

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)**  
**Characteristics of A1/S1 B conductors as per IEC 1089/91 TYPE A1/S1 B**

Code number	Steel ratio	Areas			No. of wires		Wire diam.		Diameter		Linear mass	Rated strength	D. C. resistance
		Alum.	Steel	Total	Al	St	alum.	steel	Core	Cond.			
	%	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>			mm	mm	mm	mm	kg/km	kN	Ohm/km
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.08	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.13	1.1478
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	14.40	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	21.63	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	34.33	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	29.17	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	45.69	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	36.18	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	57.69	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	44.22	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	70.13	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	68.72	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	87.67	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	79.03	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	106.83	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	98.36	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	123.04	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	107.47	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	138.42	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	119.41	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	153.80	0.0578
560	7	560	38.7	599	45	7	3.95	2.65	7.96	31.8	1848.2	133.74	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	172.59	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	150.45	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	191.77	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	169.56	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	216.12	0.0407
800	4	800	34.0	835	72	7	3.76	2.51	7.52	37.6	2480.2	167.41	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	205.33	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	243.52	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	188.33	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	226.50	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	209.26	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	234.53	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	283.17	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	261.75	0.0231
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	308.91	0.0232

With Regular Strength Steel & Zinc Coating Class 2

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)**  
**Characteristics of A1/S2 A conductors as per IEC 1089/91 TYPE A1/S2 A**

Code number	Steel ratio	Areas			No. of wires		Wire diam.		Diameter		Linear mass	Rated strength	D. C. resistance
		Alum.	Steel	Total	Al	St	alum.	steel	Core	Cond.			
	%	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>			mm	mm	mm	mm	kg/km	kN	Ohm/km
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.45	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.71	1.1478
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	15.33	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	22.37	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	35.50	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	30.14	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	48.54	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	37.42	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	61.34	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	45.00	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	74.69	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	72.16	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	99.87	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	82.08	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	114.02	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	102.23	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	130.30	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	111.82	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	146.58	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	124.25	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	162.87	0.0578
560	7	560	38.7	599	45	7	3.95	2.65	7.96	31.8	1848.2	139.16	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	182.52	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	156.55	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	202.94	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	176.43	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	228.71	0.0407
800	4	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	172.25	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	214.67	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	257.71	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	193.78	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	231.75	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	215.31	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	241.15	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	295.94	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	269.14	0.0231
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	330.29	0.0232

With High Strength Steel & Zinc Coating Class 1

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)**  
**Characteristics of A1/S2 A conductors as per IEC 1089/91 TYPE A1/S2 A**

Code number	Steel ratio	Areas			No. of wires		Wire diam.		Diameter		Linear mass	Rated strength	D. C. resistance
		Alum.	Steel	Total	Al	St	alum.	steel	Core	Cond.			
	%	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>			mm	mm	mm	mm	kg/km	kN	Ohm/km
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.45	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.71	1.1478
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	15.33	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	22.37	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	35.50	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	30.14	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	48.54	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	37.42	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	61.34	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	45.00	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	74.69	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	72.16	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	99.87	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	82.08	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	114.02	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	102.23	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	130.30	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	111.82	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	146.58	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	124.25	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	162.87	0.0578
560	7	560	38.7	599	45	7	3.95	2.65	7.96	31.8	1848.2	139.16	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	182.52	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	156.55	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	202.94	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	176.43	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	228.71	0.0407
800	4	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	172.25	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	214.67	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	257.71	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	193.78	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	231.75	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	215.31	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	241.15	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	295.94	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	269.14	0.0231
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	330.29	0.0232

With High Strength Steel & Zinc Coating Class 1

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)**  
**Characteristics of A1/S2 B conductors as per IEC 1089/91 TYPE A1/S2 B**

Code number	Steel ratio	Areas			No. of wires		Wire diam.		Diameter		Linear mass	Rated strength	D. C. resistance
		Alum.	Steel	Total	Al	St	alum.	steel	Core	Cond.			
	%	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>			mm	mm	mm	mm	kg/km	kN	Ohm/km
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.27	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.42	1.1478
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	14.87	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	21.63	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	34.33	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	29.65	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	47.12	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	36.80	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	59.51	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	44.22	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	72.41	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	70.44	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	90.52	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	80.55	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	110.43	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	100.29	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	126.67	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	109.64	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	142.50	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	121.83	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	158.33	0.0578
560	7	560	38.7	599	45	7	3.95	2.65	7.96	31.8	1848.2	136.45	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	177.56	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	153.50	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	197.36	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	127.99	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	222.42	0.0407
800	4	800	34.0	835	72	7	3.76	2.51	7.52	37.6	2480.2	169.83	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	210.00	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	250.61	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	191.06	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	226.50	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	212.28	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	237.84	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	298.55	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	265.44	0.0231
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	323.16	0.0232

With High Strength Steel & Zinc Coating Class 2

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)**  
**Characteristics of A1/S3 A conductors as per IEC 1089/91 TYPE A1/S3 A**

Code number	Steel ratio	Areas			No. of wires		Wire diam.		Diameter		Linear mass	Rated strength	D. C. resistance
		Alum.	Steel	Total	Al	St	alum.	steel	Core	Cond.			
	%	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>			mm	mm	mm	mm	kg/km	kN	Ohm/km
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.83	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	10.25	1.1478
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	16.20	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	24.15	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	38.33	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	31.04	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	51.39	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	38.67	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	64.99	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	46.89	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	78.93	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	75.60	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	98.66	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	85.13	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	121.20	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	106.10	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	137.56	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	115.87	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	154.75	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	128.76	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	171.94	0.0578
560	7	560	38.7	599	45	7	3.95	2.65	7.96	31.8	1848.2	144.19	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	192.45	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	162.21	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	213.32	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	182.81	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	240.41	0.0407
800	4	800	34.0	835	72	7	3.76	2.51	7.52	37.6	2480.2	176.74	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	224.00	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	270.88	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	198.83	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	244.50	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	220.93	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	247.77	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	307.79	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	276.53	0.0231
1250	8	1250	102	1352	84	19	4.35	2.16	13.1	47.9	4253.9	343.52	0.0232

