



ACSR/AW Conductors Physical and Electrical Characteristics

ALUMOWELD®

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COND. CODE WORD	AREA OF ALUM. WIRES	TOTAL ALUM. AREA	TOTAL CROSS-SECTIONAL AREA	OUTSIDE DIAMETER	STRANDING	INDIVIDUAL WIRE DIAMETERS		RATED STRENGTH	WEIGHT		
	AWG OR KCMIL	KCMIL	sq. in.	in.	AL/AW	ALUMINUM	ALUMOWELD	lbs.	TOTAL	ALUMINUM	ALUMOWELD
						in.	in.		lbs/1000 ft	lbs/1000 ft	lbs/1000 ft
Swan/AW	4.0	43.47	0.0382	0.250	6/1	0.0834	0.0834	1,783	54.6	39.0	15.6
Swanate/AW	4.0	44.37	0.0411	0.257	7/1	0.0772	0.1029	2,279	62.7	39.0	23.7
Sparrow/AW	2.0	69.17	0.0608	0.316	6/1	0.1052	0.1052	2,760	86.8	62.0	24.8
Sparate/AW	2.0	70.62	0.0654	0.325	7/1	0.0974	0.1299	3,510	99.9	62.1	37.8
Robln/AW	1.0	87.32	0.0768	0.355	6/1	0.1182	0.1182	3,455	109.6	78.3	31.3
Raven/AW	1/0	110.10	0.0968	0.398	6/1	0.1327	0.1327	4,249	138.2	98.7	39.5
Quail/AW	2/0	138.80	0.1221	0.447	6/1	0.1490	0.1490	5,139	174.2	124.4	49.8
Pigeon/AW	3/0	174.70	0.1537	0.502	6/1	0.1672	0.1672	6,302	219.4	156.7	62.7
Penguln/AW	4/0	220.40	0.1939	0.563	6/1	0.1878	0.1878	7,685	276.8	197.7	79.1
Waxwng/AW	266.8	270.30	0.2210	0.609	18/1	0.1217	0.1217	6,822	283.5	250.3	33.2
Partridge/AW	266.8	277.70	0.2437	0.642	26/7	0.1013	0.0788	10,800	349.6	251.7	97.9
Ostrich/AW	300.0	312.10	0.2739	0.680	26/7	0.1074	0.0835	12,130	392.8	282.9	109.9
Merln/AW	336.4	341.00	0.2789	0.684	18/1	0.1367	0.1367	8,538	357.7	315.8	41.9
Llnnet/AW	336.4	350.40	0.3075	0.721	26/7	0.1138	0.0885	13,510	441.1	317.6	123.5
Oriole/AW	336.4	356.00	0.3259	0.741	30/7	0.1059	0.1059	16,750	495.1	318.1	177.0
Chickadee/AW	397.5	403.00	0.3295	0.743	18/1	0.1486	0.1486	9,777	422.6	373.1	49.5
Brant/AW	397.5	410.40	0.3527	0.772	24/7	0.1287	0.0858	14,060	491.0	375.0	116.0
Ibis/AW	397.5	413.40	0.3627	0.783	26/7	0.1236	0.0961	15,780	520.3	374.7	145.6
Lark/AW	397.5	420.60	0.3850	0.806	30/7	0.1151	0.1151	19,630	548.9	375.8	209.1
Pelican/AW	477.0	483.70	0.3955	0.814	18/1	0.1628	0.1628	11,460	507.2	447.8	59.4
Flicker/AW	477.0	492.60	0.4233	0.846	24/7	0.1410	0.0940	16,700	589.4	450.1	139.3
Hawk/AW	477.0	496.80	0.4360	0.858	26/7	0.1355	0.1054	18,980	625.4	450.3	175.1
Hen/AW	477.0	504.90	0.4621	0.883	30/7	0.1261	0.1261	23,400	702.0	451.1	250.9
Osprey/AW	556.5	564.00	0.4612	0.879	18/1	0.1758	0.1758	13,250	591.5	522.2	69.3
Parakeet/AW	556.5	574.70	0.4939	0.914	24/7	0.1523	0.1015	19,270	687.5	525.1	162.4
