



• Application

ACSR/AW (Aluminum Conductor Steel Reinforced with Aluminum-Clad Steel) is a specialized type of conductor designed for use in overhead power lines. ACSR/AW conductors are widely used in overhead transmission and distribution lines, especially in areas where high strength and superior corrosion resistance are critical. Typical applications include: High Voltage Transmission Lines, Medium and Low Voltage Distribution Lines, Coastal and Industrial Areas.

• Advantages

High Tensile Strength: The steel core provides exceptional tensile strength, allowing for longer spans and reduced sag in transmission lines.

Enhanced Corrosion Resistance: The aluminum-clad steel core offers superior resistance to corrosion compared to traditional steel cores, making ACSR/AW suitable for use in corrosive environments.

Improved Conductivity: The outer layers of aluminum ensure high electrical conductivity, making it efficient for power transmission.

Durability: The combination of aluminum and aluminum-clad steel provides a robust and long-lasting conductor, reducing maintenance needs and extending the lifespan of the transmission lines.

Versatility: Suitable for various climatic conditions and installation environments, from inland areas to coastal regions.

• Construction

ACSR/AW conductors consist of a core of steel wires that are aluminum-clad to enhance corrosion resistance. This core is surrounded by concentric layers of aluminum 1350-H19 wires. The construction can be summarized as follows:

Core: Steel wires with an aluminum-clad layer to combine strength with improved corrosion resistance.

Outer Layers: Aluminum 1350-H19 wires stranded in concentric layers around the steel core, providing excellent conductivity and mechanical stability.

• Specifications

-AS/NZS 3607 Standard: Bare Overhead, Aluminum and Aluminum Alloy-Steel Reinforced

• Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

• Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



• National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

Code Name	No./Dia. of Stranding Wires		Nominal Overall Diameter	Nominal Cross Section Area	Nominal Weight	Breaking Load	Modulus of Elasticity	Coefficient of Linear Expansion	D.C. Resistance. at 20°C	A.C. Resistance. at 50Hz at 75°C	Inductive Reactance to 0.3m at 50Hz
	Aluminium	Steel									
-	No./mm	No./mm	mm	mm ²	kg/km	kN	GPa	×10 ⁻⁶ /°C	Ω/km	Ω/km	Ω/km
Angling	6/2.50	1/2.50	7.5	34.4	113	10.6	79	20.1	0.923	1.24	0.296
Aquatics	6/2.75	1/2.75	8.3	41.6	137	12.7	79	20.1	0.763	1.03	0.290
Archery	6/3.00	1/3.00	9.0	49.5	163	15.1	79	20.1	0.641	0.861	0.285
Baseball	6/3.75	1/3.75	11.3	77.3	254	22.3	79	20.1	0.410	0.551	0.271
Bowls	6/4.75	7/1.60	14.3	120	385	32.7	76	20.6	0.259	0.352	0.256
Cricket	30/2.50	7/2.50	17.5	182	636	64.4	82	19.4	0.182	0.245	0.240
Darts	30/3.00	7/3.00	21.0	262	913	91.6	82	19.4	0.126	0.155	0.228
Dice	30/3.25	7/3.25	22.8	307	1070	106	82	19.4	0.108	0.133	0.223
Diving	30/3.50	7/3.50	24.5	356	1240	122	82	19.4	0.0928	0.114	0.219
Golf	54/3.00	7/3.00	27.0	431	1380	120	75	20.6	0.0726	0.0915	0.212
Gymnastics	54/3.25	7/3.25	29.3	506	1620	139	75	20.6	0.0619	0.0782	0.207
Hurdles	54/3.50	7/3.50	31.5	587	1880	159	75	20.6	0.0533	0.0675	0.202
Lacrosse	54/3.75	19/2.25	33.8	672	2150	180	74	20.7	0.0465	0.0590	0.198
Skating	3/1.75	4/1.75	5.3	16.8	83	12.3	119	15.3	2.75	3.70	0.346
Soccer	3/2.50	4/2.50	7.5	34.4	171	24.9	119	15.3	1.34	1.80	0.324
Swimming	4/3.00	3/3.00	9.0	49.5	218	28.9	106	16.5	0.807	1.08	0.302
Tennis	4/3.75	3/3.75	11.3	77.3	340	42.6	106	16.5	0.517	0.695	0.288

● Technical Parameters

Code Name	Rural Weather						Industrial Weather					
	at night in winter			at noon in summer			at night in winter			at noon in summer		
	still	air	1s/m wind	2s/m wind	still	air	1s/m wind	2s/m wind	still	air	1s/m wind	2s/m wind
-	A		A	A	A		A	A	A		A	A
Angling	111		191	222	87		172	204	119		195	226
Aquatics	126		215	250	98		193	229	136		221	255
Archery	141		240	279	109		215	255	152		246	285
Baseball	192		318	369	145		282	335	207		327	378
Bowls	265		425	494	195		372	444	286		440	506
Cricket	342		532	620	246		465	554	374		555	637
Darts	458		706	817	319		609	725	501		735	842
Dice	511		779	911	354		668	797	560		812	939
Diving	569		857	1013	391		732	875	624		895	1045
Golf	662		980	1172	452		834	1012	726		1024	1208
Gymnastics	740		1084	1309	503		917	1130	813		1134	1351
Hurdles	821		1190	1452	555		1003	1252	903		1247	1499
Lacrosse	904		1297	1596	607		1088	1375	995		1361	1648
Skating	57		101	118	46		92	109	61		103	120
Soccer	92		158	184	72		143	169	99		162	188
Swimming	127		214	249	96		191	227	136		219	254
Tennis	170		283	329	127		251	298	184		291	336

Note:

Current ratings are based on the following conditions:

-Conductor temperature rise above ambient of 40°C

-Ambient air temp. of 35°C for summer noon or 10°C for winter night

-Direct solar radiation intensity of 1000 W/m² for summer noon or zero for winter night

-Diffuse solar radiation intensity of 100 W/m² for summer noon or zero for winter night

-Ground reflectance of 0.2

-Emissivity of 0.5 for rural weathered conductor or 0.85 for industrial weathered conductor

-Solar absorption coefficient of 0.5 for rural weathered conductor or 0.85 for industrial weathered conductor.