

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

APPLICATION

ACSR can be used in medium, High and Extra High voltage transmission lines. Also used for primary and secondary distribution lines, The combination of aluminum and steel in the conductor design offers both efficient conductivity and high tensile strength making ACSR the most economical solution for overhead power transmission and distribution projects.

*REACH | RoHS | CE

CONSTRUCTION

Conductor: Stranded Galvanized Steel wire to BS 4565
Stranded Aluminium Wire to BS 2627

STANDARD

BS 215 part 2
BDS 1037
IEC 61089

ELECTICAL PROPERTIES

Density at 20°C: Al 2.703 kg/dm, G.S 7.86 kg/dm
Temp. Coefficient at 20°C: Al 0.00403°C
Resistivity at 20°C: Al Should not exceed 0.028264
Linear Expansivity: Al 23×10^{-6} °C, G.S 11.5×10^{-6} (1/°C)



CABLE DESIGN PARAMETER

PHYSICAL DATA							TECHNICAL DATA				
Code name	Nominal Aluminium area	Area of conductor			Number of strands & diameter of wire		Approx Overall diameter of conductor	Approx Weight of conductor	Minimum breaking load of conductor	Maximum D.C resistance of conductor at 20 °C	Current rating at 35 °C ambient temp.
		Al	Steel	Total	Al	Steel					
	mm ²	mm ²	mm ²	mm ²	no./mm	no./mm	mm	kg/km	kgf	Ω /km	Amp
SQUIRREL	20	20.98	3.50	24.48	6/2.11	1/2.11	6.33	85	806	1.37	109
GOPHER	25	26.25	4.37	30.62	6/2.36	1/2.36	7.08	106	979	1.093	126
WEASEL	30	31.61	5.27	36.88	6/2.59	1/2.59	7.77	128	1163	0.9077	134
FOX	35	36.68	6.11	42.79	6/2.79	1/2.79	8.37	149	1346	0.7827	147
FERRET	40	42.41	7.07	49.48	6/3.00	1/3.00	9.00	172	1550	0.6766	161
RABBIT	50	52.88	8.81	61.69	6/3.35	1/3.35	10.05	215	1876	0.5426	185
HORESE	70	73.36	42.80	116.16	12/2.79	7/2.79	13.95	538	6241	0.3936	268
RACCOON	75	79.22	13.20	92.42	6/4.10	1/4.10	12.30	321	2774	0.3623	231
CAT	90	95.43	15.90	111.33	6/4.50	1/4.50	13.50	387	3335	0.3008	248
HARE	100	104.98	17.50	122.48	6/4.72	1/4.72	14.16	425	3671	0.2733	273
DOG	100	104.98	13.55	118.53	6/4.72	7/1.57	14.15	395	6665	0.2733	273
TIGER	125	131.1	30.62	161.85	30/2.36	7/2.36	16.52	603	5914	0.2204	323
WOLF	150	158.06	36.88	194.94	30/2.59	7/2.59	18.13	726	7056	0.1828	355
DINGO	150	158.65	8.81	167.46	18/3.35	1/3.35	16.75	506	3640	0.1815	349
CARACAL	175	184.24	10.24	194.48	18/3.61	1/3.61	18.05	588	4181	0.1563	383
PANTHER	200	212.06	49.48	261.54	30/3.00	7/3.00	21.00	974	9402	0.1363	421
LION	225	238.27	55.60	293.87	30/3.18	7/3.18	22.26	1094	10258	0.1212	448
ELK	450	477.13	111.33	588.46	30/4.50	7/4.50	31.50	2190	20211	0.06058	679