With Extra High Strength Steel & Zinc Coating Class 1

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)  
AS PER CANADIAN SPECIFICATION CSA C - 49 - 1965**

Code word	Cross sectional areas				Equivalent copper area mm <sup>2</sup>	Stranding and wire diameter		Diameter		Weight per km.			Per cent weight		Ultimate strength of con. Kgs.	DC resist. at 20°C ohm /km
	Aluminium		Steel	Total		Aluminium N. °x Ø mm.	Steel N. °x Ø mm.	Complete con. mm	Steel Core mm.	Aluminium Kgs.	Steel Kgs.	Total Kgs.	Aluminium	Steel		
	Mil. cir. O A.W.G.	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>												
Wren	8	8,37	1,44	9,81	5,26	6x1,33	1x1,33	3,99	1,33	22,89	10,88	33,77	67,9	32,1	340	3,423
Warbler	7	10,55	1,77	12,32	6,63	6x1,50	1x1,50	4,50	1,50	28,86	13,67	42,53	67,9	32,1	425	2,714
Turkey	6	13,30	2,16	15,46	8,37	6x1,68	1x1,68	5,04	1,68	36,39	17,22	53,61	67,9	32,1	530	2,154
Thrush	5	16,77	2,78	19,55	10,55	6x1,89	1x1,89	5,67	1,89	45,88	21,76	67,64	67,9	32,1	660	1,707
Swan	4	21,15	3,56	24,71	13,30	6x2,12	1x2,12	6,36	2,12	57,89	27,42	85,31	67,9	32,1	830	1,354
Swallow	3	26,67	4,43	31,10	16,77	6x2,38	1x2,38	7,14	2,38	72,97	34,61	107,6	67,9	32,1	1.025	1,074
Sparrow	2	33,62	5,60	39,22	21,15	6x2,67	1x2,67	8,01	2,67	92,02	43,63	135,6	67,9	32,1	1.265	0,8507
Robin	1	42,41	7,07	49,48	26,67	6x3,00	1x3,00	9,00	3,00	116,1	55,0	171,1	67,9	32,1	1.585	0,6754
Raven	1/0	53,49	8,89	62,38	36,62	6x3,37	1x3,37	10,11	3,37	146,5	69,4	215,9	67,9	32,1	1.940	0,5351
Quail	2/0	67,43	11,21	78,64	42,41	6x3,78	1x3,78	11,34	3,78	184,6	87,5	272,1	67,9	32,1	2.425	0,4245
Pigeon	3/0	85,01	14,22	99,23	53,49	6x4,25	1x4,25	12,75	4,25	232,7	110,2	342,9	67,9	32,1	3.030	0,3367
Penguin	4/0	107,2	17,9	125,1	67,43	6x4,77	1x4,77	14,31	4,77	293,5	139,0	432,5	67,9	32,1	3.820	0,2671
Partidge	266.800	135,2	22,0	157,2	85,01	26x2,57	7x2,00	16,28	6,00	373,5	171,9	545,4	68,5	31,5	5.100	0,2137
Owl	266.800	135,2	17,5	152,7	85,01	6x5,36	7x1,79	16,09	5,37	370,1	136,7	506,8	73,0	27,0	4.330	0,2118
Waxwing	266.800	135,2	7,4	142,6	85,01	18x3,09	1x3,09	15,47	3,09	371,5	583,4	429,8	86,4	13,6	3.210	0,2126
Piper	300.000	152,0	35,5	187,5	95,6	30x2,54	7x2,54	17,78	7,62	420,2	276,8	697,0	60,3	39,7	7.000	0,1902
Ostrich	300.000	152,0	24,7	176,7	95,6	26x2,73	7x2,12	17,28	6,36	419,7	193,0	612,7	68,5	31,5	5.730	0,1900
Oriole	336.400	170,5	39,8	210,3	107,2	30x2,69	7x2,69	18,83	8,07	471,3	310,3	781,3	60,3	39,7	7.735	0,1696
Linnet	336.400	170,5	27,8	198,3	107,2	26x2,89	7x2,25	18,31	6,75	470,7	216,7	687,4	68,5	31,5	6.375	0,1694
Merlin	336.400	170,5	9,4	179,9	107,2	18x3,47	1 x3,4 7	17,37	3,47	468,4	73,6	542,0	86,4	13,6	4.060	0,1686
Chicadee	397.500	201,4	11,2	212,6	126,7	18x3,77	1x3,77	18,87	3,77	554,4	87,1	641,5	86,4	13,6	4.717	0,1427
Lark	397.500	201,4	47,0	248,4	126,7	30x2,92	7x2,92	20,44	8,76	556,6	366,7	923,3	60,3	39,7	9.060	0,14q5
Ibis	397.500	201,4	32,8	234,2	126,7	26x3,14	7x2,44	19,88	7,32	556,1	255,6	811,7	68,5	31,5	7.340	0,1434
Pelican	477.000	241,7	13,4	255,1	152,0	18x4,14	1x4,14	20,68	4,14	663,3	104,6	770,9	86,4	13,6	5.579	0,1189
Flicker	477.000	241,7	31,3	273,0	152,0	24x3,58	7x2,39	21,49	7,17	669,7	244,4	914,1	73,2	26,8	7.802	0,1195
Hen	477.000	241,7	56,4	298,1	152,0	30x3,20	7x3,20	22,40	9,60	668	440	1.108	60,3	39,7	10.590	0,1196
Hawk	477.000	241,7	39,4	281,1	152,0	26x3,44	7x2,68	21,80	8,04	667,4	307,5	974,9	68,5	31,5	8.820	0,1195
Heron	500.000	253,3	59,1	312,4	159,4	30x3,28	7x3,28	22,96	9,84	701	461	1.162	60,3	39,7	11.090	0,1141
Osprey	556.500	282,0	15,7	297,7	177,4	18x4,47	1x4,47	22,33	4,47	776,8	122	898,8	86,4	13,6	6.509	0,1018
Parakeet	556.500	282,0	36,5	318,5	177,4	24x3,87	7x2,58	23,22	7,74	781	286	1.067	73,2	26,8	9.004	0,1025
Eagle	556.500	282,0	65,8	347,8	177,4	30x3,46	7x3,46	24,22	10,38	779	514	1.293	60,3	39,7	12.360	0,1025
Dove	556.500	282,0	45,9	327,9	177,4	26x3,72	7x2,89	23,55	8,67	779	358	1.137	68,5	31,5	10.190	0,1025
Peacock	605.000	306,6	39,8	346,4	192,8	24x4,03	7x2,69	24,21	8,07	850	309	1.159	73,1	26,9	9.798	0,09420
Squab	605.000	306,6	49,9	356,5	192,8	26x3,87	7x3,01	24,54	9,03	850	308	1.268	68,5	31,5	10.954	0,09420
Teal	605.000	306,6	69,9	376,5	192,8	30x3,61	19x2,16	25,25	10,80	851	546	1.397	60,8	39,2	13.630	0,09432
Duck	605.000	306,6	39,8	436,6	192,8	54x2,69	7x2,69	24,21	8,07	848	310	1.158	73,2	26,8	10.210	0,09439
Rook	636.000	322,3	41,70	364,0	202,7	24x4,14	7x2,76	24,82	8,28	893	326	1.219	73,2	26,8	10.274	0,08966
Egret	636.000	322,3	73,30	395,6	202,7	30x3,70	19x2,22	25,90	11,10	891	575	1.466	60,8	39,2	14.330	0,08973
Grosbeck	636.000	322,3	52,40	374,7	202,7	26x3,97	7x3,09	25,15	9,27	890	409	1.299	68,5	31,5	11.340	0,08966
Goose	636.000	322,3	41,70	364,0	202,7	54x2,76	7x2,76	24,84	8,28	892	326	1.218	73,2	26,8	10.730	0,08979
Flamingo	666.600	337,8	43,80	381,6	212,3	24x4,23	7x2,82	25,38	8,46	936	341	1.277	73,2	26,8	10.773	0,08550
Gull	666.600	337,8	43,70	381,5	212,3	54x2,82	7x2,82	25,38	8,46	935	341	1.276	73,2	26,8	11.140	0,08569
Redwing	715.500	362,5	82,60	445,1	228,0	30x3,92	19x2,35	27,43	11,75	1.002	646	1.648	60,8	39,2	15.690	0,07978
Starling	715.500	362,5	59,10	421,6	228,0	26x4,21	7x3,28	26,68	9,84	1.001	461	1.462	68,5	31,5	12.750	0,07966
Crow	715.500	362,5	47,00	409,5	228,0	54x2,92	7x2,92	26,28	8,76	1.003	367	1.370	73,2	26,8	11.950	0,07985
Tern	795.000	402,8	27,90	430,7	253,4	45x3,38	7x2,25	27,00	6,75	1.116	217	1.333	83,7	16,3	10.410	0,07177
Mallard	795.000	402,8	91,90	494,7	253,4	30x4,14	19x2,48	28,96	12,40	1.114	719	1.833	60,8	39,2	17.440	0,07177
Drake	795.000	402,8	65,70	468,5	253,4	26x4,44	7x3,45	28,14	10,35	1.113	512	1.624	68,5	31,5	14.175	0,0717

