



## APPLICATIONS

Used as bare overhead transmission conductor and as primary and secondary distribution conductor and messenger support. ACSR offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

## SPECIFICATIONS

Southwire's ACSR bare conductor meets or exceeds the following ASTM specifications:

- B230 Aluminum 1350-H19 Wire for Electrical Purposes.
- B232 Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).
- B498 Zinc-Coated (Galvanized) Steel Core Wire for Use in Overhead Electrical Conductors.
- B500 Metallic Coated Stranded Steel Core for Use in Overhead Electrical Conductors.

## CONSTRUCTION

- Aluminum 1350-H19 wires, concentrically stranded about a steel core. Standard core wire for ACSR is class A galvanized.
- Class A core stranding is also available in zinc-5% aluminum-mischmetal alloy coating.
- For aluminum-clad (AW) ACSR, please refer to the ACSR/AW catalog sheet
- Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.
- ACSR conductor is also available in non-specular.

| Code Word | Size (AWG or kcmil) | Strand-<br>ing (Al/Stl) | Diameter (ins.)  |       |            |                | Weight Per 1000 ft. (lbs.) |     |       | Content (%) |       | Rated Strength (lbs.) | Resistance OHMS/1000 ft. |           | Allowable Ampacity+ (Amps) |
|-----------|---------------------|-------------------------|------------------|-------|------------|----------------|----------------------------|-----|-------|-------------|-------|-----------------------|--------------------------|-----------|----------------------------|
|           |                     |                         | Individual Wires |       | Steel Core | Complete Cable | Al                         | Stl | Total | Al          | Stl   |                       | DC @ 20°C                | AC @ 75°C |                            |
|           |                     |                         | Al               | Stl   |            |                |                            |     |       |             |       |                       |                          |           |                            |
| Turkey    | 6                   | 6/1                     | .0661            | .0661 | .0661      | .198           | 24                         | 12  | 36    | 67.88       | 32.12 | 1190                  | .641                     | .806      | 105                        |
| Swan      | 4                   | 6/1                     | .0834            | .0834 | .0834      | .25            | 39                         | 18  | 57    | 67.87       | 32.12 | 1860                  | .403                     | .515      | 140                        |
| Swanate   | 4                   | 7/1                     | .0772            | .103  | .103       | .257           | 39                         | 28  | 67    | 58.1        | 41.9  | 2360                  | .399                     | .519      | 140                        |
| Sparrow   | 2                   | 6/1                     | .1052            | .1052 | .1052      | .316           | 62                         | 29  | 91    | 67.9        | 32.1  | 2850                  | .254                     | .332      | 184                        |
| Sparate   | 2                   | 7/1                     | .0974            | .1298 | .1298      | .325           | 62                         | 45  | 107   | 58.12       | 41.88 | 3460                  | .251                     | .338      | 184                        |
| Robin     | 1                   | 6/1                     | .1181            | .1181 | .1181      | .354           | 78                         | 37  | 115   | 67.88       | 32.12 | 3550                  | .201                     | .268      | 212                        |
| Raven     | 1/0                 | 6/1                     | .1327            | .1327 | .1327      | .398           | 99                         | 47  | 145   | 67.89       | 32.11 | 4380                  | .159                     | .217      | 242                        |
| Quail     | 2/0                 | 6/1                     | .1489            | .1489 | .1489      | .447           | 124                        | 59  | 183   | 67.88       | 32.12 | 5310                  | .126                     | .176      | 276                        |
| Pigeon    | 3/0                 | 6/1                     | .1672            | .1672 | .1672      | .502           | 156                        | 74  | 230   | 67.87       | 32.13 | 6620                  | .100                     | .144      | 315                        |
| Penguin   | 4/0                 | 6/1                     | .1878            | .1878 | .1878      | .563           | 197                        | 93  | 291   | 67.88       | 32.12 | 8350                  | .0795                    | .119      | 357                        |
| Waxwing   | 266.8               | 18/1                    | .1217            | .1217 | .1217      | .609           | 250                        | 39  | 289   | 86.43       | 13.57 | 6880                  | .0643                    | .0787     | 449                        |
| Partridge | 266.8               | 26/7                    | .1013            | .0788 | .2363      | .642           | 251                        | 115 | 367   | 68.51       | 31.49 | 11300                 | .0637                    | .0779     | 475                        |
| Ostrich   | 300                 | 26/7                    | .1074            | .0835 | .2506      | .68            | 283                        | 130 | 412   | 68.51       | 31.49 | 12700                 | .0567                    | .0693     | 492                        |
| Merlin    | 336.4               | 18/1                    | .1367            | .1367 | .1367      | .684           | 315                        | 49  | 365   | 86.43       | 13.57 | 8680                  | .0510                    | .0625     | 519                        |
