	49.4	3974	0.0231	424.41

Aluminium Alloy Messenger Conductor

Takes all mechanical stress in self-supporting cable and serves as earth-cum-neutral conductor.

Conductor : Hard drawn stranded aluminium alloy wires

TECHNICAL INFORMATION

Nominal Cross Section	Number & nominal wire diameter	Approx. Overall diameter	Approx. Conductor weight	Max DC Resistance at 20°C	Calculated Breaking Load
mm ²	NR x mm	mm	Kg/km	ohm/km	KN
35	7*2.54	7.6	97	0.9500	9.94
50	7*3.15	9.5	149	0.6300	15.3
70	7*3.61	10.8	196	0.5000	20.0