

## APPLICATION

Stranded 1350 aluminum conductors shown in this section of data are classified as follows: Class AA for bare conductors usually used in overhead lines; Class A for conductors to be covered with weather-resistant materials and for bare conductors where greater flexibility is required. Compact strand conductor for use in bare overhead applications or for use with weather-resistant coverings or insulations is also available. Classes refer to stranding and are an indication of relative conductor flexibility, AA being the least flexible, C the most flexible.

## STANDARDS

AAC bare conductors meet or exceed the following ASTM Specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes
- B-231 Aluminum Conductors, Concentric-Lay-Stranded
- B-400 Compact Round Concentric-Lay-Stranded Aluminum 1350 Conductors

## PRODUCT FEATURES

- Aluminum alloy 1350-H19 wires, concentrically stranded.

## AAC - ALL-ALUMINUM CONDUCTOR

Bare Aluminum AAC

| Code Word  | Size AWG/KCMIL | Stranding  |       | Diameter inch |                   | Cross Sectional Area (sq. in.) | Weight lb/1000 ft | Rated Breaking Strength lb | Resistance 1 Ω/1000ft |           | Ampacity Rating 2 Amps |
|------------|----------------|------------|-------|---------------|-------------------|--------------------------------|-------------------|----------------------------|-----------------------|-----------|------------------------|
|            |                | # of Wires | Class | Indiv. Wire   | Complete Cable OD |                                |                   |                            | DC @ 20°C             | AC @ 75°C |                        |
| Peachbell  | 6              | 7/w        | A     | .0612         | .184              | .0206                          | 24.6              | 563                        | .658                  | .805      | 103                    |
| Rose       | 4              | 7/w        | A     | .0772         | .232              | .0328                          | 39.2              | 881                        | .414                  | .506      | 138                    |
| Iris       | 2              | 7/w        | AA,A  | .0974         | .292              | .0521                          | 62.3              | 1,350                      | .260                  | .318      | 185                    |
| Pansy      | 1              | 7/w        | AA,A  | .1093         | .328              | .0657                          | 78.5              | 1,640                      | .207                  | .252      | 214                    |
| Poppy      | 1/0            | 7/w        | AA,A  | .1228         | .368              | .0829                          | 99.1              | 1,990                      | .164                  | .202      | 247                    |
| Aster      | 2/0            | 7/w        | AA,A  | .1379         | .414              | .1045                          | 124.9             | 2,510                      | .130                  | .159      | 286                    |
| Phlox      | 3/0            | 7/w        | AA,A  | .1548         | .464              | .1318                          | 157.5             | 3,040                      | .103                  | .126      | 331                    |
| Oxlip      | 4/0            | 7/w        | AA,A  | .1739         | .522              | .1662                          | 198.6             | 3,830                      | .0817                 | .0999     | 383                    |
| Sneezewort | 250            | 7/w        | AA    | .1890         | .567              | .1964                          | 234.7             | 4,520                      | .0691                 | .0846     | 425                    |
| Valerian   | 250            | 19/w       | A     | .1147         | .574              | .1964                          | 234.7             | 4,660                      | .0691                 | .0846     | 426                    |
| Daisy      | 266.8          | 19/w       | AA    | .1953         | .586              | .2095                          | 250.5             | 4,830                      | .0648                 | .0793     | 443                    |
| Laurel     | 266.8          | 19/w       | A     | .1185         | .593              | .2095                          | 250.5             | 4,970                      | .0648                 | .0793     | 444                    |
| Peony      | 300            | 19/w       | A     | .1257         | .629              | .2356                          | 286.1             | 5,480                      | .0576                 | .0706     | 478                    |
| Tulip      | 336.4          | 19/w       | A     | .1331         | .666              | .2642                          | 315.8             | 6,150                      | .0514                 | .0630     | 513                    |
| Daffodil   | 350            | 19/w       | A     | .1357         | .679              | .2749                          | 328.6             | 6,390                      | .0494                 | .0605     | 526                    |
| Canna      | 397.5          | 19/w       | AA,A  | .1447         | .724              | .3122                          | 373.2             | 7,110                      | .0435                 | .0534     | 570                    |
| Goldentuft | 450            | 19/w       | AA    | .1538         | .769              | .3534                          | 422.4             | 7,890                      | .0384                 | .0472     | 616                    |
| Cosmos     | 477            | 19/w       | A     | .1584         | .793              | .3746                          | 447.8             | 8,360                      | .0362                 | .0445     | 639                    |
| Syringa    | 477            | 37/w       | A     | .1135         | .795              | .3746                          | 447.8             | 8,690                      | .0362                 | .0445     | 639                    |
| Zinnia     | 500            | 19/w       | AA    | .1622         | .811              | .3927                          | 469.4             | 8,760                      | .0346                 | .0425     | 658                    |

