

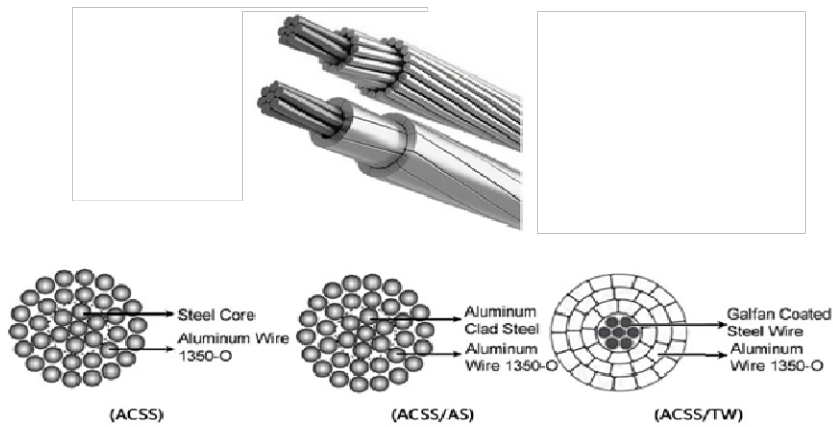
## Aluminium Conductor Steel Supported - (ACSS)

### Applications

ACSS is used in overhead transmission and distribution lines, operating up to 250°C without strength loss. It minimizes sag under high loads, resists aluminum creep, and remains stable against Aeolian vibration.

### Structure

ACSS features a steel core with Aluminum 1350-O strands, designed for high strength and corrosion resistance



### Standards & Compliance

- ✓ **Steel Core:** B500, B498, B606, B802, B803, B958, B957, B502
- ✓ **Aluminum Wire:** B609
- ✓ **Conductor Types:** B856, B857



### Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm <sup>2</sup> )	Stranding				Diameter of Complete Conductor	Weight			Rated Strength				DC Resistance @ 20°C	Current Capacity		
		No. of Wires		Wire diameter			Aluminum	Steel	Total	Regular Strength	High Strength	Extra High Strength	Ultra High Strength		@ 85°C	@ 200°C	@ 250°C
		Aluminum (No.)	Steel (No.)	Aluminum (mm)	Steel (mm)									(mm)			
Partridge/ACSS	135	26	7	2.57	2.00	16.31	374.00	171.78	545.78	39.66	43.39	47.90	50.98	0.2031	364	739	835
Partridge/ACSS	135	26	7	2.57	2.00	16.31	374.00	171.78	545.78	39.66	43.39	47.90	50.98	0.2031	366	740	835
Junco/ACSS	135	30	7	2.40	2.40	16.76	374.90	247.36	622.26	52.47	58.17	64.50	67.99	0.2018	369	747	845
Junco/ACSS	135	30	7	2.40	2.40	16.76	374.90	247.36	622.26	52.47	58.17	64.50	67.99	0.2018	367	747	845
Ostrich/ACSS	152	26	7	2.73	2.12	17.27	420.60	193.01	613.61	44.59	48.80	53.86	57.32	0.1808	390	797	902
Ostrich/ACSS	152	26	7	2.73	2.12	17.27	420.60	193.01	613.61	44.59	48.80	53.86	57.32	0.1808	392	798	902
Linnet/ACSS	170	26	7	2.89	2.25	18.29	471.40	217.40	688.80	50.18	54.91	60.62	64.51	0.1611	421	859	973
Linnet/ACSS	170	26	7	2.89	2.25	18.29	471.40	217.40	688.80	50.18	54.91	60.62	64.51	0.1611	419	859	973
Oriole/ACSS	170	30	7	2.69	2.69	18.82	472.60	310.75	783.35	65.91	73.08	81.03	85.41	0.1601	422	869	985
Oriole/ACSS	170	30	7	2.69	2.69	18.82	472.60	310.75	783.35	65.91	73.08	81.03	85.41	0.1601	424	870	985
Brant/ACSS	201	24	7	3.27	2.18	19.61	557.20	204.09	761.29	49.49	53.94	59.29	62.95	0.1368	463	952	1079
Brant/ACSS	201	24	7	3.27	2.18	19.61	557.20	204.09	761.29	49.49	53.94	59.29	62.95	0.1368	461	952	1079
Ibis/ACSS	201	26	7	3.14	2.44	19.89	557.20	255.67	812.87	57.75	63.64	70.19	73.79	0.1365	463	957	1085
Ibis/ACSS	201	26	7	3.14	2.44	19.89	557.20	255.67	812.87	57.75	63.64	70.19	73.79	0.1365	465	958	1085
Lark/ACSS	201	30	7	2.92	2.92	20.47	558.50	366.16	924.66	77.67	86.11	95.48	100.64	0.1355	469	969	1100
Lark/ACSS	201	30	7	2.92	2.92	20.47	558.50	366.16	924.66	77.67	86.11	95.48	100.64	0.1355	467	969	1100
Flicker/ACSS	242	24	7	3.58	2.39	21.49	668.60	245.30	913.90	58.19	63.85	70.13	73.58	0.1142	514	1071	1216
Flicker/ACSS	242	24	7	3.58	2.39	21.49	668.60	245.30	913.90	58.19	63.85	70.13	73.58	0.1142	516	1072	1216
Hawk/ACSS	242	26	7	3.44	2.67	21.79	668.60	306.14	974.74	69.18	76.24	84.07	88.39	0.1135	519	1079	1226
Hawk/ACSS	242	26	7	3.44	2.67	21.79	668.60	306.14	974.74	69.18	76.24	84.07	88.39	0.1135	517	1079	1226

