

Aluminum Conductor Steel Reinforced

ASTM B232, Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)

Physical Properties

Code name	Area				Stranding and wire diameter		Approx. overall diameter	Weight			Nominal breaking load	Nominal DC resistance at 20°C
	Nominal	Alum.	Steel	Total	Alum.	Steel		Alum.	Steel	Total		
	AWG or MCM	mm ²	mm ²	mm ²	mm	mm		kg/km	kg/km	kg/km		
Turkey	6	13.29	2.19	15.48	6/1.68	1/1.68	5.04	37	17	54	5.24	2.1586
Swan	4	21.16	3.55	24.71	6/2.12	1/2.12	6.36	58	27	85	8.32	1.3557
Swanate	4	21.16	5.35	26.51	7/1.96	1/2.61	6.53	58	42	100	10.53	1.3557
Sparrow	2	33.61	5.61	39.22	6/2.67	1/2.67	8.01	92	44	136	12.7	0.8535
Sparate	2	33.61	8.52	42.13	7/2.47	1/3.30	8.24	92	67	159	16.11	0.8535
Robin	1	42.39	7.10	49.49	6/3.00	1/3.00	9.00	116	55	171	15.85	0.6767
Raven	1/0	53.48	8.90	62.38	6/3.37	1/3.37	10.11	147	69	216	19.32	0.5364
Quail	2/0	67.42	11.23	78.65	6/3.78	1/3.78	11.34	185	88	273	23.62	0.4255
Pigeon	3/0	85.03	14.19	99.22	6/4.25	1/4.25	12.75	233	110	343	29.41	0.3373
Penguin	4/0	107.23	17.87	125.10	6/4.77	1/4.77	14.31	294	139	433	37.06	0.2675
Waxwing	266.8	135.16	7.48	142.64	18/3.09	1/3.09	15.45	373	58	431	30.27	0.2133
Partridge	266.8	135.16	22.00	157.16	26/2.57	7/2.00	16.28	374	172	546	50.29	0.2143
Ostrich	300	152.00	24.71	176.71	26/2.73	7/2.12	17.28	421	193	614	56.52	0.1906
Merlin	336.4	170.45	9.48	179.93	18/3.47	1/3.47	17.35	470	74	544	38.23	0.1691
Linnet	336.4	170.45	27.81	198.26	26/2.89	7/2.25	18.31	472	217	689	62.71	0.1699
Oriole	336.4	170.45	39.81	210.26	30/2.69	7/2.69	18.83	473	311	784	77.27	0.1704
Chickadee	397.5	201.42	11.16	212.58	18/3.77	1/3.77	18.85	555	87	642	43.99	0.1431
Brant	397.5	201.42	26.13	227.55	24/3.27	7/2.18	19.61	558	204	762	64.69	0.1438
Ibis	397.5	201.42	32.77	234.19	26/3.14	7/2.44	19.88	558	256	814	72.11	0.1438
Lark	397.5	201.42	46.97	248.39	30/2.92	7/2.92	20.44	560	367	927	88.69	0.1442
Pelican	477	241.68	13.42	255.10	18/4.14	1/4.14	20.70	666	105	771	52.16	0.1193
Flicker	477	241.68	31.29	272.97	24/3.58	7/2.39	21.49	670	245	915	76.66	0.1199
Hawk	477	241.68	39.42	281.10	26/3.44	7/2.67	21.79	670	308	978	86.65	0.1199
Hen	477	241.68	56.39	298.07	30/3.20	7/3.20	22.40	671	441	1112	105.34	0.1201
Osprey	556.5	282.00	15.68	297.68	18/4.47	1/4.47	22.35	777	122	899	60.88	0.1022
Parakeet	556.5	282.00	36.58	318.58	24/3.87	7/2.58	23.22	781	286	1067	88.22	0.1027
Dove	556.5	282.00	45.94	327.94	26/3.72	7/2.89	23.55	781	359	1140	101.03	0.1027
Eagle	556.5	282.00	65.81	347.81	30/3.46	7/3.46	24.21	783	515	1298	122.92	0.103
Peacock	605	306.58	39.74	346.32	24/4.03	7/2.69	24.20	849	311	1160	95.88	0.0945
Squab	605	306.58	49.94	356.52	26/3.87	7/3.01	24.51	850	390	1240	108.14	0.0945
Wood Duck	605	306.58	71.55	378.13	30/3.61	7/3.61	25.25	851	560	1411	128.84	0.0947
Teal	605	306.58	69.87	376.45	30/3.61	19/2.16	25.24	851	548	1399	133.59	0.0947
Kingbird	636	322.26	17.90	340.16	18/4.78	1/4.78	23.88	889	139	1028	69.55	0.08945
Rook	636	322.26	41.81	364.07	24/4.14	7/2.76	24.84	893	326	1219	100.83	0.08989

