

Aluminium Conductor Steel Supported - (ACSS)

Construction

ACSS is a composite concentric-lay stranded conductor. Steel strands form the central core of the conductor with one or more layers of aluminium 1350-O wire stranded around it. The steel core carries most or all of the mechanical load of the conductor due to the "O" (fully annealed or soft) temper Aluminium. Steel core wires are protected from corrosion by galvanizing, Aluminum Cladding or mischmetal alloy coating. Corrosion protection should be selected to suit the environment to which the conductor will be exposed.



Values based on following Specifications:

- B500 Metallic Coated Stranded Steel Core For Aluminium Conductors, Steel Reinforced.
- B802 Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced
- B803 High-Strength Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced
- B958 Extra-High-Strength and Ultra-High-Strength Class A Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire
- B498 Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced
- B606 High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced
- B957 Extra-High-Strength and Ultra-High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Overhead Electrical Conductors
- B502 Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes.
- B856 Concentric-Lay-Stranded Aluminium Conductors, Coated Steel Supported (ACSS).
- B857 Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS/TW)

Available with Non-Specular (Dull) Surface Finish and Color Coated as per customized requirements.

Aluminium Conductor Steel Supported - (ACSS)

Applications

ACSS is used for overhead distribution and transmission lines. It is designed to operate continuously at elevated temperatures up to 250°C without loss of strength; it sags less under emergency electrical loadings than ACSR; it is self-damping if prestretched during installation; and its final sags are not affected by long term creep of Aluminium. The advantages make ACSS especially useful in reconductoring applications requiring increased current with existing tensions and clearances, new line applications where structures can be economized because of reduced conductor sag, new line applications requiring high emergency loadings, and lines where aeolian vibration is a problem.

Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm ²)	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	Steel	Aluminum	Steel												
		(No.)	(No.)	(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	365	740	836
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	365	740	836
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	368	748	846
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	368	748	846
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	391	798	903
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	391	798	903
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	420	860	974
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	420	860	974
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	423	870	986
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	423	870	986
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	462	953	1080
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	462	953	1080
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	464	958	1086
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	464	958	1086
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	468	970	1101
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	468	970	1101
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	515	1072	1217
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	515	1072	1217
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	518	1080	1227
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	518	1080	1227

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/m² Solar radiation
Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm ²)	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	Steel	Aluminum	Steel												
		(No.)	(No.)	(mm)	(mm)												
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	523	1093	1242
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	523	1093	1242
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	565	1187	1349
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	565	1187	1349
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	568	1194	1358
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	568	1194	1358
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	573	1209	1374
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	573	1209	1374
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	595	1254	1426
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	595	1254	1426
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	597	1261	1435
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	597	1261	1435
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	602	1275	1452
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	602	1275	1452
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	603	1278	1454
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	603	1278	1454
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	612	1295	1473
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	612	1295	1473
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	615	1303	1482
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	615	1303	1482
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	621	1320	1502
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	621	1320	1502
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	621	1320	1502
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	621	1320	1502
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	629	1335	1519
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	629	1335	1519
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	633	1343	1529
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	633	1343	1529
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	657	1398	1592
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	660	1407	1603
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	665	1423	1621

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/m² Solar radiation
Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm ²)	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	Steel	Aluminum	Steel												
		(No.)	(No.)	(mm)	(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	699	1496	1706
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	701	1503	1714
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	709	1525	1739
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	681	1454	1656
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	684	1460	1664
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	689	1477	1683
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	735	1582	1805
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	743	1604	1830
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	779	1686	1926
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	791	1721	1966
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	762	1645	1878
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	763	1650	1884
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	768	1664	1900
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	796	1727	1973
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	797	1731	1978
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	805	1752	2002
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	834	1819	2079
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	839	1836	2099
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	868	1903	2177
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	901	1985	2272
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	908	2004	2295
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	931	2059	2358
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	941	2087	2391
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	963	2138	2451
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	969	2159	2475
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	992	2213	2538
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	1004	2244	2574
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	1022	2287	2624
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	1024	2294	2632
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	1032	2317	2659
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	1106	2503	2876

