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**Spanmaster**
**Sag & Tension Computations**

3948 - 10054

**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 3.35 | 1591 | 0.07 | 0.28 | 1.64 | 2.93 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.17 | 445 | 0.02 | 0.18 | 0.00 | 2.17 | 0.0 |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.01 | 961 | -0.02 |
| -30 | 1.05 | 918 | -0.02 |
| -20 | 1.10 | 876 | -0.02 |
| -10 | 1.16 | 835 | -0.01 |
| 0 | 1.22 | 795 | -0.01 |
| 10 | 1.28 | 756 | -0.01 |
| 20 | 1.35 | 719 | -0.01 |
| 30 | 1.42 | 684 | -0.01 |
| 40 | 1.49 | 650 | -0.01 |
| 50 | 1.57 | 618 | 0.00 |
| 60 | 1.65 | 588 | 0.00 |
| 70 | 1.73 | 560 | 0.00 |
| 80 | 1.82 | 533 | 0.00 |
| 90 | 1.90 | 509 | 0.01 |
| 100 | 1.99 | 486 | 0.01 |
| 110 | 2.08 | 465 | 0.01 |
| 120 | 2.17 | 445 | 0.02 |
| 130 | 2.27 | 427 | 0.02 |
| 140 | 2.36 | 411 | 0.02 |

## Tension Results

| | |
|---|---|
| Span Length: | 173.00 ft |
| Span Sag: | 1.73 ft |
| Span Tension: | 560 lb |
| Max Load: | 6650 lb |
| Usable Load (60%): | 3990 lb |
| Usable Load (80%): | 5320 lb |
| Catenary Length: | 173.05 ft |
| Stress Free Length at Installed Temperature: | 172.94 ft |
| Unloaded Strand Sag: | 1.09 ft |
| Tension: | 414 lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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**Sag & Tension Computations**

**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 3.33 | 1584 | 0.07 | 0.28 | 1.63 | 2.90 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.16 | 443 | 0.02 | 0.18 | 0.00 | 2.16 | 0.0 |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.00 | 957 | -0.02 |
| -30 | 1.05 | 914 | -0.02 |
| -20 | 1.10 | 872 | -0.02 |
| -10 | 1.15 | 831 | -0.01 |
| 0 | 1.21 | 791 | -0.01 |
| 10 | 1.27 | 753 | -0.01 |
| 20 | 1.34 | 716 | -0.01 |
| 30 | 1.41 | 680 | -0.01 |
| 40 | 1.48 | 647 | -0.01 |
| 50 | 1.56 | 615 | 0.00 |
| 60 | 1.64 | 585 | 0.00 |
| 70 | 1.72 | 556 | 0.00 |
| 80 | 1.81 | 530 | 0.00 |
| 90 | 1.89 | 506 | 0.01 |
| 100 | 1.98 | 483 | 0.01 |
| 110 | 2.07 | 462 | 0.01 |
| 120 | 2.16 | 443 | 0.02 |
| 130 | 2.26 | 425 | 0.02 |
| 140 | 2.35 | 408 | 0.02 |

## Tension Results

| | | |
|---|---|---|
| Span Length: | 172.00 | ft |
| Span Sag: | 1.72 | ft |
| Span Tension: | 557 | lb |
| Max Load: | 6650 | lb |
| Usable Load (60%): | 3990 | lb |
| Usable Load (80%): | 5320 | lb |
| Catenary Length: | 172.05 | ft |
| Stress Free Length at Installed Temperature: | 171.94 | ft |
| Unloaded Strand Sag: | 1.09 | ft |
| Tension: | 411 | lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 4.31 | 1822 | 0.09 | 0.25 | 2.11 | 3.76 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.59 | 551 | 0.01 | 0.15 | 0.00 | 2.59 | 0.0 |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.30 | 1092 | -0.02 |
| -30 | 1.36 | 1049 | -0.02 |
| -20 | 1.42 | 1006 | -0.01 |
| -10 | 1.48 | 965 | -0.01 |
| 0 | 1.54 | 925 | -0.01 |
| 10 | 1.61 | 885 | -0.01 |
| 20 | 1.68 | 848 | -0.01 |
| 30 | 1.76 | 811 | -0.01 |
| 40 | 1.84 | 776 | -0.01 |
| 50 | 1.92 | 742 | 0.00 |
| 60 | 2.01 | 710 | 0.00 |
| 70 | 2.10 | 679 | 0.00 |
| 80 | 2.19 | 650 | 0.00 |
| 90 | 2.29 | 623 | 0.01 |
| 100 | 2.39 | 597 | 0.01 |
| 110 | 2.49 | 573 | 0.01 |
| 120 | 2.59 | 551 | 0.01 |
| 130 | 2.69 | 530 | 0.02 |
| 140 | 2.80 | 510 | 0.02 |