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)  
AS PER CANADIAN SPECIFICATION CSA C - 49 - 1965**

Code word	Cross sectional areas				Equivalent copper area mm <sup>2</sup>	Stranding and wire diameter		Diameter		Weight per km.			Per cent weight		Ultimate strength of con. Kgs.	DC resist. at 20°C ohm /km
	Aluminium		Steel	Total		Aluminium N. °x Ø mm.	Steel N. °x Ø mm.	Complete con. mm	Steel Core mm.	Aluminium Kgs.	Steel Kgs.	Total Kgs.	Aluminium	Steel		
	Mil. cir. O A.W.G.	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>												
Condor	795.000	402,8	52,30	455,1	253,4	54x3,08	7x3,08	27,76	9,24	1.114	408	1.522	73,2	26,8	12.950	0,07183
Crane	874.500	443,1	57,50	500,6	278,7	54x3,23	7x3,23	29,11	9,69	1.226	448	1.674	73,2	26,8	14.245	0,06531
Canary	900.000	456,1	59,10	515,2	286,8	54x3,28	7x3,28	29,51	9,84	1.262	461	1.723	73,2	26,8	14.650	0,06344
Rail	954.000	483,4	33,40	516,8	304,0	45x3,70	7x2,47	29,59	7,41	1.339	261	1.600	83,7	16,3	12.202	0,05981
Cardinal	954.000	483,4	62,70	546,1	304,0	54x3,38	7x3,38	30,38	10,14	1.337	489	1.826	73,2	26,8	15.535	0,05988
Ortlan	1.033.500	523,7	76,20	599,9	329,4	45x3,85	7x2,57	30,81	7,71	1.458	283	1.734	83,7	16,3	13.041	0,05522
Curlew	1.033.500	523,7	67,90	591,6	329,4	54x3,52	7x3,52	31,65	10,56	1.449	530	1.979	73,2	26,8	16.850	0,05527
Bluejay	1.113.000	563,9	39,10	603,0	354,7	45x4,00	7x2,66	31,98	7,98	1.570	305	1.875	83,6	16,4	14.039	0,05127
Finch	1.113.000	563,9	71,60	635,5	354,7	54x3,65	19x2,19	32,84	10,95	1.560	560	2.120	73,6	26,4	18.235	0,05133
Bunting	1.192.500	604,3	41,70	646,0	380,0	45x4,14	7x2,76	33,07	8,28	1.671	326	2.007	83,7	16,3	15.059	0,04785
Grackle	1.192.500	604,3	76,50	680,8	380,0	54x3,77	19x2,27	33,99	11,35	1.672	599	2.271	73,6	26,4	19.550	0,04790
Bittern	1.727.000	644,5	44,60	689,1	405,4	45x4,27	7x2,85	34,16	8,55	1.795	348	2.143	83,7	16,3	16.057	0,04486
Pheasant	1.272.000	644,5	81,70	726,2	450,4	54x3,90	19x2,34	35,36	11,70	1.783	639	2.422	73,6	26,4	20.320	0,04490
Dipper	1.351.500	684,8	47,50	732,3	430,7	45x4,40	7x2,92	35,18	8,76	1.906	369	2.275	83,8	16,2	17.010	0,04222
Martin	1.351.500	684,8	86,70	771,5	430,7	54x4,02	19x2,41	36,17	12,05	1.895	679	2.574	73,6	26,4	21.590	0,04227
Boblink	1.431.000	725,1	50,40	775,5	456,0	45x4,53	7x3,02	36,25	9,06	2.019	329	2.411	83,7	16,3	18.053	0,03988
Plover	1.431.000	725,1	91,90	817,0	456,0	54x4,14	19x2,48	37,21	12,40	2.006	719	2.725	73,6	26,4	22.860	0,03992
Nuthatch	1.510.500	765,4	52,70	818,1	484,1	45x4,65	7x3,10	37,21	9,30	2.131	412	2.543	83,7	16,3	18.175	0,03778
Parrot	1.510.500	765,4	97,00	862,4	481,4	54x4,25	19x2,55	38,25	12,75	2.118	759	2.877	73,6	26,4	24.175	0,03782
Lapwing	1.590.000	805,7	55,60	861,3	506,7	45x4,77	7x3,18	38,15	9,54	2.243	434	2.677	83,2	16,8	19.867	0,03589
Falcon	1.590.000	805,7	102,10	907,8	506,7	54x4,36	19x2,62	39,24	13,10	2.229	799	3.028	73,6	26,4	25.445	0,03592
Chuker	1.780.000	901,9	73,60	975,5	567,0	84x3,70	19x2,22	40,69	11,10	2.510	576	3.086	81,1	18,9	24.312	0,03212

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)  
AS PER CANADIAN SPECIFICATION CSA C - 49 - 1965**

(Extra Strong)

Code word	Cross sectional areas				Equivalent copper area mm <sup>2</sup>	Stranding and wire diameter		Diameter		Weight per km.			Per cent weight		Ultimate strength of con. Kgs.	DC resist. at 20°C ohm /km
	Aluminium		Steel	Total		Aluminium N. °x Ø mm.	Steel N. °x Ø mm.	Complete con. mm	Steel Core mm.	Aluminium Kgs.	Steel Kgs.	Total Kgs.	Aluminium	Steel		
	Mil. cir. O A.W.G.	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>												
Bantam	13.125	6.65	8.83	15.48	4.18	3x1.680	4x1.680	5.03	-	18.21	69.59	87.8	20,7	79,3	1.191	4.303
Magpie	20.870	10.58	14.13	24.71	6.65	3x2.118	4x1.118	6.35	-	28.9	110.8	139.7	20,7	79,3	1.894	2.707
Shrike	33.185	16.84	22.45	39.29	10.57	3x2.672	4x2.672	8.03	-	46.0	176.3	222.3	20,7	79,3	2.911	1.705
Snipe	52.770	26.71	35.68	62.39	16.81	3x3.371	4x3.371	10.11	-	73.2	280.4	353.6	20,7	79,3	4.479	1.070
Loon	66.540	33.74	44.97	78.71	21.20	3x3.785	4x3.785	11.35	-	92.3	353.6	445.9	20,7	79,3	5.639	0.849
Grouse	80.000	40.52	14.13	54.65	25.49	8x2.540	1 x4.242	9.32	4.24	111.2	109.9	221.1	50,3	49,7	2.361	0.707
Petrel	101.800	51.61	30.07	81.89	32.51	12x2.339	7x2.339	11.71	7.02	142.1	234.8	376.9	37,7	62,3	4.470	0.557
Minorca	110.800	56.31	32.77	89.00	35.32	12x2.441	7x2.441	12.22	7.32	154.7	255.6	410.3	37,7	62,3	4.866	0.512
Leghorn	134.600	68.19	39.81	108.0	42.87	12x2.690	7x2.690	13.46	8.07	188.0	310.3	498.3	37,7	62,3	5.865	0.422
Guinea	159.000	80.58	46.92	127.5	50.67	12x2.924	7x2.924	14.63	8.77	222.1	366.7	588.8	37,7	62,3	6.890	0.358
Dotterel	176.900	89.61	52.29	141.9	56.35	12x3.084	7x3.084	15.42	9.25	346.9	407.8	654.7	37,7	62,3	7.455	0.321
Droking	190.800	96.71	56.39	153.1	60.80	12x3.204	7x3.204	16.03	9.61	266.3	440.3	706.6	37,7	62,3	8.043	0:299
Auk	203.000	102.8	27.80	130.6	64.71	8x4.046	7x2.248	14.83	6.74	282.1	216.7	498.9	56,4	36,6	5.060	0.278
Brahma	203.200	103.0	91.80	194.8	64.76	16x2.863	19x2.863	18.14	12.41	285.5	719.5	1.005	28,4	71,6	12.496	0.281
Cochin	211.300	107.7	62.40	169.5	67.34	12x3.371	7x3.371	16.87	10.11	295.1	487.3	782.4	37,7	62,3	8.912	0.270