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/m² Solar radiation
Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS)

Code Word	Size (mm ²)	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	@ 200°C	@ 250°C
		Aluminum (No.)	Steel (No.)	Aluminum (mm)	Steel (mm)									(Ampere)	(Ampere)	(Ampere)	
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	1178	2693	3100
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	1188	2719	3130
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	1225	2819	3248
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	1217	2799	3225
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	1263	2923	3371
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	1321	3086	3563

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/m² Solar radiation
Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS/AW)

Code Word	Size (mm ²)	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)		@ 85°C	@ 200°C	@ 250°C
		Aluminum	Steel	Aluminum	Steel								(Ampere)	(Ampere)	(Ampere)
		(No.)	(No.)	(mm)	(mm)		(Ampere)	(Ampere)	(Ampere)						
Junco/ACSS/AW	135	30	7	2.40	2.40	16.76	375.00	209.52	584.52	68.80	57.85	0.1932	376	764.78	865
Ostrich/ACSS/AW	152	26	7	2.73	2.12	17.27	421.10	163.49	584.59	111.26	48.80	0.1752	398	810.35	917
Linnet/ACSS/AW	170	26	7	2.89	2.25	18.29	471.70	184.15	655.85	60.66	54.91	0.1562	426	873.21	989
Oriole/ACSS/AW	170	30	7	2.69	2.69	18.82	473.20	263.22	736.42	71.10	72.68	0.1532	433	889.45	1008
Brant/ACSS/AW	201	24	7	3.27	2.18	19.61	556.60	172.87	729.47	128.74	53.94	0.1335	468	964.64	1094
Ibis/ACSS/AW	201	26	7	3.14	2.44	19.89	556.60	216.56	773.16	182.35	63.31	0.1322	471	973.61	1104
Lark/ACSS/AW	201	30	7	2.92	2.92	20.47	558.10	310.15	868.25	83.93	85.64	0.1296	479	992.07	1125
Flicker/ACSS/AW	242	24	7	3.58	2.39	21.49	668.20	207.78	875.98	50.38	63.53	0.1112	522	1086.80	1234
Hawk/ACSS/AW	242	26	7	3.44	2.67	21.79	668.20	259.32	927.52	63.29	75.84	0.1102	526	1096.44	1245
Hen/ACSS/AW	242	30	7	3.20	3.20	22.43	669.70	372.48	1042.18	98.33	100.88	0.1079	535	1118.09	1270
