



Product Description: S-XXX-LN-XY-F12NS/S - 12-60 Fibers - Maximum Span 222 m (728 ft)

Loading Conditions: NESCLIGHT

Ice Thickness	0 mm	0 in
Wind Speed	95.4 km/hr	59.3 MPH
Temperature	-1.1 C	30 F
Safety Factor	0.73 N/m	0.1 lb/ft

Tension @ Maximum Span for 1.5% Installation Sag:

Short Term	407 kg	897 lb
Long Term	173 kg	381 lb

Specifications:

Maximum Span	222 m	728 ft
Cable Weight	93 kg/km	62 lb/1000 ft
Cable Diameter	11.26 mm	0.44 in.
Installation Temp	20 C	68 F
Cable Modulus	59,402 kg	130,959 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	891 kg	1,964 lb

Maximum Cable Length: Dependent on construction and/or fiber type

Singlemode	4,000 m	13,123 ft
62.5/125 Multimode	4,000 m	13,123 ft

Install Conditions at 20.00 °C (68 °F)

Span (ft)	Sag (ft)	Install Sag (%)	Tension (lb)	Cable Strain (%)
73	1.1	1.5	38	0.07
146	2.18	1.5	76	0.10
218	3.28	1.5	115	0.13
291	4.37	1.5	153	0.16
364	5.46	1.5	191	0.19
437	6.55	1.5	229	0.22
510	7.65	1.5	267	0.24
583	8.74	1.5	306	0.27
655	9.83	1.5	344	0.30
728	10.92	1.5	382	0.33

Loading Conditions at -1.10 °C (30 °F)

Vertical Sag % of Span (%)	Vertical Sag (ft)	Horizontal Sag (ft)	Resultant Sag (ft)	Tension (lb)	Cable Strain (%)	Blowout Angle (°)
0%	0.24	1.28	1.30	199	0.15	79
0.43%	0.62	3.32	3.38	305	0.23	79
0.49%	1.08	5.74	5.84	397	0.30	79
0.54%	1.59	8.44	8.58	481	0.36	79
0.59%	2.13	11.35	11.54	559	0.42	79
0.62%	2.72	14.44	14.69	632	0.48	79
0.65%	3.33	17.68	17.99	703	0.53	79
0.68%	3.96	21.06	21.43	770	0.58	79
0.71%	4.62	24.57	25.00	836	0.63	79
0.73%	5.30	28.19	28.68	899	0.68	79

The recommended maximum space potential at ADSS attachment point is 12 kV

Recommended Hardware:

Dead End Assembly:

HUBBELL Dead-End: AFWDEL113CEL, Max. Tension: 2,500 lbs. (1,134 kg)
 PLP Dead-End: 2872008C1E1, Max. Tension: 2,500 lbs. (1,134 kg)

Slack Storage Devices:

HUBBELL OPTI-LOOP™ Storage wheel: FOSSCW14ADSS
 PLP Fiberlign® Storage System: 8004072

Fixed Tangent Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

HUBBELL: Dielectric: NA
 HUBBELL: Galvanized Steel: ASCF114
 PLP: Dielectric: 44009776
 PLP: Aluminum: 4450103

Heliformed Suspension Units (Spans <= 500 ft (152 m):

HUBBELL: AFWSUS113

Vibration Damper:

HUBBELL: SVD106
 PLP Vibration Dampers: 50509862

Suspended Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

PLP: Aluminum Suspension: 4450203S

Downlead Cushion & Abrasion Protector:

PLP Cushion: 8003043, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit
 PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

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Product Description: S-XXX-LN-XY-F12NS/S - 12-60 Fibers - Maximum Span 157 m (515 ft)

Loading Conditions: NESC MEDIUM

Ice Thickness	6.4 mm	0.25 in
Wind Speed	63.6 km/hr	39.5 MPH
Temperature	-9.4 C	15 F
Safety Factor	2.92 N/m	0.2 lb/ft

Tension @ Maximum Span for 1.5 % Installation Sag:

Short Term	418 kg	922 lb
Long Term	122 kg	269 lb

Specifications:

Maximum Span	157 m	515 ft
Cable Weight	93 kg/km	62 lb/1000 ft
Cable Diameter	11.26 mm	0.44 in.
Installation Temp	20 C	68 F
Cable Modulus	59,402 kg	130,959 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	891 kg	1,964 lb

Maximum Cable Length: Dependent on construction and/or fiber type

Singlemode	4,000 m	13,123 ft
62.5/125 Multimode	4,000 m	13,123 ft

Install Conditions at 20.00 °C (68 °F)

Span (ft)	Sag (ft)	Install Sag (%)	Tension (lb)	Cable Strain (%)
51	0.77	1.5	27	0.06
103	1.54	1.5	54	0.08
154	2.32	1.5	81	0.10
206	3.09	1.5	108	0.12
257	3.86	1.5	135	0.14
309	4.63	1.5	162	0.16
360	5.41	1.5	189	0.18
412	6.18	1.5	216	0.21
463	6.95	1.5	243	0.23
515	7.72	1.5	270	0.25

