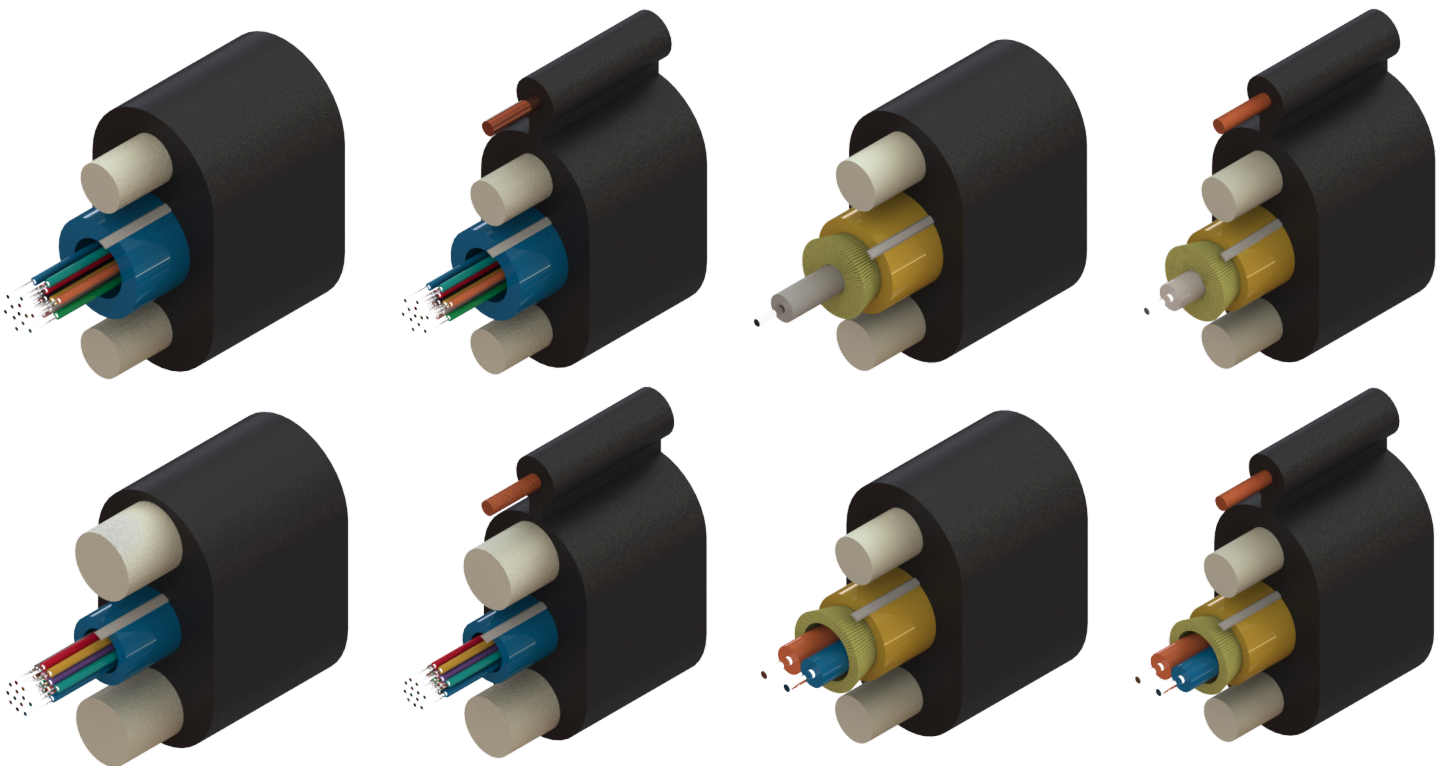




Sag and Tension Guide for Flat Drop Cables for installation sag of 1.0%, 1.5% and 2.0%