Parakeet/ACSS/AW	282	24	7	3.87	2.58	23.22	779.80	242.13	1021.93	184.11	74.08	0.0955	572	1200.80	1365
Dove/ACSS/AW	282	26	7	3.72	2.89	23.55	779.80	303.81	1083.61	74.57	88.83	0.0945	577	1212.50	1378
Eagle/ACSS/AW	282	30	7	3.46	3.46	24.21	781.30	435.47	1216.77	116.46	117.94	0.0925	586	1236.23	1406
Peacock/ACSS/AW	307	24	7	4.03	2.69	24.21	848.30	263.22	1111.52	176.23	80.49	0.0876	602	1269.89	1444
Squab/ACSS/AW	307	26	7	3.87	3.01	24.54	848.30	329.56	1177.86	109.17	96.32	0.0869	606	1280.48	1457
Teal/ACSS/AW	307	30	19	3.61	2.16	25.25	849.70	461.57	1311.27	166.96	130.48	0.0853	616	1304.13	1484
Wood Duck/ACSS/AW	307	30	7	3.61	3.61	25.25	849.70	474.05	1323.75	111.98	126.23	0.0853	616	1304.13	1484
Rook/ACSS/AW	322	24	7	4.14	2.76	24.82	891.40	277.09	1168.49	91.18	84.78	0.0837	619	1309.09	1490
Grosbeak/ACSS/AW	322	26	7	3.97	3.09	25.17	891.40	347.32	1238.72	115.03	99.64	0.0827	625	1322.85	1506
Egret/ACSS/AW	322	30	19	3.70	2.22	25.88	892.90	487.57	1380.47	150.87	137.72	0.0810	635	1348.50	1535
Scoter/ACSS/AW	322	30	7	3.70	3.70	25.88	892.90	497.98	1390.88	1241.00	132.61	0.0810	635	1348.50	1535
Flamingo/ACSS/AW	338	24	7	4.23	2.82	25.40	934.60	289.27	1223.87	97.14	88.51	0.0797	637	1351.06	1538
Gannet/ACSS/AW	338	26	7	4.07	3.16	25.76	934.60	363.23	1297.83	121.23	104.30	0.0787	643	1365.72	1555
Stilt/ACSS/AW	363	24	7	4.39	2.92	26.31	1003.00	310.15	1313.15	102.85	94.99	0.0741	665	1416.38	1613
Starling/ACSS/AW	363	26	7	4.21	3.28	26.70	1003.00	391.34	1394.34	103.77	112.23	0.0735	670	1428.88	1628
Redwing/ACSS/AW	363	30	19	3.92	2.35	27.46	1006.00	546.34	1552.34	56.12	151.06	0.0722	680	1454.70	1658
Cuckoo/ACSS/AW	403	24	7	4.62	3.08	27.74	1114.60	345.07	1459.67	93.27	103.75	0.0669	707	1515.06	1727
Drake/ACSS/AW	403	26	7	4.44	3.45	28.12	1114.60	432.96	1547.56	102.47	124.29	0.0663	713	1528.64	1743
Mallard/ACSS/AW	403	30	19	4.14	2.48	28.93	1117.60	608.46	1726.06	165.22	168.27	0.0650	724	1558.07	1777
Macaw/ACSS/AW	403	42	7	3.50	1.94	26.80	1114.60	136.90	1251.50	136.34	56.80	0.0686	684	1459.98	1664
Tern/ACSS/AW	403	45	7	3.38	2.25	27.00	1114.60	184.15	1298.75	138.07	68.35	0.0682	687	1467.85	1673