Dove/AW	556.5	579.20	0.5083	0.927	26/7	0.1463	0.1138	21,920	729.1	524.9	204.2
Eagle/AW	556.5	589.00	0.5391	0.953	30/7	0.1362	0.1362	26,810	819.0	526.3	292.7
Peacock/AW	605.0	624.80	0.5370	0.953	24/7	0.1588	0.1059	20,970	747.7	570.9	176.8
Squab/AW	605.0	629.30	0.5522	0.966	26/7	0.1525	0.1186	23,590	792.1	570.4	221.7
Teal/AW	605.0	639.40	0.5834	0.994	30/19	0.1420	0.0852	28,450	883.2	572.0	311.2
Klngbird/AW	636.0	645.00	0.5274	0.940	18/1	0.1880	0.1880	15,020	676.5	597.2	79.3
Rook/AW	636.0	656.70	0.5643	0.977	24/7	0.1628	0.1085	22,020	785.6	600.0	185.6
Grosbeak/AW	636.0	661.90	0.5808	0.990	26/7	0.1564	0.1216	24,810	833.0	599.9	233.1
Egret/AW	636.0	672.30	0.6135	1.019	30/19	0.1456	0.0874	29,930	928.9	601.4	327.5
Flamingo/AW	666.6	688.50	0.5917	1.000	24/7	0.1667	0.1111	23,090	823.7	629.1	194.6
Gannet/AW	666.6	693.60	0.6086	1.014	26/7	0.1601	0.1245	26,000	873.0	628.7	244.3
Starlng/AW	715.5	744.70	0.6535	1.051	26/7	0.1659	0.1290	27,480	937.3	675.0	262.3
Redwng/AW	715.5	755.90	0.6897	1.081	30/19	0.1544	0.0926	33,390	1044.0	676.0	368.0
Tern/AW	795.0	808.50	0.6674	1.063	45/7	0.1329	0.0886	21,450	873.4	749.7	123.7
Cuckoo/AW	795.0	820.70	0.7053	1.092	24/7	0.1820	0.1213	27,520	981.8	749.9	231.9
Condor/AW	795.0	821.60	0.7061	1.093	54/7	0.1214	0.1214	27,830	982.8	750.7	232.1
Drake/AW	795.0	827.70	0.7263	1.108	26/7	0.1749	0.1360	30,540	1042.0	750.0	292.0



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COND. CODE WORD	AREA OF ALUM. WIRES	TOTAL ALUM. AREA	TOTAL CROSS-SECTIONAL AREA	OUTSIDE DIAMETER	STRANDING	INDIVIDUAL WIRE DIAMETERS		RATED STRENGTH	WEIGHT		
	AWG OR KCMIL	KCMIL	sq. in.	in.	AL/AW	ALUMINUM in.	ALUMOWELD in.	lbs.	TOTAL lbs/1000 ft	ALUMINUM lbs/1000 ft	ALUMOWELD lbs/1000 ft
Mallard/AW	795.0	840.50	0.7669	1.140	30/19	0.1628	0.0977	37,110	1161.0	752.0	409.0
Ruddy/AW	900.0	915.20	0.7555	1.131	45/7	0.1414	0.0943	23,970	988.9	848.7	140.2
Canary/AW	900.0	929.20	0.7985	1.162	54/7	0.1291	0.1291	31,040	1111.0	849.0	262.0
Rail/AW	954.0	970.50	0.8011	1.165	45/7	0.1456	0.0971	25,410	1049.0	900.0	149.0
Cardinal/AW	954.0	984.70	0.8462	1.196	54/7	0.1329	0.1329	32,890	1178.0	900.0	278.0
Ortolan/AW	1033.5	1052.00	0.8685	1.213	45/7	0.1516	0.1011	27,180	1137.0	976.0	161.0
Curlew/AW	1033.5	1068.00	0.9177	1.246	54/7	0.1384	0.1384	35,160	1277.0	976.0	301.0
Bluejay/AW	1113.5	1133.00	0.9350	1.259	45/7	0.1573	0.1049	29,270	1224.0	1050.0	174.0
Finch/AW	1113.5	1149.00	0.9854	1.293	54/19	0.1436	0.0862	37,540	1374.0	1055.0	319.0