| Linnet    | 336.4               | 26/7                    | .1137            | .0885 | .2654      | .72            | 317                        | 146 | 462   | 68.51       | 31.49 | 14100                 | .0505                    | .0618     | 529                        |
| Oriole    | 336.4               | 30/7                    | .1059            | .1059 | .3177      | .741           | 318                        | 209 | 526   | 60.35       | 39.65 | 17300                 | .0502                    | .0613     | 535                        |
| Chickadee | 397.5               | 18/1                    | .1486            | .1486 | .1486      | .743           | 373                        | 58  | 431   | 86.43       | 13.57 | 9940                  | .0432                    | .0529     | 576                        |
| Brant     | 397.5               | 24/7                    | .1287            | .0858 | .2574      | .772           | 374                        | 137 | 511   | 73.21       | 26.79 | 14600                 | .0430                    | .0526     | 584                        |
| Ibis      | 397.5               | 26/7                    | .1236            | .0962 | .2885      | .783           | 374                        | 172 | 546   | 68.51       | 31.49 | 16300                 | .0428                    | .0523     | 587                        |
| Lark      | 397.5               | 30/7                    | .1151            | .1151 | .3453      | .806           | 375                        | 247 | 622   | 60.35       | 39.65 | 20300                 | .0425                    | .0519     | 594                        |
| Pelican   | 477                 | 18/1                    | .1628            | .1628 | .1628      | .814           | 447                        | 70  | 517   | 86.44       | 13.56 | 11800                 | .0360                    | .0442     | 646                        |
| Flicker   | 477                 | 24/7                    | .141             | .094  | .2819      | .846           | 449                        | 164 | 614   | 73.21       | 26.79 | 17200                 | .0358                    | .0439     | 655                        |
| Hawk      | 477                 | 26/7                    | .1354            | .1053 | .316       | .858           | 449                        | 207 | 656   | 68.51       | 31.49 | 19500                 | .0356                    | .0436     | 659                        |
| Hen       | 477                 | 30/7                    | .1261            | .1261 | .3783      | .883           | 450                        | 296 | 746   | 60.35       | 39.65 | 23800                 | .0354                    | .0433     | 666                        |
| Osprey    | 556.5               | 18/1                    | .1758            | .1758 | .1758      | .879           | 522                        | 82  | 603   | 86.43       | 13.57 | 13700                 | .0308                    | .0379     | 711                        |
| Parakeet  | 556.5               | 24/7                    | .1523            | .1015 | .3045      | .914           | 524                        | 192 | 716   | 73.21       | 26.79 | 19800                 | .0307                    | .0376     | 721                        |
| Dove      | 556.5               | 26/7                    | .1463            | .1138 | .3413      | .927           | 524                        | 241 | 765   | 68.51       | 31.49 | 22600                 | .0306                    | .0375     | 726                        |
| Eagle     | 556.5               | 30/7                    | .1362            | .1362 | .4086      | .953           | 525                        | 345 | 871   | 60.35       | 39.65 | 27800                 | .0303                    | .0372     | 734                        |
| Peacock   | 605                 | 24/7                    | .1588            | .1059 | .3177      | .953           | 570                        | 209 | 779   | 73.2        | 26.8  | 21600                 | .0282                    | .0346     | 760                        |
| Squab     | 605                 | 26/7                    | .1525            | .1186 | .3559      | .966           | 570                        | 262 | 832   | 68.51       | 31.49 | 24300                 | .0281                    | .0345     | 765                        |
| Wood Duck | 605.0               | 30/7                    | .142             | .142  | .426       | .994           | 571                        | 375 | 946   | 60.35       | 39.65 | 28900                 | .0279                    | .0342     | 774                        |
| Teal      | 605.0               | 30/19                   | .142             | .0852 | .426       | .994           | 571                        | 367 | 939   | 60.86       | 39.14 | 30000                 | .0279                    | .0342     | 773                        |
| Kingbird  | 636                 | 18/1                    | .188             | .188  | .188       | .94            | 596                        | 94  | 690   | 86.43       | 13.57 | 15700                 | .0270                    | .0332     | 773                        |
| Swift     | 636.0               | 36/1                    | .1329            | .1329 | .1329      | .93            | 596                        | 47  | 643   | 92.72       | 7.28  | 13690                 | .0271                    | .0334     | 769                        |
| Rook      | 636                 | 24/7                    | .1628            | .1085 | .3256      | .977           | 599                        | 219 | 818   | 73.22       | 26.78 | 22600                 | .0268                    | .0330     | 784                        |
| Grosbeak  | 636                 | 26/7                    | .1564            | .1216 | .3649      | .991           | 599                        | 275 | 874   | 68.51       | 31.49 | 25200                 | .0267                    | .0328     | 789                        |