**ALUMINIUM CONDUCTORS STEEL REINFORCED (ACSR)  
AS PER ASTM B-232 M - 1992**

Size mm <sup>2</sup>	Stranding design	Aluminium		Steel wire		Nominal outside dia. of conductors, mm	Linear density kg/km	D.C. Resistance Ohm/km	Rated Tensile Strength kN
		Number	Diameter mm	Number	Diameter mm				
1250	84/19	84	4.35	19	2.61	47.85	4274	0.0232	306
1250	76/19	76	4.58	19	2.14	47.34	4023	0.0232	269
1250	72/7	72	4.70	7	3.13	46.99	3901	0.0232	250
1120	84/19	84	4.12	19	2.47	45.31	3883	0.0259	275
1120	76/19	76	4.33	19	2.02	44.74	3595	0.0259	240
1120	72/7	72	4.45	7	2.97	44.51	3499	0.0259	226
1000	84/19	84	3.89	19	2.33	42.77	3416	0.0291	245
1000	72/7	72	4.21	7	2.81	42.11	3132	0.0289	202
900	84/19	84	3.69	19	2.21	40.57	3073	0.0323	226
900	72/7	72	3.99	7	2.66	39.9	2812	0.0319	181
800	54/19	54	4.34	19	2.60	39.04	3015	0.0363	240
800	45/7	45	4.76	7	3.17	38.07	2652	0.0361	186
710	54/19	54	4.09	19	2.45	36.79	2678	0.04090	213
710	45/7	45	4.48	7	2.99	35.85	2351	0.04070	167
630	54/19	54	3.85	19	2.31	34.65	2375	0.0462	189
630	45/7	45	4.22	7	2.81	33.75	2084	0.0459	148
560	54/19	54	3.63	19	2.18	32.68	2112	0.0519	173
560	45/7	45	3.98	7	2.65	31.83	1854	0.0515	132
500	54/7	54	3.43	7	3.43	30.87	1889	0.0578	154
500	45/7	45	3.76	7	2.51	30.09	1656	0.0578	118
450	54/7	54	3.26	7	3.26	29.34	1706	0.0641	139
450	45/7	45	3.57	7	2.38	28.56	1492	0.0641	108
400	30/19	30	4.12	19	2.47	28.83	1824	0.0724	170
400	26/7	26	4.43	7	3.45	28.07	1622	0.0721	139
400	24/7	24	4.61	7	3.07	27.65	1515	0.0721	123
355	30/19	30	3.88	19	2.33	27.17	1620	0.0816	151
355	26/7	26	4.17	7	3.24	26.4	1435	0.0813	123
355	24/7	24	4.34	7	2.89	26.03	1343	0.0813	111
315	30/19	30	3.66	19	2.20	25.64	1443	0.0917	138
315	26/7	26	3.93	7	3.06	24.9	1277	0.0915	110
315	24/7	24	4.09	7	2.73	24.55	1194	0.0915	96.7
315	18/1	18	4.72	1	4.72	23.6	1014	0.0912	68.0
280	30/7	30	3.45	7	3.45	24.15	1291	0.1030	122
280	26/7	26	3.70	7	2.88	23.44	1131	0.1033	100
280	24/7	24	3.85	7	2.57	23.11	1058	0.1033	87.5
280	18/1	18	4.45	1	4.45	22.25	901.0	0.1026	60.4
250	30/7	30	3.26	7	3.26	22.82	1152	0.1153	190
250	26/7	26	3.50	7	2.72	22.16	1011	0.1154	89.5
250	24/7	24	3.64	7	2.43	21.85	946.0	0.1156	79.4
250	18/1	18	4.21	1	4.21	21.05	806.4	0.1147	54.1
224	30/7	30	3.08	7	3.08	21.56	1029	0.1292	97.4
224	26/7	26	3.31	7	2.57	20.95	904.0	0.1291	80.0
224	24/7	24	3.45	7	2.30	20.7	849.2	0.1287	72.0
224	18/1	18	3.98	1	3.98	19.9	720.7	0.1283	48.3
200	30/7	30	2.91	7	2.91	20.37	918.2	0.1447	89.7
200	26/7	26	3.13	7	2.43	19.81	808.3	0.1443	71.5
200	24/7	24	3.26	7	2.17	19.55	757.6	0.1441	64.2
200	18/1	18	3.76	1	3.76	18.8	643.2	0.1438	43.1



