



**Product Description: S-216-LN-XY-F12NS/S - Maximum Span 140 m (459 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	438 kg	966 lb
Long Term	219 kg	483 lb

**Specifications:**

Maximum Span	140 m	459 ft
Cable Weight	188 kg/km	126 lb/1000 ft
Cable Diameter	16.52 mm	0.65 in.
Installation Temp	20 C	68 F
Cable Modulus	73,135 kg	161,235 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	1,097 kg	2,419 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 (%)
14	0.21	1.5	22	0.10
28	0.42	1.5	44	0.13
42	0.63	1.5	66	0.16
56	0.84	1.5	88	0.19
70	1.05	1.5	110	0.22
84	1.26	1.5	131	0.25
98	1.47	1.5	153	0.28
112	1.68	1.5	175	0.31
126	1.89	1.5	197	0.34
140	2.10	1.5	219	0.37

**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 (°)
0.34%	0.05	0.18	0.19	106	0.14	76
0.46%	0.13	0.50	0.52	155	0.21	76
0.55%	0.23	0.89	0.92	198	0.27	76
0.61%	0.34	1.32	1.36	237	0.32	76
0.66%	0.46	1.78	1.84	274	0.37	76
0.70%	0.59	2.27	2.35	309	0.42	76
0.73%	0.72	2.79	2.88	343	0.47	76
0.77%	0.86	3.33	3.44	376	0.51	76
0.80%	1.00	3.89	4.02	407	0.55	76
0.82%	1.15	4.46	4.61	438	0.60	76

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: FOSPCW14ADSS  
 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-216-LN-XY-F12NS/S - Maximum Span 116 m (380 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	458 kg	1,010 lb
Long Term	181 kg	399 lb

**Specifications:**

Maximum Span	116 m	380 ft
Cable Weight	188 kg/km	126 lb/1000 ft
Cable Diameter	16.52 mm	0.65 in.
Installation Temp	20 C	68 F
Cable Modulus	73,135 kg	161,235 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	1,097 kg	2,419 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 (%)
12	0.17	1.5	18	0.09
23	0.35	1.5	36	0.12
35	0.52	1.5	54	0.14
46	0.70	1.5	73	0.17
58	0.87	1.5	91	0.19
70	1.04	1.5	109	0.22
81	1.22	1.5	127	0.24
93	1.39	1.5	145	0.27
104	1.57	1.5	163	0.29
116	1.74	1.5	181	0.32

**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 (°)
0.96%	0.11	0.11	0.15	124	0.14	43
1.39%	0.32	0.31	0.45	170	0.20	43
1.65%	0.57	0.54	0.79	216	0.26	43
1.86%	0.86	0.82	1.19	255	0.32	43
2.03%	1.17	1.11	1.62	293	0.37	43
2.17%	1.51	1.43	2.08	329	0.42	43
2.29%	1.86	1.76	2.56	363	0.46	43
2.40%	2.23	2.11	3.07	396	0.51	43
2.50%	2.61	2.47	3.60	427	0.55	43
2.59%	3.01	2.85	4.14	458	0.59	43

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: FOSPCW14ADSS  
 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: AFWUSUS113

**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-216-LN-XY-F12NS/S - Maximum Span 78 m (256 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	477 kg	1,052 lb
Long Term	122 kg	269 lb

**Specifications:**

Maximum Span	78 m	256 ft
Cable Weight	188 kg/km	126 lb/1000 ft
Cable Diameter	16.52 mm	0.65 in.
Installation Temp	20 C	68 F
Cable Modulus	73,135 kg	161,235 lb
Linear Expansion Coefficient	0.00002157 1 / C	0.00002157 1 / F
Estimated Break Load	1,097 kg	2,419 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 (%)
8	0.12	1.5	12	0.08
16	0.23	1.5	24	0.10
23	0.35	1.5	37	0.12
31	0.47	1.5	49	0.13
39	0.59	1.5	61	0.15
47	0.70	1.5	73	0.17
55	0.82	1.5	85	0.18
62	0.94	1.5	98	0.20
70	1.05	1.5	110	0.22
78	1.17	1.5	122	0.23

**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 (°)
1.19%	0.09	0.06	0.11	133	0.12	33
1.68%	0.26	0.17	0.31	188	0.20	33
2.04%	0.48	0.31	0.57	233	0.26	33
2.31%	0.72	0.47	0.86	274	0.31	33
2.54%	0.99	0.65	1.18	312	0.37	33
2.73%	1.28	0.84	1.53	348	0.41	33
2.90%	1.58	1.04	1.89	382	0.46	33
3.05%	1.90	1.25	2.28	415	0.51	33
3.19%	2.24	1.47	2.68	446	0.55	33
3.32%	2.59	1.70	3.09	477	0.59	33

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

HUBBELL: Dielectric: NA  
 HUBBELL: Galvanized Steel: ASCF114  
 PLP: Dielectric: 44009776  
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**Heliformed Suspension Units (Spans <= 500 ft (152 m)):**

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**Download Cushion & Abrasion Protector:**

PLP Cushion: 8003043, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit  
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**Corona coils not required**

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