

ALL ALUMINUM CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP)

All Aluminium Conductors Steel reinforced, Twisted Pair (ACSR/TP): These conductors are composed of two identical bare ACSR conductors twisted together with a left-hand lay. This gives the conductor a spiral shape which allows the conductor to protect against the effect of aeolian vibration and ice galloping to which many transmission and distribution projects are exposed.

Construction

ACSR/TP consists of two ACSR conductors with long lay lengths twisted around each other.



Features:

- Resist Aeolian vibration and galloping due to wind and ice
- Twisted shape offers low torsional stiffness.
- ACSR/TP conductors permit higher line tensions, which help reduce line costs by permitting lower sag and/or longer spans

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

ALL ALUMINUM CONDUCTOR STEEL REINFORCED, TWISTED PAIR CONDUCTOR (ACSR/TP) - ASTM B 911

Code Name	Conductor size	Sectional Area (mm ²)	Stranding		Outer Dimensions		Equivalent Diameter (mm)	Weight			Rated Strength KN	DC Resistance @ 20°C (Ω/Km)	Current Capacity		
			Aluminium	Steel	Minor	Major		Aluminum	Steel	Total			@ 75°C (Ampere)	@ 85°C (Ampere)	
	(AWG or kcmil)		(No.x mm)	(No.x mm)	(mm)		(Kg/Km)	(Kg/Km)	(Kg/Km)						
Swan / TP	1	49.34	6 x 2.118	1 x 2.118	6.350	x	12.700	10.389	116.30	54.82	171.12	16.46	0.6614	152	183
Swanate / TP	1	53.01	7 x 1.961	1 x 2.614	6.528	x	13.056	10.680	87.62	83.50	171.12	21.00	0.6542	154	186
Swallow / TP	1/0	62.28	6 x 2.380	1 x 2.380	7.137	x	14.275	11.676	146.54	69.22	215.76	20.46	0.5253	175	211
Sparrow / TP	2/0	78.51	6 x 2.672	1 x 2.672	8.026	x	16.053	13.131	183.57	87.25	270.82	25.18	0.4157	200	244
Sparate / TP	2/0	84.40	7 x 2.474	1 x 3.299	8.255	x	16.510	13.505	183.94	133.00	316.94	32.29	0.4111	202	246
Robin / TP	3/0	98.94	6 x 3.000	1 x 3.000	8.992	x	17.983	14.711	232.25	109.99	342.24	31.67	0.3297	229	280
Raven / TP	4/0	124.92	6 x 3.371	1 x 3.371	10.109	x	20.218	16.538	292.65	138.87	431.52	38.97	0.2612	263	323
Quail / TP	266.2	157.28	6 x 3.782	1 x 3.782	11.354	x	22.708	18.575	325.17	174.80	499.97	47.15	0.2077	300	371
Pigeon / TP	335.6	198.32	6 x 4.247	1 x 4.247	12.751	x	25.502	20.861	465.54	220.43	685.97	58.72	0.1647	343	426
Penguin / TP	423.2	250.19	6 x 4.770	1 x 4.770	14.300	x	28.600	23.395	587.96	278.06	866.02	74.29	0.1306	391	490
