

ACSR - Aluminum Conductor Steel Reinforced

Bare overhead conductor for standard-based line selection

ACSR - Aluminum Conductor Steel Reinforced is prepared for preliminary product selection and quotation review. This product is used for overhead line routes where conductor material, stranding, rated strength and DC resistance must be reviewed against the selected project standard. Final selection should consider span length, mechanical loading, route environment and local utility requirements.



VOLTAGE

Not voltage-rated; selected by conductor standard and line design

CONDUCTOR

Aluminum / aluminum alloy conductor route, confirmed by technical table

TYPICAL USE

Overhead transmission and distribution lines

STANDARDS

BS EN 50182; IEC 61089; GB/T 1179; DIN 48204; additional project standards

DATA SCOPE

9 technical table(s) included for preliminary selection

SELECTION NOTE

Confirm standard route, conductor size, stranding, strength and line design.

For quotation review, provide cable type, standard, size, quantity and project destination.

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Application & Selection Summary

Typical applications

- Overhead transmission and distribution lines
- utility feeder routes
- substation or busbar connections
- replacement projects requiring standard-based bare conductor selection.

Selection logic

- Review the required standard route first.
- Compare conductor area, stranding, rated strength, DC resistance and overall diameter.
- For higher tension or long spans, compare with reinforced or alloy conductor alternatives.

Construction Overview

Item	Website-ready content
Product route	Concentric-lay stranded bare conductor. Material and reinforcement depend on the selected product type and standard route.
Voltage	Reviewed according to selected product standard
Conductor	Aluminum / aluminum alloy conductor route, confirmed by technical table
Standards	BS EN 50182; IEC 61089; GB/T 1179; DIN 48204; ASTM B232; BS 215-2
Confirmation	Final structure, dimensions and packing should follow selected standard, quotation review and order specification.

Readable Data Index

Data route	Size / rating range	Construction	Diameter / OD	Resistance / weight / rating
ACSR - Aluminum Conductor Steel Reinforced - Technical Tab	50/8 - 700/85	6/1 - 54/19	9.5 - 39.2	0.5653 - 0.0404
ACSR - Aluminum Conductor Steel Reinforced - Technical Tab	JL/G1A-16/3 - JL/G1A-400/50	6/1 - 54/7	5.4 - 28.6	1.7665 - 0.0707
ACSR - Aluminum Conductor Steel Reinforced - Technical Tab	6 - 300.0	6/1 - 26/7	5.03 - 17.27	2.1030 - 0.1860
ACSR - Aluminum Conductor Steel Reinforced - Technical Tab	336.4 - 397.5	18/1 - 30/7	17.35 - 20.47	0.1673 - 0.1394

Data boundary: these tables support website launch, quotation review and preliminary product selection. For project execution, final dimensions, electrical performance, packing and compliance documents should be confirmed against the selected project standard and order specification.

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 1

Reference table for preliminary selection and quotation review.

Al / Steel Area (mm²)	Stranding (Al/St)	Overall Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. DC Resistance at 20°C (Ω/km)
50/8	6/1	9.5	197.6	11.7	0.5653
75/12	6/1	11.7	296.3	17.5	0.3769
100/16	6/1	13.5	395.1	23.4	0.2826
150/25	30/7	17.2	600.5	35.5	0.1884
175/25	30/7	18.4	668.0	39.6	0.1615
200/32	30/7	19.8	790.2	46.8	0.1413
240/40	26/7	22.6	960.7	56.8	0.1178
300/50	30/7	25.3	1200.9	71.0	0.0942
400/50	54/7	28.6	1471.2	87.5	0.0707
500/65	54/7	33.3	1858.5	110.5	0.0565
700/85	54/19	39.2	2555.1	152.1	0.0404

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 2

Reference table for preliminary selection and quotation review.