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/m² Solar radiation
 Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS/AW)

Code Word	Size (mm ²)	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)		@ 85°C	@ 200°C	@ 250°C
		Aluminum	Steel	Aluminum	Steel								(Ampere)	(Ampere)	(Ampere)
		(No.)	(No.)	(mm)	(mm)		(Ampere)	(Ampere)	(Ampere)						
Condor/ACSS/AW	403	54	7	3.08	3.08	27.74	1114.60	345.07	1459.67	89.09	103.75	0.0669	698	1495.14	1704
Ruddy/ACSS/AW	456	45	7	3.59	2.40	28.73	1262.00	209.52	1471.52	155.97	76.27	0.0600	741	1594.81	1819
Canary/ACSS/AW	456	54	7	3.28	3.28	29.51	1262.00	391.34	1653.34	110.19	117.66	0.0591	751	1621.22	1850
Canvasback/ACSS/AW	483	30	19	4.53	2.72	31.70	1340.80	731.92	2072.72	74.90	202.29	0.0541	807	1756.82	2007
Rail/ACSS/AW	483	45	7	3.70	2.47	29.59	1337.90	221.92	1559.82	146.61	80.87	0.0568	766	1653.91	1888
Towhee/ACSS/AW	483	48	7	3.58	2.79	29.85	1337.90	283.15	1621.05	78.19	95.45	0.0564	770	1664.62	1900
Cardinal/ACSS/AW	483	54	7	3.38	3.38	30.38	1337.90	415.57	1753.47	108.91	124.95	0.0558	777	1683.40	1922
Snowbird/ACSS/AW	524	42	7	3.99	2.21	30.56	1448.00	177.66	1625.66	117.42	73.75	0.0528	798	1731.75	1978
Curlew/ACSS/AW	524	54	7	3.51	3.51	31.62	1448.00	448.15	1896.15	109.04	134.75	0.0515	815	1773.83	2027
Bluejay/ACSS/AW	564	45	7	4.00	2.66	31.95	1559.60	257.38	1816.98	66.59	94.03	0.0486	839	1829.98	2092
Finch/ACSS/AW	564	54	19	3.65	2.19	32.82	1567.00	474.48	2041.48	66.34	148.49	0.0479	850	1860.33	2127
Bunting/ACSS/AW	604	45	7	4.14	2.76	33.07	1671.20	277.09	1948.29	85.35	101.06	0.0453	874	1915.19	2191
Grackle/ACSS/AW	604	54	19	3.77	2.27	33.96	1680.10	509.78	2189.88	146.98	159.29	0.0449	883	1941.60	2222
Bittern/ACSS/AW	645	45	7	4.27	2.85	34.16	1782.80	295.46	2078.26	119.41	107.67	0.0427	904	1991.98	2280
Pheasant/ACSS/AW	645	54	19	3.90	2.34	35.08	1791.70	541.70	2333.40	131.61	166.26	0.0420	918	2027.31	2321
Dipper/ACSS/AW	685	45	7	4.40	2.93	35.20	1892.90	312.28	2205.18	127.21	113.99	0.0400	939	2076.41	2378
Martin/ACSS/AW	685	54	19	4.02	2.41	36.17	1903.40	574.60	2478.00	55.59	176.42	0.0394	952	2112.47	2420
Bobolink/ACSS/AW	725	45	7	4.53	3.02	36.25	2006.00	331.76	2337.76	93.27	121.00	0.0377	971	2157.46	2473
Plover/ACSS/AW	725	54	19	4.14	2.48	37.21	2015.00	608.46	2623.46	174.54	186.88	0.0374	982	2186.85	2507
Nuthatch/ACSS/AW	765	45	7	4.65	3.10	37.21	2116.20	349.57	2465.77	93.27	125.65	0.0358	1000	2231.02	2559
Parrot/ACSS/AW	765	54	19	4.25	2.55	38.23	2126.60	643.29	2769.89	65.45	197.44	0.0354	1013	2265.98	2599
Lapwing/ACSS/AW	806	45	7	4.78	3.18	38.20	2229.30	367.84	2597.14	89.56	132.41	0.0341	1028	2303.61	2643
Falcon/ACSS/AW	806	54	19	4.36	2.62	39.22	2239.70	679.09	2918.79	84.85	208.29	0.0335	1045	2346.97	2694
Chukar/ACSS/AW	902	84	19	3.70	2.22	40.67	2507.50	487.57	2995.07	47.23	171.17	0.0305	1111	2514.36	2889
Mockingbird/ACSS/AW	1031	72	7	4.27	2.85	42.70	2866.20	295.46	3161.66	77.99	129.94	0.0269	1184	2706.90	3116
Roadrunner/ACSS/AW	1042	76	19	4.18	1.95	43.18	2897.40	376.18	3273.58	153.41	152.00	0.0266	1194	2733.06	3147
Bluebird/ACSS/AW	1092	84	19	4.07	2.44	44.75	3037.30	588.99	3626.29	72.95	203.32	0.0253	1232	2835.17	3266
Kiwi/ACSS/AW	1098	72	7	4.41	2.94	44.07	3052.20	314.41	3366.61	84.56	138.43	0.0253	1224	2814.70	3243
Thrasher/ACSS/AW	1171	76	19	4.43	2.07	45.77	3256.10	423.91	3680.01	41.98	171.06	0.0236	1272	2946.01	3398
Joree/ACSS/AW	1274	76	19	4.62	2.16	47.75	3541.80	461.57	4003.37	46.73	186.17	0.0217	1329	3105.07	3586

