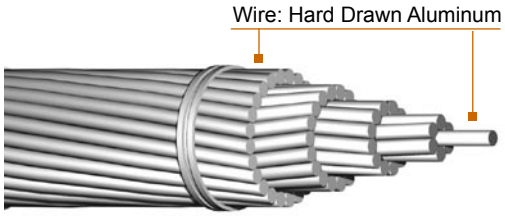
AAC

All Aluminum Stranded Conductor



Outer Direction
Stranding: Z-Stranding
(Right-hand stranding)

Detail Description or Construction

Conductor

This bare concentric-lay stranded conductor is constructed with a straight round central wire surrounded with one or more layers of helically layed wires.
These conductors are also manufactured as compact conductors if required.

Application

Class AA

For bare conductors usually used in overhead lines.

Class A

For conductors to be covered with weather-resistant materials and for bare conductors where greater flexibility is requiered.

Standards / Testing Specifications

- ASTM specifications: B-230, B-231; TIS 85-2522 (Thai Industrial Standard 85-2522); IEC or any standard as requested.

Installation

AAC cable can be installed in air. It is recommended that the installation instructions indicated by the Local Electric Code, or any equivalent, be followed, so that the safeguarding of persons and the integrity of the product will not be affected by deficiencies in the installation.

Standard Packaging

As provided by NEMA WC 26 and the Aluminum Association.

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Code	Size	Section	No. of Strands	Diameter Strands	Total Diameter	Weight	Rated Strength	Maximum Resistance @ 20°C
	AWG or MCM	in^2		in	in	lbs/1000ft	lbs	Ω/1000ft
Peachbell	6	0,0206	7	0,0614	0,183	24,6	560	0,661
Rose	4	0,0328	7	0,0772	0,231	39,1	880	0,416
Iris	2	0,0521	7	0,0972	0,292	62,2	1,347	0,261
Pansy	1	0,0657	7	0,109	0,328	78,4	1,631	0,208
Poppy	1/0	0,0829	7	0,123	0,369	98,9	1,978	0,164
Aster	2/0	0,105	7	0,138	0,414	124,8	2,504	0,130
Phlox	3/0	0,132	7	0,155	0,465	157,2	3,031	0,103
Oxlip	4/0	0,166	7	0,174	0,522	198,4	3,832	0,0820
Daisy	266,8	0,210	7	0,195	0,586	250,2	4,830	0,0650
Laurel	266,8	0,210	19	0,119	0,593	250,1	4,969	0,0650
Tulip	336,4	0,264	19	0,133	0,665	315,5	6,144	0,0515
Canna	397,5	0,312	19	0,145	0,724	372,9	7,097	0,0436
Cosmos	477	0,375	19	0,158	0,792	446,8	8,384	0,0363
Syringa	477	0,375	37	0,113	0,794	447,6	8,668	0,0363
Dahlia	556,5	0,437	19	0,171	0,856	521,4	9,769	0,0312
Mistletoe	556,5	0,437	37	0,123	0,858	522,2	9,910	0,0312
Orchid	636	0,500	37	0,131	0,918	596,0	11,362	0,0272

Data shown is subject to normal manufacturing tolerances. D.C. Resistance is based on 16.946 Ω Kcmil/ft (61.2% IACS) @ 20°C (68°F) for aluminum nominal area of conductor with standard stranding increments ASTM B-231.
Bold face code words indicates sizes most often used. * Not specified by ASTM standards.

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	AWG or MCM	in^2		in	in	lbs/1000ft	lbs	Ω/1000ft
Violet	715,5	0,562	37	0,139	0,974	671,0	12,767	0,0242
Nasturtium	715,5	0,562	61	0,108	0,975	671,0	13,139	0,0242
Arbutus	795	0,624	37	0,146	10,264	745,3	13,896	0,0218
Lilac	795	0,624	61	0,114	10,280	746,0	14,332	0,0218
*Anemone	874,5	0,687	37	0,154	10,776	821,2	15,037	0,0198
* Crocus	874,5	0,687	61	0,120	10,772	821,2	15,750	0,0198
Magnolia	954	0,749	37	0,161	1,124	894,5	16,376	0,0182
Goldenrod	954	0,749	61	0,125	1,126	894,5	16,894	0,0182
Bluebell	1033,5	0,812	37	0,167	1,170	968,4	17,767	0,0168
Larkspur	1033,5	0,812	61	0,130	1,172	969,1	18,305	0,0168
Marigold	1113	0,874	61	0,135	1,216	1043,7	19,656	0,0156
Hawthorn	1192,5	0,937	61	0,140	1,258	1116,9	21,054	0,0145
Narcissus	1272	0,999	61	0,144	1,297	1192,2	22,050	0,0136
Columbine	1351,5	1,062	61	0,149	1,339	1266,1	23,393	0,0128
Carnation	1431	1,124	61	0,153	1,379	1342,1	24,522	0,0121
Gladiolus	1510,5	1,186	61	0,157	1,417	1416,7	25,664	0,0115
Coreopsis	1590	1,249	61	0,161	1,421	1489,2	26,962	0,0109