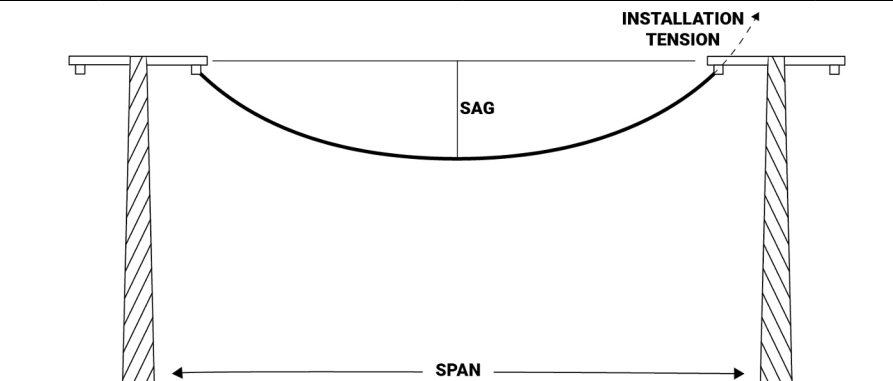


Sag and Tension Guide (1%) Flat Drop Cable (1.5mm FRP)

Applicable for the following cable subfamily codes:

-FDLT30 -TFDLT30 -FDSX -FDDL
-FDLTD30 -TFDLTD30 -TFDSX -TFDDL

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy			Sag (in) (mm)	Tension (N) (lbf)
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)		
25 (7.6)	1	3 (76)	85 (19)	1.1	3.3 (84)	349 (79)	1.6	4.8 (122)	530 (119)	3 (76)	37 (8)
50 (15.2)	1	6 (152)	170 (38)	1.3	7.8 (198)	592 (133)	2	12 (305)	849 (191)	6 (152)	75 (17)
75 (22.9)	1	9 (229)	255 (57)	1.5	13.5 (343)	769 (173)	2.3	20.7 (526)	1,108 (249)	9 (229)	112 (25)
100 (30.5)	1	12 (305)	339 (76)	1.6	19.2 (488)	961 (216)	2.5	30 (762)	1,359 (306)	12 (305)	150 (34)
125 (38.1)	1	15 (381)	424 (95)	1.7	25.5 (648)	1,131 (254)	2.8	42 (1,067)	1,518 (341)	15 (381)	187 (42)
150 (45.7)	1	18 (457)	509 (114)	1.8	32.4 (823)	1,282 (288)	3	54 (1,372)	1,701 (382)	18 (457)	225 (51)
175 (53.3)	1	21 (533)	594 (134)	1.9	39.9 (1,013)	1,417 (319)	3.3	69.3 (1,760)	1,804 (406)	21 (533)	262 (59)
200 (61)	1	24 (610)	679 (153)	2	48 (1,219)	1,539 (346)				24 (610)	300 (67)
225 (68.6)	1	27 (686)	764 (172)	2.1	56.7 (1,440)	1,649 (371)				27 (686)	337 (76)
250 (76.2)	1	30 (762)	848 (191)	2.2	66 (1,676)	1,749 (393)				30 (762)	375 (84)
275 (83.8)	1	33 (838)	933 (210)	2.3	75.9 (1,928)	1,841 (414)				33 (838.2)	412 (93)
300 (91.4)	1	36 (914)	1,018 (229)							36 (914.4)	450 (101)
325 (99.1)	1	39 (991)	1,103 (248)							39 (990.6)	487 (110)
350 (106.7)	1	42 (1,067)	1,188 (267)							42 (1,067)	525 (118)
375 (114.3)	1	45 (1,143)	1,273 (286)							45 (1,143)	562 (126)
400 (121.9)	1	48 (1,219)	1,357 (305)							48 (1,219)	600 (135)
425 (129.5)	1	51 (1,295)	1,442 (324)							51 (1,295)	637 (143)
450 (137.2)	1	54 (1,372)	1,527 (343)							54 (1,372)	675 (152)
475 (144.8)	1	57 (1,448)	1,612 (362)							57 (1,448)	712 (160)
500 (152.4)	1	60 (1,524)	1,697 (381)							60 (1,524)	750 (169)
525 (160)	1	63 (1,600)	1,782 (401)							63 (1,600)	787 (177)
550 (167.6)	1	66 (1,676)	1,866 (420)							66 (1,676)	825 (185)
Loading district specifics											
	NESC Light			NESC Medium			NESC Heavy				
Horizontal wind pressure (lbf/ft ²)	9			4			4				
Radial ice thickness (in)	0			0.25			0.5				
Temperature (°C) (°F)	-1.1 (30)			-9.4 (15)			0				

