

ALL-ALUMINIUM STRANDED CONDUCTOR

BRITISH SIZES

AAC stranded conductors standard sizes from BS 215

Code name	Nominal ALU area	Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Total area	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current		Code name
	mm ²	mm ²	mm	mm	mm ²	kg/km	kgf	ohm/km	temperate amp	tropical amp	
Midge	22	14.2	7/2.06	6.2	23.3	64	408	1.227	114	72	Midge
Aphis	25	16.1	3/3.35	7.2	26.4	73	419	1.081	139	87	Aphis
Gnat	25	16.1	7/2.21	6.6	26.8	73	468	1.068	124	78	Gnat
Weevil	30	19.4	3/3.66	7.9	31.6	86	496	0.9082	147	95	Weevil
Mosquito	35	22.6	7/2.59	7.8	36.9	101	617	0.7761	144	93	Mosquito
Ladybird	40	25.8	7/2.79	8.4	42.8	117	701	0.6694	159	101	Ladybird
Ant	50	32.3	7/3.10	9.3	52.8	145	846	0.5419	181	112	Ant
Fly	60	38.7	7/3.40	10.2	63.6	174	1010	0.4505	199	124	Fly
Bluebottle	70	45.2	7/3.66	11	73.7	202	1156	0.3884	219	132	Bluebottle
Earwig	75	48.4	7/3.78	11.4	78.5	215	1218	0.3645	227	136	Earwig
Grasshopper	80	51.6	7/3.91	11.7	84.1	230	1303	0.3405	238	141	Grasshopper
Clegg	90	58.1	7/4.17	12.5	95.6	262	1482	0.2994	256	150	Clegg
Wasp	100	64.5	7/4.39	13.2	106	290	1632	0.2702	271	158	Wasp
Beetle	100	64.5	19/2.67	13.4	106.6	293	1776	0.2699	274	172	Beetle
Bee	125	80.6	7/4.90	14.7	132	361	2033	0.2169	308	175	Bee
Cricket	150	96.8	7/5.36	16.1	157.9	432	2432	0.1814	342	189	Cricket
Horent	150	96.8	19/3.25	16.3	157.6	434	2519	0.1825	346	190	Horent
Caterpillar	175	113	19/3.53	17.7	186	512	2920	0.1547	380	204	Caterpillar
Chafer	200	129	19/3.78	18.9	213.2	587	3304	0.1349	414	215	Chafer
Spider	225	145	19/3.99	20	237.9	652	3672	0.1214	439	224	Spider
Cockroach	250	161	19/4.22	21.1	265.7	731	4120	0.1083	470	232	Cockroach
Butterfly	300	194	19/4.65	23.3	322.7	888	4966	0.08916	528	247	Butterfly
Moth	350	226	19/5.00	25	373.2	1027	5748	0.07709	572	256	Moth
Drone	350	226	37/3.58	25.1	373.3	1029	5858	0.07732	572	257	Drone
Locust	400	258	19/5.36	26.8	428.5	1179	6601	0.06714	626	263	Locust
Centipede	400	258	37/3.78	26.5	415.2	1145	6434	0.06944	619	262	Centipede
Maybug	449	290	37/4.09	28.6	486.9	1342	7547	0.05921	676	268	Maybug
Scorpion	500	323	37/4.27	29.9	529.5	1460	8156	0.05445	710	269	Scorpion
Cicada	600	387	37/4.65	32.6	628.6	1733	9682	0.04587	784	266	Cicada
Tranantula	750	484	37/5.23	36.6	794.8	2191	12247	0.03628	900	241	Tranantula