Bunting/AW	1192.5	1213.00	1.0010	1.302	45/7	0.1628	0.1085	31,330	1311.0	1125.0	186.0
Grackle/AW	1192.5	1230.00	1.0550	1.333	54/19	0.1486	0.0892	40,200	1471.0	1130.0	341.0
Bittern/AW	1272.0	1294.00	1.0680	1.345	45/7	0.1681	0.1121	33,420	1398.0	1200.0	198.0
Pheasant/AW	1272.0	1313.00	1.1260	1.382	54/19	0.1535	0.0921	42,430	1570.0	1206.0	364.0
Dipper/AW	1351.5	1375.00	1.1340	1.386	45/7	0.1733	0.1151	35,410	1484.0	1275.0	209.0
Martin/AW	1351.5	1394.00	1.1960	1.424	54/19	0.1582	0.0949	45,050	1667.0	1281.0	386.0
Bobolink/AW	1431.0	1455.00	1.2010	1.427	45/7	0.1783	0.1189	37,600	1572.0	1349.0	223.0
Plover/AW	1431.0	1477.00	1.2670	1.465	54/19	0.1628	0.0977	47,730	1766.0	1357.0	409.0
Nuthatch/AW	1510.5	1536.00	1.2680	1.466	45/7	0.1832	0.1221	39,670	1660.0	1425.0	235.0
Parrot/AW	1510.5	1563.00	1.3400	1.506	54/19	0.1675	0.1004	50,470	1868.0	1436.0	432.0
Lapwing/AW	1590.0	1615.00	1.3330	1.502	45/7	0.1878	0.1252	41,710	1744.0	1497.0	247.0
Falcon/AW	1590.0	1641.00	1.4070	1.545	54/19	0.1716	0.1030	43,040	1962.0	1507.0	455.0
Chukar/AW	1780.0	1817.00	1.5130	1.602	84/19	0.1456	0.0874	49,300	2015.0	1688.0	327.0
Bluebird/AW	2156.0	2200.00	1.8310	1.681	84/19	0.1602	0.0961	46,120	2126.0	1928.0	198.0
Kiwi/AW	2167.0	2191.00	1.7760	1.737	72/7	0.1735	0.1157	49,130	2265.0	2054.0	211.0
Thrasher/AW	2515.0	2343.00	1.9140	1.802	76/19	0.1744	0.0814	55,300	2475.0	2191.0	284.0
Joree/AW	2515.0	2549.00	2.0830	1.880	76/19	0.1819	0.0849	60,160	2693.0	2384.0	309.0

Fiber Optic Cable



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	AWG OR KCMIL	sq. mm	sq. mm	mm	AL/AW	ALUMINUM mm	ALUMOWELD mm	kg	TOTAL KG/KM	ALUMINUM KG/KM	ALUMOWELD KG/KM
Swan/AW	4.0	22.03	24.67	6.35	6/1	2.118	2.118	807	81.3	58.0	23.2
Swanate/AW	4.0	22.48	26.50	6.53	7/1	1.961	2.614	1,034	93.3	58.0	35.3
Sparrow/AW	2.0	35.05	39.80	8.03	6/1	2.672	2.672	1,252	129.2	92.3	36.9
Sparate/AW	2.0	35.79	42.20	8.26	7/1	2.474	3.299	1,592	148.7	92.4	56.3
Robln/AW	1.0	44.25	49.56	9.02	6/1	3.002	3.002	1,567	163.1	116.5	46.6
Raven/AW	1/0	55.79	62.46	10.11	6/1	3.371	3.371	1,927	205.7	146.9	58.8
Quail/AW	2/0	70.34	78.78	11.35	6/1	3.785	3.785	2,331	259.3	185.1	74.1
Pigeon/AW	3/0	88.53	99.17	12.75	6/1	4.247	4.247	2,859	326.5	233.2	93.3
Penguin/AW	4/0	111.70	125.10	14.30	6/1	4.770	4.770	3,486	412.0	294.2	177.7
Waxwing/AW	266.8	137.00	142.60	15.47	18/1	3.091	3.091	3,094	421.9	372.5	49.4