**ALUMINIUM CONDUCTORS STEEL REINFORCED (ACSR)  
AS PER ASTM B-232 M - 1992**

Size mm <sup>2</sup>	Stranding design	Aluminium		Steel wire		Nominal outside dia. of conductors, mm	Linear density kg/km	D.C. Resistance Ohm/km	Rated Tensile Strength kN
		Number	Diameter mm	Number	Diameter mm				
180	30/7	30	2.76	7	2.76	19.32	826.0	0.1609	80.7
180	26/7	26	2.97	7	2.31	18.81	728.6	0.1603	65.4
180	24/7	24	3.09	7	2.06	18.54	681.2	0.1604	57.8
180	18/1	18	3.57	1	3.57	17.85	579.9	0.1595	40.4
160	30/7	30	2.61	7	2.61	18.27	738.6	0.1799	72.9
160	26/7	26	2.80	7	2.18	17.74	648.0	0.1803	58.9
160	24/7	24	2.91	7	1.94	17.46	604.2	0.1809	52.0
160	18/1	18	3.36	1	3.36	16.8	513.7	0.1800	35.8
140	26/7	26	2.62	7	2.04	16.6	567.4	0.206	52.2
140	24/7	24	2.73	7	1.82	16.38	531.8	0.2055	46.4
140	18/1	18	3.15	1	3.15	15.75	451.5	0.2050	31.5
125	26/7	26	2.47	7	1.92	15.64	503.7	0.2318	46.9
125	24/7	24	2.58	7	1.72	15.48	474.9	0.2301	41.5
125	18/1	18	2.97	1	2.97	14.85	401.3	0.2304	28.8
100	16/19	16	2.82	19	2.44	17.84	972.4	0.2890	123
100	12/1	12	3.26	7	3.26	16.3	734.1	0.2883	85.9
100	6/1	6	4.61	1	4.61	13.83	404.8	0.2855	34.6
90	12/7	12	3.09	7	3.09	15.45	659.5	0.3209	77.2
80	12/7	12	2.91	7	2.91	14.55	584.9	0.3618	70.6
80	6/1	6	4.12	1	4.12	12.36	323.3	0.3575	27.6
71	12/7	12	2.74	7	2.74	13.7	518.6	0.408	62.9
63	12/7	12	2.59	7	2.59	12.95	463.4	0.457	56.2
63	6/1	6	3.66	1	3.66	10.98	255.2	0.453	22.1
56	12/7	12	2.44	7	2.44	12.2	411.2	0.515	50.2
50	12/7	12	2.30	7	2.30	11.5	356.4	0.579	45.4
50	6/1	6	3.26	1	3.26	9.78	202.4	0.571	18.1
40	8/1	8	2.52	1	4.20	9.24	217.9	0.720	22.5
40	6/1	6	2.91	1	2.91	8.73	161.3	0.716	14.9
31.5	7/1	7	2.39	1	3.19	7.97	148.4	0.910	15.1
31.5	6/1	6	2.59	1	2.59	7.77	127.8	0.905	11.9
25	7/1	7	2.13	1	2.84	7.1	117.8	1.146	12.3
25	6/1	6	2.30	1	2.30	6.9	100.8	1.147	9.65
20	7/1	7	1.91	1	2.55	6.37	94.80	1.426	10.0
20	6/1	6	2.06	1	2.06	6.18	80.83	1.430	7.84
16	6/1	6	1.84	1	1.84	5.52	64.49	1.792	6.33
12.5	6/1	6	1.63	1	1.63	4.89	50.61	2.283	4.94

**ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)  
AS PER DIN SPECIFICATION DIN 48204 - 1974**

Conductor size mm <sup>2</sup>		Ratio of Al/St	Stranding Nos. / mm		Calculated sectional area mm <sup>2</sup>		Overall diameter mm		Weight kg/km				Ultimate strength N	Calcu- lated resistance 20° C Ohm/km
Nominal Al/St	Calcu- lated Total		Alu- minium	Steel	Alu- minium	ACSR	ACSR	Steel	ACSR	Alu- minium	Steel	Grease		
16/25	17.85	6	6/1.8	1/1.8	15.3	17.9	5.4	-	62.4	41.8	19.9	0.7	5,950	1.879
25/4	27.8	6	6/2.25	1/2.25	23.8	27.8	6.8	-	97.5	65.4	31.0	1.1	9,200	1.203
35/6	40	6	6/2.7	1/2.7	34.4	40.0	8.1	-	140.5	94.2	44.7	1.6	12,650	0.8352
44/32	75.7	1.4	14/2	7/2.4	44	75.7	11.2	7.2	376.8	121.4	248.2	7.2	45,000	0.6573
50/8	56.3	1.4	6/3.2	1/3.2	48.3	56.3	9.6	-	197.2	132.2	62.7	2.3	17,100	0.5947
50/30	81	1.7	12/2.33	7/2.33	51.2	81.0	11.7	6.99	382.5	141.1	233.9	7.5	43,800	0.5644
