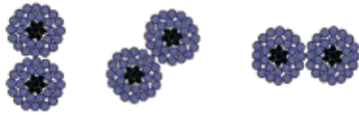




ACSR TP TWISTED PAIR CONDUCTOR



Product Features

ACSR TP is a twisted pair of conductors that are wound in a left hand direction on 9 foot intervals in accordance with ASTM B-911. The twisted construction has over three decades of proven field experience in reducing galloping due to the formation of ice on the conductor. The constantly changing profile of the figure eight shape provided by ACSR TP disrupts the lift forces that cause violent elliptical motion of single conductors under ice formation. Twisted pair conductors also exhibit a rocking motion under wind conditions that translate vibration energy into heat, thus providing a self-damping mechanism. ACSR TP has been shown as the most cost effective means to mitigate galloping, Aeolian vibration, and subconductor oscillation. The inherent self-damping mechanism of ACSR TP allows the conductor to be installed per NEC Code limits, thus reducing sag and structure height or allowing for longer ruling spans.

Specifications

ACSR TP is manufactured in accordance with ASTM B-911 Standard Specification for ACSR Twisted Pair Conductor (ACSR/TP) and ASTM B-232 Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

For ACSR TP conductors that have equal area and the same aluminum to steel ratio of a single conductor ACSR, the wind loads will be approximately 16% greater and the ice weight 14% greater.

Code Word	Equiv. Size (AWG or kcmil)	Component Composition			Outer Dimensions (in.)	Equiv. Dia (in.)	No. and Dia. (in.)			Rated Str. (1) (lb.)	Resistance (2) (ohms/1000 ft.)			Amps (3)
		AWG or kcmil	No. and Dia. (in.)				Total	Al	Steel		dc @ 20°C	ac @ 25°C	ac @ 75°C	
			Al	Steel										
Swan/TP	1	4	6 x 0.0834	1 x 0.0834	0.250 x 0.500	0.409	114.8	78.0	36.8	3,720	0.2016	0.2060	0.2609	222
Swanate/TP	1	4	7 x 0.0772	1 x 0.1029	0.257 x 0.514	0.421	134.0	78.0	56.0	4,720	0.1994	0.2036	0.2582	225
Swallow/TP	1/0	3	6 x 0.0937	1 x 0.0937	0.281 x 0.562	0.460	144.8	98.2	46.6	4,600	0.1599	0.1633	0.2092	255
Sparrow/TP	2/0	2	6 x 0.1052	1 x 0.1052	0.316 x 0.632	0.517	182.4	123.8	58.6	5,700	0.1267	0.1295	0.1680	294
Sparate/TP	2/0	2	7 x 0.0974	1 x 0.1299	0.325 x 0.650	0.532	213.3	123.9	89.4	7,280	0.1253	0.1281	0.1649	299
Robin/TP	3/0	1	6 x 0.1181	1 x 0.1181	0.354 x 0.708	0.580	230.0	156.2	73.8	7,100	0.1005	0.1029	0.1351	337
Raven/TP	4/0	1/0	6 x 0.1327	1 x 0.1327	0.398 x 0.796	0.652	290.4	197.2	93.2	8,760	0.0796	0.0816	0.1080	389
Quail/TP	266.2	2/0	6 x 0.1489	1 x 0.1489	0.447 x 0.894	0.732	365.6	248.2	117.4	10,600	0.0632	0.0651	0.0880	444
Pigeon/TP	335.6	3/0	6 x 0.1672	1 x 0.1672	0.502 x 1.004	0.822	461.0	312.8	148.2	13,240	0.0502	0.0517	0.0732	505
Penguin/TP	423.2	4/0	6 x 0.1878	1 x 0.1878	0.563 x 1.126	0.922	581.6	394.8	186.8	16,700	0.0398	0.0411	0.0579	582

Notes:

(1) Rated Strength based on GA2 steel in accordance with ASTM B 498. Other steel core types will result in different strengths.

(2) Resistance based on 61.2% IACS minimum average conductivity aluminum and 8% IACS conductivity steel core at 20°C

(3) Ampacity based on 75°C conductor temperature, 25°C ambient, wind 2 ft/sec., sun.



Twisted Pair conductors stringing sheave

Stringing Considerations:

- The bullwheel should be a minimum of 35x the conductor OD to the bottom of the groove.
- The sheave groove radius should be a minimum of 0.55x the conductor OD.
- The sheave should be at least 14x the conductor OD to the bottom of the groove.
- For Twisted Pair (TP) conductors, the OD in the above guidelines is 2x the OD of an individual conductor.

Code Word	Equiv. Size (AWG or kcmil)	AWG or kcmil	NR 42.28 (ft.)	NR 48.28 (ft.)	NR 60.28 (ft.)	NR 66.28 (ft.)	NR 68.40 (ft.)	RMT 84.36 (ft.)	RMT 90.45 (ft.)	RMT 96.60 (ft.)
Swan/TP	1	4	7,709	15,418						
Swanate/TP	1	4	6,604	13,209						
Swallow/TP	1/0	3	6,112	12,224						
Sparrow/TP	2/0	2	4,852	9,704	16,060					
Sparate/TP	2/0	2	4,149	8,298	15,170					
Robin/TP	3/0	1	3,848	7,696	12,760					
Raven/TP	4/0	1/0	3,048	6,095	10,100	11,000				
Quail/TP	266.2	2/0		4,841	8,010	7,100				
Pigeon/TP	335.6	3/0		3,839	6,350	5,600				
Penguin/TP	423.2	4/0			3,043	4,470	4,250	10,000	11,000	16,300

880 lb package

1770 lb package

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For more information on Alcan Cable, go to www.cable.alcan.com or call 800-347-0571.
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