

Application Note

Flat Drop Cable Stub Sag and Tension Guide (1.0%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
25	10	3.0
50	19	6.0
75	29	9.0
100	39	12.0
125	48	15.0
150	58	18.0
175	68	21.0
200	78	24.0
225	87	27.0
250	97	30.0
275	107	33.0
300	116	36.0
325	126	39.0
350	136	42.0
375	145	45.0
400	155	48.0
425	165	51.0
450	174	54.0
475	184	57.0
500	194	60.0
525	203	63.0
550	213	66.0

NESC ICE AND WIND LOADING DISTRICTS ¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
25	5.1	4.2	6.6	99	3.2	4.2	5.2	61	0.9	3.8	3.9	31
50	12.6	10.3	16.3	160	7.7	10.2	12.8	101	2.2	8.9	9.2	53
75	21.5	17.5	27.7	212	13.1	17.2	21.6	134	3.6	14.8	15.2	73
100	31.3	25.6	40.4	258	18.9	24.9	31.3	165	5.1	21.1	21.7	91
125	42.0	34.2	54.2	301	25.3	33.2	41.7	193	6.7	27.8	28.6	108
150	53.3	43.5	68.8	342	31.9	42.0	52.8	219	8.5	34.8	35.8	124
175	-	-	-	-	39.0	51.3	64.4	245	10.2	42.0	43.3	139
200	-	-	-	-	46.3	60.9	76.4	269	12.0	49.6	51.0	154
225	-	-	-	-	53.8	70.8	88.9	293	13.9	57.3	59.0	169
250	-	-	-	-	61.6	81.1	101.8	316	15.9	65.2	67.1	183
275	-	-	-	-	69.6	91.6	115.1	338	17.8	73.3	75.4	197
300	-	-	-	-	-	-	-	-	19.8	81.5	83.9	211
325	-	-	-	-	-	-	-	-	21.9	89.9	92.5	225
350	-	-	-	-	-	-	-	-	23.9	98.4	101.2	238
375	-	-	-	-	-	-	-	-	26.0	107.0	110.1	251
400	-	-	-	-	-	-	-	-	28.1	115.7	119.1	264
425	-	-	-	-	-	-	-	-	30.3	124.6	128.2	277
450	-	-	-	-	-	-	-	-	32.5	133.5	137.4	290
475	-	-	-	-	-	-	-	-	34.7	142.6	146.7	303
500	-	-	-	-	-	-	-	-	36.9	151.7	156.1	315
525	-	-	-	-	-	-	-	-	39.1	160.9	165.6	328
550	-	-	-	-	-	-	-	-	41.4	170.2	175.1	340

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 1% Sag at 60°F installation.

Application Note

Flat Drop Cable Stub Sag and Tension Guide (1.5%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
25	6	4.5
50	13	9.0
75	19	13.5
100	26	18.0
125	32	22.5
150	39	27.0
175	45	31.5
200	52	36.0
225	58	40.5
250	65	45.0
275	71	49.5
300	78	54.0
325	84	58.5
350	90	63.0
375	97	67.5
400	103	72.0
425	110	76.5

NESC ICE AND WIND LOADING DISTRICTS ¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
25	5.6	4.6	7.2	91	3.7	4.8	6.0	53	0.3	2.1	-2.2	0
50	13.5	11.0	17.4	150	8.6	11.3	14.2	91	1.7	13.0	13.1	69
75	22.8	18.6	29.4	200	14.3	18.8	23.7	122	2.8	21.3	21.5	95
100	33.0	26.9	42.6	245	20.6	27.1	34.0	151	3.9	30.5	30.7	118
125	44.1	36.0	56.9	287	27.3	36.0	45.2	178	5.2	40.2	40.6	140
150	55.8	45.6	72.1	326	34.5	45.4	57.0	203	6.5	50.6	51.0	160
175	-	-	-	-	42.0	55.2	69.3	227	7.9	61.4	61.9	180
200	-	-	-	-	49.8	65.5	82.2	250	9.4	72.6	73.2	198
225	-	-	-	-	57.8	76.1	95.6	273	10.9	84.2	84.9	216
250	-	-	-	-	66.2	87.1	109.4	294	12.4	96.2	96.9	234
275	-	-	-	-	74.8	98.4	123.6	315	14.0	108.4	109.3	251
300	-	-	-	-	83.6	110.0	138.2	335	15.6	121.0	122.0	268
325	-	-	-	-	-	-	-	-	17.3	133.9	135.0	284
350	-	-	-	-	-	-	-	-	19.0	147.1	148.3	300
375	-	-	-	-	-	-	-	-	20.7	160.5	161.8	315
400	-	-	-	-	-	-	-	-	22.5	174.1	175.6	331
425	-	-	-	-	-	-	-	-	24.3	188.0	189.6	346

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 1.5% Sag at 60°F installation.