Jaeger / TP	456.4	244.13	18 x 2.860	1 x 2.860	14.300	x	28.600	23.395	636.60	99.96	736.56	53.82	0.1234	403	504
Waxwing / TP	533.6	285.18	18 x 3.091	1 x 3.091	15.469	x	30.937	25.307	744.79	116.76	861.55	60.94	0.1056	440	553
Spoonbill / TP	533.6	296.83	22 x 2.797	7 x 1.554	15.850	x	31.699	25.931	747.89	207.41	955.30	77.40	0.1053	442	557
Scaup / TP	533.6	305.26	24 x 2.677	7 x 1.786	16.078	x	32.156	26.304	748.29	273.97	1022.26	88.96	0.1050	443	559
Partridge / TP	533.6	314.43	26 x 2.573	7 x 2.002	16.307	x	32.614	26.678	747.95	344.24	1092.19	100.53	0.1047	445	562
Junco / TP	533.6	333.44	30 x 2.395	7 x 2.395	16.764	x	33.528	27.426	749.82	492.66	1242.48	123.66	0.1037	449	568
Ostrich / TP	600	353.39	26 x 2.728	7 x 2.121	17.272	x	34.544	28.257	841.22	386.38	1227.60	112.99	0.0929	475	603
Merlin / TP	672.8	359.81	18 x 3.472	1 x 3.472	17.348	x	34.696	28.381	938.92	147.32	1086.24	77.40	0.0837	501	635
Trogon / TP	672.8	364.49	20 x 3.294	7 x 1.463	17.577	x	35.154	28.756	942.59	183.83	1126.42	84.52	0.0840	501	636
Woodcock / TP	672.8	374.64	22 x 3.142	7 x 1.745	17.805	x	35.611	29.129	942.26	261.53	1203.79	96.97	0.0837	502	639
Widgeon / TP	672.8	385.12	24 x 3.007	7 x 2.004	18.034	x	36.068	29.504	943.68	344.93	1288.61	111.21	0.0833	504	642
Linnet / TP	672.8	396.07	26 x 2.888	7 x 2.245	18.288	x	36.576	29.919	943.52	432.88	1376.40	125.44	0.0830	506	645
Oriole / TP	672.8	420.52	30 x 2.690	7 x 2.690	18.821	x	37.643	30.791	945.37	621.49	1566.86	153.91	0.0824	510	651
Chickadee / TP	795	425.19	18 x 3.774	1 x 3.774	18.872	x	37.744	30.875	1108.60	174.06	1282.66	88.52	0.0709	549	701
Ptarmigan / TP	795	430.84	20 x 3.581	7 x 1.593	19.101	x	38.202	31.249	1113.81	217.95	1331.76	98.75	0.0709	550	703
Stork / TP	795	442.31	22 x 3.414	7 x 1.897	19.355	x	38.710	31.665	1113.45	309.08	1422.53	114.76	0.0709	551	705
Brant / TP	795	455.09	24 x 3.269	7 x 2.179	19.609	x	39.218	32.080	1114.42	407.80	1522.22	129.89	0.0705	553	709
Ibis / TP	795	468.04	26 x 3.139	7 x 2.441	19.888	x	39.776	32.537	1114.62	511.76	1626.38	145.01	0.0702	555	712
Lark / TP	795	496.75	30 x 2.924	7 x 2.924	20.472	x	40.945	33.492	1116.75	734.32	1851.07	180.60	0.0696	559	719
Pelican / TP	954	510.33	18 x 4.135	1 x 4.135	20.676	x	41.351	33.826	1331.13	208.95	1540.08	104.98	0.0591	606	780
Tailorbird / TP	954	516.57	20 x 3.922	7 x 1.742	20.904	x	41.808	34.199	1337.48	260.63	1598.11	116.54	0.0591	606	781

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.