Partridge/AW	266.8	140.70	157.20	16.31	26/7	2.573	2.002	4,899	520.3	374.6	145.7
Ostrich/AW	300.0	158.20	176.70	17.27	26/7	2.728	2.121	5,502	584.6	421.0	163.6
Merlin/AW	336.4	172.80	179.90	17.37	18/1	3.472	3.472	3,873	532.4	470.0	62.4
Linnet/AW	336.4	177.60	198.40	18.31	26/7	2.891	2.248	6,128	656.5	472.7	183.8
Oriole/AW	336.4	180.40	210.30	18.82	30/7	2.691	2.691	7,598	736.9	473.4	263.4
Chickadee/AW	397.5	204.20	212.60	18.87	18/1	3.774	3.774	4,435	629.0	555.3	73.7
Brant/AW	397.5	207.90	227.60	19.61	24/7	3.269	2.179	6,378	730.8	558.1	172.6
Ibis/AW	397.5	209.50	234.00	19.89	26/7	3.139	2.441	7,158	774.4	557.7	216.7
Lark/AW	397.5	213.10	248.40	20.47	30/7	2.294	2.924	8,904	870.5	559.3	311.2
Pelican/AW	477.0	245.10	255.20	20.68	18/1	4.135	4.135	5,198	754.9	666.5	88.4
Flicker/AW	477.0	249.60	273.10	21.49	24/7	3.581	2.388	7,575	877.2	669.9	207.3
Hawk/AW	477.0	251.70	281.30	21.79	26/7	3.442	2.677	8,609	930.8	670.2	260.6
Hen/AW	477.0	255.80	298.10	22.43	30/7	3.203	3.203	10,614	1044.0	671.4	373.4
Osprey/AW	556.5	285.80	297.60	22.33	18/1	4.465	4.465	6,010	880.3	771.2	103.1
Parakeet/AW	556.5	291.20	318.70	23.22	24/7	3.868	2.578	8,741	1023.0	781.5	241.7
Dove/AW	556.5	293.50	328.00	23.55	26/7	3.716	2.891	9,943	1085.0	781.2	303.9
Eagle/AW	556.5	298.50	347.80	24.21	30/7	3.459	3.459	12,161	1219.0	783.3	435.6
Peacock/AW	605.0	316.60	346.50	24.21	24/7	4.034	2.691	9,512	1112.0	849.6	263.1
Squab/AW	605.0	318.90	356.30	24.54	26/7	3.874	3.012	10,700	1179.0	848.9	330.0
Teal/AW	605.0	324.00	376.40	25.25	30/19	3.607	2.164	12,905	1314.0	851.3	463.2
KIngbird/AW	636.0	326.80	340.30	23.88	18/1	4.775	4.775	6,813	1006.0	888.8	118.0
Rook/AW	636.0	332.80	364.10	24.82	24/7	4.135	2.756	9,988	1169.0	893.0	276.2
Grosbeak/AW	636.0	335.40	374.70	25.15	26/7	3.973	3.089	11,254	1240.0	892.8	346.9
Egret/AW	636.0	340.70	395.80	25.88	30/19	3.698	2.220	13,576	1382.0	895.0	487.4
Flamingo/AW	666.6	348.90	381.80	24.40	24/7	4.234	2.822	10,474	1226.0	936.3	289.6
Gannet/AW	666.6	351.50	392.70	25.76	26/7	4.067	3.162	11,794	1299.0	937.5	363.6
Starling/AW	715.5	377.40	421.60	26.70	26/7	4.214	3.277	12,465	1395.0	1005.0	390.4
Redwing/AW	715.5	383.00	445.00	27.46	30/19	3.922	2.352	15,146	1554.0	1006.0	547.7
Tern/AW	795.0	409.70	430.60	27.00	45/7	3.376	2.250	9,730	1300.0	1116.0	184.1
Cuckoo/AW	795.0	415.90	455.10	27.74	24/7	4.623	3.081	12,483	1461.0	1116.0	345.1
Condor/AW	795.0	416.30	455.60	27.76	54/7	3.084	3.084	12,624	1463.0	1117.0	345.4