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/m² Solar radiation
 Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS/TW)

Code Word	Size (mm ²)	Cross-Sectional Area			Stranding				Diameter of Complete Conductor (mm)	Weight			Rated Strength				DC Resistance @ 20°C (Ω/Km)	Current Capacity		
		Aluminum (mm ²)	Steel (mm ²)	Total (mm ²)	No. of AL. Wires (No.)	No. of AL. Layers (No.)	No. of Steel Wires (mm)	Dia. of Steel Wires (mm)		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	@ 200°C	@ 250°C
																		(Ampere)	(Ampere)	(Ampere)
Tern/ACSS/TW	403	402.84	28.08	430.92	17	2	7	2.26	24.38	1110.00	219.34	1329.34	63.92	68.69	74.45	78.38	0.06860	680	1437	1635
Cheyenne/ ACSS/ TW	592	591.93	30.62	622.55	30	2	7	2.36	29.34	1637.60	239.18	1876.78	77.27	82.78	88.91	92.27	0.04690	850	1837	2097
Flicker/ACSS/TW	242	241.74	31.40	273.14	18	2	7	2.39	19.71	667.30	245.30	912.60	58.20	63.86	70.14	73.59	0.11420	506	1044	1184
Catawba/ACSS/TW	645	644.58	33.27	677.85	30	2	7	2.46	30.56	1782.80	259.88	2042.68	84.04	90.03	96.68	100.34	0.04330	890	1935	2211
Parakeet/ACSS/TW	282	282.00	36.60	318.60	18	2	7	2.58	21.21	778.60	285.85	1064.45	67.84	74.43	81.75	85.77	0.09740	556	1156	1313
Mohawk/ACSS/TW	290	289.68	37.74	327.42	18	2	7	2.62	21.49	799.60	294.78	1094.38	69.90	76.69	84.24	88.39	0.09480	565	1177	1336
Hawk/ACSS/TW	242	241.68	39.49	281.17	18	2	7	2.68	20.04	667.70	308.44	976.14	69.60	76.71	84.60	88.95	0.11350	509	1053	1194
Rook/ACSS/TW	322	322.26	41.88	364.14	20	2	7	2.76	22.61	889.80	327.13	1216.93	77.61	85.15	93.53	98.13	0.08530	602	1260	1432
Puffin/ACSS/TW	403	402.84	43.72	446.56	18	2	7	2.82	24.89	1111.50	341.51	1453.01	84.85	92.72	101.46	106.27	0.06860	684	1447	1646
Mystic/ACSS/TW	338	337.81	43.72	381.53	20	2	7	2.82	23.19	932.50	341.51	1274.01	81.10	88.97	97.72	102.53	0.08140	619	1300	1477
Dove/ACSS/TW	282	282.00	46.24	328.24	20	2	7	2.90	21.64	779.10	361.16	1140.26	81.44	89.76	99.01	104.09	0.09710	559	1165	1323
Calumet/ACSS/TW	286	286.39	46.88	333.27	20	2	7	2.92	21.84	790.50	366.16	1156.66	82.59	91.03	100.40	105.56	0.09580	564	1177	1336
Maumee/ACSS/TW	389	389.29	50.81	440.10	20	2	7	3.04	24.82	1074.60	396.87	1471.47	94.06	103.21	113.37	118.96	0.07050	674	1426	1623
Grosbeak/ACSS/TW	322	322.26	52.49	374.75	20	2	7	3.09	23.06	890.50	410.03	1300.53	92.58	99.93	110.95	116.20	0.08500	605	1270	1443
Condor/ACSS/TW	403	402.84	52.49	455.33	20	2	7	3.09	25.22	1112.00	410.03	1522.03	97.22	104.57	115.59	120.84	0.06820	688	1457	1658
Oswego/ACSS/TW	337	336.84	54.90	391.74	20	2	7	3.16	23.55	930.70	428.82	1359.52	96.81	104.50	116.02	121.51	0.08140	621	1306	1485