ALL-ALUMINIUM STRANDED CONDUCTOR

AMERICAN SIZES

AAC stranded conductors standard sizes from ASTM B231-81

Code name	Total area of ALU		Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current		Code name
	AWG or MCM	mm ²	mm ²	mm	mm	kg/km	kgf	ohm/km	temperate amp	tropical amp	
Peach bell	6	13.29	8.4	7/1.55	4.7	37	240	2.169	72	50	Peach bell
Rose	4	21.16	13.5	7/1.96	5.9	58	375	1.362	104	69	Rose
Lris	2	33.61	21.3	7/2.47	7.4	93	574	0.8574	136	88	Lris
Pansy	1	42.39	26.5	7/2.78	8.3	117	697	0.6801	157	99	Pansy
Poppy	1/o	53.48	33.6	7/3.12	9.4	147	846	0.539	180	111	Poppy
Aster	2/o	67.42	42.6	7/3.50	10.5	186	1066	0.4276	207	124	Aster
Phlox	3/o	85.03	53.6	7/3.93	11.8	234	1291	0.339	237	138	Phlox
Oxlip	4/o	107.2	65.4	7/4.42	13.3	295	1628	0.2688	273	153	Oxlip
Valerian	250	126.7	77.4	19/2.91	14.6	349	2044	0.2275	305	166	Valerian
Sneezewort	250	126.7	77.4	7/4.85	14.4	349	1924	0.2275	305	166	Sneezewort
Laurel	266.8	135.2	83.9	19/3.01	15.1	373	2181	0.2133	317	170	Laurel
Daisy	266.8	135.2	83.9	7/4.96	14.9	373	2053	0.2133	317	170	Daisy
Peony	300	152	95.6	19/3.19	16	419	2404	0.1896	340	178	Peony
Tulip	336.4	170.5	110	19/3.38	16.9	470	2697	0.1692	364	186	Tulip
Daffodil	350	177.4	112	19/3.45	17.2	489	2805	0.1625	373	188	Daffodil
Canna	397.5	201	129	19/3.67	18.4	556	3123	0.1432	401	196	Canna
Goldentuft	450	228	142	19/3.91	19.6	628	3462	0.1264	432	204	Goldentuft
Syringa	477	242	155	37/2.88	20.2	666	3900	0.1193	449	208	Syringa
Cosmos	477	242	155	19/4.02	20.1	666	3670	0.1193	447	207	Cosmos
Hyacinth	500	253	161	37/2.95	20.7	698	4088	0.1137	461	210	Hyacinth
Zinnia	500	253	161	19/4.12	20.6	698	3847	0.1137	459	210	Zinnia
Dahlia	556.5	282	177	19/4.35	21.7	777	4282	0.1023	489	214	Dahlia
Mistletoe	556.5	282	177	37/3.11	21.8	777	4461	0.1023	493	215	Mistletoe
Meadowsweet	600	304	194	37/3.23	22.6	838	4809	0.0948	513	218	Meadowsweet
Orcehid	636	323	200	37/3.33	23.3	888	5098	0.0893	531	220	Orcehid
Heuchera	650	329	206	37/3.37	23.6	908	5210	0.0875	538	220	Heuchera
Flag	700	355	226	61/2.72	24.5	978	5838	0.0813	563	221	Flag

ALL-ALUMINIUM STRANDED CONDUCTOR AMERICAN SIZES

AAC stranded conductors standard sizes from ASTM B232

Code name	Total area of ALU		Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current		Code name
	AWG or MCM	mm ²							mm ²	mm	
Verbena	700	355	226	37/3.49	24.5	978	5611	0.0813	562	221	Verbena
Nasturtium	715.5	363	226	61/2.75	24.8	1000	5965	0.0795	570	222	Nasturtium
Violet	715.5	363	226	37/3.53	24.7	1000	5736	0.0795	570	222	Violet
Cattail	750	380	239	61/2.82	25.3	1048	6132	0.0759	586	223	Cattail
Petunia	750	380	239	37/3.62	25.3	1048	5891	0.0759	585	223	Petunia
Lilac	795	403	252	61/2.90	26.1	1111	6500	0.0715	607	222	Lilac
Arbutus	795	403	252	37/3.72	26.1	1111	6245	0.0715	605	222	Arbutus
Snapdragon	900	456	284	61/3.09	27.8	1257	7214	0.0632	653	219	Snapdragon
Cockscomb	900	456	284	37/3.96	27.7	1257	6926	0.0632	651	219	Cockscomb
Goldenrod	954	483	303	61/3.18	28.6	1333	7647	0.0596	675	214	Goldenrod
Magnolia	954	483	303	37/4.08	28.6	1333	7341	0.0596	674	215	Magnolia
Camellia	1000	507	316	61/3.25	29.3	1397	8016	0.0569	693	210	Camellia
Hawkweed	1000	507	316	37/4.18	29.2	1397	7695	0.0569	693	210	Hawkweed
Larkspur	1033.5	524	329	61/3.31	29.8	1444	8284	0.0550	707	207	Larkspur
Bluebell	1033.5	524	329	37/4.24	29.7	1444	7953	0.0550	706	207	Bluebell
Marigold	1113	564	355	61/3.43	30.9	1555	8921	0.0511	738	197	Marigold
Hawthorn	1192.5	604	387	61/3.55	32	1665	9559	0.0477	767	184	Hawthorn
Narcissus	1272	645	407	61/3.67	33	1777	9992	0.0447	797	170	Narcissus
Columbine	1351.5	685	432	61/3.78	34	1888	10617	0.0421	825	144	Columbine
Carnation	1431	725	458	61/3.89	35	1999	11011	0.0398	854	177	Carnation
Gladiolus	1510.5	766	484	61/4.00	36	2110	11623	0.0376	881	86	Gladiolus
Coreopsis	1590	806	510	61/4.10	37	222	12235	0.0358	907	50	Coreopsis
Jessamine	1750	887	555	61/4.30	38.7	2445	13466	0.0325	959	50	Jessamine