## Tension Results

| | |
|---|---|
| Span Length: | 210.00 ft |
| Span Sag: | 2.10 ft |
| Span Tension: | 680 lb |
| Max Load: | 6650 lb |
| Usable Load (60%): | 3990 lb |
| Usable Load (80%): | 5320 lb |
| Catenary Length: | 210.06 ft |
| Stress Free Length at Installed Temperature: | 209.90 ft |
| Unloaded Strand | |
| Sag: | 1.27 ft |
| Tension: | 525 lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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## Cable Bundle

| Cable Bundle Name | X-SECT AREA (sq.in) | EFF MODULUS (psi) | NOMINAL DIAM (in) | EFF. EXP. COEFF. (1/F) | CABLE WEIGHT (lb/ft) | E*A LOAD BEARING CAPACITY (lbs) | RATED LOAD (lbs) |
|---|---|---|---|---|---|---|---|
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 4.21 | 1798 | 0.08 | 0.25 | 2.06 | 3.67 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.55 | 539 | 0.01 | 0.15 | 0.00 | 2.55 | 0.0 |

## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.27 | 1078 | -0.02 |
| -30 | 1.33 | 1035 | -0.02 |
| -20 | 1.38 | 992 | -0.01 |
| -10 | 1.44 | 951 | -0.01 |
| 0 | 1.51 | 911 | -0.01 |
| 10 | 1.57 | 872 | -0.01 |
| 20 | 1.65 | 834 | -0.01 |
| 30 | 1.72 | 797 | -0.01 |
| 40 | 1.80 | 762 | -0.01 |
| 50 | 1.88 | 729 | 0.00 |
| 60 | 1.97 | 697 | 0.00 |
| 70 | 2.06 | 666 | 0.00 |
| 80 | 2.15 | 638 | 0.00 |
| 90 | 2.25 | 611 | 0.01 |
| 100 | 2.35 | 585 | 0.01 |
| 110 | 2.45 | 561 | 0.01 |
| 120 | 2.55 | 539 | 0.01 |
| 130 | 2.65 | 519 | 0.02 |
| 140 | 2.75 | 499 | 0.02 |

## Tension Results

| | |
|---|---|
| Span Length: | 206.00 ft |
| Span Sag: | 2.06 ft |
| Span Tension: | 667 lb |
| Max Load: | 6650 lb |
| Usable Load (60%): | 3990 lb |
| Usable Load (80%): | 5320 lb |
| Catenary Length: | 206.05 ft |
| Stress Free Length at Installed Temperature: | 205.90 ft |
| Unloaded Strand Sag: | 1.25 ft |
| Tension: | 513 lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|

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**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 4.10 | 1773 | 0.08 | 0.25 | 2.01 | 3.58 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.50 | 528 | 0.01 | 0.15 | 0.00 | 2.50 | 0.0 |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.24 | 1064 | -0.02 |
| -30 | 1.29 | 1021 | -0.02 |
| -20 | 1.35 | 978 | -0.01 |
| -10 | 1.41 | 937 | -0.01 |
| 0 | 1.47 | 897 | -0.01 |
| 10 | 1.54 | 858 | -0.01 |
| 20 | 1.61 | 820 | -0.01 |
| 30 | 1.68 | 784 | -0.01 |
| 40 | 1.76 | 749 | -0.01 |
| 50 | 1.84 | 715 | 0.00 |
| 60 | 1.93 | 683 | 0.00 |
| 70 | 2.02 | 653 | 0.00 |
| 80 | 2.11 | 625 | 0.00 |
| 90 | 2.21 | 598 | 0.01 |
| 100 | 2.30 | 573 | 0.01 |
| 110 | 2.40 | 550 | 0.01 |
| 120 | 2.50 | 528 | 0.01 |
| 130 | 2.60 | 507 | 0.02 |
| 140 | 2.70 | 488 | 0.02 |