NOTE :  
current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmisivity, 0.80 absorptivity, 45°C ambient temperature, 1045 W/m<sup>2</sup> Solar radiation customized conductor sizes based on customer's requirements can also be designed.

### Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm <sup>2</sup> )	Stranding				Diameter of Complete Conductor	Weight			Rated Strength				DC Resistance @ 20°C	Current Capacity		
		No. of Wires		Wire diameter			Aluminum	Steel	Total	Regular Strength	High Strength	Extra High Strength	Ultra High Strength		@ 85°C	@ 200°C	@ 250°C
		Aluminum	Steel	Aluminum	Steel												
		(No.)	(No.)	(mm)	(mm)		(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(KN)		(KN)	(Ω/Km)	(Ampere)
Hen/ACSS	242	30	7	3.20	3.20	22.43	670.30	439.75	1110.05	93.28	101.16	112.98	118.61	0.1129	522	1092	1241
Hen/ACSS	242	30	7	3.20	3.20	22.43	670.30	439.75	1110.05	93.28	101.16	112.98	118.61	0.1129	524	1093	1241
Parakeet/ACSS	282	24	7	3.87	2.58	23.22	779.90	285.85	1065.75	67.86	74.45	81.77	85.79	0.0978	566	1186	1348
Parakeet/ACSS	282	24	7	3.87	2.58	23.22	779.90	285.85	1065.75	67.86	74.45	81.77	85.79	0.0978	564	1186	1348
Dove/ACSS	282	26	7	3.72	2.89	23.55	780.10	358.67	1138.77	81.02	89.29	98.47	103.52	0.0974	567	1193	1357
Dove/ACSS	282	26	7	3.72	2.89	23.55	780.10	358.67	1138.77	81.02	89.29	98.47	103.52	0.0974	569	1194	1357
Eagle/ACSS	282	30	7	3.46	3.46	24.21	781.90	514.11	1296.01	109.05	118.26	132.09	138.67	0.0968	574	1208	1373
Eagle/ACSS	282	30	7	3.46	3.46	24.21	781.90	514.11	1296.01	109.05	118.26	132.09	138.67	0.0968	572	1208	1373
Peacock/ACSS	307	24	7	4.03	2.69	24.21	848.00	310.75	1158.75	73.73	80.89	88.84	93.22	0.0899	594	1253	1425
Peacock/ACSS	307	24	7	4.03	2.69	24.21	848.00	310.75	1158.75	73.73	80.89	88.84	93.22	0.0899	596	1254	1425
Squab/ACSS	307	26	7	3.87	3.01	24.54	848.00	389.08	1237.08	87.85	96.81	106.78	112.26	0.0896	598	1260	1434
Squab/ACSS	307	26	7	3.87	3.01	24.54	848.00	389.08	1237.08	87.85	96.81	106.78	112.26	0.0896	596	1260	1434
Teal/ACSS	307	30	19	3.61	2.16	25.25	850.00	544.92	1394.92	118.64	130.48	144.75	154.50	0.0892	601	1274	1451