Code Name	Conductor size	Sectional Area (mm ²)	Stranding		Outer Dimensions		Equivalent Diameter (mm)	Weight			Rated Strength KN	DC Resistance @ 20°C (Ω/Km)	Current Capacity		
			Aluminium (No.x mm)	Steel (No.x mm)	Minor	x		Major (mm)	Aluminum (Kg/Km)	Steel (Kg/Km)			Total (Kg/Km)	@ 75°C (Ampere)	@ 85°C (Ampere)
	(AWG or kcmil)														
Toucan / TP	954	530.56	22 x 3.739	7 x 2.078	21.184	x	42.367	34.657	1337.35	370.87	1708.22	135.23	0.0591	607	783
Flicker / TP	954	546.23	24 x 3.581	7 x 2.388	21.488	x	42.977	35.154	1336.00	489.78	1825.78	153.02	0.0587	610	788
Hawk / TP	954	561.72	26 x 3.439	7 x 2.675	21.793	x	43.586	35.653	1337.68	614.58	1952.26	173.48	0.0584	613	792
Hen / TP	954	596.24	30 x 3.203	7 x 3.203	22.428	x	44.856	36.692	1340.44	881.14	2221.58	211.74	0.0581	616	799
Heron / TP	1000	624.95	30 x 3.279	7 x 3.279	22.962	x	45.923	37.566	1405.27	923.45	2328.72	222.41	0.0554	632	821
Nightingale/TP	1034	552.55	18 x 4.303	1 x 4.303	21.539	x	43.078	35.238	1441.77	226.28	1668.05	112.99	0.0545	633	818
Creeper / TP	1034	559.58	20 x 4.082	7 x 1.814	21.793	x	43.586	35.653	1449.41	282.62	1732.03	126.33	0.0545	634	820
Osprey / TP	1113	595.09	18 x 4.465	1 x 4.465	22.327	x	44.653	36.527	1552.38	243.64	1796.02	121.88	0.0505	659	854
Tody / TP	1113	602.86	20 x 4.237	7 x 1.882	22.606	x	45.212	36.983	1560.25	304.21	1864.46	136.12	0.0509	658	853
Sapsucker / TP	1113	618.96	22 x 4.039	7 x 2.243	22.885	x	45.771	37.440	1560.32	432.11	1992.43	156.58	0.0505	661	859
Parakeet / TP	1113	637.24	24 x 3.868	7 x 2.578	23.216	x	46.431	37.981	1560.00	570.82	2130.82	176.15	0.0502	664	864
Dove / TP	1113	655.83	26 x 3.716	7 x 2.891	23.546	x	47.092	38.521	1558.80	717.84	2276.64	201.06	0.0502	665	867
Eagle / TP	1113	695.58	30 x 3.459	7 x 3.459	24.206	x	48.412	39.601	1562.99	1027.62	2590.61	247.32	0.0499	669	874
Kittiwake / TP	1192	637.80	18 x 4.623	1 x 4.623	23.114	x	46.228	37.815	1662.79	261.19	1923.98	130.78	0.0472	683	888
Skua / TP	1210	655.33	20 x 4.417	7 x 1.963	23.571	x	47.142	38.562	1695.70	330.96	2026.66	147.68	0.0466	689	898