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Grosbeak	636	322.26	52.45	374.71	26/3.97	7/3.09	25.15	893	409	1302	111.8	0.08989
Scoter	636	322.26	75.22	397.48	30/3.70	7/3.70	25.88	895	589	1484	135.44	0.09011
Egret	636	322.26	73.55	395.81	30/3.70	19/2.22	25.90	894	576	1470	140.3	0.09011
Swift	636	322.26	8.96	331.22	36/3.38	1/3.38	23.62	888	70	958	60.52	0.08945
Flamingo	666.6	337.74	43.81	381.55	24/4.23	7/2.82	25.40	936	342	1278	105.66	0.08577
Gannet	666.6	337.74	55.03	392.77	26/4.07	7/3.16	25.76	936	429	1365	117.33	0.08577
Stilt	715.5	362.58	46.97	409.55	24/4.39	7/2.92	26.31	1005	367	1372	113.35	0.07989
Starling	715.5	362.58	59.03	421.61	26/4.21	7/3.28	26.68	1005	461	1466	125.91	0.07989
Redwing	715.5	362.58	82.58	445.16	30/3.92	19/2.35	27.43	1006	647	1653	153.94	0.08009
Tern	795	402.84	27.87	430.71	45/3.38	7/2.25	27.03	1116	217	1333	97.37	0.07191
Condor	795	402.84	52.19	455.03	54/3.08	7/3.08	27.72	1116	408	1524	124.45	0.07191
Cuckoo	795	402.84	52.19	455.03	24/4.62	7/3.08	27.74	1116	408	1524	123.94	0.07191
Drake	795	402.84	65.61	468.35	26/4.44	7/3.45	28.11	1116	512	1628	139.92	0.07191
Coot	795	402.84	11.16	414.00	36/3.77	1/3.77	26.41	1110	88	1198	74.34	0.07156
Mallard	795	402.84	91.87	494.71	30/4.14	19/2.48	28.96	1119	719	1838	171.18	0.07208
Ruddy	900	456.06	31.54	487.60	45/3.59	7/2.40	28.73	1263	247	1510	108.96	0.06351
Canary	900	456.06	59.10	515.16	54/3.28	7/3.28	29.52	1263	461	1724	140.95	0.06351
Rail	954	483.42	33.42	516.84	45/3.70	7/2.47	29.61	1339	262	1601	115.63	0.05992
Catbird	954	483.42	13.42	496.84	36/4.14	1/4.14	28.95	1333	105	1438	87.66	0.05962
Cardinal	954	483.42	62.65	546.07	54/3.38	7/3.38	30.42	1339	490	1829	149.36	0.05992
Ortlan	1033.5	523.68	36.19	559.87	45/3.85	7/2.57	30.81	1451	283	1734	123.1	0.05531
Tanger	1033.5	523.68	14.51	538.19	36/4.30	1/4.30	30.12	1443	113	1556	94.93	0.05504
Curlew	1033.5	523.68	67.87	591.55	54/3.52	7/3.52	31.68	1451	530	1981	161.8	0.05531
Bluejay	1113	563.93	39.03	602.96	45/4.00	7/2.66	31.98	1563	305	1948	132.63	0.05136
Finch	1113	563.93	71.55	635.48	54/3.65	19/2.19	32.85	1570	560	2150	174.41	0.05161
Bunting	1192.5	604.26	41.55	645.81	45/4.14	7/2.76	33.12	1674	327	2001	141.79	0.04793
Grackle	1192.5	604.26	76.58	680.84	54/3.77	19/2.27	33.97	1682	600	2282	186.38	0.04817
Bittern	1272	644.51	44.52	689.03	45/4.27	7/2.85	34.17	1785	349	2134	151.48	0.04494
Pheasant	1272	644.51	81.68	726.19	54/3.90	19/2.34	35.10	1795	638	2433	194	0.04516
Skylark	1272	644.51	17.87	662.38	36/4.78	1/4.78	33.42	1777	140	1917	115.85	0.04472
Dipper	1351.5	684.84	47.10	731.94	45/4.40	7/2.92	35.16	1898	368	2266	160.7	0.0423
Martin	1351.5	684.84	86.71	771.55	54/4.02	19/2.41	36.17	1906	679	2585	206.05	0.0425
Bobolink	1431	725.10	50.32	775.42	45/4.53	7/3.02	36.24	2009	393	2402	170.71	0.03994
Plover	1431	725.10	91.87	816.97	54/4.14	19/2.48	37.24	2019	719	2738	218.24	0.04013

