

AN4329IO31CB0

Physical / Mechanical / Electrical Characteristic		Metric	English
Approximate Cable Diameter		25.1 mm	0.988 in
Approximate Cable Weight		491 kg/km	0.330 lbs/ft
Approximate Cable Breaking Strength		4,188 kg	9,232 lbs
Minimum Bending Radius Static		251 mm	10 in
Dynamic		504 mm	22 in
Maximum Rated Cable Load (MRCL)		2,268 kg	5,001 lbs
Coefficient of Linear Expansion		2.29E-05 1/°C	1.27E-05 1/°F
Cable Modulus	Initial	4.09 kN/mm ²	592.8 kpsi
	10 Year	3.41 kN/mm ²	494.0 kpsi
	Final	4.41 kN/mm ²	639.3 kpsi

Sag / Tension Data - English Units

Span Length (ft) 950		Input Data					Resultant Data			
Condition	Wind (mi/hr)	Radial Ice (inches)	Add'l Load (lbs/ft)	Vert. (ft)	Horiz. (ft)	Vector (ft)	Vert. (ft)	Horiz (ft)	Vector (ft)	Tension (lbs)
Installation	---	---	---	9.5	---	---	9.50	---	9.5	3,915
Ice Alone	---	---	---	---	---	---	---	---	---	---
Wind Alone	---	---	---	---	---	---	---	---	---	---
Ice and Wind	---	---	---	---	---	---	---	---	---	---
NESC Medium	40.0	0.3	0.2	---	---	---	21.07	15.0	25.9	4,698
Other	---	---	---	---	---	---	---	---	---	---

Sag / Tension Data - Metric Units

Span Length (m) 290		Input Data					Resultant Data			
Condition	Wind (km/hr)	Radial Ice (mm)	Add'l Load (kg/m)	Vert. (m)	Horiz. (m)	Vector (m)	Vert. (m)	Horiz (m)	Vector (m)	Tension (kg)
Installation	---	---	---	2.90	---	---	2.90	---	2.90	1,776
Ice Alone	---	---	---	---	---	---	---	---	---	---
Wind Alone	---	---	---	---	---	---	---	---	---	---
Ice and Wind	---	---	---	---	---	---	---	---	---	---
NESC Medium	64.4	6.35	0.3	---	---	---	6.42	4.57	7.88	2,131
Other	---	---	---	---	---	---	---	---	---	---

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Attenuation Characteristics for Single-mode fibers
<u>Maximum Attenuation</u> 0.40 dB/km 1310 nm 0.30 dB/km 1550 nm

432 Fiber ADSS Core (24 - 18 fiber buffer tubes)				
	Unit No. / Color	Layer	Fiber Type	Fiber Count
1	Blue	1	Single-mode fibers	18
2	Orange	1	Single-mode fibers	18
3	Green	1	Single-mode fibers	18
4	Brown	1	Single-mode fibers	18
5	Slate	1	Single-mode fibers	18
6	White	1	Single-mode fibers	18
7	Red	1	Single-mode fibers	18
8	Black	1	Single-mode fibers	18
9	Yellow	1	Single-mode fibers	18
10	Violet	2	Single-mode fibers	18
11	Rose	2	Single-mode fibers	18
12	Aqua	2	Single-mode fibers	18
13	Blue -	2	Single-mode fibers	18
14	Orange -	2	Single-mode fibers	18
15	Green -	2	Single-mode fibers	18
16	Brown -	2	Single-mode fibers	18
17	Slate -	2	Single-mode fibers	18
18	White -	2	Single-mode fibers	18
19	Red -	2	Single-mode fibers	18
20	Black -	2	Single-mode fibers	18
21	Yellow -	2	Single-mode fibers	18
22	Violet -	2	Single-mode fibers	18
23	Rose -	2	Single-mode fibers	18
24	Aqua -	2	Single-mode fibers	18
Total Fiber Count				432

Fiber / Unit Color Code

Fiber No	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Slate	White	Black	Red	Yellow	Violet	Rose	Aqua

Designs with more than 12 fibers per tube will use the standard color code and appropriate stripes or binders for identification of the fiber and buffer tube color groups beyond 12.