Application Note

Flat Drop Cable Stub Sag and Tension Guide (2.0%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
25	5	6.0
50	10	12.0
75	15	18.0
100	19	24.0
125	24	30.0
150	29	36.0
175	34	42.0
200	39	48.0
225	44	54.0
250	48	60.0
275	53	66.0
300	58	72.0
325	63	78.0
350	68	84.0
375	73	90.0
400	78	96.0
425	82	102.0
450	87	108.0

NESC ICE AND WIND LOADING DISTRICTS ¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
25	6.2	5.1	8.0	81	4.3	5.6	7.0	46	0.4	3.2	-3.2	0
50	14.6	11.9	18.8	139	9.6	12.7	15.9	81	1.9	14.8	15.0	61
75	24.2	19.7	31.2	188	15.7	20.7	26.0	111	3.1	23.9	24.1	85
100	34.8	28.4	44.9	232	22.4	29.5	37.0	139	4.4	33.8	34.0	107
125	46.3	37.7	59.7	273	29.5	38.8	48.8	165	5.7	44.2	44.6	127
150	58.4	47.7	75.4	312	37.0	48.7	61.2	189	7.1	55.2	55.7	147
175	71.2	58.1	91.9	348	44.9	59.1	74.2	213	8.6	66.7	67.3	165
200	-	-	-	-	53.1	69.8	87.7	235	10.2	78.7	79.3	183
225	-	-	-	-	61.5	81.0	101.7	256	11.8	91.0	91.8	200
250	-	-	-	-	70.3	92.5	116.2	277	13.4	103.7	104.6	217
275	-	-	-	-	79.3	104.3	131.1	297	15.1	116.7	117.7	233
300	-	-	-	-	88.5	116.5	146.3	317	16.8	130.1	131.2	249
325	-	-	-	-	98.0	128.9	161.9	336	18.6	143.8	145.0	264
350	-	-	-	-	-	-	-	-	20.4	157.7	159.0	280
375	-	-	-	-	-	-	-	-	22.2	171.9	173.4	294
400	-	-	-	-	-	-	-	-	24.1	186.4	187.9	309
425	-	-	-	-	-	-	-	-	26.0	201.1	202.8	323
450	-	-	-	-	-	-	-	-	27.9	216.1	217.9	337

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 2% Sag at 60°F installation.

Application Note

ADSS Cable Stub Sag and Tension Guide (1.0%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
50	24	6.0
100	47	12.0
150	71	18.0
200	94	24.0
250	118	30.0
300	141	36.0
350	165	42.0
400	188	48.0
450	212	54.0
500	235	60.0
550	259	66.0
600	282	72.0
650	306	78.0
700	329	84.0
750	353	90.0
800	376	96.0
850	400	102.0
900	424	108.0
950	447	114.0
1000	471	120.0
1050	494	126.0
1100	518	132.0
1150	541	138.0
1200	565	144.0
1250	588	150.0

