

Aluminium Conductors Steel Reinforced (A.C.S.R.)



(a) Description

- An outer layer of Aluminium conductor concentrically stranded over the central core of galvanized solid or stranded steel wires to form Aluminium steel reinforced conductor.
- Conductors are produced according to BS EN 50182 or IEC 61089.

(b) Application

- A.C.S.R 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.

(c) Technical data

Relevant Standard:	BS EN 50182 or IEC 61089.
Conductor :	Aluminium concentrically stranded over the central core of galvanized solid or stranded steel wires.
Packing Condition :	On non-returnable wooden drum.



Overhead Transmission Lines

(d) Product Data

Nominal Cross Sectional Area	Number and Nominal Diameter of Wires		Max. DC. resistance at 20 °C	Rated Strength	Approx. Overall Diameter	Approx. Weight
	Aluminium	Steel				
mm ²	No x ø (mm)	No x ø (mm)	Ω/km	kN	mm	kg/km

α - According to BS EN 50182 - Germany

16/2.5	6 x 1.80	1 x 1.80	1.8769	5.8	5.4	61.6
25/4	6 x 2.25	1 x 2.25	1.2012	8.95	6.75	96.3
35/6	6 x 2.70	1 x 2.70	0.8342	12.37	8.1	138.7
50/8	6 x 3.20	1 x 3.20	0.5939	16.81	9.6	194.8
70/12	26 x 1.85	7 x 1.44	0.4132	26.27	11.7	282.2
95/15	26 x 2.15	7 x 1.67	0.306	34.93	13.6	380.6
120/20	26 x 2.44	7 x 1.90	0.2376	44.5	15.5	491
150/25	26 x 2.70	7 x 2.10	0.194	53.67	17.1	600.8
185/30	26 x 3.00	7 x 2.33	0.1571	65.27	19	741
210/35	26 x 3.20	7 x 2.49	0.1381	73.36	20.3	844
240/40	26 x 3.45	7 x 2.68	0.1188	85.12	21.8	980.1
380/50	54 x 3.00	7 x 3.00	0.0758	121.3	27	1442.5
490/65	54 x 3.40	7 x 3.40	0.059	150.81	30.6	1852.9

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12.4	6 x 1.50	1 x 1.50	2.7027	4.14	4.5	42.8
24.5	6 x 2.11	1 x 2.11	1.3659	7.87	6.33	84.7
30.6	6 x 2.36	1 x 2.36	1.0919	9.58	7.08	106
36.9	6 x 2.59	1 x 2.59	0.9065	11.38	7.77	127.6
42.8	6 x 2.79	1 x 2.79	0.7812	13.21	8.37	148.1
49.5	6 x 3.00	1 x 3.00	0.6757	15.27	9	171.2
61.7	6 x 3.35	1 x 3.35	0.5419	18.42	10.1	213.5
73.6	6 x 3.66	1 x 3.66	0.454	21.67	11	254.9
100.1	12 x 2.59	7 x 2.59	0.4568	52.79	13	463
87.5	6 x 3.99	1 x 3.99	0.382	25.76	12	302.9
116.2	12 x 2.79	7 x 2.79	0.3936	61.26	14	537.3
92	6 x 4.09	1 x 4.09	0.3635	27.06	12.3	318.3
97.9	6 x 4.22	1 x 4.22	0.3415	28.81	12.7	338.8
111.3	6 x 4.50	1 x 4.50	0.3003	32.76	13.5	385.3
122.5	6 x 4.72	1 x 4.72	0.273	36.04	14.2	423.8
118.5	6 x 4.72	7 x 1.57	0.2733	32.65	14.2	394
151.8	26 x 2.54	7 x 1.91	0.2192	45.86	15.9	520.7
138.8	18 x 3.05	1 x 3.05	0.2188	29.74	15.3	418.8
161.9	30 x 2.36	7 x 2.36	0.2202	57.87	16.5	602.2
194.9	30 x 2.59	7 x 2.59	0.1829	68.91	18.1	725.3
167.5	18 x 3.35	1 x 3.35	0.1814	35.87	16.8	505.2
226.2	30 x 2.79	7 x 2.79	0.1576	79.97	19.5	841.6
194.5	18 x 3.61	1 x 3.61	0.1562	40.74	18.1	586.7
261.5	30 x 3.00	7 x 3.00	0.1363	92.46	21	973.1
222.3	18 x 3.86	1 x 3.86	0.1366	46.57	19.3	670.8
293.9	30 x 3.18	7 x 3.18	0.1213	100.47	22.3	1093.4
326.1	30 x 3.35	7 x 3.35	0.1093	111.5	23.5	1213.4
400	30 x 3.71	7 x 3.71	0.0891	135.13	26	1488.2
462.6	30 x 3.99	7 x 3.99	0.0771	156.3	27.9	1721.3
422.6	54 x 2.97	7 x 2.97	0.0773	118.88	26.7	1413.8
431.2	54 x 3.00	7 x 3.00	0.0758	121.3	27	1442.5
529.8	30 x 4.27	7 x 4.27	0.0673	179	29.9	1971.4
484.5	54 x 3.18	7 x 3.18	0.0674	131.92	28.6	1620.8
588.5	30 x 4.50	7 x 4.50	0.0606	198.8	31.5	2189.5
538.7	54 x 3.35	7 x 3.35	0.0608	146.4	30.2	1798.8
597	54 x 3.53	7 x 3.53	0.0547	159.92	31.8	1997.3

The above data is approximate and subjected to manufacturing tolerance.