Sag / Tension Data - English Units

Cable Diameter	0.988	in
Cable Weight	0.330	lbs/foot
Cable Modulus	592.8	kpsi

Constant Installation Sag

Installation Sag: 1 %

Installation Data			Loaded Data (NESC Medium)		
Span (ft)	Sag (ft)	Tension (lbs)	Vertical Sag (ft)	Horizontal Sag (ft)	Tension (lbs)
25.0	0.25	103	0.30	0.2	233
50.0	0.50	206	0.67	0.5	409
75.0	0.75	309	1.09	0.8	567
100.0	1.00	413	1.54	1.1	715
125.0	1.25	516	2.00	1.4	857
150.0	1.50	619	2.49	1.7	993
175.0	1.75	722	2.99	2.1	1,126
200.0	2.00	825	3.50	2.4	1,255
225.0	2.25	928	4.02	2.8	1,383
250.0	2.50	1,031	4.56	3.2	1,508
275.0	2.75	1,135	5.10	3.5	1,631
300.0	3.00	1,238	5.64	3.9	1,753
325.0	3.25	1,341	6.20	4.3	1,874
350.0	3.50	1,444	6.75	4.7	1,993
375.0	3.75	1,547	7.32	5.1	2,112
400.0	4.00	1,650	7.89	5.5	2,229
425.0	4.25	1,754	8.46	5.9	2,346
450.0	4.50	1,857	9.04	6.3	2,462
475.0	4.75	1,960	9.62	6.7	2,578
500.0	5.00	2,063	10.21	7.1	2,693
525.0	5.25	2,166	10.79	7.5	2,807
550.0	5.50	2,269	11.38	7.9	2,921
575.0	5.75	2,372	11.98	8.3	3,034
600.0	6.00	2,476	12.58	8.7	3,147
625.0	6.25	2,579	13.17	9.1	3,259
650.0	6.50	2,682	13.78	9.6	3,371
675.0	6.75	2,785	14.38	10.0	3,483
700.0	7.00	2,888	14.99	10.4	3,594
725.0	7.25	2,991	15.59	10.8	3,705
750.0	7.50	3,094	16.20	11.2	3,816
775.0	7.75	3,198	16.81	11.7	3,927

800.0	8.00	3,301
825.0	8.25	3,404
850.0	8.50	3,507
875.0	8.75	3,610
900.0	9.00	3,713
925.0	9.25	3,816
950.0	9.50	3,920

17.43	12.1	4,037
18.04	12.5	4,147
18.66	12.9	4,257
19.27	13.4	4,366
19.89	13.8	4,475
20.51	14.2	4,585
21.13	14.7	4,694

Constant Installation Tension

Installation Tension: 3915 lbs

Installation Data			Loaded Data (NESC Medium)		
Span (ft)	Sag (ft)	Tension (lbs)	Vertical Sag (ft)	Horizontal Sag (ft)	Tension (lbs)
25.0	0.01	3,915	0.02	0.0	3,916
50.0	0.03	3,915	0.07	0.0	3,918
75.0	0.06	3,915	0.16	0.1	3,922
100.0	0.11	3,915	0.28	0.2	3,928
125.0	0.16	3,915	0.44	0.3	3,935
150.0	0.24	3,915	0.63	0.4	3,944
175.0	0.32	3,915	0.85	0.6	3,954
200.0	0.42	3,915	1.11	0.8	3,965
225.0	0.53	3,915	1.40	1.0	3,978
250.0	0.66	3,915	1.72	1.2	3,992
275.0	0.80	3,915	2.07	1.4	4,008
300.0	0.95	3,915	2.46	1.7	4,024
325.0	1.11	3,915	2.87	2.0	4,042
350.0	1.29	3,915	3.32	2.3	4,061
375.0	1.48	3,915	3.79	2.6	4,081
400.0	1.69	3,915	4.29	3.0	4,101
425.0	1.90	3,915	4.82	3.3	4,123
450.0	2.13	3,915	5.37	3.7	4,145
475.0	2.38	3,915	5.95	4.1	4,169
500.0	2.63	3,915	6.55	4.5	4,192
525.0	2.90	3,915	7.18	5.0	4,217
550.0	3.19	3,915	7.84	5.4	4,242
575.0	3.48	3,915	8.52	5.9	4,267
600.0	3.79	3,915	9.22	6.4	4,293
625.0	4.12	3,915	9.94	6.9	4,320
650.0	4.45	3,915	10.68	7.4	4,347
675.0	4.80	3,915	11.45	7.9	4,374
700.0	5.16	3,915	12.24	8.5	4,402
725.0	5.54	3,915	13.04	9.0	4,430
750.0	5.93	3,915	13.87	9.6	4,458
775.0	6.33	3,915	14.72	10.2	4,486
800.0	6.74	3,915	15.58	10.8	4,515
825.0	7.17	3,915	16.46	11.4	4,544
850.0	7.61	3,915	17.37	12.0	4,573
875.0	8.07	3,915	18.29	12.7	4,602
900.0	8.54	3,915	19.22	13.3	4,631
925.0	9.02	3,915	20.18	14.0	4,661

950.0	9.51	3,915	21.15	14.7	4,690
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