Peacock / TP	1210	692.90	24 x 4.034	7 x 2.690	24.206	x	48.412	39.601	1695.33	621.49	2316.82	192.16	0.0463	693	906
Squab / TP	1210	712.56	26 x 3.874	7 x 3.012	24.536	x	49.073	40.141	1696.84	779.19	2476.03	216.18	0.0463	694	908
Wood Duck/ TP	1210	756.08	30 x 3.607	7 x 3.607	25.248	x	50.495	41.306	1699.34	1117.44	2816.78	257.11	0.0459	699	918
Teal / TP	1210	752.81	30 x 3.607	19 x 2.164	25.248	x	50.495	41.306	1699.11	1093.87	2792.98	266.89	0.0459	699	918
Swift / TP	1272	662.28	36 x 3.376	1 x 3.376	23.622	x	47.244	38.646	1774.28	139.29	1913.57	122.77	0.0443	705	919
Kingbird / TP	1272	680.55	18 x 4.775	1 x 4.775	23.876	x	47.752	39.061	1773.31	278.64	2051.95	139.67	0.0443	706	921
Turacos / TP	1272	688.85	20 x 4.529	7 x 2.012	24.155	x	48.311	39.518	1783.13	347.69	2130.82	154.80	0.0443	707	924
Rook / TP	1272	728.14	24 x 4.135	7 x 2.756	24.816	x	49.632	40.599	1624.27	652.37	2276.64	201.06	0.0440	712	932
Grosbeak / TP	1272	749.41	26 x 3.973	7 x 3.089	25.146	x	50.292	41.139	1616.32	819.54	2435.86	224.19	0.0440	713	935
Scoter / TP	1272	794.90	30 x 3.698	7 x 3.698	25.883	x	51.765	42.345	1427.97	1174.54	2602.51	270.45	0.0436	718	945
Egret / TP	1272	791.60	30 x 3.698	19 x 2.220	25.883	x	51.765	42.345	1786.09	1151.22	2937.31	280.24	0.0436	718	945
Siskin / TP	1333.2	722.58	20 x 4.638	7 x 2.062	24.740	x	49.479	40.475	1868.31	365.18	2233.49	162.81	0.0423	724	949
Flamingo / TP	1333.2	763.44	24 x 4.234	7 x 2.822	25.400	x	50.800	41.554	1867.94	683.98	2551.92	211.74	0.0420	729	958
Gannet / TP	1333.2	785.33	26 x 4.067	7 x 3.162	25.756	x	51.511	42.137	1868.77	858.73	2727.50	234.87	0.0420	730	961
Dunlin / TP	1431	774.83	20 x 4.803	7 x 2.134	25.603	x	51.206	41.887	2006.04	391.13	2397.17	174.37	0.0394	751	988
Stilt / TP	1431	819.39	24 x 4.387	7 x 2.924	26.314	x	52.629	43.050	2005.09	734.32	2739.41	226.86	0.0390	757	999
Starling / TP	1431	843.24	26 x 4.214	7 x 3.277	26.695	x	53.391	43.673	2006.05	922.33	2928.38	252.66	0.0390	759	1002