## AAC - ALL-ALUMINUM CONDUCTOR

Bare Aluminum AAC

| Code Word   | Size AWG/KCMIL | Stranding  |       | Diameter inch |                   | Cross Sectional Area (sq. in.) | Weight lb/1000 ft | Rated Breaking Strength lb | Resistance 1 Ω/1000ft |           | Ampacity Rating 2 Amps |
|-------------|----------------|------------|-------|---------------|-------------------|--------------------------------|-------------------|----------------------------|-----------------------|-----------|------------------------|
|             |                | # of Wires | Class | Indiv. Wire   | Complete Cable OD |                                |                   |                            | DC @ 20°C             | AC @ 75°C |                        |
| Hyacinth    | 500            | 37/w       | A     | .1162         | .813              | .329                           | 469.4             | 9,110                      | .0346                 | .0425     | 658                    |
| Dahlia      | 556.5          | 19/w       | AA    | .1711         | .856              | .4371                          | 522.4             | 9,750                      | .0311                 | .0382     | 703                    |
| Mistletoe   | 556.5          | 37/w       | AA,A  | .1226         | .858              | .4371                          | 522.4             | 9,940                      | .0311                 | .0382     | 704                    |
| Meadowsweet | 600            | 37/w       | AA,A  | .1273         | .891              | .4712                          | 563.2             | 10,700                     | .0288                 | .0355     | 738                    |
| Orchid      | 636            | 37/w       | AA,A  | .1311         | .918              | .4995                          | 597.0             | 11,400                     | .0272                 | .0355     | 765                    |

