

## Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio (ACSR/AW)



**Características construtiva:** O Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio concentricamente encordoado por fios aço revestido de alumínio no centro para reforço.



**Aplicação:** As características deste produto são anti-corrosão e de elevada condutividade. É amplamente utilizado no litoral, áreas vulcânicas, áreas de sal, neblina, ou locais poluídos por SO<sub>2</sub>, H<sub>2</sub>O, NO ou CO<sub>2</sub>.



**Temperatura de Serviço:** Temperatura máxima permitida em serviço contínuo do condutor não deve ultrapassar 90 °C



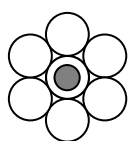
**Normas Aplicáveis:** ASTM B549, Q/WL.J01.020-2007, TB/T 2937-1998 ou outras normas requeridas pelo cliente.



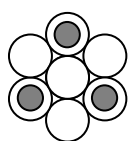
**Embalagem:** bobina de aço / madeira, bobina de madeira ou bobina de aço.



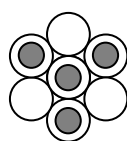
## Encordoamento do Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio (ACSR/AW)



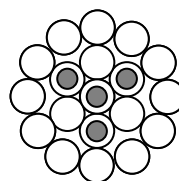
6AL/1AS



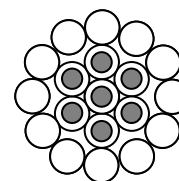
4AL/3AS



3AL/4AS



15AL/4AS



12AL/7AS

**Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio**  
**Norma Americana ASTM B549**

Código	Tamanho AWG ou Cmil	Encordoamento No./Diâmetro		Código	Tamanho AWG ou Cmil	Encordoamento No./Diâmetro	
		Fio de aço revestido de alumínio	Fio de Alumínio			Fio de aço revestido de alumínio	Fio de Alumínio
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	---	---	---	---

**Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio**  
**Norma Chinesa Q/WL.J01.020-2007 (14% IACS de condutividade)**

Tamanho	Encordoamento		Tamanho	Encordoamento		Tamanho	Encordoamento	
	Fio de Alumínio	Revestimento de Alumínio Fio de aço		Fio de Alumínio	Revestimento de Alumínio Fio de aço		Fio de Alumínio	Revestimento de Alumínio Fio de aço
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

**Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio**

**Norma China Q/WL.J01.020-2007 (20% IACS de condutividade)**

Tamanho	Encordoamento		Tamanho	Encordoamento		Tamanho	Encordoamento	
	Fio de Alumínio	Revestim ento de Alumínio Fio de aço		Fio de Alumínio	Revestim ento de Alumínio Fio de aço		Fio de Alumínio	Revestim ento de Alumínio Fio de aço
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	---	---	---

**Cabo de Alumínio Nu com Alma de Aço revestido com Alumínio**

**Norma China TB/T2937-1998 (usado para ferroviárias elétricas)**

Tipo		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)
Encordoamento No./mm	Fio de Alumínio	6/3.8	28/2.06	8/4.43	26/2.67	18/3.6	24/3.15	24/3.33	24/3.6
	Revestim ento de Alumínio Fio de Aço	1/3.8	3/2.55	7/2.46	3/2.89	1/3.6	7/2.1	7/2.22	7/2.41

Calculado								
Carga de ruptura kN	22,92	33,25	57,11	46,07	39,20	56,81	63,09	73,28
Coefficiente de expansión lineal /°C	$20 \times 10^{-6}$	$20 \times 10^{-6}$	$18,9 \times 10^{-6}$	$20,4 \times 10^{-6}$	$21,7 \times 10^{-6}$	$20,4 \times 10^{-6}$	$20,4 \times 10^{-6}$	$20,4 \times 10^{-6}$