ALL-ALUMINIUM STRANDED CONDUCTOR

CANADIAN SIZES

AAC stranded conductors standard sizes from CSA C49

Code name	Total area of ALU		Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current		Code name
	AWG or MCM	mm ²							mm ²	mm	
Rose	4	21.16	13.5	7/1.961	5.89	58	415	1.351	104	69	Rose
Lily	3	26.65	16.8	7/2.202	6.61	73	515	1.072	124	78	Lily
Lris	2	33.61	21.3	7/2.474	7.42	92	635	0.8497	136	88	Lris
Pansy	1	42.39	26.5	7/2.776	8.33	116	775	0.6739	157	99	Pansy
Poppy	1/0	53.48	33.6	7/3.119	9.36	146	940	0.5341	180	111	Poppy
Aster	2/0	67.42	42.6	7/3.503	10.51	184	1185	0.4236	207	124	Aster
Phlox	3/0	85.03	53.6	7/3.932	11.8	232	1435	0.336	237	138	Phlox
Oxlip	4/0	107.23	65.4	7/4.417	13.25	293	1810	0.2664	273	153	Oxlip
Daisy	266.8	135.16	83.9	7/4.960	14.9	369	2280	0.2113	313	169	Daisy
Valerian	250	126.71	77.4	19/2.913	14.57	348	2270	0.2274	305	166	Valerian
Laurel	266.8	135.16	83.9	19/3.010	15.05	372	2425	0.2129	317	170	Laurel
Peony	300	152	96.8	19/3.193	15.97	417	2670	0.189	340	178	Peony
Tulip	336.4	170.45	110	19/3.381	16.91	467	2995	0.1689	364	186	Tulip
Daffodil	350	177.35	112	19/3.447	17.24	488	3115	0.1624	373	188	Daffodil
Canna	397.5	201.42	129	19/3.673	18.36	554	3470	0.1427	401	196	Canna
_	400	202.71	129	19/3.686	18.43	558	3490	0.1421	402	197	_
Goldentuft	450	228	142	19/3.909	19.55	626	3845	0.1263	432	204	Goldentuft
Cosmos	477	241.68	155	19/4.023	20.12	664	4080	0.1188	447	207	Cosmos
Zinnia	500	253.35	161	19/4.120	20.6	695	4275	0.1132	459	210	Zinnia
Dahlia	556.5	282	177	19/4.346	21.73	774	4760	0.1018	489	214	Dahlia
_	550	278.71	175	37/3.096	21.67	768	4900	0.1033	485	214	_
Meadowsweet	600	304	194	37/3.233	22.63	838	5345	0.0948	513	218	Meadowsweet
Orchid	636	322.26	200	37/3.330	23.31	888	5665	0.0896	531	220	Orchid
Heuchera	650	329.35	206	37/3.366	23.56	908	5790	0.0876	538	220	Heuchera
Verbena	700	354.71	226	37/3.493	24.45	978	6235	0.0814	562	221	Verbena