Nominal Designation (Al/St mm²)	Stranding (Al/St)	Overall Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. DC Resistance at 20°C (Ω/km)
JL/G1A-16/3	6/1	5.4	66.6	3.9	1.7665
JL/G1A-25/4	6/1	6.7	98.8	5.8	1.1306
JL/G1A-35/6	6/1	8.0	141.4	8.4	0.8075
JL/G1A-50/8	6/1	9.5	197.6	11.7	0.5653
JL/G1A-70/10	6/1	11.2	267.2	15.9	0.4038
JL/G1A-95/15	26/7	13.1	373.8	22.1	0.2975
JL/G1A-120/20	26/7	15.4	480.4	28.4	0.2355
JL/G1A-150/20	30/7	16.9	561.5	33.4	0.1884
JL/G1A-185/25	30/7	18.8	695.1	41.3	0.1528
JL/G1A-240/30	26/7	22.2	882.7	52.5	0.1178
JL/G1A-300/40	30/7	24.9	1122.9	66.7	0.0942
JL/G1A-400/50	54/7	28.6	1471.2	87.5	0.0707

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 3

Reference table for preliminary selection and quotation review.

Code Name	AWG/MCM	Stranding (Al/St)	Nominal Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. DC Resistance at 20°C (Ω /km)	Standard
Turkey	6	6/1	5.03	53.6	5.3	2.1030	B232/B232M
Swan	4	6/1	6.35	84.8	8.3	1.3222	B232/B232M
Swanate	4	7/1	6.53	99.7	10.5	1.3091	B232/B232M
Sparrow	2	6/1	8.03	135.4	12.7	0.8333	B232/B232M
Sparate	2	7/1	8.25	159.2	16.2	0.8235	B232/B232M
Robin	1	6/1	8.99	171.1	15.8	0.6594	B232/B232M
Raven	1/0	6/1	10.11	215.8	19.5	0.5217	B232/B232M
Quail	2/0	6/1	11.35	272.3	23.6	0.4134	B232/B232M
Pigeon	3/0	6/1	12.75	343.8	29.4	0.3281	B232/B232M
Penguin	4/0	6/1	14.30	433.1	37.1	0.2608	B232/B232M
Waxwing	266.8	18/1	15.47	431.6	30.6	0.2110	B232/B232M
Partridge	266.8	26/7	16.31	546.2	49.5	0.2090	B232/B232M
Ostrich	300.0	26/7	17.27	614.6	56.5	0.1860	B232/B232M

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 4

Reference table for preliminary selection and quotation review.

Code Name	AWG/MCM	Stranding (Al/St)	Nominal Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. DC Resistance at 20°C (Ω /km)	Standard
Merlin	336.4	18/1	17.35	543.2	38.6	0.1673	B232/B232M
Linnet	336.4	26/7	18.29	689.0	62.7	0.1657	B232/B232M
Oriole	336.4	30/7	18.82	784.3	77.0	0.1647	B232/B232M
Chickadee	397.5	18/1	18.87	642.9	44.2	0.1417	B232/B232M
Brant	397.5	24/7	19.61	761.9	64.9	0.1411	B232/B232M
Ibis	397.5	26/7	19.89	814.0	72.5	0.1404	B232/B232M
Lark	397.5	30/7	20.47	927.1	90.3	0.1394	B232/B232M

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 5

Reference table for preliminary selection and quotation review.

Code Name	AWG/MCM	Stranding (Al/St)	Nominal Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. DC Resistance at 20°C (Ω /km)	Standard
Pelican	477.0	18/1	20.68	770.9	52.5	0.1181	B232/B232M
Flicker	477.0	24/7	21.49	915.2	76.5	0.1175	B232/B232M
Hawk	477.0	26/7	21.79	976.2	86.7	0.1168	B232/B232M
Hen	477.0	30/7	22.43	1111.7	105.9	0.1161	B232/B232M
Osprey	556.5	18/1	22.33	898.8	60.9	0.1010	B232/B232M
Parakeet	556.5	24/7	23.22	1067.0	88.1	0.1007	B232/B232M
Dove	556.5	26/7	23.55	1139.9	100.5	0.1004	B232/B232M
Eagle	556.5	30/7	24.21	1297.7	123.7	0.0994	B232/B232M

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 6

Reference table for preliminary selection and quotation review.

