

Aluminium Conductor Aluminium Clad Steel Reinforced (ACSR/AW)



Construction: **Aluminium Conductor Aluminium Clad Steel Reinforced** is stranded concentrically by aluminium wires with aluminium clad steel wires in center for reinforcement.



Application: The characteristics of the product are anti-corrosion and high conductivity. It is widely used in littoral, volcano areas, salt-misty areas, or the place polluted by SO₂, H₂O, NO or CO₂.



Operating Temperature: Max permissible continuous operating temperature of conductor shall not exceed 90°C.



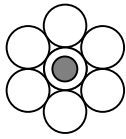
Standard: ASTM B549, Q/WL.J01.020-2007, TB/T 2937-1998, or other standards required by customers.



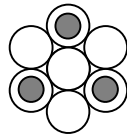
Packing: steel/wooden reel, wooden reel or steel reel.



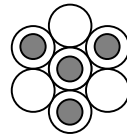
Construction of Aluminium Conductor Aluminium Clad Steel Reinforced



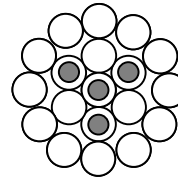
6AL/1AS



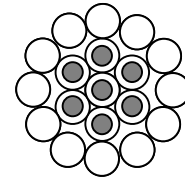
4AL/3AS



3AL/4AS



15AL/4AS



12AL/7AS

**Aluminium Conductor Aluminium Clad Steel Reinforced
American Standard ASTM B549**

Code Word	Size AWG or Cmil	Stranding No./Diameter		Code Word	Size AWG or Cmil	Stranding No./Diameter	
		Al Clad Steel Wire	Al Wire			Al Clad Steel Wire	Al Wire
Thrasher	2312000	19/2.068	76/4.430	Kingbird	636000	1/4.775	16/4.775
Kiwi	2167000	7/2.939	72/4.407	Teal	605000	19/2.164	30/3.607
Bluebird	2156000	19/2.441	84/4.069	Wood duck	605000	7/3.607	30/3.607
Chukar	1780000	19/2.220	84/3.698	Squab	605000	7/3.012	26/3.874
Falcon	1590000	19/2.616	54/4.359	Peacock	605000	7/2.690	24/4.034
Lapwing	1590000	7/3.183	45/4.775	Eagle	556500	7/3.459	30/3.459
Parrot	1510000	19/2.548	54/4.247	Dove	556500	7/2.891	26/3.716
Nuthatch	1510000	7/3.101	45/4.653	Parakeet	556500	7/2.578	24/3.888
Plover	1430000	19/2.482	54/4.135	Osprey	556500	1/4.456	18/4.465
Bobolink	1431000	7/3.020	45/4.529	Hen	477000	7/3.203	30/3.203
Martin	1351500	19/2.410	54/4.018	Hawk	477000	7/2.675	26/3.439
Dipper	1351500	7/2.934	45/4.402	Flicker	477000	7/2.388	24/3.581
Pheasant	1272000	19/2.339	54/3.899	Peilcan	477000	1/4.135	18/4.135
Bittern	1272000	7/2.847	45/4.270	Lark	397500	7/2.924	30/2.924
Skylark	1272000	1/4.775	36/4.775	Ibis	397500	7/2.441	26/3.139
Garckle	1192500	19/2.266	54/3.774	Brant	397500	7/2.179	24/3.269
Bunting	1192500	7/2.756	45/4.135	Chickadee	397500	1/3.774	18/3.774
Finch	1113000	19/2.189	54/3.647	Oriole	336400	7/2.690	30/2.690
Bluejay	1113000	7/2.664	45/3.995	Linnet	336400	7/2.245	26/2.888
Curlew	1033500	7/3.513	54/3.513	Merlin	336400	1/3.472	18/3.472
Ortolan	1033500	7/2.565	45/3.848	Ostrich	300000	7/2.121	26/2.728
Tanager	1033500	1/4.303	36/4.303	Partridge	266800	7/2.002	26/2.573
Cardinal	954000	7/3.376	54/3.376	Waxwing	266800	1/3.091	18/3.091
Rail	954000	7/2.466	45/3.698	Penguin	4/0	1/4.770	6/4.770
Catbird	954000	1/4.135	36/4.135	Pigeon	3/0	1/4.247	6/4.247
Canary	900000	7/3.279	54/3.279	Quail	2/0	1/3.782	6/3.782
Ruddy	900000	7/2.395	45/3.592	Raven	1/0	1/3.371	6/3.371
Mallard	795000	19/2.482	30/4.135	Robin	1	1/3.000	6/3.000
Condor	795000	7/3.081	54/3.081	Sparate	2	1/3.299	7/2.474
Tern	795000	7/2.250	45/3.376	Sparrow	2	1/2.672	6/2.672
Coot	795000	1/3.774	36/3.774	Swanate	4	1/2.614	7/1.961
Drake	795000	7/3.454	26/4.442	Swan	4	1/2.118	6/2.118
Cuckoo	795000	7/3.081	24/4.623	Turkey	6	1/1.679	6/1.679
Redwing	715000	19/2.352	30/3.922	Cochin	211300	7/3.371	12/3.371
Starling	715000	7/3.277	26/4.214	Brahma	203200	19/2.482	16/2.863
Stilt	715000	7/2.924	24/4.387	Dorkin	190800	7/3.203	12/3.203
Gannet	666600	7/3.162	26/4.067	Dotterel	176900	7/3.084	12/3.084
Flamingo	666600	7/2.822	24/4.234	Guinea	159000	7/2.294	12/2.924
Swift	636000	1/3.376	36/3.376	Leghom	134600	7/2.690	12/2.690
Egret	636000	19/2.220	30/3.698	Minorca	110800	7/2.441	12/2.441
Scoter	636000	7/3.698	30/3.698	Petrel	101800	7/2.339	12/2.339
Grosbeak	636000	7/3.089	26/3.973	Grouse	80000	1/4.242	8/2.540
Rook	636000	7/2.756	24/4.135	---	---	---	---