70/12	81.3	1.7	26/1.85	7/1.44	69.9	81.3	11.7	4.32	285.1	192.8	89.4	2.9	26,800	0.4130
95/15	109.7	6	26/2.15	7/1.67	94.4	109.7	13.6	5.01	384.8	260.3	120.1	3.9	35,750	0.3058
95/55	152.8	1.7	12/3.2	7/3.2	96.25	152.8	16	9.6	721.4	266.2	441.1	14.1	79,350	0.2993
105/75	181.5	1.4	14/3.1	19/2.25	105.7	181.5	17.5	11.25	906.7	291.8	594.0	20.9	108,450	0.2590
120/20	141.4	6	26/2.44	7/1.9	121.6	141.4	15.5	5.7	496.0	335.5	155.5	5.0	45,650	0.2374
120/70	193.3	1.7	12/3.6	7/3.6	122	193.3	18	10.8	913.2	337.0	558.3	17.9	100,000	0.2363
125/30	157.7	4.3	30/2.33	7/2.33	127.9	157.7	16.1	6.99	594.4	353.0	233.9	7.5	57,600	0.2259
150/25	173.1	6	26/2.7	7/2.1	148.9	173.1	17.1	6.31	606.7	410.6	190.0	6.1	55,250	0.1939
170/40	211.9	4.3	30/2.7	7/2.7	171.8	211.9	18.9	8.1	798.3	474.2	314.0	10.1	76,750	0.1682
185/30	213.6	6	26/3	7/2.33	183.8	213.6	19	6.99	748.5	507.5	233.9	7.6	66,200	0.1570
210/35	243.2	6	26/3.2	7/2.49	209.1	243.2	20.3	7.47	852.3	576.6	267.1	8.6	74,900	0.1381
210/50	261.6	4.3	30/3	7/3	212.1	261.6	21	9	985.7	585.5	387.7	12.5	93,900	0.1363
230/30	260.7	7.7	24/3.5	7/2.33	230.9	260.7	21	6.99	878.0	636.5	233.9	7.6	73,100	0.1250
240/40	282.5	6	26/3.45	7/2.68	243	282.5	21.9	8.04	989.8	670.4	309.4	10.0	86,400	0.1181
265/35	297.5	7.7	24/3.74	7/2.49	263.7	297.8	22.4	7.47	1,002.7	726.9	267.1	8.7	83,050	0.1094
300/50	353.7	6	26/3.86	7/3	304.3	353.7	24.5	9	1,239.2	839.0	387.7	12.5	107,000	0.0949
305/40	344.1	7.7	54/2.68	7/2.68	304.6	344.1	24.1	8.04	1,160.6	841.2	309.4	10.0	99,400	0.0949
340/30	369.1	11.3	48/3	7/2.33	339.9	369.1	25	6.99	1,178.2	936.8	233.9	7.5	92,900	0.0851
380/50	431.5	7.7	54/3	7/3	382	431.5	27	9	1,454.5	1,054.3	387.7	12.5	123,100	0.0757
385/35	420.1	11.3	48/3.2	7/2.49	386	420.1	26.7	7.47	1,341.1	1,065.4	267.1	8.6	104,800	0.0748
435/55	490.6	7.7	54/3.2	7/3.2	434.3	490.6	28.8	9.6	1,654.2	1,199.0	441.1	14.2	136,450	0.0666
450/40	488.2	11.3	48/3.45	7/2.68	448.7	488.2	28.7	8.04	1,557.1	1,238.6	309.4	9.1	120,750	0.0644
490/65	553.9	7.7	54/3.4	7/3.4	490.3	553.9	30.6	10.2	1,867.7	1,353.7	498.0	16.0	153,100	0.0590
495/35	528.2	14.5	45/3.74	7/2.49	494.1	528.2	29.9	7.47	1,644.0	1,368.2	267.2	8.6	121,800	0.0584
510/45	555.5	11.3	48/3.68	7/2.87	510.2	555.5	30.7	8.61	1,774.6	1,408.1	355.1	11.4	136,650	0.0565
550/70	621.3	7.7	54/3.6	7/3.6	550	621.3	32.4	10.6	2,094.6	1,518.3	558.3	18.0	170,600	0.0526
560/50	611.2	11.3	48/3.86	7/3	561.7	611.2	32.2	9	1,950.4	1,550.2	387.7	12.5	148,950	0.0514
570/40	610.7	14.5	45/4.02	7/2.68	571.2	610.7	32.2	8.04	1,727.5	1,561.7	309.4	10.0	136,200	0.0511
650/45	698.8	14.5	45/4.3	7/2.87	653.5	698.8	34	8.61	2,172.4	1,805.9	355.1	11.4	155,500	0.0443
680/85	764.6	7.7	54/4	19/2.4	678.6	764.6	36	12	2,572.5	1,874.5	675.8	22.2	206,250	0.0426
1,045/45	1,090.9	23.1	72/4.3	7/2.87	1,045.6	1,090.9	43	8.61	3,273.6	2,907.1	355.1	11.4	217,600	0.0279