Code Name	Al / Steel Area (mm²)	Stranding (Al/St)	Nominal Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. D.C. Resistance at 20°C (Ω/km)	Standard
Squirrel	20/3	6/1	6.0	77.5	4.6	1.4132	BS EN 50182
Weasel	30/7	6/1	7.6	135.7	8.0	0.9421	BS EN 50182
Rabbit	50/7	6/1	9.4	189.8	11.3	0.5653	BS EN 50182
Mink	100/15	6/1	13.4	387.3	22.9	0.2826	BS EN 50182
Dog	100/20	6/1	13.7	426.3	25.1	0.2826	BS EN 50182
Fox	150/25	30/7	17.2	600.5	35.5	0.1884	BS EN 50182
Otter	175/25	30/7	18.4	668.0	39.6	0.1615	BS EN 50182
Cat	200/30	30/7	19.7	774.6	45.9	0.1413	BS EN 50182
Panther	200/50	30/7	20.6	930.6	54.5	0.1413	BS EN 50182
Zebra	400/50	54/7	28.6	1471.2	87.5	0.0707	BS EN 50182
Moose	500/65	54/7	33.3	1858.5	110.5	0.0565	BS EN 50182

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 7

Reference table for preliminary selection and quotation review.

Designation	Al / Steel Area (mm ²)	Stranding (Al/St)	Overall Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. D.C. Resistance at 20°C (Ω/km)
Al/St 16/2.5	16/2.5	6/1	5.4	62.7	3.7	1.7665
Al/St 25/4	25/4	6/1	6.7	98.8	5.8	1.1306
Al/St 40/6.7	40/6.7	6/1	8.5	160.4	9.5	0.7066
Al/St 50/8	50/8	6/1	9.5	197.6	11.7	0.5653
Al/St 70/11	70/11	26/7	11.2	275.0	16.3	0.4038
Al/St 95/15	95/15	26/7	13.1	373.8	22.1	0.2975
Al/St 120/20	120/20	26/7	15.4	480.4	28.4	0.2355
Al/St 150/25	150/25	30/7	17.2	600.5	35.5	0.1884
Al/St 185/30	185/30	30/7	19.1	734.1	43.4	0.1528
Al/St 240/40	240/40	26/7	22.6	960.7	56.8	0.1178
Al/St 300/50	300/50	30/7	25.3	1200.9	71.0	0.0942
Al/St 400/65	400/65	54/7	30.2	1588.2	94.0	0.0707

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 8

Reference table for preliminary selection and quotation review.

Designation	n Al / Steel Area (mm²)	Stranding (Al/St)	Overall Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. D.C. Resistance at 20°C (Ω/km)
16/2.5	16/2.5	6/1	5.4	62.7	3.7	1.7665
25/4	25/4	6/1	6.7	98.8	5.8	1.1306
35/6	35/6	6/1	8.0	141.4	8.4	0.8075
50/8	50/8	6/1	9.5	197.6	11.7	0.5653
70/11	70/11	26/7	11.2	275.0	16.3	0.4038
95/15	95/15	26/7	13.1	373.8	22.1	0.2975
120/20	120/20	26/7	15.4	480.4	28.4	0.2355
150/25	150/25	30/7	17.2	600.5	35.5	0.1884
185/30	185/30	30/7	19.1	734.1	43.4	0.1528
240/40	240/40	26/7	22.6	960.7	56.8	0.1178
300/50	300/50	30/7	25.3	1200.9	71.0	0.0942

ACSR - Aluminum Conductor Steel Reinforced - Technical Table 9

Reference table for preliminary selection and quotation review.

Code Name	Al / Steel Area (mm ²)	Stranding (Al/St)	Overall Diameter (mm)	Weight (kg/km)	Rated Strength (kN)	Max. D.C. Resistance at 20°C (Ω/km)
Mole	10/1.5	6/1	4.2	38.7	2.3	2.8264
Squirrel	20/3	6/1	6.0	77.5	4.6	1.4132
Ferret	25/4	6/1	6.7	98.8	5.8	1.1306
Weasel	30/7	6/1	7.6	135.7	8.0	0.9421
Rabbit	50/7	6/1	9.4	189.8	11.3	0.5653
Mink	100/15	6/1	13.4	387.3	22.9	0.2826
Beaver	150/25	30/7	17.2	600.5	35.5	0.1884
Otter	175/25	30/7	18.4	668.0	39.6	0.1615
Cat	200/30	30/7	19.7	774.6	45.9	0.1413
Panther	200/50	30/7	20.6	930.6	54.5	0.1413
Zebra	400/50	54/7	28.6	1471.2	87.5	0.0707