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.

Code Name	Conductor size	Sectional Area (mm ²)	Stranding		Outer Dimensions			Equivalent Diameter (mm)	Weight			Rated Strength KN	DC Resistance @ 20°C (Ω/Km)	Current Capacity	
			Aluminium (No.x mm)	Steel (No.x mm)	Minor	x	Major (mm)		Aluminum (Kg/Km)	Steel (Kg/Km)	Total (Kg/Km)			@ 75°C (Ampere)	@ 85°C (Ampere)
	(AWG or kcmil)														
Redwing / TP	1431	889.88	30 x 3.922	19 x 2.352	27.457	x	54.915	44.920	2011.17	1292.19	3303.36	307.82	0.0387	764	1012
Coot / TP	1590	827.99	36 x 3.774	1 x 3.774	26.416	x	52.832	43.217	2217.16	174.06	2391.22	148.57	0.0354	791	1043
Macaw / TP	1590	847.29	42 x 3.495	7 x 1.941	26.797	x	53.594	43.840	2228.34	323.58	2551.92	178.82	0.0354	792	1047
Turbit / TP	1590	861.56	20 x 5.065	7 x 2.250	27.000	x	54.000	44.172	2228.71	434.81	2663.52	193.94	0.0354	793	1049
Tern / TP	1590	861.16	45 x 3.376	7 x 2.250	27.000	x	54.000	44.172	2228.71	434.81	2663.52	196.61	0.0354	793	1049
Puffin / TP	1590	884.81	22 x 4.829	7 x 2.682	27.356	x	54.712	44.754	2228.74	617.80	2846.54	220.63	0.0354	794	1052
Cuckoo / TP	1590	910.02	24 x 4.623	7 x 3.081	27.737	x	55.474	45.378	2229.15	815.30	3044.45	248.21	0.0351	799	1060
Condor / TP	1590	909.58	54 x 3.081	7 x 3.081	27.737	x	55.474	45.378	2229.15	815.30	3044.45	250.88	0.0351	799	1060
Drake / TP	1590	937.22	26 x 4.442	7 x 3.454	28.143	x	56.286	46.042	2228.12	1024.65	3252.77	280.24	0.0351	800	1063
Mallard / TP	1590	989.58	30 x 4.135	19 x 2.482	28.956	x	57.912	47.372	2231.92	1438.98	3670.90	341.62	0.0348	806	1074
Surfbird / TP	1749	947.41	20 x 5.311	7 x 2.360	28.321	x	56.642	46.333	2451.51	478.36	2929.87	210.85	0.0322	831	1105
Turnstone / TP	1800	974.88	20 x 5.387	7 x 2.395	28.727	x	57.455	46.997	2522.03	492.66	3014.69	214.40	0.0315	840	1120
Ruddy / TP	1800	974.88	45 x 3.592	7 x 2.395	28.727	x	57.455	46.997	2522.03	492.66	3014.69	217.07	0.0315	840	1120
Canary / TP	1800	1030.32	54 x 3.279	7 x 3.279	29.515	x	59.030	48.287	2522.76	923.45	3446.21	283.80	0.0312	847	1132
Catbird / TP	1908	993.80	36 x 4.135	1 x 4.135	28.956	x	57.912	47.372	2661.40	208.95	2870.35	176.15	0.0295	864	1153
Phoenix / TP	1908	977.26	42 x 3.828	7 x 0.983	29.337	x	58.674	47.995	2979.31	82.99	3062.30	208.18	0.0295	864	1155
Corncrake/ TP	1908	1033.66	20 x 5.547	7 x 2.466	29.591	x	59.182	48.411	2673.92	522.30	3196.22	227.75	0.0295	867	1160
Rail / TP	1908	1033.66	45 x 3.698	7 x 2.466	29.591	x	59.182	48.411	2673.92	522.30	3196.22	230.42	0.0295	867	1160
Towhee / TP	1908	1052.46	48 x 3.581	7 x 2.786	29.845	x	59.690	48.826	2673.92	666.64	3340.56	253.55	0.0295	868	1162
Redbird / TP	1908	1092.35	24 x 5.065	7 x 3.376	30.378	x	60.757	49.698	2674.14	978.90	3653.04	298.03	0.0292	874	1173
Cardinal / TP	1908	1091.86	54 x 3.376	7 x 3.376	30.378	x	60.757	49.698	2674.14	978.90	3653.04	300.70	0.0295	870	1167
Canvasback /TP	1908	1186.97	30 x 4.529	19 x 2.718	31.699	x	63.424	51.860	2680.33	1725.64	4405.97	410.13	0.0292	878	1185
Snowbird / TP	2067	1101.75	42 x 3.985	7 x 2.215	30.556	x	61.112	49.990	2896.85	421.39	3318.24	225.97	0.0272	900	1209
Ortolan / TP	2067	1119.07	45 x 3.848	7 x 2.565	30.785	x	61.570	50.364	2897.50	565.08	3462.58	246.43	0.0272	901	1211
Whooper / TP	2067	1139.22	48 x 3.726	7 x 2.898	31.064	x	62.128	50.821	2897.50	721.32	3618.82	274.01	0.0272	902	1214
Curlew / TP	2067	1182.39	54 x 3.513	7 x 3.513	31.623	x	63.246	51.735	2896.63	1059.96	3956.59	326.06	0.0272	904	1220
Avocet / TP	2226	1186.07	42 x 4.135	7 x 2.296	31.699	x	63.398	51.860	3119.92	452.77	3572.69	241.09	0.0253	930	1256
Bluejay / TP	2226	1206.45	45 x 3.995	7 x 2.664	31.979	x	63.957	52.318	3119.39	609.54	3728.93	265.11	0.0253	932	1259
Bullfinch / TP	2226	1227.93	48 x 3.868	7 x 3.010	32.233	x	64.465	52.733	3118.92	778.15	3897.07	291.80	0.0253	933	1262
Finch / TP	2226	1271.55	54 x 3.647	19 x 2.189	32.842	x	65.684	53.730	3133.41	1119.29	4252.70	347.85	0.0253	935	1268

NOTE :

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