Cardinal/ACSS/TW	483	483.42	62.81	546.23	20	2	7	3.38	27.53	1335.30	490.61	1825.91	116.41	125.20	138.39	144.67	0.05680	766	1640	1869
Wabash/ACSS/TW	387	386.58	63.18	449.76	20	2	7	3.39	25.15	1067.00	493.52	1560.52	111.35	120.20	133.47	139.78	0.07090	674	1428	1625
Columbia/ACSS/TW	490	489.61	63.55	553.16	21	2	7	3.40	27.74	1351.20	496.43	1847.63	117.81	126.71	140.06	146.41	0.05840	757	1621	1848
Drake/ACSS/TW	403	402.84	65.82	468.66	20	2	7	3.46	25.65	1112.80	514.11	1626.91	116.01	125.22	139.04	145.62	0.06790	692	1468	1671
Curlew/ACSS/TW	524	523.68	68.12	591.80	20	2	7	3.52	28.68	1445.20	532.09	1977.29	126.21	135.75	150.06	156.87	0.05250	803	1727	1970
Suwannee/ACSS/TW	486	486.26	79.39	565.65	22	2	7	3.80	28.14	1343.80	620.11	1963.91	137.56	148.68	164.95	172.89	0.05640	772	1657	1890
Phoenix/ACSS/TW	483	483.42	24.94	508.36	30	3	7	2.13	26.52	1341.70	194.83	1536.53	64.01	68.25	73.37	76.86	0.05770	743	1586	1807
Snowbird/ACSS/TW	524	523.68	27.10	550.78	30	3	7	2.22	27.66	1449.20	211.65	1660.85	69.45	74.06	79.61	83.41	0.05310	781	1674	1909
Avocet/ACSS/TW	564	564.00	29.08	593.08	30	3	7	2.30	28.68	1560.90	227.17	1788.07	73.49	78.73	84.55	87.74	0.04920	816	1758	2006
Oxbird/ACSS/TW	604	604.26	31.14	635.40	30	3	7	2.38	29.64	1671.20	243.25	1914.45	78.72	84.32	90.55	93.97	0.04590	849	1838	2099
Scissortail/ACSS/TW	645	644.58	33.27	677.85	30	3	7	2.46	30.56	1782.80	259.88	2042.68	84.04	90.03	96.68	100.34	0.04330	879	1909	2182
Rail/ACSS/TW	483	483.42	33.54	516.96	32	3	7	2.47	26.95	1339.30	262.00	1601.30	75.14	81.18	87.88	91.57	0.05740	748	1598	1821
Kettle/ACSS/TW	485	485.03	33.81	518.84	32	3	7	2.48	26.92	1343.50	264.12	1607.62	75.62	81.70	88.46	92.18	0.05740	748	1597	1821
Truckee/ACSS/TW	695	695.48	36.03	731.51	30	3	7	2.56	31.70	1924.80	281.44	2206.24	90.86	97.35	104.55	108.52	0.04000	920	2008	2296
Ortolan/ACSS/TW	524	523.68	36.31	559.99	32	3	7	2.57	27.99	1451.30	283.64	1734.94	81.36	87.90	95.16	99.16	0.05310	783	1681	1917
St. Croix/ACSS/TW	744	743.80	38.61	782.41	33	3	7	2.65	32.82	2058.10	301.57	2359.67	97.28	104.23	111.95	116.20	0.03740	956	2098	2401
Bluejay/ACSS/TW	564	564.00	39.19	603.19	33	3	7	2.67	29.03	1565.80	306.14	1871.94	87.75	94.80	102.64	106.95	0.04920	818	1765	2014
Platte/ACSS/TW	795	795.03	40.97	836.00	33	3	7	2.73	33.88	2199.50	320.06	2519.56	103.57	110.94	119.14	123.65	0.03510	991	2186	2503
Genesee/ACSS/TW	587	586.77	41.28	628.05	33	3	7	2.74	29.59	1625.10	322.41	1947.51	92.00	99.43	107.68	112.22	0.04720	838	1812	2069

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/m² Solar radiation
 Customized conductor sizes based on customer's requirement can also be designed.

