



Product Description: S-288-LN-XY-F12NS/S - Maximum Span 150 m (492 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 | 571 kg | 1,259 lb |
| Long Term | 317 kg | 699 lb |

Specifications:

| | | |
|------------------------------|------------------|------------------|
| Maximum Span | 150 m | 492 ft |
| Cable Weight | 253 kg/km | 170 lb/1000 ft |
| Cable Diameter | 19.09 mm | 0.751 in. |
| Installation Temp | 20 C | 68 F |
| Cable Modulus | 96,435 kg | 212,603 lb |
| Linear Expansion Coefficient | 0.00002157 1 / C | 0.00002157 1 / F |
| Estimated Break Load | 1,447 kg | 3,189 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 (%) |
|--------------|-------------|-----------------------|-----------------|---------------------|
| 49 | 0.74 | 1.5 | 70 | 0.09 |
| 98 | 1.48 | 1.5 | 140 | 0.13 |
| 148 | 2.21 | 1.5 | 210 | 0.16 |
| 197 | 2.95 | 1.5 | 280 | 0.19 |
| 246 | 3.69 | 1.5 | 350 | 0.23 |
| 295 | 4.43 | 1.5 | 420 | 0.26 |
| 344 | 5.17 | 1.5 | 490 | 0.29 |
| 394 | 5.90 | 1.5 | 560 | 0.32 |
| 443 | 6.64 | 1.5 | 630 | 0.36 |
| 492 | 7.38 | 1.5 | 700 | 0.39 |

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 (°) |
|----------------------------------|-------------------------|---------------------------|--------------------------|-----------------|------------------------|-------------------------|
| 0.38% | 0.19 | 0.62 | 0.65 | 300 | 0.14 | 73 |
| 0.52% | 0.51 | 1.70 | 1.77 | 437 | 0.20 | 73 |
| 0.61% | 0.90 | 2.98 | 3.11 | 561 | 0.26 | 73 |
| 0.67% | 1.32 | 4.38 | 4.58 | 677 | 0.31 | 73 |
| 0.73% | 1.78 | 5.92 | 6.18 | 783 | 0.36 | 73 |
| 0.77% | 2.27 | 7.54 | 7.88 | 886 | 0.41 | 73 |
| 0.81% | 2.78 | 9.24 | 9.65 | 984 | 0.46 | 73 |
| 0.84% | 3.32 | 11.00 | 11.49 | 1079 | 0.50 | 73 |
| 0.87% | 3.87 | 12.82 | 13.39 | 1172 | 0.55 | 73 |
| 0.90% | 4.43 | 14.70 | 15.35 | 1262 | 0.59 | 73 |

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

Recommended Hardware:

Dead End Assembly:

HUBBELL Dead-End: AFWDEL117CEL*, Max. Tension: 2,500 lbs. (1,134 kg)
 PLP Dead-End: 2872011C1E1, 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: 44009878
 PLP: Aluminum: 4450105

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

HUBBELL: NA

Vibration Damper:

HUBBELL: SVD106
 PLP Vibration Dampers: 50509862

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

PLP: Aluminum Suspension: 4450205S

Download Cushion & Abrasion Protector:

PLP Cushion: 8003052, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit
 PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

*Will accommodate 0.751" Cable OD

These calculations are provided for guidance purposes only and should not be used or in any way relied upon without consultation with and of experienced network design specialists. CommScope makes no representations or warranties of any kind, express or implied, including any representation or warranty regarding the quality, content, completeness, suitability, adequacy or accuracy of the data contained herein. under no obligation to issue any upgrades or updates or notify customers/users of these calculations that changes have been made to the The user of these calculations assumes all risks associated with such use, and CommScope Hereby disclaims any and all liability for damages of kind resulting from such use.



Product Description: S-288-LN-XY-F12NS/S - Maximum Span 129 m (423 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 | 594 kg | 1,310 lb |
| Long Term | 272 kg | 600 lb |

Specifications:

| | | |
|------------------------------|------------------|------------------|
| Maximum Span | 129 m | 423 ft |
| Cable Weight | 253 kg/km | 170 lb/1000 ft |
| Cable Diameter | 19.09 mm | 0.751 in. |
| Installation Temp | 20 C | 68 F |
| Cable Modulus | 96,435 kg | 212,603 lb |
| Linear Expansion Coefficient | 0.00002157 1 / C | 0.00002157 1 / F |
| Estimated Break Load | 1,447 kg | 3,189 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 (%) |
|--------------|-------------|-----------------------|-----------------|---------------------|
| 42 | 0.63 | 1.5 | 60 | 0.09 |
| 85 | 1.27 | 1.5 | 120 | 0.12 |
| 127 | 1.90 | 1.5 | 181 | 0.15 |
| 169 | 2.54 | 1.5 | 241 | 0.17 |
| 212 | 3.17 | 1.5 | 301 | 0.20 |
| 254 | 3.81 | 1.5 | 361 | 0.23 |
| 296 | 4.44 | 1.5 | 421 | 0.26 |
| 338 | 5.08 | 1.5 | 482 | 0.29 |
| 381 | 5.71 | 1.5 | 542 | 0.32 |
| 423 | 6.35 | 1.5 | 602 | 0.34 |