Drake/AW	795.0	419.40	468.60	28.14	26/7	4.442	3.454	13,717	1551.0	1116.0	434.6

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	AWG OR KCMIL	sq. mm	sq. mm	mm	AL/AW	ALUMINUM	ALUMOWELD	kg	TOTAL	ALUMINUM	ALUMOWELD
						mm	mm		KG/KM	KG/KM	KG/KM
Mallard/AW	795.0	425.90	494.80	28.96	30/19	4.135	2.482	16,833	1728.0	1119.0	608.7
Ruddy/AW	900.0	463.90	487.40	28.73	45/7	3.592	2.395	10,873	1472.0	1263.0	208.7
Canary/AW	900.0	470.90	515.20	29.51	54/7	3.279	3.279	14,080	1654.0	1264.0	389.9
Rail/AW	954.0	491.80	516.90	29.59	45/7	3.698	2.466	11,526	1561.0	1339.0	221.8
Cardinal/AW	954.0	500.00	546.00	30.38	54/7	3.376	3.376	14,919	1753.0	1339.0	413.7
Ortolan/AW	1033.5	533.10	560.40	30.81	45/7	3.851	2.568	12,329	1692.0	1453.0	239.6
Curlew/AW	1033.5	541.20	592.10	31.65	54/7	3.515	3.515	15,949	1901.0	1453.0	448.0
Bluejay/AW	1113.5	574.10	603.30	31.98	45/7	3.995	2.664	13,277	1822.0	1563.0	260.0
Finch/AW	1113.5	582.20	635.80	32.84	54/19	3.647	2.189	17,028	2045.0	1570.0	474.8
Bunting/AW	1192.5	614.70	645.80	33.07	45/7	4.135	2.756	14,211	1951.0	1674.0	276.8
Grackle/AW	1192.5	623.30	680.70	33.86	54/19	3.774	2.266	18,235	2189.0	1682.0	507.5
Bittern/AW	1272.0	655.70	689.10	34.16	45/7	4.270	2.847	15,159	2081.0	1786.0	294.7
Pheasant/AW	1272.0	665.30	726.50	35.10	54/19	3.899	2.339	19,246	2337.0	1795.0	541.7
Dipper/AW	1351.5	696.80	731.70	35.20	45/7	4.402	2.924	16,062	2209.0	1898.0	311.1
Martin/AW	1351.5	706.40	771.70	36.17	54/19	4.018	2.410	20,435	2481.0	1907.0	574.5
Bobolink/AW	1431.0	737.30	774.90	36.25	45/7	4.529	3.020	17,055	2340.0	2008.0	331.9
Plover/AW	1431.0	748.50	817.50	37.21	54/19	4.135	2.482	21,650	2628.0	2020.0	608.7
Nuthatch/AW	1510.5	778.40	818.10	37.24	45/7	4.653	3.101	17,994	2471.0	2121.0	349.8
Parrot/AW	1510.5	792.00	864.60	38.25	54/19	4.255	2.550	22,893	2780.0	2137.0	642.9
Lapwing/AW	1590.0	818.40	860.10	38.15	45/7	4.770	3.180	18,920	2596.0	2228.0	367.6
Falcon/AW	1590.0	831.60	907.80	39.24	54/19	4.359	2.616	24,059	2920.0	2243.0	677.2
Chukar/AW	1780.0	920.70	976.20	40.69	84/19	3.698	2.220	22,362	2999.0	2512.0	486.7
Bluebird/AW	2156.0	1115.00	1181.00	42.70	84/19	4.069	2.441	20,920	3164.0	2869.0	294.7
Kiwi/AW	2167.0	1110.00	1146.00	44.12	72/7	4.407	2.939	22,285	3371.0	3057.0	314.0
Thrasher/AW	2515.0	1187.00	1235.00	45.77	76/19	4.430	2.068	25,084	3684.0	3261.0	422.7
Joree/AW	2515.0	1294.00	1344.00	47.75	76/19	4.620	2.156	27,289	4008.0	3548.0	459.9

Fiber Optic Cable