Aluminium Conductor Steel Supported - (ACSS/TW)

Code Word	Size (mm ²)	Cross-Sectional Area			Stranding				Diameter of Complete Conductor (mm)	Weight			Rated Strength				DC Resistance @ 20°C (Ω/Km)	Current Capacity		
		Aluminum	Steel	Total	No. of AL. Wires	No. of AL. Layers	No. of Steel Wires	Dia. of Steel Wires		Aluminum	Steel	Total	Regular Strength	High Strength	Extra High Strength	Ultra High Strength		@ 85°C	@ 200°C	@ 250°C
		(mm ²)	(mm ²)	(mm ²)	(No.)	(No.)	(mm)	(mm)		(Kg/Km)	(Kg/Km)	(Kg/Km)	(KN)	(KN)	(KN)	(KN)		(Ampere)	(Ampere)	(Ampere)
Bunting/ACSS/TW	604	604.26	41.88	646.14	33	3	7	2.76	30.00	1672.70	327.13	1999.83	93.86	101.39	109.77	114.38	0.04590	852	1845	2108
Nelson/ACSS/TW	637	637.03	44.34	681.37	35	3	7	2.84	30.81	1764.50	346.37	2110.87	99.22	107.20	116.07	120.94	0.04360	878	1909	2181
Bittern/ACSS/TW	645	644.51	44.66	689.17	35	3	7	2.85	30.99	1784.30	348.81	2133.11	100.09	108.13	117.06	121.97	0.04300	885	1925	2200
Dipper/ACSS/TW	685	684.84	47.52	732.36	35	3	7	2.94	31.90	1895.90	371.19	2267.09	106.45	115.00	124.51	129.74	0.04070	914	1996	2282
Fraser/ACSS/TW	480	479.74	47.52	527.26	35	3	7	2.94	27.36	1330.40	371.19	1701.59	94.64	103.19	112.70	117.92	0.05770	749	1602	1826
Mackenzie/ACSS/TW	689	688.97	47.84	736.81	36	3	7	2.95	31.98	1904.80	373.72	2278.52	107.15	115.76	125.33	130.59	0.04040	918	2005	2293
Bobolink/ACSS/TW	725	724.90	50.47	775.37	36	3	7	3.03	32.79	2009.00	394.26	2403.26	112.92	122.01	132.10	137.66	0.03840	945	2072	2370
Miramichi/ACSS/TW	737	737.42	51.14	788.56	36	3	7	3.05	33.07	2041.80	399.49	2441.29	114.59	121.75	132.49	137.60	0.03770	955	2096	2398
Potomac/ACSS/TW	789	789.16	54.90	844.06	36	3	7	3.16	34.16	2184.60	428.82	2613.42	122.86	130.55	142.08	147.57	0.03510	994	2193	2511
Lapwing/ACSS/TW	806	805.68	55.95	861.63	36	3	7	3.19	34.49	2230.80	437.00	2667.80	125.29	133.12	144.87	150.47	0.03440	1005	2221	2544
Schuykill/ACSS/TW	840	840.00	58.07	898.07	36	3	7	3.25	35.20	2326.00	453.60	2779.60	130.26	138.39	150.59	156.40	0.03310	1028	2278	2610
Pee Dee/ACSS/TW	891	890.97	62.07	953.04	37	3	7	3.36	36.25	2467.40	484.82	2952.22	138.84	147.53	160.56	166.77	0.03120	1063	2366	2713
Athabaska/ACSS/TW	988	987.87	68.90	1056.77	42	3	7	3.54	38.20	2735.20	538.16	3273.36	154.04	163.69	178.16	185.05	0.02820	1125	2526	2900
Hudson/ACSS/TW	587	586.97	76.49	663.46	26	3	7	3.73	30.38	1620.60	597.48	2218.08	139.37	150.07	165.76	173.40	0.04690	847	1835	2096