## Tension Results

| | | |
|---|---|---|
| Span Length: | 202.00 | ft |
| Span Sag: | 2.02 | ft |
| Span Tension: | 654 | lb |
| Max Load: | 6650 | lb |
| Usable Load (60%): | 3990 | lb |
| Usable Load (80%): | 5320 | lb |
| Catenary Length: | 202.05 | ft |
| Stress Free Length at Installed Temperature: | 201.91 | ft |
| Unloaded Strand Sag: | 1.23 | ft |
| Tension: | 501 | lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 3.82 | 1705 | 0.08 | 0.26 | 1.86 | 3.33 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.38 | 496 | 0.01 | 0.16 | 0.00 | 2.38 | 0.0 |
| | | | | | | | | | | | |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.15 | 1025 | -0.02 |
| -30 | 1.20 | 982 | -0.02 |
| -20 | 1.25 | 939 | -0.02 |
| -10 | 1.31 | 898 | -0.01 |
| 0 | 1.37 | 858 | -0.01 |
| 10 | 1.44 | 819 | -0.01 |
| 20 | 1.51 | 782 | -0.01 |
| 30 | 1.58 | 746 | -0.01 |
| 40 | 1.66 | 711 | -0.01 |
| 50 | 1.74 | 678 | 0.00 |
| 60 | 1.82 | 647 | 0.00 |
| 70 | 1.91 | 618 | 0.00 |
| 80 | 2.00 | 590 | 0.00 |
| 90 | 2.09 | 564 | 0.01 |
| 100 | 2.19 | 540 | 0.01 |
| 110 | 2.28 | 517 | 0.01 |
| 120 | 2.38 | 496 | 0.01 |
| 130 | 2.48 | 477 | 0.02 |
| 140 | 2.57 | 459 | 0.02 |

## Tension Results

| | |
|---|---|
| Span Length: | 191.00 ft |
| Span Sag: | 1.91 ft |
| Span Tension: | 618 lb |
| Max Load: | 6650 lb |
| Usable Load (60%): | 3990 lb |
| Usable Load (80%): | 5320 lb |
| Catenary Length: | 191.05 ft |
| Stress Free Length at Installed Temperature: | 190.92 ft |
| Unloaded Strand Sag: | 1.18 ft |
| Tension: | 467 lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 4.13 | 1779 | 0.08 | 0.25 | 2.02 | 3.60 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.51 | 531 | 0.01 | 0.15 | 0.00 | 2.51 | 0.0 |
| | | | | | | | | | | | |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.25 | 1067 | -0.02 |
| -30 | 1.30 | 1024 | -0.02 |
| -20 | 1.36 | 982 | -0.01 |
| -10 | 1.42 | 940 | -0.01 |
| 0 | 1.48 | 900 | -0.01 |
| 10 | 1.55 | 861 | -0.01 |
| 20 | 1.62 | 823 | -0.01 |
| 30 | 1.69 | 787 | -0.01 |
| 40 | 1.77 | 752 | -0.01 |
| 50 | 1.85 | 719 | 0.00 |
| 60 | 1.94 | 687 | 0.00 |
| 70 | 2.03 | 657 | 0.00 |
| 80 | 2.12 | 628 | 0.00 |
| 90 | 2.22 | 601 | 0.01 |
| 100 | 2.31 | 576 | 0.01 |
| 110 | 2.41 | 553 | 0.01 |
| 120 | 2.51 | 531 | 0.01 |
| 130 | 2.61 | 510 | 0.02 |
| 140 | 2.72 | 491 | 0.02 |