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	AWG or MCM	in^2		in	in	lbs/1000ft	lbs	Ω/1000ft
Sneezeworth	250	0,196	7	0,189	0,567	234,4	4,524	0,0693
Valerian	250	0,196	19	0,115	0,574	234,3	4,647	0,0694
Peony	300	0,236	19	0,126	0,628	281,1	5,472	0,0578
Daffodil	350	0,275	19	0,136	0,678	327,9	6,400	0,0496
Goldentuft	450	0,353	19	0,154	0,769	421,8	7,892	0,0385
Zinnia	500	0,393	19	0,162	0,811	468,5	8,763	0,0347
Hyacinth	500	0,393	37	0,116	0,813	468,3	9,096	0,0347
Meadowsweet	600	0,471	37	0,127	0,891	562,0	10,690	0,0289
Verbena	700	0,550	37	0,137	0,963	655,7	12,480	0,0247
Flag	700	0,550	61	0,107	0,964	655,8	12,855	0,0247
Petunia	750	0,589	37	0,143	0,997	703,0	13,157	0,0231
Cattail	750	0,589	61	0,111	0,998	703,0	13,552	0,0231
Cockcomb	900	0,707	37	0,156	1,092	844,1	15,425	0,0193
Snapdragon	900	0,707	61	0,122	1,093	844,1	15,952	0,0193
Hawkweed	1000	0,785	37	0,165	1,152	937,5	17,187	0,0173
Camellia	1000	0,785	61	0,128	1,152	936,8	17,648	0,0173
Jessamine	1750	1,375	61	0,169	1,524	1641,1	29,656	0,00991
Cowslip	2000	1,571	91	0,148	1,630	1873,0	34,147	0,00866

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Code	Size	Section	No. of Strands	Diameter Strands	Weight	Rated Strength	Maximun Resistance @ 20ºC
	AWG ó MCM	in^2	mm	mm	kg / km	kg	Ω / km
Peachbell	6	13.30	7x1.56	4.66	36.6	254	2.170
Rose	4	21.15	7x1.96	5.88	58.3	399	1.364
Iris	2	33.62	7x2.47	7.42	92.7	611	0.857
Pansy	1	42.41	7x2.78	8.33	117.0	740	0.681
Poppy	1/0	53.51	7x3.12	9.36	147.5	897	0.539
Aster	2/0	67.44	7x3.50	10.51	186.0	1,136	0.427
Phlox	3/0	85.02	7x3.93	11.80	235.0	1,375	0.339
Oxlip	4/0	107	7x4.42	13.25	296.0	1,738	0.268
Daisy	266.8	135	7x4.96	14.88	373.0	2,191	0.213
Laurel	266.8	135	19x3.01	15.05	373.0	2,254	0.213
Tulip	336.4	171	19x3.38	16.90	470.0	2,786	0.169
Canna	397.5	201	19x3.68	18.38	555.0	3,219	0.143
Cosmos	477	242	19x4.02	20.12	666.0	3,803	0.119
Syringa	477	242	37x2.88	20.18	666.0	3,932	0.119
Dahlia	556.5	282	19x4.35	21.73	777.0	4,431	0.102
Mistletoe	556.5	282	37x3.11	21.80	777.0	4,495	0.102
Orchid	636	322	37x3.33	23.31	888.0	5,154	0.089