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 (°) |
|----------------------------------|-------------------------|---------------------------|--------------------------|-----------------|------------------------|-------------------------|
| 1.00% | 0.42 | 0.37 | 0.56 | 336 | 0.13 | 41 |
| 1.39% | 1.18 | 1.02 | 1.56 | 482 | 0.20 | 41 |
| 1.65% | 2.10 | 1.82 | 2.78 | 608 | 0.26 | 41 |
| 1.85% | 3.13 | 2.72 | 4.15 | 724 | 0.31 | 41 |
| 2.01% | 4.25 | 3.69 | 5.63 | 833 | 0.36 | 41 |
| 2.15% | 5.45 | 4.73 | 7.22 | 936 | 0.41 | 41 |
| 2.26% | 6.71 | 5.82 | 8.88 | 1035 | 0.46 | 41 |
| 2.37% | 8.02 | 6.96 | 10.62 | 1131 | 0.50 | 41 |
| 2.46% | 9.38 | 8.14 | 12.42 | 1224 | 0.54 | 41 |
| 2.55% | 10.79 | 9.37 | 14.28 | 1314 | 0.59 | 41 |

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

Recommended Hardware:

Dead End Assembly:

HUBBELL Dead-End: AFWDEL117CEL*, Max. Tension: 2,500 lbs. (1,134 kg)
 PLP Dead-End: 2872011C1E1, 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: 44009878
 PLP: Aluminum: 4450105

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

HUBBELL: NA

Vibration Damper:

HUBBELL: SVD106
 PLP Vibration Dampers: 50509862

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

PLP: Aluminum Suspension: 4450205S

Download Cushion & Abrasion Protector:

PLP Cushion: 8003052, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit
 PLP Abrasion Protector: PTG-0203 Length: 6 ft

Corona coils not required

*Will accommodate 0.751" Cable OD

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Product Description: S-288-LN-XY-F12NS/S - Maximum Span 90 m (295 ft)

Loading Conditions: **NESC 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 | 618 kg | 1,362 lb |
| Long Term | 190 kg | 419 lb |

Specifications:

| | | |
|------------------------------|------------------|------------------|
| Maximum Span | 90 m | 295 ft |
| Cable Weight | 253 kg/km | 170 lb/1000 ft |
| Cable Diameter | 19.09 mm | 0.751 in. |
| Installation Temp | 20 C | 68 F |
| Cable Modulus | 96,435 kg | 212,603 lb |
| Linear Expansion Coefficient | 0.00002157 1 / C | 0.00002157 1 / F |
| Estimated Break Load | 1,447 kg | 3,189 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 (%) |
|--------------|-------------|-----------------------|-----------------|---------------------|
| 30 | 0.44 | 1.5 | 42 | 0.08 |
| 59 | 0.89 | 1.5 | 84 | 0.10 |
| 89 | 1.33 | 1.5 | 126 | 0.12 |
| 118 | 1.77 | 1.5 | 168 | 0.14 |
| 148 | 2.21 | 1.5 | 210 | 0.16 |
| 177 | 2.66 | 1.5 | 252 | 0.18 |
| 207 | 3.10 | 1.5 | 294 | 0.20 |
| 236 | 3.54 | 1.5 | 336 | 0.22 |
| 266 | 3.99 | 1.5 | 378 | 0.24 |
| 295 | 4.43 | 1.5 | 420 | 0.26 |

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 (°) |
|----------------------------------|-------------------------|---------------------------|--------------------------|-----------------|------------------------|-------------------------|
| 1.16% | 0.34 | 0.21 | 0.40 | 382 | 0.12 | 32 |
| 1.70% | 1.00 | 0.62 | 1.18 | 523 | 0.19 | 32 |
| 2.02% | 1.79 | 1.11 | 2.11 | 658 | 0.25 | 32 |
| 2.29% | 2.70 | 1.67 | 3.18 | 777 | 0.31 | 32 |
| 2.51% | 3.70 | 2.28 | 4.35 | 887 | 0.36 | 32 |
| 2.69% | 4.77 | 2.94 | 5.60 | 991 | 0.41 | 32 |
| 2.85% | 5.90 | 3.64 | 6.93 | 1090 | 0.46 | 32 |
| 3.00% | 7.08 | 4.37 | 8.32 | 1186 | 0.50 | 32 |
| 3.13% | 8.32 | 5.13 | 9.77 | 1278 | 0.54 | 32 |
| 3.25% | 9.60 | 5.92 | 11.28 | 1367 | 0.59 | 32 |

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

Recommended Hardware:

Dead End Assembly:

HUBBELL Dead-End: AFWDEL117CEL*, Max. Tension: 2,500 lbs. (1,134 kg)
PLP Dead-End: 2872011C1E1, Max. Tension: 2,500 lbs. (1,134 kg)

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

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PLP: Aluminum: 4450105

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

PLP: Aluminum Suspension: 4450205S

Corona coils not required

*Will accommodate 0.751" Cable OD

Slack Storage Devices:

HUBBELL OPTI-LOOP™ Storage wheel: FOSPCW14ADSS
PLP Fiberlign® Storage System: 8004072

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

HUBBELL: NA

Vibration Damper:

HUBBELL: SVD106
PLP Vibration Dampers: 50509862

Download Cushion & Abrasion Protector:

PLP Cushion: 8003052, Add "H1" - Wood Attachment Kit & "LTC1" - Lattice Tower Clamp Kit
PLP Abrasion Protector: PTG-0203 Length: 6 ft

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