NESC ICE AND WIND LOADING DISTRICTS ¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
50	13.4	10.8	17.2	221	8.6	10.8	13.8	149	1.7	12.0	12.1	100
100	32.9	26.4	42.2	360	21.0	27.6	34.7	245	4.0	27.6	27.9	168
150	55.8	45.6	72.1	478	35.3	45.6	57.7	328	6.7	45.6	46.1	227
200	81.1	66.0	104.6	585	51.1	66.0	83.5	402	9.6	66.0	66.7	280
250	108.5	88.8	140.2	683	67.0	88.8	111.2	472	12.7	87.6	88.5	331
300	137.6	112.8	178.0	776	86.2	111.6	141.0	537	16.0	110.4	111.5	378
350	168.2	138.0	217.6	864	105.0	136.8	172.5	600	19.4	134.4	135.8	424
400	200.2	163.2	258.3	949	124.7	162.0	204.4	660	23.0	158.4	160.1	468
450	232.2	189.6	299.8	1,035	145.0	188.4	237.7	718	26.6	183.6	185.5	511
500	-	-	-	-	166.0	214.8	271.4	774	30.4	210.0	212.2	553
550	-	-	-	-	187.4	243.6	307.4	829	34.3	236.4	238.9	593
600	-	-	-	-	209.6	272.4	343.7	883	38.3	264.0	266.8	633
650	-	-	-	-	232.2	301.2	380.3	935	42.2	291.6	294.6	672
700	-	-	-	-	255.2	331.2	418.1	986	46.3	319.2	322.5	711
750	-	-	-	-	278.8	361.2	456.3	1,037	50.5	348.0	351.6	749
800	-	-	-	-	302.8	392.4	495.6	1,086	54.8	378.0	382.0	786
850	-	-	-	-	-	-	-	-	59.0	406.8	411.1	823
900	-	-	-	-	-	-	-	-	63.4	436.8	441.4	859
950	-	-	-	-	-	-	-	-	67.8	468.0	472.9	895
1000	-	-	-	-	-	-	-	-	72.2	498.0	503.2	930
1050	-	-	-	-	-	-	-	-	76.8	529.2	534.7	966
1100									81.4	560.4	566.3	1,000
1150									85.9	592.8	599.0	1,035
1200									90.6	625.2	631.7	1,069
1250									95.3	656.4	663.3	1,103

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 1% Sag at 60°F installation.

Application Note

ADSS Cable Stub Sag and Tension Guide (1.5%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
50	16	9.0
100	31	18.0
150	47	27.0
200	63	36.0
250	78	45.0
300	94	54.0
350	110	63.0
400	125	72.0
450	141	81.0
500	157	90.0
550	173	99.0
600	188	108.0
650	204	117.0
700	220	126.0
750	235	135.0
800	251	144.0
850	267	153.0
900	282	162.0
950	298	171.0
1000	314	180.0
1050	329	189.0
1100	345	198.0
1150	361	207.0
1200	376	216.0
1250	392	225.0
1300	408	234.0
1350	424	243.0
1400	439	252.0

NESC ICE AND WIND LOADING DISTRICTS¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
50	14.2	12.0	18.6	210	9.5	12.0	15.3	136	1.9	13.2	13.3	88
100	34.3	27.6	44.0	346	22.4	28.8	36.5	229	4.4	30.0	30.3	152
150	58.0	46.8	74.5	461	37.6	49.2	61.9	308	7.3	50.4	50.9	207
200	84.1	68.4	108.4	565	54.2	70.8	89.2	379	10.4	72.0	72.8	256
250	112.3	91.2	144.7	660	72.2	93.6	118.2	445	13.9	97.2	98.2	303
300	142.3	116.4	183.9	750	91.2	118.8	149.8	507	17.4	120.0	121.3	347
350	173.9	141.6	224.2	836	111.2	144.0	182.0	566	21.2	146.4	147.9	389
400	206.9	169.2	267.3	918	132.0	171.6	216.5	623	25.1	172.8	174.6	429
450	241.2	196.8	311.3	996	153.6	199.2	251.5	678	29.0	200.4	202.5	468
500	276.6	225.6	356.9	1,073	175.8	228.0	287.9	731	33.2	229.2	231.6	506
550	-	-	-	-	198.8	258.0	325.7	782	37.4	258.0	260.7	543
600	-	-	-	-	222.4	288.0	363.9	832	41.9	288.0	291.0	579
650	-	-	-	-	246.5	319.2	403.3	881	46.3	319.2	322.5	614
700	-	-	-	-	271.1	351.6	444.0	929	50.8	350.4	354.1	648
750	-	-	-	-	296.3	384.0	485.0	976	55.4	382.8	386.8	682
800	-	-	-	-	322.0	417.6	527.3	1,022	60.1	415.2	419.5	715
850	-	-	-	-	348.0	451.2	569.8	1,067	64.9	447.6	452.3	748
900	-	-	-	-	-	-	-	-	69.7	481.2	486.2	780
950	-	-	-	-	-	-	-	-	74.8	514.8	520.2	812
1000	-	-	-	-	-	-	-	-	79.7	549.6	555.3	844
1050	-	-	-	-	-	-	-	-	84.7	584.4	590.5	875
1100	-	-	-	-	-	-	-	-	89.9	620.4	626.9	905
1150	-	-	-	-	-	-	-	-	95.0	655.2	662.1	936
1200	-	-	-	-	-	-	-	-	100.3	691.2	698.4	965
1250	-	-	-	-	-	-	-	-	105.6	728.4	736.0	995
1300									110.9	765.6	773.6	1025
1350									116.3	802.8	811.2	1054
1400									121.7	840.0	848.8	1082

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 1.5% Sag at 60°F installation.