## Tension Results

| | |
|---|---|
| Span Length: | 203.00 ft |
| Span Sag: | 2.03 ft |
| Span Tension: | 657 lb |
| Max Load: | 6650 lb |
| Usable Load (60%): | 3990 lb |
| Usable Load (80%): | 5320 lb |
| Catenary Length: | 203.05 ft |
| Stress Free Length at Installed Temperature: | 202.91 ft |
| Unloaded Strand | |
| Sag: | 1.24 ft |
| Tension: | 504 lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
| | | | |
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**Spanmaster**
**Sag & Tension Computations**

**HEAVY LOADING**

## Cable Bundle

| Cable Bundle | X-SECT AREA | EFF MODULUS | NOMINAL DIAM | EFF. EXP. COEFF. | CABLE WEIGHT | E*A LOAD BEARING CAPACITY | RATED LOAD |
|---|---|---|---|---|---|---|---|
| Name | (sq.in) | (psi) | (in) | (1/F) | (lb/ft) | (lbs) | (lbs) |
| 1/4"6.6mEHS | 0.035 | 2.60E+07 | 0.250 | 5.60E-06 | 0.121 | 9.15E+05 | 6650 |
| P3-625JCA | 0.369 | 2.13E+06 | 0.685 | 1.69E-05 | 0.138 | 7.83E+05 | 475 |

| Calculated Bundle (in) |
|---|
| 0.935 |

| Calculated Bundle (lb/ft) |
|---|
| 0.259 |

## NESC Results

| Loading Condition Name | Temp F | Ice Load lb/ft | Horz Wind Load lb/sqft | Result Load+ Const lb/ft | Sag ft | Tension lb | % Len Chg From Input Conditions | 25 25 ft | Horz Sag Comp ft | Vert Sag Comp ft | Vector Angle Deg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Heavy | 0 | 0.892 | 4 | 1.429 | 3.82 | 1705 | 0.08 | 0.26 | 1.86 | 3.33 | 29.3 |
| 232A1 | 120 | 0.000 | 0 | 0.259 | 2.38 | 496 | 0.01 | 0.16 | 0.00 | 2.38 | 0.0 |
| | | | | | | | | | | | |
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## Effects of Temperature Change

| Temp F | Midspan Sag ft | Tension lb | % Length Change |
|---|---|---|---|
| -40 | 1.15 | 1025 | -0.02 |
| -30 | 1.20 | 982 | -0.02 |
| -20 | 1.25 | 939 | -0.02 |
| -10 | 1.31 | 898 | -0.01 |
| 0 | 1.37 | 858 | -0.01 |
| 10 | 1.44 | 819 | -0.01 |
| 20 | 1.51 | 782 | -0.01 |
| 30 | 1.58 | 746 | -0.01 |
| 40 | 1.66 | 711 | -0.01 |
| 50 | 1.74 | 678 | 0.00 |
| 60 | 1.82 | 647 | 0.00 |
| 70 | 1.91 | 618 | 0.00 |
| 80 | 2.00 | 590 | 0.00 |
| 90 | 2.09 | 564 | 0.01 |
| 100 | 2.19 | 540 | 0.01 |
| 110 | 2.28 | 517 | 0.01 |
| 120 | 2.38 | 496 | 0.01 |
| 130 | 2.48 | 477 | 0.02 |
| 140 | 2.57 | 459 | 0.02 |

## Tension Results

| | | |
|---|---|---|
| Span Length: | 191.00 | ft |
| Span Sag: | 1.91 | ft |
| Span Tension: | 618 | lb |
| Max Load: | 6650 | lb |
| Usable Load (60%): | 3990 | lb |
| Usable Load (80%): | 5320 | lb |
| Catenary Length: | 191.05 | ft |
| Stress Free Length at Installed Temperature: | 190.92 | ft |
| Unloaded Strand | | |
| Sag: | 1.18 | ft |
| Tension: | 467 | lb |

## User Defined Loadings

| Temperature F | Ice Thickness in | Wind lb/sq ft | Constant lb/ft |
|---|---|---|---|
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