| Code Word  | Size AWG/KCMIL | Stranding  |       | Diameter inch |                   | Cross Sectional Area (sq. in.) | Weight lb/1000 ft | Rated Breaking Strength lb | Resistance1 Ω/1000ft |           | Ampacity Rating2 Amps |
|------------|----------------|------------|-------|---------------|-------------------|--------------------------------|-------------------|----------------------------|----------------------|-----------|-----------------------|
|            |                | # of Wires | Class | Indiv. Wire   | Complete Cable OD |                                |                   |                            | DC @ 20°C            | AC @ 75°C |                       |
| Heuchera   | 650            | 37/w       | AA    | .1326         | .928              | .5105                          | 610.2             | 11,600                     | .0266                | .0328     | 775                   |
| Verbena    | 700            | 37/w       | AA    | .1375         | .963              | .5498                          | 657.1             | 12,500                     | .0247                | .0305     | 812                   |
| Flag       | 700            | 61/w       | A     | .1071         | .964              | .5498                          | 657.1             | 12,900                     | .0274                | .0305     | 812                   |
| Violet     | 715.5          | 37/w       | AA    | .1391         | .974              | .5620                          | 671.7             | 12,800                     | .0242                | .0299     | 823                   |
| Nasturtium | 715.5          | 61/w       | A     | .1083         | .975              | .5620                          | 671.7             | 13,100                     | .0242                | .0299     | 823                   |
| Petunia    | 750            | 37/w       | AA    | .1424         | .997              | .5891                          | 704.0             | 13,500                     | .0230                | .0286     | 847                   |
| Cattail    | 750            | 61/w       | A     | .1109         | .998              | .5891                          | 704.0             | 13,500                     | .0230                | .0286     | 847                   |
| Arbutus    | 795            | 37/w       | AA    | .1446         | 1.026             | .6244                          | 746.3             | 13,900                     | .0217                | .0271     | 878                   |
| Lilac      | 795            | 61/w       | A     | .1142         | 1.028             | .6244                          | 746.3             | 14,300                     | .0217                | .0270     | 879                   |
| Cockscomb  | 900            | 37/w       | AA    | .1560         | 1.092             | .7069                          | 844.9             | 15,400                     | .0192                | .0239     | 948                   |
| Snapdragon | 900            | 61/w       | A     | .1215         | 1.094             | .7069                          | 844.9             | 15,900                     | .0192                | .0239     | 948                   |
| Magnolia   | 954            | 37/w       | AA    | .1606         | 1.124             | .7493                          | 895.6             | 16,400                     | .0181                | .0226     | 982                   |
| Goldenrod  | 954            | 61/w       | A     | .1251         | 1.126             | .7493                          | 895.6             | 16,900                     | .0181                | .0226     | 983                   |
| Hawkweed   | 1000           | 37/w       | AA    | .1644         | 1.150             | .7854                          | 938.7             | 17,200                     | .0173                | .0216     | 1010                  |
| Camellia   | 1000           | 61/w       | A     | .1280         | 1.152             | .7854                          | 938.7             | 17,700                     | .0173                | .0216     | 1011                  |
| Bluebell   | 1033.5         | 37/w       | AA    | .1671         | 1.170             | .8117                          | 970.2             | 17,700                     | .0167                | .0210     | 1031                  |
| Larkspur   | 1033.5         | 61/w       | A     | .1302         | 1.172             | .8117                          | 970.2             | 18,300                     | .0167                | .0210     | 1032                  |
| Marigold   | 1113           | 61/w       | AA,A  | .1351         | 1.216             | .8742                          | 1045              | 19,700                     | .0155                | .0195     | 1079                  |
| Hawthorn   | 1192.5         | 61/w       | AA,A  | .1398         | 1.258             | .9366                          | 1119              | 21,100                     | .0145                | .0183     | 1124                  |
| Narcissus  | 1272           | 61/w       | AA,A  | .1444         | 1.300             | .9990                          | 1194              | 22,000                     | .0136                | .0173     | 1169                  |
| Columbine  | 1351.5         | 61/w       | AA,A  | .1489         | 1.340             | 1.061                          | 1269              | 23,400                     | .0128                | .0163     | 1212                  |
| Carnation  | 1431           | 61/w       | AA,A  | .1532         | 1.379             | 1.124                          | 1343              | 24,300                     | .0121                | .0155     | 1253                  |
| Gladiolus  | 1510.5         | 61/w       | AA,A  | .1574         | 1.417             | 1.186                          | 1418              | 25,600                     | .0144                | .0147     | 1294                  |
| Coreopsis  | 1590           | 61/w       | AA    | .1614         | 1.454             | 1.249                          | 1493              | 27,000                     | .0109                | .0141     | 1333                  |
| Jessamine  | 1750           | 61/w       | AA    | .1694         | 1.525             | 1.374                          | 1643              | 29,700                     | .00988               | .0129     | 1408                  |
| Cowslip    | 2000           | 91/w       | A     | .1482         | 1.630             | 1.571                          | 1877              | 34,200                     | .00864               | .0115     | 1518                  |
| Sagebrush  | 2250           | 91/w       | A     | .1572         | 1.729             | 1.767                          | 2131              | 37,500                     | .00776               | .0105     | 1612                  |
| Lupine     | 2500           | 91/w       | A     | .1657         | 1.823             | 1.964                          | 2370              | 41,900                     | .00698               | .00969    | 1706                  |
| Bitterroot | 2750           | 91/w       | A     | .1739         | 1.913             | 2.160                          | 2607              | 46,100                     | .00635               | .00900    | 1793                  |
| Trillium   | 3000           | 127/w      | A     | .1537         | 1.996             | 2.356                          | 2844              | 50,300                     | .00582               | .00834    | 1874                  |
| Bluebonnet | 3500           | 127/w      | A     | .1660         | 2.158             | 2.749                          | 3350              | 58,700                     | .0049                | .00756    | 2024                  |

1. Resistance is calculated based on aluminum EC (1350) conductivity of 61.2% IACS.

2. Ampacity ratings are based on 75°C conductor temperature, 25°C ambient, 2 ft/sec wind, in sun (96 W/ft2 heat), 0.5 coefficients of emissivity and absorption.

Specifications may be revised without prior notice. Contact Electro Cable to verify current availability and lead times.