Aluminium Conductor Aluminium Clad Steel Reinforced
Chinese Standard Q/WL.J01.020-2007 (14% IACS of Conductivity)

Size	Stranding		Size	Stranding		Size	Stranding	
	Al Wire	Al Clad St Wire		Al Wire	Al Clad St Wire		Al Wire	Al Clad St Wire
sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm
10/2	6/1.50	1/1.50	185/10	18/3.60	1/3.60	400/35	48/3.22	7/2.50
16/3	6/1.85	1/1.85	185/25	24/3.15	7/2.10	400/50	54/3.07	7/3.07
25/4	6/2.32	1/2.32	185/30	26/2.98	7/2.32	400/65	26/4.42	7/3.44
35/6	6/2.72	1/2.72	185/45	30/2.80	7/2.80	400/95	30/4.16	19/2.50
50/8	6/3.20	1/3.20	210/10	18/3.80	1/3.80	500/35	45/3.75	7/2.50
50/30	12/2.32	7/2.32	210/25	24/3.33	7/2.22	500/45	48/3.60	7/2.80
70/10	6/3.80	1/3.80	210/35	26/3.22	7/2.50	500/65	54/3.44	7/3.44
70/40	12/2.72	7/2.72	210/50	30/2.98	7/2.98	630/45	45/4.20	7/2.80
95/15	26/2.15	7/1.67	240/30	24/3.60	7/2.40	630/55	48/4.12	7/3.20
95/20	7/4.16	7/1.85	240/40	26/3.42	7/2.66	630/80	54/3.87	19/2.32
95/55	12/3.20	7/3.20	240/55	30/3.20	7/3.20	720/50	45/4.53	7/3.02
120/7	18/2.90	1/2.90	300/15	42/3.00	7/1.67	720/90	54/4.135	19/2.482
120/20	26/2.38	7/1.85	300/20	45/2.93	7/1.95	800/55	45/4.80	7/3.20
120/25	7/4.72	7/2.10	300/25	48/2.85	7/2.22	800/70	48/4.63	7/3.60
120/70	12/3.60	7/3.60	300/40	24/3.99	7/2.66	800/100	54/4.33	19/2.60
150/8	18/3.20	1/3.20	300/50	26/3.83	7/2.98	1000/45	72/4.21	7/2.80
150/20	24/2.78	7/1.85	300/70	30/3.60	7/3.60	1000/125	54/4.48	19/2.90
150/25	26/2.70	7/2.10	400/20	42/3.51	7/1.95	1400/120	84/4.60	19/2.80
150/35	30/2.50	7/2.50	400/25	45/3.33	7/2.22	1400/135	88/4.50	19/3.00