Finch/ACSS/TW	564	564.00	71.57	635.57	38	3	19	2.19	30.10	1566.40	560.16	2126.56	136.26	148.43	163.10	173.12	0.04890	828	1792	2046
Chukar/ACSS/TW	902	902.32	73.54	975.86	37	3	19	2.22	36.70	2494.20	575.61	3069.81	158.61	171.12	186.19	196.49	0.03080	1072	2391	2743
Grackle/ACSS/TW	604	604.26	76.89	681.15	38	3	19	2.27	31.12	1677.20	601.83	2279.03	146.30	159.37	175.14	185.90	0.04590	860	1869	2135
Yukon/ACSS/TW	625	625.10	80.32	705.42	38	3	19	2.32	31.62	1735.90	628.63	2364.53	149.26	163.71	179.78	188.61	0.04430	877	1911	2184
Pheasant/ACSS/TW	645	644.51	81.71	726.22	39	3	19	2.34	32.11	1788.80	639.52	2428.32	152.34	167.04	183.39	192.37	0.04300	893	1949	2228
Thames/ACSS/TW	676	676.13	85.95	762.08	39	3	19	2.40	32.77	1877.50	672.74	2550.24	160.14	175.61	192.80	202.26	0.04100	917	2008	2297
Martin/ACSS/TW	685	684.84	87.39	772.23	39	3	19	2.42	33.02	1901.90	683.99	2585.89	162.67	178.40	195.88	205.49	0.04040	925	2028	2319
Plover/ACSS/TW	725	725.10	92.52	817.62	37	3	19	2.49	33.96	2013.50	724.14	2737.64	172.22	188.88	207.38	217.56	0.03810	957	2106	2410
Merrimack/ACSS/TW	726	725.81	92.52	818.33	39	3	19	2.49	34.04	2017.90	724.14	2742.04	172.26	188.92	207.42	217.60	0.03810	957	2107	2412
Rio Grande/ACSS/TW	777	776.97	99.33	876.30	39	3	19	2.58	35.10	2156.30	777.43	2933.73	184.81	202.69	222.56	233.48	0.03580	992	2194	2513
Falcon/ACSS/TW	806	805.68	102.43	908.11	42	3	19	2.62	35.76	2236.70	801.72	3038.42	190.84	209.28	229.77	241.03	0.03440	1015	2250	2578
Pecos/ACSS/TW	822	821.87	109.59	931.46	39	3	19	2.71	36.17	2281.30	857.75	3139.05	201.87	221.59	243.51	255.57	0.03350	1031	2288	2623
James/ACSS/TW	877	876.77	112.03	988.80	34	3	19	2.74	37.34	2434.60	876.85	3311.45	208.47	228.63	251.04	263.36	0.03150	1067	2382	2732
Cumberland/ACSS/TW	976	976.39	123.77	1100.16	42	3	19	2.88	39.24	2709.90	968.74	3678.64	230.76	253.04	277.80	291.41	0.03510	1023	2296	2635
Bluebird/ACSS/TW	1092	705.42	89.57	794.99	64	4	19	2.45	40.84	3046.30	701.06	3747.36	166.93	183.05	200.97	210.82	0.25590	391	878	1007
Powder/ACSS/TW	1091	1091.09	89.57	1180.66	64	4	19	2.45	40.69	3021.00	701.06	3722.06	189.14	205.27	223.18	233.04	0.02560	1206	2736	3146
Santee/ACSS/TW	1331	1330.97	108.79	1439.76	64	4	19	2.70	44.75	3686.20	851.43	4537.63	230.05	249.63	271.39	283.36	0.02100	1340	3096	3571

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/m² Solar radiation
 Customized conductor sizes based on customer's requirement can also be designed.