



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

**Loading Conditions: NESC LIGHT**

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 (m)	Sag (m)	Install Sag (%)	Tension (kg)	Cable Strain (%)
22	0.3	1.5	17	0.07
44	0.67	1.5	35	0.10
67	1.00	1.5	52	0.13
89	1.33	1.5	69	0.16
111	1.67	1.5	86	0.19
133	2.00	1.5	104	0.22
155	2.33	1.5	121	0.24
178	2.66	1.5	138	0.27
200	3.00	1.5	156	0.30
222	3.33	1.5	173	0.33

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

Vertical Sag % of Span (%)	Vertical Sag (m)	Horizontal Sag (m)	Resultant Sag (m)	Tension (kg)	Cable Strain (%)	Blowout Angle (°)
0%	0.07	0.39	0.40	90	0.15	79
0.43%	0.19	1.01	1.03	138	0.23	79
0.49%	0.33	1.75	1.78	180	0.30	79
0.54%	0.48	2.57	2.62	218	0.36	79
0.59%	0.65	3.46	3.52	253	0.42	79
0.62%	0.83	4.40	4.48	286	0.48	79
0.65%	1.01	5.39	5.49	318	0.53	79
0.68%	1.21	6.42	6.53	349	0.58	79
0.71%	1.41	7.49	7.62	378	0.63	79
0.73%	1.62	8.59	8.75	407	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: FOSSPCW14ADSS  
 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

**Download 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 (m)	Sag (m)	Install Sag (%)	Tension (kg)	Cable Strain (%)
16	0.24	1.5	12	0.06
31	0.47	1.5	24	0.08
47	0.71	1.5	37	0.10
63	0.94	1.5	49	0.12
79	1.18	1.5	61	0.14
94	1.41	1.5	73	0.16
110	1.65	1.5	86	0.18
126	1.88	1.5	98	0.21
141	2.12	1.5	110	0.23
157	2.36	1.5	122	0.25

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

Vertical Sag % of Span (%)	Vertical Sag (m)	Horizontal Sag (m)	Resultant Sag (m)	Tension (kg)	Cable Strain (%)	Blowout Angle (°)
1.22%	0.19	0.22	0.29	98	0.15	49
1.62%	0.51	0.58	0.77	148	0.23	49
1.89%	0.89	1.01	1.35	190	0.30	49
2.10%	1.32	1.49	1.99	228	0.37	49
2.27%	1.78	2.02	2.69	264	0.42	49
2.42%	2.28	2.58	3.44	297	0.48	49
2.54%	2.80	3.17	4.23	329	0.54	49
2.66%	3.34	3.79	5.05	360	0.59	49
2.77%	3.91	4.43	5.91	389	0.64	49
2.87%	4.50	5.10	6.80	418	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 (m)	Sag (m)	Install Sag (%)	Tension (kg)	Cable Strain (%)
10	0.14	1.5	7	0.05
19	0.29	1.5	15	0.07
29	0.43	1.5	22	0.08
38	0.58	1.5	30	0.09
48	0.72	1.5	37	0.10
58	0.86	1.5	45	0.12
67	1.01	1.5	52	0.13
77	1.15	1.5	60	0.14
86	1.30	1.5	67	0.15
96	1.44	1.5	75	0.17

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

Vertical Sag % of Span (%)	Vertical Sag (m)	Horizontal Sag (m)	Resultant Sag (m)	Tension (kg)	Cable Strain (%)	Blowout Angle (°)
1.50%	0.14	0.11	0.18	106	0.14	37
2.04%	0.39	0.29	0.49	156	0.23	37
2.40%	0.69	0.51	0.86	198	0.30	37
2.68%	1.03	0.76	1.28	237	0.36	37
2.91%	1.40	1.04	1.74	272	0.42	37
3.11%	1.79	1.33	2.23	306	0.48	37
3.29%	2.21	1.64	2.76	337	0.53	37
3.45%	2.65	1.97	3.30	368	0.58	37
3.60%	3.11	2.31	3.87	397	0.63	37
3.73%	3.58	2.66	4.46	425	0.68	37

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:**

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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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