



河南泰诺电缆有限公司

HENAN TANO CABLE CO.,LTD.



ACSR to DIN 48204 STANDARD



TADIR

CABLES



Henan Tano Cable Co., Ltd.(Tano Cable for short), is a leading and professional manufacturer of cable and wire with more than 20 years' history and manufacturing experience, located in Zhengzhou city which is the capital of Henan province, China.

Tano Cable aims at providing integral power solution for international customers. We are working together as one company to provide products and technologies for building, maintaining and advancing the power and information infrastructures that connect the world. We mainly have the following products with strong competitiveness: All Aluminum Conductors (AAC), All Aluminum Alloy Conductors (AAAC), Aluminum Conductors Steel Reinforcement (ACSR) , Aerial Bundled Cables (ABC), building wire, welding cable, control cable, instrument cable, rubber cable, PVC insulated power cable, XLPE insulated power cable up to 500KV, customer-tailored cable and cable accessories, conforming to many different Country or international standard, such as IEC, HAR, BS, DIN, ICEA, ASTM, SABS, AS/NZS, JIS and so on.

Tano Cable pays great importance on the quality. We have strong teams and equipments for both production and inspection. Moreover, we have been awarded many certificates of ISO, CE, SONCAP, others from China and abroad. We keep improving our quality management system to meet the client's final satisfaction.

Tano Cable has provided services to the global clients who working in all areas of the energy, construction, industrial, specialty and communications market, and obtained the client's trust and compliment.

Welcome your any inquiry! Welcome your any visit! Welcome your any contact! We will take our biggest sincerity to be your long-term friend and partner.





Aluminum Conductor Steel reinforced (ACSR) Cables to DIN 48204 Standard

APPLICATION

ACSR conductors are widely used for electrical power transmission over long distances, since they are ideal for long overhead lines spans. They are also used as a messenger for supporting overhead electrical cables.

STANDARD

Basic design to DIN 48204 standard.

CONSTRUCTION

ACSR conductors are formed by several wires of aluminium and galvanized steel, stranded in concentric layers. The wire or wires which form the core, are made of galvanized steel and the external layer or layers, are of aluminium. Galvanized steel core consist normally of 1, 7 or 19 wires. The diameters of steel and aluminium wires can be the same, or different. By varying the relative proportions of aluminium and steel, the required characteristics for any particular application can be reached. A higher U. T. S. Can be obtained, by increasing steel content, and a higher current carrying capacity by increasing aluminium content.

ELECTRICAL PROPERTIES

Density@20°C	Aluminum: 2.703 kg/dm
	Galvanized Steel: 7.80 kg/dm
Temperature Coefficient@20°C	Aluminum: 0.00403 (°C)
Resistivity@20°C	Aluminum: Should not exceed 0.028264
Linear Expansivity	Aluminum: 23 x10 (°C)
	Galvanized Steel: 11.5 x10 (1/°C)

SERVICE CONDITIONS

Ambient Temperature	-5°C - 50°C
Wind Pressure	80 - 130kg/m ²
Seismic Acceleration	0.12 - 0.05g
Isokeraunic Level	10 - 18
Relative Humidity	5 - 100%