## ALUMINIUM CONDUCTORS, STEEL-REINFORCED (ACSR) AS PER SWEDISH SPECIFICATION - SS 424 08 07 - 1978

code name	Design (nomi. area) mm <sup>2</sup>	Area			Numb. and diam. of wires				Calc. Overall diam. mm	Weight			Break-ing load kN	*DC resistance at 20° C Ohm/km
		Alu-minium mm <sup>2</sup>	Steel mm <sup>2</sup>	Total mm <sup>2</sup>	Aluminium		Steel							
					Numb.	mm	Numb.	mm						
Swallow	31	26.69	4.45	31.14	6	2.38	1	2.38	7.1	73	35	108	10.0	1.07
Robin	49	42.41	7.07	49.48	6	3.00	1	3.00	9.0	116	55	171	15.6	0.675
Raven	62	53.52	8.92	62.44	6	3.37	1	3.37	10.1	146	70	216	19.0	0.535
Pigeon	99	85.12	14.19	99.31	6	4.25	1	4.25	12.8	232	111	343	29.8	0.336
Partridge	157	134.9	22.0	156.9	26	2.57	7	2.00	16.3	372	173	545	50.2	0.214
Ibis	234	201.3	32.7	234.0	26	3.14	7	2.44	19.9	555	257	812	72.9	0.143
Dove	329	282.6	45.9	328.5	26	3.72	7	2.89	23.6	780	360	1140	99.7	0.102
Condor	454	402.3	52.2	454.5	54	3.08	7	3.08	27.7	1113	409	1522	129	0.0720
Curlew	593/68	525.5	68.1	593.6	54	3.52	7	3.52	31.7	1455	535	1990	165	0.0551
Skata	774/89	685.4	88.8	774.2	54	4.02	7	4.02	36.2	1895	697	2592	212	0.0422
Falcon	910/102	806.2	102.4	908.6	54	4.36	19	2.62	39.3	2230	810	3040	251	0.0361
Morkulla	593/29	562.7	29.1	591.8	42	4.13	7	2.30	31.7	1554	228	1782	128	0.0514
Ripa	774/38	734.7	37.7	772.6	42	4.72	7	2.62	36.2	2030	294	2324	162	0.0393
Orre	910/44	864.7	44.3	909.0	42	5.12	7	2.84	39.2	2338	348	2736	191	0.0334
Dotterel	142	89.4	52.2	141.6	12	3.08	7	3.08	15.4	247	409	655	73.2	0.322
Oden	185	116.8	68.1	184.9	12	3.52	7	3.52	17.6	320	535	855	94.9	0.247
Atle	241	152.3	88.8	241.1	12	4.02	7	4.02	20.1	418	697	1115	123	0.189
Ymer	319	251.0	68.1	319.1	32	3.16	7	3.52	23.2	693	535	1228	119	0.115

\*Based on resistivity - 28.264 Ohm mm<sup>2</sup>/km | Conductivity 61.00% I.A.C.S.