Loading Conditions at -1.10 °C (30 °F)

Vertical Sag % of Span (%)	Vertical Sag (ft)	Horizontal Sag (ft)	Resultant Sag (ft)	Tension (lb)	Cable Strain (%)	Blowout Angle (°)
1.22%	0.63	0.71	0.95	217	0.15	49
1.62%	1.67	1.89	2.52	326	0.23	49
1.89%	2.92	3.31	4.41	420	0.30	49
2.10%	4.32	4.90	6.53	504	0.37	49
2.27%	5.84	6.62	8.83	583	0.42	49
2.42%	7.47	8.46	11.28	657	0.48	49
2.54%	9.17	10.39	13.86	728	0.54	49
2.66%	10.97	12.43	16.57	795	0.59	49
2.77%	12.83	14.54	19.39	860	0.64	49
2.87%	14.76	16.73	22.31	923	0.68	49

The recommended maximum space potential at ADSS attachment point is 12 kV

Recommended Hardware:

Dead End Assembly:

HUBBELL Dead-End: AFWDEL113CEL, Max. Tension: 2,500 lbs. (1,134 kg)
 PLP Dead-End: 2872008C1E1, Max. Tension: 2,500 lbs. (1,134 kg)

Slack Storage Devices:

HUBBELL OPTI-LOOP™ Storage wheel: FOSSCW14ADSS
 PLP Fiberlign® Storage System: 8004072

Fixed Tangent Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

HUBBELL: Dielectric: NA
 HUBBELL: Galvanized Steel: ASCF114
 PLP: Dielectric: 44009776
 PLP: Aluminum: 4450103

Heliformed Suspension Units (Spans <= 500 ft (152 m):

HUBBELL: AFWSUS113

Vibration Damper:

HUBBELL: SVD106
 PLP Vibration Dampers: 50509862

Suspended Support (Line Angle Changes <= 20 deg & Spans <= 600 ft (183 m))

PLP: Aluminum Suspension: 4450203S

Downlead Cushion & Abrasion Protector:

PLP Cushion: 8003043, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit
 PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

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Product Description: S-XXX-LN-XY-F12NS/S - 12-60 Fibers - Maximum Span 96 m (315 ft)

Loading Conditions: NESCA HEAVY

Ice Thickness	12.7 mm	0.5 in
Wind Speed	63.6 km/hr	39.5 MPH
Temperature	-17.8 C	0 F
Safety Factor	4.38 N/m	0.3 lb/ft

Tension @ Maximum Span for 1.5 % Installation Sag:

Short Term	425 kg	937 lb
Long Term	75 kg	165 lb

Specifications:

Maximum Span	96 m	315 ft
Cable Weight	93 kg/km	62 lb/1000 ft
Cable Diameter	11.26 mm	0.44 in.
Installation Temp	20 C	68 F
Cable Modulus	59,402 kg	130,959 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	891 kg	1,964 lb

Maximum Cable Length: Dependent on construction and/or fiber type

Singlemode	4,000 m	13,123 ft
62.5/125 Multimode	4,000 m	13,123 ft

Install Conditions at 20.00 °C (68 °F)

Span (ft)	Sag (ft)	Install Sag (%)	Tension (lb)	Cable Strain (%)
31	0.47	1.5	17	0.05
63	0.94	1.5	33	0.07
94	1.42	1.5	50	0.08
126	1.89	1.5	66	0.09
157	2.36	1.5	83	0.10
189	2.83	1.5	99	0.12
220	3.31	1.5	116	0.13
252	3.78	1.5	132	0.14
283	4.25	1.5	149	0.15
315	4.72	1.5	165	0.17

Loading Conditions at -1.10 °C (30 °F)

Vertical Sag % of Span (%)	Vertical Sag (ft)	Horizontal Sag (ft)	Resultant Sag (ft)	Tension (lb)	Cable Strain (%)	Blowout Angle (°)
1.50%	0.47	0.35	0.59	233	0.14	37
2.04%	1.28	0.95	1.60	344	0.23	37
2.40%	2.27	1.68	2.82	438	0.30	37
2.68%	3.37	2.51	4.20	523	0.36	37
2.91%	4.58	3.41	5.71	602	0.42	37
3.11%	5.88	4.37	7.33	675	0.48	37
3.29%	7.25	5.39	9.04	745	0.53	37
3.45%	8.69	6.46	10.83	812	0.58	37
3.60%	10.19	7.58	12.70	877	0.63	37
3.73%	11.75	8.73	14.64	939	0.68	37

The recommended maximum space potential at ADSS attachment point is 12 kV

Recommended Hardware:

Dead End Assembly:

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