CONSTRUCTION PARAMETERS

Nominal Sectional Area		Sectional Area			Stranding		Overall Diameter	Weight	Breaking Load	Electrical Resistance @20°	Current Rating*
AL	Steel	AL	Steel	Total	AL	Steel					
mm ²	mm ²	mm ²	mm ²	mm ²	No. x mm	No. x mm	mm	Kg/Km	KN	Ω/Km	A
16	2.5	15.27	2.54	17.8	6/1.80	1/1.80	5.4	62	5.81	1.8793	83
25	4	23.86	3.98	27.8	6/2.25	1/2.25	6.8	97	9.02	1.2028	109
35	6	34.35	5.73	40.1	6/2.70	1/2.70	8.1	140	12.7	0.8353	136
44	32	43.98	31.67	75.7	14/2.00	7/2.40	11.2	373	45.46	0.6573	166
50	8	48.25	8.04	56.3	6/3.20	1/3.20	9.6	196	17.18	0.5946	168
50	30	51.17	29.85	81	12/2.33	7/2.33	11.7	378	44.28	0.5644	181
70	12	69.69	11.4	81.3	26/1.85	7/1.44	11.7	284	26.31	0.413	211
95	15	94.39	15.33	109.7	26/2.15	7/1.67	13.6	383	35.17	0.3058	254
95	55	96.51	56.3	152.8	12/3.20	7/3.20	16	714	80.2	0.2992	267
105*	75	105.67	75.55	181.2	14/3.10	19/2.25	17.5	899	106.69	0.2736	284
120	20	121.57	19.85	141.4	26/2.44	7/1.90	15.5	494	44.94	0.2374	297
120	70	122.15	71.25	193.4	12/3.60	7/3.60	18	904	98.16	0.2364	308
125	30	127.92	29.85	157.8	30/2.33	7/2.33	16.3	590	57.86	0.2259	308
150	25	148.86	24.25	173.1	26/2.70	7/2.10	17.1	604	54.37	0.1939	336
170	40	171.77	40.08	211.9	30/2.70	7/2.70	18.9	794	77.01	0.1682	369
185	30	183.78	29.85	213.6	26/3.00	7/2.33	19	744	66.28	0.1571	382
210	35	209.1	34.09	243.2	26/3.20	7/2.49	20.3	848	74.94	0.138	414
210	50	212.06	49.48	261.5	30/3.00	7/3.00	21	979	92.25	0.1363	420
230	30	230.91	29.85	260.8	24/3.50	7/2.33	21	874	73.09	0.1249	438
240	40	243.05	39.49	282.5	26/3.45	7/2.68	21.8	985	86.46	0.1188	453
265	35	263.66	34.09	297.8	24/3.74	7/2.49	22.4	998	82.94	0.1094	475
300	50	304.26	49.48	353.7	26/3.86	7/3.00	24.5	1233	105.09	0.0949	520
305	40	304.62	39.49	344.1	54/2.68	7/2.68	24.1	1155	99.3	0.0949	518
340	30	339.29	29.85	369.1	48/3.00	7/2.33	25	1174	92.56	0.0851	551
380	50	381.7	49.48	431.2	54/3.00	7/3.00	27	1448	120.91	0.0757	593
385	35	386.04	34.09	420.1	48/3.20	7/2.49	26.7	1336	104.31	0.0748	595
435	55	434.29	56.3	490.6	54/3.20	7/3.20	28.8	1647	136.27	0.0666	641
450	40	448.71	39.49	488.2	48/3.45	7/2.68	28.7	1553	120.19	0.0644	651

490	65	490.28	63.55	553.8	54/3.40	7/3.40	30.6	1860	152.85	0.059	689
550	70	549.65	71.25	620.9	54/3.60	7/3.60	32.4	2085	167.42	0.0526	737
560	50	561.7	49.48	611.2	48/3.86	7/3.00	32.2	1943	146.28	0.0514	744
680*	85	678.58	85.95	764.5	54/4.00	19/2.40	36	2564	209.99	0.0426	834

* The items marked with "*" are not in our current product range and the details are for information only.

(*) Note: The values of current rating mentioned in above Table are based on wind velocity of 0.6 metre/second, solar heat radiation of 1200 watt/metre², ambient temperature of 50° C & conductor temperature of 80°C.

TECHNICAL DATA

Numbers of Wires		Final Modules of Elasticity		Coefficient of Linear Expansion	
Al	Steel	Kg/mm ²	lb/in ²	1/C°	1/F°
6	1	81	11.5 x10 ⁵	19.1 x10 ⁻⁶	10.6 x10 ⁻⁶
6	7	77	11.0 x10 ⁵	19.8 x10 ⁻⁶	11.0 x10 ⁻⁶
12	7	107	15.2 x10 ⁵	15.3 x10 ⁻⁶	8.5 x10 ⁻⁶
18	1	67	9.5 x10 ⁵	21.2 x10 ⁻⁶	11.8 x10 ⁻⁶
24	7	74	10.5 x10 ⁵	19.6 x10 ⁻⁶	10.9 x10 ⁻⁶
26	7	77	10.9 x10 ⁵	18.9 x10 ⁻⁶	10.5 x10 ⁻⁶
28	7	79	11.2 x10 ⁵	18.4 x10 ⁻⁶	10.2 x10 ⁻⁶
30	7	82	11.6 x10 ⁵	17.8 x10 ⁻⁶	9.9 x10 ⁻⁶
30	19	80	11.4 x10 ⁵	18.0 x10 ⁻⁶	10.0 x10 ⁻⁶
32	19	82	11.7 x10 ⁵	17.5 x10 ⁻⁶	9.7 x10 ⁻⁶
54	7	70	9.9 x10 ⁵	19.3 x10 ⁻⁶	10.7 x10 ⁻⁶
54	19	68	9.7 x10 ⁵	19.4 x10 ⁻⁶	10.8 x10 ⁻⁶



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