Application Note

ADSS Cable Stub Sag and Tension Guide (2%)

INITIAL SAG AND TENSION ¹		
60°F		
Span ft	Tension lbs	Sag in
100	24	24.0
150	35	36.0
200	47	48.0
250	59	60.0
300	71	72.0
350	82	84.0
400	94	96.0
450	106	108.0
500	118	120.0
550	129	132.0
600	141	144.0
650	153	156.0
700	165	168.0
750	176	180.0
800	188	192.0
850	200	204.0
900	212	216.0
950	224	228.0
1000	235	240.0
1050	247	252.0
1100	259	264.0
1150	271	276.0
1200	282	288.0
1250	294	300.0
1300	306	312.0
1350	318	324.0
1400	329	336.0
1450	341	348.0
1500	353	360.0
1550	365	372.0

NESC ICE AND WIND LOADING DISTRICTS ¹												
Heavy					Medium				Light			
Span ft	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	36.1	30.0	47.0	329	24.1	31.2	39.4	213	4.9	33.6	34.0	137
150	60.4	49.2	77.9	442	40.0	51.6	65.3	289	8.0	55.2	55.8	189
200	87.2	70.8	112.4	544	57.4	74.4	93.9	359	11.4	78.0	78.8	237
250	116.3	94.8	150.0	638	76.0	98.4	124.3	423	15.0	103.2	104.3	281
300	147.0	120.0	189.8	726	95.8	124.8	157.3	483	18.7	129.6	130.9	323
350	179.4	146.4	231.6	810	116.5	151.2	190.9	541	22.7	158.4	160.0	363
400	213.2	174.0	275.2	891	138.1	178.8	225.9	596	26.8	184.8	186.7	401
450	248.3	202.8	320.6	968	160.4	207.6	262.4	649	31.1	214.8	217.0	438
500	284.6	232.8	367.7	1,042	183.6	238.8	301.2	700	35.4	244.8	247.3	474
550	-	-	-	-	207.4	268.8	339.5	749	40.0	276.0	278.9	509
600	-	-	-	-	231.8	301.2	380.1	798	44.5	307.2	310.4	543
650	-	-	-	-	256.9	333.6	421.1	845	49.2	339.6	343.1	577
700	-	-	-	-	282.5	366.0	462.3	891	54.1	373.2	377.1	609
750	-	-	-	-	308.6	400.8	505.9	936	58.9	406.8	411.0	641
800	-	-	-	-	335.4	435.6	549.8	981	64.0	441.6	446.2	673
850	-	-	-	-	362.5	470.4	593.9	1,024	69.0	476.4	481.4	704
900	-	-	-	-	390.1	506.4	639.2	1,067	74.2	512.4	517.7	734
950	-	-	-	-	-	-	-	-	79.4	548.4	554.1	764
1000	-	-	-	-	-	-	-	-	84.7	584.4	590.5	793
1050	-	-	-	-	-	-	-	-	90.1	621.6	628.1	823
1100	-	-	-	-	-	-	-	-	95.5	658.8	665.7	851
1150	-	-	-	-	-	-	-	-	101.0	697.2	704.5	880
1200	-	-	-	-	-	-	-	-	106.7	735.6	743.3	908
1250	-	-	-	-	-	-	-	-	112.3	775.2	783.3	935
1300	-	-	-	-	-	-	-	-	115.1	794.4	802.7	949
1350	-	-	-	-	-	-	-	-	123.7	853.2	862.1	990
1400									129.6	894.0	903.3	1017
1450									135.5	934.8	944.6	1044
1500									141.4	975.6	985.8	1070
1550									147.4	1016.4	1027.0	1096

LOADING DISTRICT SPECIFICS			
	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft²)	4	4	9
Radial Ice Thickness (in)	½	¼	0
Temperature (F)	0	15	30

¹Reflects 2% Sag at 60°F installation.