|          |        |       |       |       |       |       |      |     |      |       |       |       |        |       |      |
|----------|--------|-------|-------|-------|-------|-------|------|-----|------|-------|-------|-------|--------|-------|------|
| Scoter   | 636.0  | 30/7  | .1456 | .1456 | .4368 | 1.019 | 600  | 395 | 995  | 60.35 | 39.65 | 30400 | .0256  | .0325 | 798  |
| Egret    | 636    | 30/19 | .1456 | .0874 | .4368 | 1.019 | 600  | 386 | 987  | 60.85 | 39.15 | 31500 | .0266  | .0326 | 798  |
| Flamingo | 666.6  | 24/7  | .1667 | .1111 | .3333 | 1     | 628  | 230 | 858  | 73.21 | 26.79 | 23700 | .0256  | .0315 | 807  |
| Gannet   | 666.6  | 26/7  | .1601 | .1245 | .3736 | 1.014 | 628  | 289 | 916  | 68.51 | 31.49 | 26400 | .0255  | .0313 | 812  |
| Stilt    | 715.5  | 24/7  | .1727 | .1151 | .3453 | 1.036 | 674  | 247 | 920  | 73.21 | 26.79 | 25500 | .0239  | .0294 | 844  |
| Starling | 715.5  | 26/7  | .1659 | .129  | .3871 | 1.051 | 674  | 310 | 984  | 68.51 | 31.49 | 28400 | .0238  | .0292 | 849  |
| Redwing  | 715.5  | 30/19 | .1544 | .0927 | .4633 | 1.081 | 676  | 435 | 1110 | 60.85 | 39.15 | 34600 | .0236  | .0290 | 859  |
| Coot     | 795    | 36/1  | .1486 | .1486 | .1486 | 1.04  | 745  | 58  | 804  | 92.72 | 7.28  | 16710 | .0217  | .0268 | 884  |
| Drake    | 795    | 26/7  | .1749 | .136  | .408  | 1.107 | 749  | 344 | 1093 | 68.51 | 31.49 | 31500 | .0214  | .0263 | 907  |
| Tern     | 795    | 45/7  | .1329 | .0886 | .2658 | 1.063 | 749  | 146 | 895  | 83.67 | 16.33 | 22100 | .0216  | .0269 | 887  |
| Condor   | 795    | 54/7  | .1213 | .1213 | .364  | 1.092 | 749  | 274 | 1023 | 73.21 | 26.79 | 28200 | .0215  | .0272 | 889  |
| Mallard  | 795    | 30/19 | .1628 | .0977 | .4884 | 1.14  | 751  | 483 | 1234 | 60.86 | 39.14 | 38400 | .0213  | .0261 | 918  |
| Ruddy    | 900    | 45/7  | .1414 | .0943 | .2828 | 1.131 | 848  | 165 | 1013 | 83.67 | 16.33 | 24400 | .0191  | .0239 | 958  |
| Canary   | 900    | 54/7  | .1291 | .1291 | .3873 | 1.162 | 848  | 310 | 1158 | 73.22 | 26.78 | 31900 | .0190  | .0241 | 961  |
| Rail     | 954    | 45/7  | .1456 | .0971 | .2912 | 1.165 | 899  | 175 | 1074 | 83.67 | 16.33 | 25900 | .0180  | .0225 | 993  |
| Cardinal | 954    | 54/7  | .1329 | .1329 | .3987 | 1.196 | 899  | 329 | 1227 | 73.21 | 26.79 | 33800 | .0179  | .0228 | 996  |
| Ortolan  | 1033.5 | 45/7  | .1515 | .101  | .3031 | 1.212 | 973  | 190 | 1163 | 83.67 | 16.33 | 27700 | .0167  | .0209 | 1043 |
| Curlew   | 1033.5 | 54/7  | .1383 | .1383 | .415  | 1.245 | 973  | 356 | 1330 | 73.21 | 26.79 | 36600 | .0165  | .0211 | 1047 |
| Bluejay  | 1113   | 45/7  | .1573 | .1048 | .3145 | 1.258 | 1048 | 205 | 1253 | 83.67 | 16.33 | 29800 | .0155  | .0194 | 1092 |
