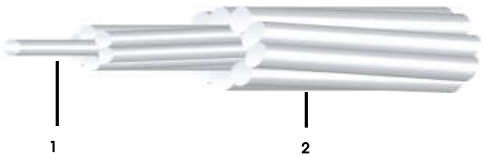
ACSR (A1/S1A)

ALUMINIUM CONDUCTOR, STEEL-REINFORCED



Construction

1. Steel Core : Solid or stranded regular strength galvanized steel wires (S1A)
2. Conductor : Stranded hard-drawn aluminium wires (A1)

Standard :

TIS 85 - 2548, Table 3.4

Application

- For aerial power transmission and distribution line.

Code No.	Steel Ratio	Cross-sectional area			Number of wires		Diameter of wire		Diameter		Conductor resistance at 20°C	Rated Tensile Strength	Current rating in free air at 40°C ambient	Conductor weight	Standard length
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Conductor					
	%	mm^2 (Approx.)	mm^2 (Approx.)	mm^2 (Approx.)			mm (Nominal)	mm (Nominal)	mm (Nominal)	mm (Nominal)	Ω/km (Max.)	kN (Min.)	A	kg/km (Approx.)	m/drum
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.5	1.7934	6.08	112	64.6	4,000
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.9	1.1478	9.13	149	100.9	4,000
40	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.7	0.7174	14.40	201	161.5	3,000
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	0.4555	21.63	269	254.4	3,000
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	0.2869	34.33	363	403.8	3,000
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	0.2304	29.17	414	397.9	2,000
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	0.2310	45.69	420	503.9	2,000
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	0.1800	36.18	485	509.3	2,000
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	0.1805	57.69	492	644.9	2,000
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	0.1440	44.22	560	636.7	2,000
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	0.1444	70.13	568	806.2	2,000
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	0.1154	68.72	652	880.6	1,500
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	0.1155	87.67	657	1,007.7	1,500
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	0.0917	79.03	754	1,039.6	1,500
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	0.0917	106.83	763	1,269.7	1,500
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	0.0722	98.36	879	1,320.1	1,000
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	0.0723	123.04	885	1,510.3	1,000
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	0.0642	107.47	947	1,485.2	1,000
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	0.0643	138.42	955	1,699.1	1,000
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	0.0578	119.41	1,014	1,650.2	1,000
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	0.0578	153.80	1,022	1,887.9	1,000
560	7	560	38.7	599	45	7	3.98	2.65	7.96	31.8	0.0516	133.74	1,089	1,848.2	1,000
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	0.0516	172.59	1,099	2,103.4	1,000
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	0.0459	150.45	1,174	2,079.2	1,000
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	0.0459	191.77	1,184	2,366.3	1,000
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	0.0407	169.56	1,266	2,343.2	500
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	0.0407	216.12	1,276	2,666.8	500
800	4	800	34.6	835	72	7	3.76	2.51	7.52	37.6	0.0361	167.41	1,358	2,480.2	500
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	0.0362	205.33	1,365	2,732.7	500
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	0.0362	243.52	1,374	3,004.9	500
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	0.0321	188.33	1,461	2,790.2	500
900	8	900	75.0	975	84	7	3.69	3.69	11.10	40.6	0.0322	226.50	1,467	3,074.2	500
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	0.0289	209.26	1,557	3,100.3	500
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	0.0258	234.53	1,666	3,464.9	500
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	0.0258	283.17	1,675	3,811.5	500
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	0.0232	316.04	1,784	4,253.9	500
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	0.0231	261.75	1,777	3,867.1	500

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