

All Aluminium Alloy Conductors (A.A.A.C.)



(a) Description

- All Aluminium Alloy (ALMELEC) conductors, stranded in successive layers to form the stranded A.A.A.C. conductor.
- Conductors are produced according to BS EN 50182 or IEC 61089.

(b) Application

- A.A.A.C. are mainly used for overhead lines, in transmission and distribution electrical networks, having relatively long spans. They also use a messenger to support overhead electrical cables.

(c) Technical data

Relevant Standard:	BS EN 50182 or IEC 61089.
Conductor :	Aluminium Alloy.
Packing Condition :	On non-returnable wooden drum.



Overhead Transmission Lines

(d) Product Data

Nominal Cross Sectional Area	Number and Nominal Diameter of Wires No x ϕ	Max. DC. resistance at 20 °C	Rated Strength	Approx. Overall Diameter	Approx. Weight
mm^2	$n \times mm$	Ω/km	kN	mm	kg/km
a - According to BS EN 50182 - Germany					
16	7 x 1.70	2.0701	4.69	5.1	43.4
25	7 x 2.10	1.3566	7.15	6.3	66.2
35	7 x 2.50	0.9572	10.14	7.5	93.8
50	7 x 3.00	0.6647	14.6	9	135.1
50	19 x 1.80	0.6841	14.26	9	132.7
70	19 x 2.10	0.5026	19.41	10.5	180.7
95	19 x 2.50	0.3546	27.51	12.5	256
120	19 x 2.80	0.2827	34.51	14	321.2
150	37 x 2.25	0.2256	43.4	15.8	405.3
185	37 x 2.50	0.1827	53.58	17.5	500.3
240	61 x 2.25	0.1373	71.55	20.3	670.3
300	61 x 2.50	0.1112	88.33	22.5	827.5
400	61 x 2.89	0.0832	118.04	26	1105.9
500	61 x 3.23	0.0666	147.45	29.1	1381.4
625	91 x 2.96	0.0534	184.73	32.6	1737.7
800	91 x 3.35	0.0417	236.62	36.9	2225.8
1000	91 x 3.74	0.0334	294.91	41.1	2774.3

The above data is approximate and subjected to manufacturing tolerance.

Nominal Cross Sectional Area	Number and Nominal Diameter of Wires No x ϕ	Max. DC. resistance at 20 °C	Rated Strength	Approx. Overall Diameter	Approx. Weight
mm^2	$n \times mm$	Ω/km	kN	mm	kg/km
b - According to BS EN 50182 - United Kingdom					
18.8	7 x 1.85	1.748	5.55	5.55	51.4
23.8	7 x 2.08	1.3828	7.02	6.24	64.9
30.1	7 x 2.34	1.0926	8.88	7.02	82.2
35.5	7 x 2.54	0.9273	10.46	7.62	96.8
42.2	7 x 2.77	0.7797	12.44	8.31	115.2
47.8	7 x 2.95	0.6875	14.11	8.85	130.6
59.9	7 x 3.30	0.5494	17.66	9.9	163.6
71.6	7 x 3.61	0.4591	21.14	10.8	195.6
84.1	7 x 3.91	0.3913	24.79	11.7	229.5
89.7	7 x 4.04	0.3665	26.47	12.1	245
118.9	7 x 4.65	0.2767	35.07	14	324.5
150.9	19 x 3.18	0.2192	44.52	15.9	414.3
180.7	19 x 3.48	0.183	53.31	17.4	496.1
211	19 x 3.76	0.1568	62.24	18.8	579.2
239.4	37 x 2.87	0.1387	70.61	20.1	659.4
303.2	37 x 3.23	0.1095	89.4	22.6	835.2
362.1	37 x 3.53	0.0917	106.82	24.7	997.5
479	37 x 4.06	0.0693	141.31	28.4	1319.6
498.1	37 x 4.14	0.0666	146.93	29	1372.1
586.9	61 x 3.50	0.0567	173.13	31.5	1622
659.4	61 x 3.71	0.0505	194.53	33.4	1822.5
821.1	61 x 4.14	0.0406	242.24	37.3	2269.4
996.2	61 x 4.56	0.0334	293.88	41	2753.2

The above data is approximate and subjected to manufacturing tolerance.