Teal/ACSS	307	30	19	3.61	2.16	25.25	850.00	544.92	1394.92	118.64	130.48	144.75	154.50	0.0892	603	1275	1451
Wood Duck/ACSS	307	30	7	3.61	3.61	25.25	850.00	559.65	1409.65	116.56	126.59	141.28	148.44	0.0889	604	1277	1453
Wood Duck/ACSS	307	30	7	3.61	3.61	25.25	850.00	559.65	1409.65	116.56	126.59	141.28	148.44	0.0889	602	1277	1453
Rook/ACSS	322	24	7	4.14	2.76	24.82	891.40	327.13	1218.53	77.66	85.20	93.57	98.18	0.0856	611	1294	1472
Rook/ACSS	322	24	7	4.14	2.76	24.82	891.40	327.13	1218.53	77.66	85.20	93.57	98.18	0.0856	613	1295	1472
Grosbeak/ACSS	322	26	7	3.97	3.09	25.17	891.40	410.03	1301.43	92.55	99.90	110.93	116.18	0.0853	616	1302	1481
Grosbeak/ACSS	322	26	7	3.97	3.09	25.17	891.40	410.03	1301.43	92.55	99.90	110.93	116.18	0.0853	614	1302	1481
Egret/ACSS	322	30	19	3.70	2.22	25.88	893.60	575.61	1469.21	125.22	137.72	152.80	163.09	0.0846	620	1319	1501
Egret/ACSS	322	30	19	3.70	2.22	25.88	893.60	575.61	1469.21	125.22	137.72	152.80	163.09	0.0846	622	1320	1501
Scoter/ACSS	322	30	7	3.70	3.70	25.88	893.60	587.90	1481.50	122.45	132.98	148.41	155.94	0.0846	622	1319	1501
Scoter/ACSS	322	30	7	3.70	3.70	25.88	893.60	587.90	1481.50	122.45	132.98	148.41	155.94	0.0846	620	1319	1501
Flamingo/ACSS	338	24	7	4.23	2.82	25.40	934.40	341.51	1275.91	81.07	88.94	97.69	102.50	0.0817	628	1334	1518
Flamingo/ACSS	338	24	7	4.23	2.82	25.40	934.40	341.51	1275.91	81.07	88.94	97.69	102.50	0.0817	630	1335	1518
Gannet/ACSS	338	26	7	4.07	3.16	25.76	934.30	428.82	1363.12	96.89	104.58	116.11	121.60	0.0814	634	1342	1528
Gannet/ACSS	338	26	7	4.07	3.16	25.76	934.30	428.82	1363.12	96.89	104.58	116.11	121.60	0.0814	632	1342	1528
Stilt/ACSS	363	24	7	4.39	2.92	26.31	1002.90	366.16	1369.06	87.02	95.46	104.83	109.99	0.0761	656	1397	1591
Starling/ACSS	363	26	7	4.21	3.28	26.70	1002.90	462.01	1464.91	104.25	112.53	124.95	130.86	0.0758	661	1407	1602
Redwing/ACSS	363	30	19	3.92	2.35	27.46	1005.40	645.00	1650.40	137.05	151.89	168.37	177.43	0.0755	666	1422	1620

NOTE :  
current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmissivity, 0.80 absorptivity, 45°C ambient temperature, 1045 W/m<sup>2</sup> Solar radiation customized conductor sizes based on customer's requirements can also be designed.

### Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm <sup>2</sup> )	Stranding				Diameter of Complete Conductor (mm)	Weight			Rated Strength				DC Resistance @ 20°C (Ω/Km)	Current Capacity		
		No. of Wires		Wire diameter			Aluminum (Kg/Km)	Steel (Kg/Km)	Total (Kg/Km)	Regular Strength (KN)	High Strength (KN)	Extra High Strength (KN)	Ultra High Strength (KN)		@ 85°C (Ampere)	@ 200°C (Ampere)	@ 250°C (Ampere)
		Aluminum (No.)	Steel (No.)	Aluminum (mm)	Steel (mm)												
Cuckoo/ACSS	403	24	7	4.62	3.08	27.74	1114.30	407.38	1521.68	96.71	104.01	114.97	120.18	0.0686	700	1496	1705
Drake/ACSS	403	26	7	4.44	3.45	28.12	1114.30	511.14	1625.44	115.45	124.62	138.36	144.90	0.0686	702	1502	1713
Mallard/ACSS	403	30	19	4.14	2.48	28.93	1117.00	718.33	1835.33	152.67	169.19	187.55	197.64	0.0679	708	1524	1738
Macaw/ACSS	403	42	7	3.50	1.94	26.80	1114.30	161.62	1275.92	53.28	56.80	61.04	63.93	0.0692	680	1453	1655
Tern/ACSS	403	45	7	3.38	2.25	27.00	1114.30	217.40	1331.70	63.61	68.35	74.05	77.95	0.0689	685	1460	1663
Condor/ACSS	403	54	7	3.08	3.08	27.74	1114.30	407.38	1521.68	96.71	104.01	114.97	120.18	0.0686	690	1476	1682
Ruddy/ACSS	456	45	7	3.59	2.40	28.73	1261.50	247.36	1508.86	70.89	76.59	82.92	86.40	0.0610	736	1582	1804
Canary/ACSS	456	54	7	3.28	3.28	29.51	1261.50	462.01	1723.51	109.68	117.96	130.38	136.30	0.0604	744	1603	1829
Redbird/ACSS	483	24	7	5.06	3.38	30.38	1337.10	490.61	1827.71	116.36	125.15	138.34	144.62	0.0571	778	1685	1925
Canvasback/ACSS	483	30	19	4.53	2.72	31.70	1340.40	864.09	2204.49	183.52	203.39	225.47	237.62	0.0564	790	1720	1965
Rail/ACSS	483	45	7	3.70	2.47	29.59	1337.10	262.00	1599.10	75.16	81.20	87.91	91.60	0.0574	763	1645	1877
Towhee/ACSS	483	48	7	3.58	2.79	29.85	1337.10	334.28	1671.38	88.17	95.88	104.43	109.14	0.0574	764	1649	1883
Cardinal/ACSS	483	54	7	3.38	3.38	30.38	1337.30	490.61	1827.91	116.47	125.26	138.45	144.73	0.0571	769	1664	1899
Snowbird/ACSS	524	42	7	3.99	2.21	30.56	1448.60	209.74	1658.34	69.18	73.75	79.25	83.01	0.0531	797	1726	1972
Ortolan/ACSS	524	45	7	3.85	2.57	30.78	1448.60	283.64	1732.24	81.38	87.91	95.17	99.17	0.0531	796	1730	1977
Curlew/ACSS	524	54	7	3.51	3.51	31.62	1448.60	529.07	1977.67	125.60	135.08	149.31	156.08	0.0528	804	1751	2001
Bluejay/ACSS	564	45	7	4.00	2.66	31.95	1560.00	303.85	1863.85	87.42	94.42	102.20	106.48	0.0492	835	1819	2078
Finch/ACSS	564	54	19	3.65	2.19	32.82	1567.60	560.16	2127.76	136.32	148.49	163.16	173.18	0.0492	840	1835	2098
Bunting/ACSS	604	45	7	4.14	2.76	33.07	1671.50	327.13	1998.63	93.94	101.48	109.86	114.46	0.0459	869	1903	2176
Bittern/ACSS	645	45	7	4.27	2.85	34.16	1783.00	348.81	2131.81	100.08	108.12	117.05	121.96	0.0430	902	1984	2271
Pheasant/ACSS	645	54	19	3.90	2.34	35.08	1791.60	639.52	2431.12	152.37	167.08	183.42	192.41	0.0430	907	2003	2294
Dipper/ACSS	685	45	7	4.40	2.93	35.20	1893.70	368.67	2262.37	105.96	114.46	123.90	129.09	0.0407	930	2058	2357
Martin/ACSS	685	54	19	4.02	2.41	36.17	1902.90	678.35	2581.25	161.69	177.29	194.62	204.16	0.0404	942	2087	2390
Bobolink/ACSS	725	45	7	4.53	3.02	36.25	2005.70	391.67	2397.37	112.48	121.50	131.53	137.05	0.0384	964	2137	2450
Plover/ACSS	725	54	19	4.14	2.48	37.21	2015.60	718.33	2733.93	171.28	187.80	206.16	216.25	0.0384	970	2159	2474
Nuthatch/ACSS	765	45	7	4.65	3.10	37.21	2116.50	412.69	2529.19	118.51	125.91	137.01	142.29	0.0364	993	2212	2537
Parrot/ACSS	765	54	19	4.25	2.55	38.23	2126.90	759.46	2886.36	180.94	198.41	217.82	228.49	0.0361	1003	2243	2573
Ratite/ACSS	806	42	7	4.94	2.75	37.90	2228.70	324.76	2553.46	104.99	112.48	120.79	125.36	0.0344	1021	2286	2623
Lapwing/ACSS	806	45	7	4.78	3.18	38.20	2228.70	434.27	2662.97	124.90	132.69	144.36	149.92	0.0344	1025	2294	2631
Falcon/ACSS	806	54	19	4.36	2.62	39.22	2239.50	801.72	3041.22	190.87	209.31	229.80	241.06	0.0344	1033	2316	2658
Chukar/ACSS	902	84	19	3.70	2.22	40.67	2507.10	575.61	3082.71	158.66	171.17	186.24	196.54	0.0308	1107	2503	2875