Aluminium Conductor Aluminium Clad Steel Reinforced

Chinese Standard Q/WL.J01.020-2007 (20% IACS of Conductivity)

Size	Stranding		Size	Stranding		Size	Stranding	
	Al Wire	Al Clad St Wire		Al Wire	Al Clad St Wire		Al Wire	Al Clad St Wire
sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm	sq. mm	No./mm	No./mm
10/2	6/1.50	1/1.50	185/10	18/3.60	1/3.60	400/35	48/3.22	7/2.50
16/3	6/1.85	1/1.85	185/25	24/3.15	7/2.10	400/50	54/3.07	7/3.07
25/4	6/2.32	1/2.32	185/30	26/2.98	7/2.32	400/65	26/4.42	7/3.44
35/6	6/2.72	1/2.72	185/45	30/2.80	7/2.80	400/95	30/4.16	19/2.50
50/8	6/3.20	1/3.20	210/10	18/3.80	1/3.80	500/35	45/3.75	7/2.50
50/30	12/2.32	7/2.32	210/25	24/3.33	7/2.22	500/45	48/3.60	7/2.80
70/10	6/3.80	1/3.80	210/35	26/3.22	7/2.50	500/65	54/3.44	7/3.44
70/40	12/2.72	7/2.72	210/50	30/2.98	7/2.98	630/45	45/4.20	7/2.80
95/15	26/2.15	7/1.67	240/30	24/3.60	7/2.40	630/55	48/4.12	7/3.20
95/20	7/4.16	7/1.85	240/40	26/3.42	7/2.66	630/80	54/3.87	19/2.32
95/55	12/3.20	7/3.20	240/55	30/3.20	7/3.20	720/50	45/4.53	7/3.02
120/7	18/2.90	1/2.90	300/15	42/3.00	7/1.67	720/90	54/4.135	19/2.482
120/20	26/2.38	7/1.85	300/20	45/2.93	7/1.95	800/55	45/4.80	7/3.20
120/25	7/4.72	7/2.10	300/25	48/2.85	7/2.22	800/70	48/4.63	7/3.60
120/70	12/3.60	7/3.60	300/40	24/3.99	7/2.66	800/100	54/4.33	19/2.60
150/8	18/3.20	1/3.20	300/50	26/3.83	7/2.98	1400/120	84/4.60	19/2.80
150/20	24/2.78	7/1.85	300/70	30/3.60	7/3.60	1400/135	88/4.50	19/3.00
150/25	26/2.70	7/2.10	400/20	42/3.51	7/1.95	---	---	---
150/35	30/2.50	7/2.50	400/25	45/3.33	7/2.22	---	---	---

Aluminium Conductor Aluminium Clad Steel Reinforced

Chinese Standard TB/T2937-1998 (used for electrical railway)

Type		LBGLJ 70/10 (6/1)	LBGLJ 95/15 (28/3)	LBGLJ 120/35 (8/7)	LBGLJ 150/20 (26/3)	LBGLJ 185/10 (18/1)	LBGLJ 185/25 (24/7)	LBGLJ 210/25 (24/7)	LBGLJ 240/30 (24/1)
Stranding No./mm	Al Wire	6/3.8	28/2.06	8/4.43	26/2.67	18/3.6	24/3.15	24/3.33	24/3.6
	Al Clad Steel Wire	1/3.8	3/2.55	7/2.46	3/2.89	1/3.6	7/2.1	7/2.22	7/2.41
Calculated Breaking Load kN		22.92	33.25	57.11	46.07	39.20	56.81	63.09	73.28
Coefficient of linear expansion /°C		20×10 ⁻⁶	20×10 ⁻⁶	18.9×10 ⁻⁶	20.4×10 ⁻⁶	21.7×10 ⁻⁶	20.4×10 ⁻⁶	20.4×10 ⁻⁶	20.4×10 ⁻⁶