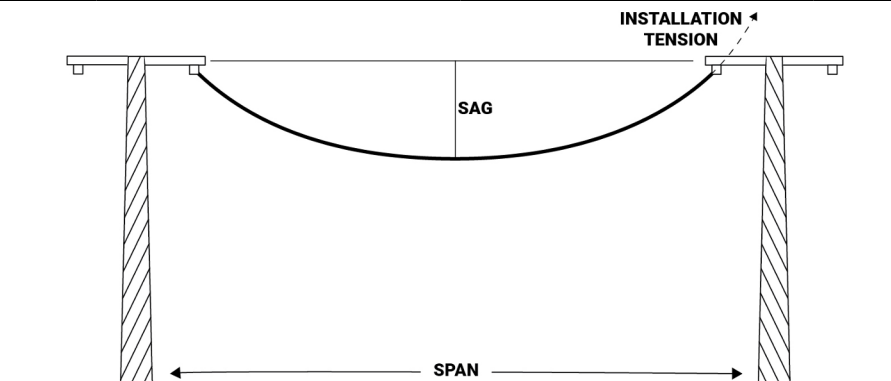


Sag and Tension Guide (1.5%) Flat Drop Cable (1.5mm FRP)

Applicable for the following cable subfamily codes:

-FDLT30 -TFDLT30 -FDSX -FDDL
-FDLTD30 -TFDLTD30 -TFDSX -TFDDL

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy				
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (in) (mm)	Tension (N) (lbf)
25 (7.6)	1.5	4.5 (114)	57 (13)	1.5	4.5 (114)	256 (58)	1.9	5.7 (145)	447 (101)	4.5 (114)	25 (6)
50 (15.2)	1.5	9 (229)	113 (25)	1.5	9 (229)	513 (115)	2.3	13.8 (351)	739 (166)	9 (229)	50 (11)
75 (22.9)	1.5	13.5 (343)	170 (38)	1.6	14.4 (366)	721 (162)	2.5	22.5 (572)	1,020 (229)	13.5 (343)	75 (17)
100 (30.5)	1.5	18 (457)	226 (51)	1.7	20.4 (518)	905 (203)	2.8	33.6 (853)	1,214 (273)	18 (457)	100 (23)
125 (38.1)	1.5	22.5 (572)	283 (64)	1.8	27. (686)	1,068 (240)	2.9	43.5 (1,105)	1,759 (395)	22.5 (572)	125 (28)
150 (45.7)	1.5	27 (686)	339 (76)	1.9	34.2 (869)	1,215 (273)	3.1	55.8 (1,417)	1,646 (370)	27 (686)	150 (34)
175 (53.3)	1.5	31.5 (800)	396 (89)	2	42 (1,067)	1,346 (303)	3.3	69.3 (1,760)	1,804 (406)	31.5 (800)	175 (39)
200 (61)	1.5	36 (914)	453 (102)	2.1	50.4 (1,280)	1,466 (330)				36 (914)	200 (45)