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Nuthatch	1510.5	765.35	52.90	818.25	45/4.65	7/3.10	37.20	2120	414	2534	177.89	0.03784
Parrot	1510.5	765.35	96.84	862.19	54/4.25	19/2.55	38.25	2131	759	2890	230.2	0.03802
Lapwing	1590	805.68	55.48	861.16	45/4.77	7/3.18	38.16	2232	435	2667	187.02	0.03595
Falcon	1590	805.68	102.13	907.81	54/4.36	19/2.62	39.26	2243	799	3042	242.55	0.03613
High Strength Stranding												
Grouse	80	40.52	14.13	54.65	8/2.54	1/4.24	9.32	112	110	222	23.6	0.7115
Petrel	101.8	51.61	30.06	81.67	12/2.34	7/2.34	11.71	143	235	378	41.75	0.5613
Minorca	110.8	56.13	32.77	88.90	12/2.44	7/2.44	12.22	156	256	412	51.25	0.5161
Leghorn	134.6	68.19	39.81	108.00	12/2.69	7/2.69	13.46	189	311	500	61.7	0.4248
Guinea	159	80.58	46.97	127.55	12/2.92	7/2.92	14.63	223	367	590	72.55	0.3595
Dotterel	176.9	89.48	52.19	141.67	12/3.08	7/3.08	15.42	248	409	657	78.5	0.3237
Dorking	190.8	96.71	56.39	153.10	12/3.20	7/3.20	16.03	268	441	709	84.8	0.2995
Brahma	203.2	102.97	91.87	194.84	16/2.86	19/2.48	18.14	285	722	1007	128.8	0.2813
Cochin	211.8	107.10	62.45	169.55	12/3.37	7/3.37	16.84	297	488	785	93.9	0.2705
Chukar	1780	902.70	73.51	902.72	84/3.70	19/2.22	40.70	2511	575	3086	226.85	0.03245
Bluebird	2156	1092.00	88.80	1092.28	84/4.07	19/2.44	44.76	3036	697	3733	268.3	0.02681
Kiwi	2167	1100.00	47.50	1099.20	72/4.41	7/2.94	44.07	3057	370	3427	221.6	0.02684
Thrasher	2312	1170.80	65.15	1170.80	76/4.43	19/2.09	45.90	3256	511	3767	253	0.02471