

Thermal Aluminium Conductor Aluminium Clad Steel Reinforced T-ACSR/AS

Standard Specification : JEC 197

Application : Used for overhead power transmission lines

Construction

Conductor : The center wire or wires of aluminum clad steel and the outer layer or layers of thermal resistance aluminum alloy



Cross Section Area			Number / Dia. Of Wire				Overall Diameter Approx.	Approx. Weight of Conductor kg/km	DC Resistance at 20°C Max. Ω/km	Current Carrying Capacity * A	Rated Ultimate Strength kg	Standard Length m
Nominal	Calc. Cross Section Area		TAL		GSW							
TAL	TAL	Steel	No.	mm	No.	mm						
mm ²	mm ²	mm ²	No.	mm	No.	mm	mm	kg/km	Ω/km	A	kg	m
58	58	10	6	3.50	1	3.5	10.5	219	0.4736	390	1,980	5,000
80	83	14	6	4.20	1	4.2	12.6	315	0.3289	495	2,830	5,000
80	80	21	15	2.6	4	2.6	13.0	359	0.3380	495	3,810	5,000
95	95	16	6	4.5	1	4.5	13.5	362	0.2870	540	3,180	5,000
100	99	26	15	2.9	4	2.9	14.5	447	0.2717	570	1,740	5,000
120	121	32	15	3.2	4	3.2	16.0	535	0.2196	655	5,550	5,000
120	125	29	30	2.30	7	2.30	16.1	537	0.2190	655	5,460	5,000
160	159	37	30	2.60	7	2.60	18.2	686	0.1718	770	6,980	3,000
200	198	46	30	2.90	7	2.90	20.3	853	0.1381	890	8,680	3,000
240	241	56	30	3.20	7	3.20	22.4	1,024	0.1118	1,025	10,170	2,000
330	327	53	26	4.00	7	3.10	25.3	1,239	0.0847	1,225	10,940	2,000
410	414	67	26	4.50	7	3.50	28.5	1,570	0.0669	1,435	13,900	1,500
520	520	67	54	3.50	7	3.50	31.5	1,866	0.0535	1,655	15,590	1,500
610	612	79	54	3.80	7	3.80	34.2	2,199	0.0458	1,840	18,380	1,000
680	679	88	54	4.00	7	4.00	36.0	2,436	0.0415	1,960	20,180	1,000
680	684	46	45	4.40	7	2.90	35.1	2,201	0.0421	1,930	15,590	1,000
810	814	56	45	4.80	7	3.20	38.4	2,613	0.0352	2,170	18,460	1,000
1,160	1,164	97	84	4.20	7	4.20	46.2	3,848	0.0246	2,740	28,310	500
1,520	1,520	127	84	4.80	7	4.80	52.8	5,026	0.0188	3,230	36,410	500

Remark : • Ambient temperature : 35°C • Wind Velocity : 0,6 m/Sec
• Continuous operating temperature of conductor : 80°C