

This example compares a standard conductor, Penguin, to the same conductor in T-2 configuration.

ALUMINUM COMPANY OF AMERICA SAG AND TENSION DATA

Sample Problem
T-2 Conductor

Conductor PENGUIN #4/0 AWG 6/ 1 Stranding ACSR

Area= .1939 Sq. In Dia= .563 In Wt= .291 Lb/F RTS= 8350 Lb
Data from Chart No. 1-938
English UnitsSpan= 1000.0 Feet NESC Heavy Load Zone
Creep is NOT a Factor

Design Points					Final		Initial	
Temp	Ice	Wind	K	Weight	Sag	Tension	Sag	Tension
F	In	Psf	Lb/F	Lb/F	Ft	Lb	Ft	Lb
0.	.50	4.00	.30	1.385	41.87	4175.	41.87	4175.*
32.	.50	.00	.00	.952	40.85	2940.	39.41	3046.
-20.	.00	.00	.00	.291	33.82	1082.	30.40	1203.
0.	.00	.00	.00	.291	34.89	1050.	31.48	1162.
30.	.00	.00	.00	.291	36.45	1005.	33.06	1107.
60.	.00	.00	.00	.291	37.96	966.	34.60	1058.
90.	.00	.00	.00	.291	39.42	931.	36.09	1015.
120.	.00	.00	.00	.291	40.31	911.	37.55	976.
167.	.00	.00	.00	.291	41.54	884.	39.76	923.
212.	.00	.00	.00	.291	42.69	861.	41.80	879.

* Design Condition

ALUMINUM COMPANY OF AMERICA SAG AND TENSION DATA

Sample Problem
T-2 Conductor

T-2 Conductor PENGUIN 2 - #4/0 AWG 6/ 1 Stranding ACSR

Area= .3878 Sq. In Dia= .922 In Wt= .582 Lb/F RTS= 16700 Lb
Data from Chart No. 1-938
English UnitsSpan= 1000.0 Feet NESC Heavy Load Zone
Creep is NOT a Factor

Design Points					Final		Initial	
Temp	Ice	Wind	K	Weight	Sag	Tension	Sag	Tension
F	In	Psf	Lb/F	Lb/F	Ft	Lb	Ft	Lb
0.	.50	4.00	.30	1.917	28.83	8350.	28.83	8350.*
32.	.50	.00	.00	1.485	28.39	6569.	27.11	6876.
-20.	.00	.00	.00	.582	19.11	3816.	15.93	4574.
0.	.00	.00	.00	.582	20.53	3552.	17.06	4271.
30.	.00	.00	.00	.582	22.63	3224.	18.85	3867.
60.	.00	.00	.00	.582	24.66	2960.	20.70	3523.
90.	.00	.00	.00	.582	26.62	2744.	22.58	3232.
120.	.00	.00	.00	.582	28.50	2565.	24.44	2988.
167.	.00	.00	.00	.582	30.81	2374.	27.28	2678.
212.	.00	.00	.00	.582	32.16	2276.	29.90	2446.

* Design Condition