

AACSR - Aluminum Alloy Conductor Steel Reinforced

Bare overhead conductor for standard-based line selection

AACSR - Aluminum Alloy 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

Steel or reinforced conductor route, according to standard

TYPICAL USE

Overhead transmission and distribution lines

STANDARDS

ASTM B711; AS 3607; IEC 61089; GB/T 1179

DATA SCOPE

4 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	Steel or reinforced conductor route, according to standard
Standards	ASTM B711; AS 3607; IEC 61089; GB/T 1179
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
AACSR - Aluminum Alloy Conductor Steel Reinforced - Techni	140 - 400	26/2.62 - 26/4.43	16.6 - 28.1	0.23898 - 0.08359
AACSR - Aluminum Alloy Conductor Steel Reinforced - Techni	18.4 - 363	6/1.98 - 45/3.20	5.94 - 25.6	74.4 - 1196.5
AACSR - Aluminum Alloy Conductor Steel Reinforced - Techni	42.4 - 519	6/3.00 - 54/3.50	9.0 - 31.5	171 - 1960
AACSR - Aluminum Alloy Conductor Steel Reinforced - Techni	10.6 - 211.73	6/1.50 - 26/3.22	4.5 - 20.4	42.8 - 852.5

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.

AACSR - Aluminum Alloy Conductor Steel Reinforced - Technical Table 1

Reference table for preliminary selection and quotation review.

Alloy Area (mm²)	Steel Area (mm²)	Total Area (mm²)	Alloy Stranding	Steel Stranding	Overall Dia. (mm)	Weight (kg/km)	Breaking Load (kN)	Max. DC Resistance at 20°C (Ω/km)
140	23	163	26/2.62	7/2.04	16.6	565	75	0.23898
140	33	173	30/2.44	7/2.44	17.1	643	87.4	0.23906
160	26	186	26/2.80	7/2.18	17.7	646	85.6	0.20924
180	29	209	26/2.97	7/2.31	18.8	731	95.1	0.18597
200	32	232	26/3.13	7/2.43	19.8	805	106	0.16744
224	36	260	26/3.31	7/2.57	21.0	901	118	0.14973
250	41	291	26/3.50	7/2.72	22.2	1008	129	0.13391
280	46	326	26/3.70	7/2.88	23.4	1127	144	0.11983
355	58	413	26/4.17	7/3.24	26.4	1430	183	0.09434
400	65	465	26/4.43	7/3.45	28.1	1616	207	0.08359

AACSR - Aluminum Alloy Conductor Steel Reinforced - Technical Table 2

Reference table for preliminary selection and quotation review.

Code	Alloy Area (mm²)	Steel Area (mm²)	Total Area (mm²)	Alloy Stranding	Steel Stranding	Overall Dia. (mm)	Weight (kg/km)	Breaking Load (kN)	Max. DC Resistance at 20°C (Ω/km)
16	18.4	3.07	21.5	6/1.98	1/1.98	5.94	74.4	9.02	1.7934
25	28.8	4.8	33.6	6/2.47	1/2.47	7.41	116.2	13.96	1.1478
40	46	7.67	53.7	6/3.13	1/3.13	9.39	185.9	22.02	0.7174
63	72.5	12.1	84.6	6/3.92	1/3.92	11.8	292.8	34.68	0.4555
100	115	6.39	121	18/2.85	1/2.85	14.3	366.4	41.24	0.2880
125	144	23.4	167	26/2.65	7/2.06	16.8	579.9	69.86	0.2310
160	184	30.0	214	26/3.00	7/2.34	19.0	742.3	88.52	0.1805
200	230	37.5	268	26/3.36	7/2.61	21.3	927.9	110.64	0.1444
250	288	46.9	335	26/3.75	7/2.92	23.8	1159.8	138.31	0.1155
315	363	25.1	388	45/3.20	7/2.14	25.6	1196.5	136.28	0.0917

AACSR - Aluminum Alloy Conductor Steel Reinforced - Technical Table 3

Reference table for preliminary selection and quotation review.

Code Name	Alloy Stranding	Steel Stranding	Alloy Area (mm ²)	Steel Area (mm ²)	Total Area (mm ²)	Overall Dia. (mm)	Weight (kg/km)	Breaking Load (kN)	Max. DC Resistance at 20°C (Ω/km)
1120	6/3.00	1/3.00	42.4	7.1	49.5	9.0	171	18.3	0.7000
1120	6/3.75	1/3.75	66.3	11.0	77.3	11.3	268	27.9	0.4480
1120	6/4.75	7/1.60	106	14.1	120.1	14.3	402	40.7	0.2790
1120	30/2.50	7/2.50	147	34.4	181.4	17.5	677	74.4	0.2030
1120	30/3.00	7/3.00	212	49.5	261.5	21.0	973	107	0.1410
1120	30/3.25	7/3.25	249	58.1	307.1	22.8	1140	126	0.1200
1120	30/3.50	7/3.50	289	67.3	356.3	24.5	1320	143	0.1040
1120	54/3.00	7/3.00	382	49.5	431.5	27.0	1440	149	0.0784
1120	54/3.25	7/3.25	448	58.1	506.1	29.3	1690	174	0.0669
1120	54/3.50	7/3.50	519	67.3	586.3	31.5	1960	197	0.0578

AACSR - Aluminum Alloy Conductor Steel Reinforced - Technical Table 4

Reference table for preliminary selection and quotation review.

Nominal Code	Alloy Area (mm²)	Steel Area (mm²)	Total Area (mm²)	Alloy Stranding	Steel Stranding	Overall Dia. (mm)	Weight (kg/km)	Breaking Load (kN)	Max. DC Resistance at 20°C (Ω/km)
10/2	10.6	1.77	12.37	6/1.50	1/1.50	4.5	42.8	5.51	3.1444
16/3	16.13	2.69	18.82	6/1.85	1/1.85	5.55	65.1	8.39	2.0671
25/4	25.36	4.23	29.59	6/2.32	1/2.32	6.96	102.4	13.06	1.3144
35/6	34.86	5.81	40.67	6/2.72	1/2.72	8.16	140.8	17.96	0.9563
50/8	48.25	8.04	56.30	6/3.20	1/3.20	9.6	194.8	24.53	0.6906
70/10	68.05	11.34	79.39	6/3.80	1/3.80	11.4	274.8	33.91	0.4899
95/15	94.39	15.33	109.73	26/2.15	7/2.15	13.6	380.2	48.62	0.3554
120/20	115.67	18.82	134.49	26/2.38	7/2.38	15.1	466.1	59.61	0.2900
150/25	148.86	24.25	173.11	26/2.70	7/2.15	17.1	600.1	76.75	0.2254
210/35	211.73	34.36	246.09	26/3.22	7/2.50	20.4	852.5	107.98	0.1585