225 (68.6)	1.5	40.5 (1,029)	509 (115)	2.2	59.4 (1,509)	1,574 (354)				40.5 (1,029)	225 (51)
250 (76.2)	1.5	45 (1,143)	566 (127)	2.3	69 (1,753)	1,673 (376)				45 (1,143)	250 (56)
275 (83.8)	1.5	49.5 (1,257)	622 (140)	2.4	79.2 (2,012)	1,764 (397)				49.5 (1,257)	275 (62)
300 (91.4)	1.5	54 (1,372)	679 (153)	2.5	90 (2,286)	1,848 (415)				54 (1,372)	300 (68)
325 (99.1)	1.5	58.5 (1,486)	736 (165)							58.5 (1,486)	325 (73)
350 (106.7)	1.5	63 (1,600)	792 (178)							63 (1,600)	350 (79)
375 (114.3)	1.5	67.5 (1,715)	849 (191)							67.5 (1,715)	375 (84)
400 (121.9)	1.5	72 (1,829)	905 (204)							72 (1,829)	400 (90)
425 (129.5)	1.5	76.5 (1,943)	962 (216)							76.5 (1,943)	425 (96)
450 (137.2)	1.5	81 (2,057)	1,018 (229)							81 (2,057)	450 (101)
475 (144.8)	1.5	85.5 (2,172)	1,075 (242)							85.5 (2,172)	475 (107)
500 (152.4)	1.5	90 (2,286)	1,132 (254)							90 (2,286)	500 (112)
525 (160)	1.5	94.5 (2,400)	1,188 (267)							94.5 (2,400)	525 (118)
550 (167.6)	1.5	99 (2,515)	1,245 (280)							99 (2,515)	550 (124)
Loading district specifics											
			NESC Light			NESC Medium			NESC Heavy		
Horizontal wind pressure (lbf/ft²)			9			4			4		
Radial ice thickness (in)			0			0.25			0.5		
Temperature (°C) (°F)			-1.1 (30)			-9.4 (15)			0		