ALL-ALUMINIUM STRANDED CONDUCTOR

CANADIAN SIZES

AAC stranded conductors standard sizes from CSA C49

Code name	Total area of ALU		Equivalent copper area	stranding & wire diameter	Approx overall Φ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current		Code name
	AWG or MCM	mm2							mm2	mm	
Violet	715.5	362.58	226	37/3.533	24.74	1000	6375	0.0797	570	222	Violet
Petunia	750	380	239	37/3.617	25.32	1048	6545	0.0758	585	223	Petunia
Arbutus	795	402.84	252	37/3.724	26.06	1112	6940	0.0715	605	222	Arbutus
–	800	405.35	258	37/3.734	26.14	1118	6980	0.0712	608	222	–
Anemone	874.5	443.1	277	37/3.904	27.33	1222	7475	0.0653	641	220	Anemone
Cockscomb	900	456.06	290	37/3.962	27.73	1257	7695	0.0633	651	219	Cockscomb
Magnolia	954	483.42	303	37/4.079	28.55	1333	8155	0.0597	675	214	Magnolia
Hawkweed	1000	506.71	316	37/4.176	29.23	1396	8550	0.0568	693	210	Hawkweed
Bluebell	1033.5	523.68	329	37/4.244	29.72	1445	8836	0.0551	706	207	Bluebell
–	1100	557.35	348	61/3.411	30.7	1539	9800	0.0518	733	200	–
Marigold	1113	563.93	355	61/3.432	30.89	1559	9910	0.0512	738	197	Marigold
Hawthorn	1192.5	604.26	387	61/3.551	31.95	1670	10615	0.0479	767	184	Hawthorn
–	1200	608.06	381	61/3.564	32.08	1679	10480	0.0476	771	182	–
Narcissus	1272	644.51	407	61/3.668	33.01	1781	11090	0.045	797	170	Narcissus
–	1300	658.71	413	61/3.708	33.37	1818	11340	0.044	807	161	–
Columbine	1351.5	684.84	432	61/3.780	34.02	1893	11795	0.0423	825	144	Columbine
–	1400	709.42	445	61/3.848	34.63	1958	11975	0.0407	842	127	–
Carnation	1431	725.1	458	61/3.891	35.03	2004	12225	0.04	854	117	Carnation
–	1500	760.06	477	61/3.983	35.85	2098	12815	0.0381	877	93	–
Gladiolus	1510.5	765.35	484	61/3.998	35.98	2116	12905	0.0377	881	86	Gladiolus
Coreopsis	1590	805.68	510	61/4.096	36.86	2226	13585	0.0358	907	50	Coreopsis
–	1600	810.71	510	61/4.115	37.04	2238	13675	0.0358	910	50	–
–	1700	861.42	542	61/4.239	38.15	2378	14540	0.0335	942	50	–

ALL-ALUMINIUM STRANDED CONDUCTOR

GERMAN SIZES

AAC stranded conductors standard sizes from DIN 48201

Code name	AREA NOMINAL	Equivalent copper area	AREA ACTUAL	Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current	
	mm ²	mm ²	mm ²	mm ²	mm	mm	kg/km	kp	ohm/km	temperate amp	tropical amp
DIN	16	9.78	15.89	10	7/1.7	5.1	44	290	1.8017	87	59
DIN	25	15.17	24.25	15	7/2.1	6.3	67	425	1.1806	112	74
DIN	35	21.30	34.36	21	7/2.5	7.5	94	585	0.8332	138	89
DIN	50	30.43	49.48	31	7/3.0	9	135	810	0.5786	172	107
DIN	50	30.43	48.36	30	19/1.8	9	133	860	0.5948	172	107
DIN	70	42.61	65.82	41	19/2.10	10.5	181	1150	0.437	206	124
DIN	95	57.83	93.27	60	19/2.50	12.5	256	1595	0.3084	254	146
DIN	120	73.04	117	70	19/2.80	14.0	322	1910	0.2459	291	160
DIN	150	91.30	147.1	90	37/2.25	15.75	406	2570	0.196	333	176
DIN	185	112.61	181.6	110	37/2.50	17.50	501	3105	0.1588	379	191
DIN	240	146.09	242.5	150	61/2.25	20.25	670	4015	0.1192	448	207
DIN	300	182.61	299.4	155	61/2.50	22.50	827	4850	0.09651	509	217
DIN	400	243.48	400.1	245	61/2.89	26.01	1105	6190	0.07222	602	222
DIN	500	304.35	499.8	305	61/3.23	29.07	1381	7600	0.05782	689	211