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Code	Size	Section	No. of Strands x Diameter	Total Diameter	Weight	Rated Strength	Maximun Resistance @ 20ºC
	AWG ó MCM	mm^2	mm	mm	kg / km	kg	Ω / km
Violet	715.5	363	37x3.53	24.73	1,000	5,791	0.079
Nasturtium	715.5	363	61x2.75	24.76	1,000	5,960	0.079
Arbutus	795	403	37x3.72	26.07	1,110	6,303	0.071
Lilac	795	403	61x2.90	26.11	1,110	6,501	0.071
*Anemone	874.5	443	37x3.91	27.37	1,222	6,821	0.065
* Crocus	874.5	443	61x3.04	27.36	1,222	7,144	0.065
Magnolia	954	483	37x4.08	28.55	1,333	7,428	0.059
Goldenrod	954	483	61x3.18	28.60	1,333	7,663	0.059
Bluebell	1033.5	524	37x4.24	29.71	1,443	8,059	0.055
Larkspur	1033.5	524	61x3.31	29.76	1,443	8,303	0.055
Marigold	1113	564	61x3.43	30.88	1,555	8,916	0.051
Hawthorn	1192.5	604	61x3.55	31.96	1,665	9,550	0.047
Narcissus	1272	645	61x3.66	32.94	1,777	10,002	0.044
Columbine	1351.5	685	61x3.78	34.02	1,888	10,611	0.042
Carnation	1431	725	61x3.89	35.02	1,998	11,123	0.039
Gladiolus	1510.5	765	61x4.00	35.98	2,110	11,641	0.037
Coreopsis	1590	806	61x4.10	36.09	2,222	12,230	0.035

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Code	Size	Section	No. of Strands x Diameter	Total Diameter	Weight	Rated Strength	Maximun Resistance @ 20ºC
	AWG ó MCM	mm^2	mm	mm	kg / km	kg	Ω / km
Sneezeworth	250	127	7x4.80	14.40	349	2,052	0.227
Valerian	250	127	19x2.91	14.57	349	2,108	0.227
Peony	300	152	19x3.19	15.96	419	2,482	0.189
Daffodil	350	177	19x3.45	17.23	489	2,903	0.162
Goldentuft	450	228	19x3.91	19.54	629	3,580	0.126
Zinnia	500	253	19x4.12	20.60	698	3,975	0.113
Hyacinth	500	253	37x2.95	20.66	698	4,126	0.113
Meadowsweet	600	304	37x3.23	22.63	838	4,849	0.094
Verbena	700	355	37x3.49	24.45	978	5,661	0.081
Flag	700	355	61x2.72	24.48	978	5,831	0.081
Petunia	750	380	37x3.62	25.32	1,048	5,968	0.075
Cattail	750	380	61x2.82	25.35	1,048	6,147	0.075
Cockcomb	900	456	37x3.96	27.74	1,257	6,997	0.063
Snapdragon	900	456	61x3.09	27.77	1,257	7,236	0.063
Hawkweed	1000	507	37x4.18	29.25	1,397	7,796	0.056
Camellia	1000	507	61x3.25	29.26	1,397	8,005	0.056
Jessamine	1750	887	61x4.30	38.72	2,445	13,452	0.032
Cowslip	2000	1013	91x3.76	41.41	2,791	15,489	0.028

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Nominal Sectional Area	Actual Area	Conductor Number & Diameter of Wires	Overall Diameter	Maximum DC. Resistance of Cdr. @ 20°C	Ultimate Strength	Cable Weight (approx)	Allowable Ampacities in Free Air	Standard Packing
mm²	mm²	No / mm	mm	W / km	N (kg)	kg / km	A	m
16	15.89	7/1.70	5.10	1.8018	2,844(290)	44	110	1,000/R
25	25.18	7/2.14	6.42	1.1371	4,315(440)	69	145	1,000/R
35	34.91	7/2.52	7.56	0.8200	5,737(585)	96	180	1,000/R
50	50.14	7/3.02	9.06	0.5709	7,894(805)	137	225	1,000/R
50	49.97	19/1.83	9.15	0.5757	8,727(890)	137	225	1,000/R
70	68.98	19/2.15	10.75	0.4170	11,816(1,205)	190	270	1,000/R
95	94.76	19/2.52	12.60	0.3036	15,543(1,585)	261	340	1,000/R
120	121.21	19/2.85	14.25	0.2373	19,416(1,980)	333	390	1,000/R
150	147.12	37/2.25	15.75	0.1960	25,201(2,570)	406	455	1,000/R
185	184.54	37/2.52	17.64	0.1562	30,252(3,085)	509	550	1,000/R
240	242.54	61/2.25	20.25	0.1191	39,371(4,015)	670	625	1,000/R
300	304.24	61/2.52	22.68	0.0949	47,265(4,820)	840	710	1,000/R
400	389.14	61/2.85	25.65	0.0758	59,081(6,025)	1,075	855	1,000/R
500	506.04	61/3.25	29.25	0.0571	78,105(7,695)	1,398	990	1,000/R
625	626.20	91/2.95	32.56	0.0462	95,060(6,694)	1,735	1,140	500/R
800	802.08	91/3.35	36.85	0.0360	118,211(12,055)	2,222	1,340	500/R
1000	999.71	91/3.74	41.14	0.0289	145,570(14,845)	2,769	1,540	500/R

R = Packing in reel
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