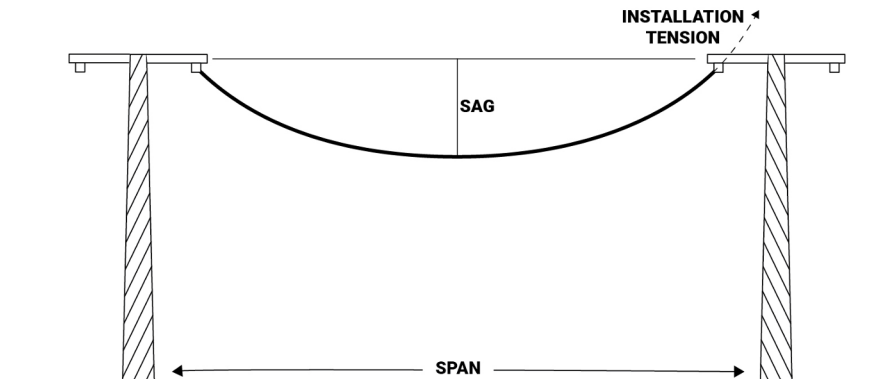


Sag and Tension Guide (2%) Flat Drop Cable (1.5mm FRP)

Applicable for the following cable subfamily codes:

-FDLT30 -TFDLT30 -FDSX -FDDL
-FDLTD30 -TFDLTD30 -TFDSX -TFDDL

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy				
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (in) (mm)	Tension (N) (lbf)
25 (7.6)	2	6 (152)	42 (10)	2	6 (152)	192 (43)	2.1	6.3 (160)	404 (91)	6 (152)	19 (4)
50 (15.2)	2	12 (305)	85 (19)	2	12 (305)	385 (87)	2.4	14.4 (366)	708 (159)	12 (305)	38 (8)
75 (22.9)	2	18 (457)	127 (29)	2	18 (457)	577 (130)	2.7	24.3 (617)	944 (212)	18 (457)	56 (13)
100 (30.5)	2	24 (610)	170 (38)	2	24 (610)	769 (173)	2.9	34.8 (884)	1,173 (264)	24 (610)	75 (17)
125 (38.1)	2	30 (762)	212 (48)	2	30 (762)	962 (216)	3.1	46.5 (1,181)	1,372 (308)	30 (762)	94 (21)
150 (45.7)	2	36 (914)	255 (57)	2	36 (914)	1,154 (260)	3.2	57.6 (1,463)	1,595 (359)	36 (914)	113 (25)
175 (53.3)	2	42 (1,067)	297 (67)	2.1	44.1 (1,120)	1,283 (288)	3.4	71.4 (1,814)	1,752 (394)	42 (1,067)	131 (30)
200 (61)	2	48 (1,219)	340 (76)	2.2	52.8 (1,341)	1,399 (315)				48 (1,219)	150 (34)
225 (68.6)	2	54 (1,372)	382 (86)	2.3	62.1 (1,577)	1,506 (339)				54 (1,372)	169 (38)
250 (76.2)	2	60 (1,524)	425 (95)	2.4	72 (1,829)	1,604 (361)				60 (1,524)	188 (42)
275 (83.8)	2	66 (1,676)	467 (105)	2.5	82.5 (2,096)	1,694 (381)				66 (1,676)	206 (46)
300 (91.4)	2	72 (1,829)	509 (115)	2.6	93.6 (2,377)	1,777 (400)				72 (1,829)	225 (51)
325 (99.1)	2	78 (1,981)	552 (124)	2.7	105.3 (2,675)	1,854 (417)				78 (1,981)	244 (55)
350 (106.7)	2	84 (2,134)	594 (134)							84 (2,134)	263 (59)
375 (114.3)	2	90 (2,286)	637 (143)							90 (2,286)	281 (63)
400 (121.9)	2	96 (2,438)	679 (153)							96 (2,438)	300 (68)
425 (129.5)	2	102 (2,591)	722 (162)							102 (2,591)	319 (72)
450 (137.2)	2	108 (2,743)	764 (172)							108 (2,743)	356 (80)
475 (144.8)	2	114 (2,896)	807 (181)							114 (2,896)	338 (76)
500 (152.4)	2	120 (3,048)	849 (191)							120 (3,048)	375 (84)
525 (160)	2	126 (3,200)	892 (200)							126 (3,200)	394 (89)
550 (167.6)	2	132 (3,353)	934 (210)							132 (3,353)	413 (93)
Loading district specifics											
			NESC Light			NESC Medium			NESC Heavy		
Horizontal wind pressure (lbf/ft²)			9			4			4		
Radial ice thickness (in)			0			0.25			0.5		
Temperature (°C) (°F)			-1.1 (30)			-9.4 (15)			0		



Sag and Tension Guide (1%) Flat Drop Cable (2.0mm FRP)

Applicable for the following cable subfamily codes:

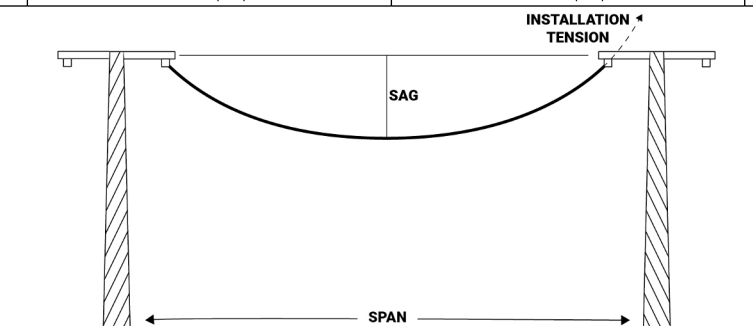
-FDLT20

-TFDLT20

-FDLTD20

-TFDLTD20

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy			Sag (in) (mm)	Tension (N) (lbf)
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)		
25 (7.6)	1	3 (76)	88 (20)	1	3 (76)	390 (88)	1.3	3.9 (99)	659 (148)	3 (76)	45 (10)
50 (15.2)	1	6 (152)	176 (40)	1	6 (152)	780 (175)	1.7	10.2 (259)	1008 (227)	6 (152)	89 (20)
75 (22.9)	1	9 (229)	265 (60)	1.2	10.8 (274)	975 (219)	2.1	18.9 (480)	1,225 (275)	9 (229)	134 (30)
100 (30.5)	1	12 (305)	353 (79)	1.5	18 (457)	1,041 (234)	2.3	27.6 (701)	1,491 (335)	12 (305)	178 (40)
125 (38.1)	1	15 (381)	441 (99)	1.6	24 (610)	1,220 (274)	2.5	37.5 (953)	1,715 (386)	15 (381)	223 (50)
150 (45.7)	1	18 (457)	529 (119)	1.7	30.6 (777)	1,378 (310)	2.7	48.6 (1,234)	1,906 (429)	18 (457)	267 (60)
175 (53.3)	1	21 (533)	617 (139)	1.8	37.8 (960)	1,518 (341)	3	63 (1,600)	2,003 (450)	21 (533)	312 (70)
200 (61)	1	24 (610)	705 (159)	1.9	45.6 (1,158)	1,644 (370)	3.3	79.2 (2,012)	2,082 (468)	24 (610)	356 (80)
225 (68.6)	1	27 (686)	794 (178)	2	54 (1,372)	1,757 (395)				27 (686)	401 (90)
250 (76.2)	1	30 (762)	882 (198)	2.1	63 (1,600)	1,859 (418)				30 (762)	445 (100)
275 (83.8)	1	33 (838)	970 (218)	2.2	72.6 (1,844)	1,953 (439)				33 (838)	490 (110)
300 (91.4)	1	36 (914)	1,058 (238)	2.3	82.8 (2,103)	2,038 (458)				36 (914)	534 (120)
325 (99.1)	1	39 (991)	1,146 (258)							39 (991)	579 (130)
350 (106.7)	1	42 (1,067)	1,234 (278)							42 (1,067)	623 (140)
375 (114.3)	1	45 (1,143)	1,323 (297)							45 (1,143)	668 (150)
400 (121.9)	1	48 (1,219)	1,411 (317)							48 (1,219)	713 (160)
425 (129.5)	1	51 (1,295)	1,499 (337)							51 (1,295)	757 (170)
450 (137.2)	1	54 (1,372)	1,587 (357)							54 (1,372)	802 (180)
475 (144.8)	1	57 (1,448)	1,675 (377)							57 (1,448)	846 (190)
500 (152.4)	1	60 (1,524)	1,763 (396)							60 (1,524)	891 (200)
525 (160)	1	63 (1,600)	1,852 (416)							63 (1,600)	935 (210)
550 (167.6)	1	66 (1,676)	1,940 (436)							66 (1,676)	980 (220)
575 (175.3)	1	69 (1,753)	2,028 (456)							69 (1,753)	1024 (230)
600 (182.9)	1	72 (1,829)	2,116 (476)							72 (1,829)	1069 (240)
Loading district specifics											
NESC Light			NESC Medium			NESC Heavy					
Horizontal wind pressure (lbf/ft ²)			9			4			4		
Radial ice thickness (in)			0			0.25			0.5		
Temperature (°C) (°F)			-1.1 (30)			-9.4 (15)			0		



Sag and Tension Guide (1.5%) Flat Drop Cable (2.0mm FRP)

Applicable for the following cable subfamily codes:

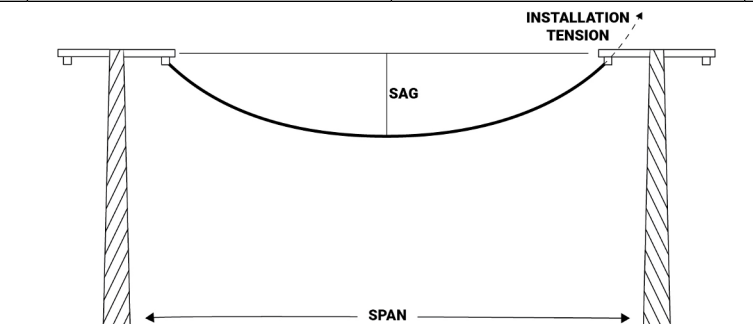
-FDLT20

-TFDLT20

-FDLTD20

-TFDLTD20

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy				
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (in) (mm)	Tension (N) (lbf)
25 (7.6)	1.5	4.5 (114)	59 (13)	1.5	4.5 (114)	260 (59)	1.7	5.1 (130)	504 (113)	4.5 (114)	30 (7)
50 (15.2)	1.5	9 (229)	113 (25)	1.5	9 (229)	513 (115)	2	12 (305)	857 (193)	9 (229)	59 (13)
75 (22.9)	1.5	13.5 (343)	170 (38)	1.5	13.5 (343)	721 (162)	2	18 (457)	1,020 (229)	13.5 (343)	89 (20)
100 (30.5)	1.5	18 (457)	235 (53)	1.6	19.2 (488)	976 (219)	2.3	27.6 (701)	1,491 (335)	18 (457)	119 (27)
125 (38.1)	1.5	22.5 (572)	294 (66)	1.7	25.5 (648)	1,148 (258)	2.5	37.5 (953)	1,715 (386)	22.5 (572)	148 (33)
150 (45.7)	1.5	27 (686)	353 (79)	1.8	32.4 (823)	1,301 (293)	2.8	50.4 (1,280)	1,838 (413)	27 (686)	178 (40)
175 (53.3)	1.5	31.5 (800)	412 (93)	1.9	39.9 (1,013)	1,438 (323)	3.1	65.1 (1,654)	1,938 (436)	31.5 (800)	175 (39)
200 (61)	1.5	36 (914)	470 (106)	2	48 (1,219)	1,562 (351)	3.3	79.2 (2,012)	2,082 (468)	36 (914)	238 (53)
225 (68.6)	1.5	40.5 (1,029)	529 (119)	2.1	56.7 (1,440)	1,673 (376)				40.5 (1,029)	267 (60)
250 (76.2)	1.5	45 (1,143)	588 (132)	2.2	66 (1,676)	1,775 (399)				45 (1,143)	297 (67)
275 (83.8)	1.5	49.5 (1,257)	647 (145)	2.3	75.9 (1,928)	1,868 (420)				49.5 (1,257)	327 (73)
300 (91.4)	1.5	54 (1,372)	706 (159)	2.4	86.4 (2,195)	1,953 (439)				54 (1,372)	356 (80)
325 (99.1)	1.5	58.5 (1,486)	764 (172)	2.5	97.5 (2,477)	2,031 (457)				58.5 (1,486)	386 (87)
350 (106.7)	1.5	63 (1,600)	823 (185)							63 (1,600)	416 (94)
375 (114.3)	1.5	67.5 (1,715)	849 (191)							67.5 (1,715)	445 (100)
400 (121.9)	1.5	72 (1,829)	941 (212)							72 (1,829)	475 (107)
425 (129.5)	1.5	76.5 (1,943)	1,000 (225)							76.5 (1,943)	505 (114)
450 (137.2)	1.5	81 (2,057)	1,058 (238)							81 (2,057)	535 (120)
475 (144.8)	1.5	85.5 (2,172)	1,117 (251)							85.5 (2,172)	564 (127)
500 (152.4)	1.5	90 (2,286)	1,176 (264)							90 (2,286)	594 (134)
525 (160)	1.5	94.5 (2,400)	1,235 (278)							94.5 (2,400)	624 (140)
550 (167.6)	1.5	99 (2,515)	1,294 (291)							99 (2,515)	653 (147)
575 (175.3)	1.5	103.5 (2,629)	1,352 (304)							103.5 (2,629)	683 (154)
600 (182.9)	1.5	108 (2,743)	1,411 (317)							108 (2,743)	713 (160)
Loading district specifics											
	NESC Light			NESC Medium			NESC Heavy				
Horizontal wind pressure (lbf/ft²)	9			4			4				
Radial ice thickness (in)	0			0.25			0.5				
Temperature (°C) (°F)	-1.1 (30)			-9.4 (15)			0				