## ALUMINIUM CONDUCTORS, STEEL REINFORCED (ACSR) AS PER FRENCH SPECIFICATION - NF C 34-120 - 1976

Designation (nominal area) mm <sup>2</sup>	Area			Aluminium		Steel		Over-all diam. mm	Weight			Break-ing load kN	*DC resistance at 20° C Ohm/km	
	Alu-minium mm <sup>2</sup>	Steel mm <sup>2</sup>	Total mm <sup>2</sup>	Numb. of wires	Diam. of wire mm	Numb. of wires	Diam. of wire mm		Alu-minium kg/km	Steel kg/km	Total kg/km			
CANNA 37.7	28.27	9.42	37.69	9	2.0	3	2.0	8.3	78	77	155	15.4	1.02	
CANNA 59.7	37.70	21.99	59.69	12	2.0	7	2.0	10	104	172	276	30.5	1.765	
CANNA 75.5	47.71	27.83	75.54	12	2.25	7	2.25	11.25	130	218	348	38.4	0.605	
CANNA 116.2	94.25	21.99	116.24	30	2.0	7	2.0	14	260	172	432	41.5	0.306	
CROCUS 116.2	94.25	21.99	116.24	30	2.0	7	2.0	14	260	172	432	47.4	0.306	
CANNA 147.1	119.28	27.83	147.11	30	2.25	7	2.25	15.75	329	218	547	52.0	0.243	
CROCUS 147.1	119.28	27.83	147.11	30	2.25	7	2.25	15.75	329	218	547	59.5	0.243	
CANNA 181.6	147.26	34.36	181.62	30	2.5	7	2.5	17.5	407	268	675	62.6	0.197	
CROCUS 181.6	147.26	34.36	181.62	30	2.5	7	2.5	17.5	407	268	675	72.9	0.197	
CANNA 228	184.72	43.1	227.82	30	2.8	7	2.8	19.6	510	338	848	77.1	0.157	
CROCUS 228	184.72	43.1	227.82	30	2.8	7	2.8	19.6	510	338	848	90.0	0.157	
CANNA 288	233.80	54.55	288.35	30	3.15	7	3.15	22.05	646	428	1074	96.0	0.1225	
CROCUS 288	233.80	54.55	288.35	30	3.15	7	3.15	22.05	646	428	1074	113.2	0.1225	
CROCUS 297	221.67	75.54	297.21	36	2.8	19	2.25	22.45	615	603	1218	139.5	0.1305	
CROCUS 412	325.72	85.95	411.67	32	3.6	19	2.4	26.4	910	683	1593	169.6	0.0898	
CROCUS 612	506.97	104.79	611.76	42	2.61	19	2.65	32.2	1406	835	2241	169.6	0.0566	
				20	4.24									
CROCUS 865	717.33	148.06	865.39	66	3.72	19	3.15	38.1	1955	1179	3174	318.9	0.0405	
CROCUS 1185	956.6	227.82	1184.48	54	2.8	37	2.8	44.7	2654	1824	4478	469.4	0.0303	
				66	3.47									

\*Based on resistivity - 28.264 Ohm mm<sup>2</sup>/km | Conductivity 61.00% I.A.C.S.



**ALUMINIUM CONDUCTORS STEEL-REINFORCED (ACSR)  
AS PER IS 398 (PART - 2) 1996**

Nominal Aluminium	Stranding and wire dia.		Sectional Area of Aluminium	Total Sectional Area	Approx. diameter	Approx. Mass	Calculated Resistance at 20°C C, Max	Approx. Calculated Breaking Load
	Aluminium	Steel						
(1) mm <sup>2</sup>	(2) mm	(3) mm	(4) mm	(5) mm	(6) mm	(7) Kg/km	(8) Ohm/km	(9) kN
10	6/1.50	1/1.50	10.60	12.37	4.50	43	2.780	3.97
18	6/1.96	1/1.96	18.10	21.12	5.88	73	1.618	6.74
20	6/2.11	1/2.11	20.98	24.48	6.33	85	1.394	7.16
30	6/2.59	1/2.59	31.61	36.88	7.77	128	0.928 9	11.12
50	6/3.35	1/3.35	52.88	61.70	10.05	214	0.552 4	18.25
80	6/4.09	1/4.09	78.83	91.97	12.27	319	0.371 2	26.91
100	6/4.72	7/1.57	105.0	118.5	14.15	394	0.279 2	32.41
150	30/2.59	7/2.59	158.1	194.9	18.13	726	0.187 1	67.34
200	30/3.00	7/3.00	212.1	261.5	21.00	974	0.139 0	89.67
400	42/3.50	7/1.96	404.1	425.2	26.88	1281	0.073 11	88.79
420	54/3.18	7/3.18	428.9	484.5	28.62	1621	0.068 68	130.32
520	54/3.53	7/3.53	528.5	597.0	31.77	1998	0.055 95	159.60
560	42/4.13	7/2.30	562.7	591.7	31.68	1781	0.052 31	120.16

Extra High voltage  
400 KV and above)

**ALUMINIUM CONDUCTORS STEEL-REINFORCED (ACSR)  
AS PER IS 398 (PART - 5) 1992**

Nominal Aluminium	Stranding and wire dia.		Sectional Area of Aluminium	Total Sectional Area	Approx. diameter	Approx. Mass	Calculated Resistance at 20°C C, Max	Approx. Calculated Breaking Load
	Aluminium	Steel						
(1) mm <sup>2</sup>	(2) mm	(3) mm	(4) mm	(5) mm	(6) mm	(7) Kg/km	(8) Ohm/km	(9) kN
520	54/3.53	7/3.53	528.5	597.0	31.77	2.004	0.05552	161.20
560	42/4.13	7/2.30	562.7	591.7	31.68	1.787	0.05199	120.16
690	42/4.57	7/2.54	688.9	724.4	35.04	2.187	0.0424	146.87