NOTE :  
current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmissivity, 0.80 absorptivity, 45°C ambient temperature, 1045 W/m<sup>2</sup> Solar radiation customized conductor sizes based on customer's requirements can also be designed.

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Code Word	Size (mm <sup>2</sup> )	Stranding				Diameter of Complete Conductor	Weight			Rated Strength				DC Resistance @ 20°C	Current Capacity		
		No. of Wires		Wire diameter			Aluminum	Steel	Total	Regular Strength	High Strength	Extra High Strength	Ultra High Strength		@ 85°C (Ampere)	@ 200°C (Ampere)	@ 250°C (Ampere)
		Aluminum	Steel	Aluminum	Steel												
		(No.)	(No.)	(mm)	(mm)		(mm)	(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(KN)	(KN)	(Ω/Km)		
Mockingbird/ACSS	1031	72	7	4.27	2.85	42.70	2865.60	348.81	3214.41	122.35	130.39	139.32	144.23	0.0272	1177	2692	3099
Roadrunner/ACSS	1042	76	19	4.18	1.95	43.18	2897.30	444.11	3341.41	142.35	152.00	163.63	171.57	0.0269	1187	2718	3129
Bluebird/ACSS	1092	84	19	4.07	2.44	44.75	3036.70	695.35	3732.05	188.22	204.21	221.98	231.75	0.0256	1226	2819	3247
Kiwi/ACSS	1098	72	7	4.41	2.94	44.07	3052.20	371.19	3423.39	130.35	138.90	148.41	153.64	0.0256	1218	2798	3224
Thrasher/ACSS	1171	76	19	4.43	2.07	45.77	3256.40	500.45	3756.85	160.19	171.06	184.17	193.12	0.0240	1264	2923	3370
Joree/ACSS	1274	76	19	4.62	2.16	47.75	3542.40	544.92	4087.32	174.34	186.17	200.45	210.19	0.0220	1322	3086	3562

NOTE :  
current capacity based on referenced conductor temperature, 0.56 m/s wind, 0 m Elevation, 0.45 Emmissivity, 0.80 absorptivity, 45°C ambient temperature, 1045 W/m<sup>2</sup> Solar radiation customized conductor sizes based on customer's requirements can also be designed.