Sag and Tension Guide (2%) Flat Drop Cable (2.0mm FRP)

Applicable for the following cable subfamily codes:

-FDLT20

-TFDLT20

-FDLTD20

-TFDLTD20

NESC ice and wind loading districts										Initial sag and tension	
SPAN (ft) (m)	NESC Light			NESC Medium			NESC Heavy				
	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (%)	Sag (in) (mm)	Tension (N) (lbf)	Sag (in) (mm)	Tension (N) (lbf)
25 (7.6)	2	6 (152)	44 (10)	2	6 (152)	195 (44)	2.1	6.3 (160)	408 (92)	6 (152)	22 (5)
50 (15.2)	2	12 (305)	88 (20)	2	12 (305)	390 (88)	2.3	13.8 (351)	746 (168)	12 (305)	45 (10)
75 (22.9)	2	18 (457)	132 (30)	2	18 (457)	586 (132)	2.5	22.5 (572)	1,029 (231)	18 (457)	67 (15)
100 (30.5)	2	24 (610)	176 (40)	2	24 (610)	781 (176)	2.7	32.4 (823)	1,271 (286)	24 (610)	89 (20)
125 (38.1)	2	30 (762)	221 (50)	2	30 (762)	976 (219)	2.9	43.5 (1,105)	1,479 (333)	30 (762)	111 (25)
150 (45.7)	2	36 (914)	265 (60)	2	36 (914)	1,171 (263)	3.1	55.8 (1,417)	1,661 (374)	36 (914)	134 (30)
175 (53.3)	2	42 (1,067)	309 (69)	2	42 (1,067)	1,367 (307)	3.3	69.3 (1,760)	1,821 (410)	42 (1,067)	156 (35)
200 (61)	2	48 (1,219)	353 (79)	2.1	50.4 (1,280)	1,488 (334)				48 (1,219)	178 (40)
225 (68.6)	2	54 (1,372)	397 (89)	2.2	59.4 (1,509)	1,598 (359)				54 (1,372)	201 (45)
250 (76.2)	2	60 (1,524)	441 (99)	2.3	69 (1,753)	1,698 (382)				60 (1,524)	223 (50)
275 (83.8)	2	66 (1,676)	485 (109)	2.4	79.2 (2,012)	1,790 (403)				66 (1,676)	245 (55)
300 (91.4)	2	72 (1,829)	529 (119)	2.6	93.6 (2,377)	1,803 (405)				72 (1,829)	267 (60)
325 (99.1)	2	78 (1,981)	574 (129)	2.7	105.3 (2,675)	1,881 (423)				78 (1,981)	290 (65)
350 (106.7)	2	84 (2,134)	618 (139)							84 (2,134)	312 (70)
375 (114.3)	2	90 (2,286)	662 (149)							90 (2,286)	334 (75)
400 (121.9)	2	96 (2,438)	706 (159)							96 (2,438)	357 (80)
425 (129.5)	2	102 (2,591)	750 (169)							102 (2,591)	379 (85)
450 (137.2)	2	108 (2,743)	794 (179)							108 (2,743)	401 (90)
475 (144.8)	2	114 (2,896)	838 (189)							114 (2,896)	423 (95)
500 (152.4)	2	120 (3,048)	882 (198)							120 (3,048)	446 (100)
525 (160)	2	126 (3,200)	927 (208)							126 (3,200)	468 (105)
550 (167.6)	2	132 (3,353)	971 (218)							132 (3,353)	490 (110)
575 (175.3)	2	138 (3,505)	1,015 (228)							138 (3,505)	513 (115)
600 (182.9)	2	144 (3,658)	1,059 (238)							144 (3,658)	535 (120)
Loading district specifics											
			NESC Light			NESC Medium			NESC Heavy		
Horizontal wind pressure (lbf/ft²)			9			4			4		
Radial ice thickness (in)			0			0.25			0.5		
Temperature (°C) (°F)			-1.1 (30)			-9.4 (15)			0		