ALL-ALUMINIUM STRANDED CONDUCTOR

FRENCH SIZES

AAC stranded conductors standard sizes from NFC 34120

Code name	AREA NOMINAL	Equivalent copper area	stranding & wire diameter	Approx overall ϕ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current	
	mm ²	mm ²	mm	mm	kg/km	kgf	ohm/km	temperate amp	tropical amp
NFC	27.8	16.92	7 × 2.25	6.75	77	465	1.03	112	74
NFC	34.4	20.94	7 × 2.50	7.5	95	576	0.836	138	89
NFC	43	26.17	7 × 2.80	8.4	118	725	0.665	165	100
NFC	54.6	33.23	7 × 3.15	9.45	150	863	0.526	175	110
NFC	75.6	46.02	19 × 2.25	11.25	209	1220	0.382	210	130
NFC	93.3	56.79	19 × 2.50	12.5	258	1510	0.309	254	145
NFC	117	71.22	19 × 2.80	14	324	1840	0.247	291	160
NFC	148	90.09	19 × 3.15	15.75	410	2270	0.195	333	176
NFC	188	114.43	19 × 3.55	17.75	520	2880	0.153	382	194
NFC	228	138.78	37 × 2.80	19.6	633	3510	0.127	435	200
NFC	236	143.65	37 × 2.86	20.02	650	3630	0.122	440	202
NFC	288	175.30	37 × 3.15	22.05	799	4310	0.1	500	210
NFC	366	222.78	37 × 3.55	24.85	1016	5470	0.0792	570	222
NFC	475	289.13	61 × 3.15	28.35	1324	6860	0.0612	665	222
NFC	604	367.65	61 × 3.55	31.95	1680	8720	0.0481	760	180

ALL-ALUMINIUM STRANDED CONDUCTOR

IEC SIZES

AAC stranded conductors standard sizes from characteristics of A1 conductors

Code name	AREA NOMINAL	AREA ACTUAL	Equivalent copper area	stranding & wire diameter	Approx overall Φ	Approx weight	Nominal breaking load	maximum resistance dc at 20°	Rating current	
	mm ²	mm ²	mm ²	mm	mm	kg/km	KN	ohm/km	temperate amp	tropical amp
IEC	10	10.01	6.10	7/1.35	4.05	27.4	1.95	2.8633	70	50
IEC	16	16.07	9.78	7/1.71	5.12	43.8	3.04	1.7896	90	60
IEC	25	24.93	15.17	7/2.13	6.4	68.4	4.5	1.1453	112	74
IEC	40	40.06	24.38	7/2.7	8.09	109.4	6.8	0.7158	150	90
IEC	63	63.15	38.44	7/3.39	10.2	172.3	10.39	0.4545	190	115
IEC	100	100.05	60.90	19/2.59	12.9	274.8	17	0.2877	250	145
IEC	125	124.57	75.83	19/2.89	14.5	343.6	21.25	0.2302	291	160
IEC	160	159.48	97.08	19/3.27	16.4	439.8	26.4	0.1798	350	180
IEC	200	199.80	121.61	19/3.66	18.3	549.7	32	0.1439	400	190
IEC	250	249.50	151.87	19/4.09	20.5	687.1	40	0.1151	460	205
IEC	315	314.39	191.37	37/3.29	23	867.9	51.97	0.0916	530	210
IEC	400	399.78	243.34	37/3.71	26	1102	64	0.0721	602	222
IEC	450	499.80	304.23	37/3.94	27.5	1239	72	0.0641	650	225
IEC	500	499.80	304.23	37/4.15	29	1377.6	80	0.0577	689	211
IEC	560	559.76	340.72	37/4.390	30.7	1542.9	89.6	0.0515	700	250
IEC	630	630.98	384.07	61/3.63	32.6	1738.3	100.8	0.0458	780	240
IEC	710	709.78	432.04	61/3.85	34.6	1959.1	113.6	0.0407	840	220
IEC	800	801.03	487.58	61/4.09	36.8	2207.4	128	0.0361	900	0
IEC	900	897.79	546.48	61/4.33	39	2483.3	144	0.0321	960	0
IEC	1000	1000.07	608.74	61/4.57	41.1	2759.2	160	0.0289	1000	0

The resistivity of metal A1 : 28,264 nΩm(corresponding to 61%IACS)