| Finch    | 1113   | 54/19 | .1436 | .0861 | .4307 | 1.292 | 1053 | 375 | 1429 | 73.72 | 26.28 | 39100 | .0154  | .0197 | 1093 |
| Bunting  | 1192.5 | 45/7  | .1628 | .1085 | .3256 | 1.302 | 1123 | 219 | 1343 | 83.67 | 16.33 | 32000 | .0144  | .0182 | 1139 |
| Grackle  | 1192.5 | 54/19 | .1486 | .0892 | .4458 | 1.337 | 1129 | 402 | 1531 | 73.72 | 26.28 | 41900 | .0144  | .0184 | 1140 |
| Bittern  | 1272   | 45/7  | .1681 | .1121 | .3362 | 1.345 | 1198 | 234 | 1432 | 83.67 | 16.33 | 34100 | .0135  | .0171 | 1184 |
| Pheasant | 1272   | 54/19 | .1535 | .0921 | .4605 | 1.381 | 1204 | 429 | 1633 | 73.71 | 26.29 | 43600 | .0135  | .0173 | 1187 |
| Dipper   | 1351.5 | 45/7  | .1733 | .1155 | .3466 | 1.386 | 1273 | 248 | 1521 | 83.67 | 16.33 | 36200 | .0127  | .0162 | 1229 |
| Martin   | 1351.5 | 54/19 | .1582 | .0949 | .4746 | 1.424 | 1279 | 456 | 1735 | 73.72 | 26.28 | 46300 | .0127  | .0163 | 1232 |
| Bobolink | 1431   | 45/7  | .1783 | .1189 | .3566 | 1.427 | 1348 | 263 | 1611 | 83.67 | 16.33 | 38300 | .0120  | .0153 | 1272 |
| Lapwing  | 1590   | 45/7  | .188  | .1253 | .3759 | 1.504 | 1498 | 292 | 1790 | 83.67 | 16.33 | 42200 | .0108  | .0139 | 1354 |
| Falcon   | 1590   | 54/19 | .1716 | .103  | .5148 | 1.544 | 1505 | 536 | 2041 | 73.72 | 26.28 | 54500 | .0108  | .0140 | 1359 |
| Chukar   | 1780   | 84/19 | .1456 | .0874 | .4368 | 1.602 | 1685 | 386 | 2072 | 81.35 | 18.65 | 51000 | .0097  | .0125 | 1453 |
| Bluebird | 2156   | 84/19 | .1602 | .0962 | .4808 | 1.762 | 2040 | 468 | 2508 | 81.34 | 18.66 | 60300 | .00801 | .0105 | 1623 |
| Kiwi     | 2167   | 72/7  | .1735 | .1157 | .347  | 1.735 | 2051 | 249 | 2300 | 89.17 | 10.82 | 49800 | .00801 | .0106 | 1607 |

+Conductor temperature of 75°C, ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec., in sun.

| Code Word                                                                                          | Size (AWG or kcmil) | Stranding (Al/Stl) | Diameter (ins.)  |       |            |                | Weight Per 1000 ft. (lbs.) |     |       | Content (%) |       | Rated Strength (lbs.) | Resistance OHMS/1000 ft. |           | Allowable Ampacity <sup>+</sup> (Amps) |
|----------------------------------------------------------------------------------------------------|---------------------|--------------------|------------------|-------|------------|----------------|----------------------------|-----|-------|-------------|-------|-----------------------|--------------------------|-----------|----------------------------------------|
|                                                                                                    |                     |                    | Individual Wires |       | Steel Core | Complete Cable | Al                         | Stl | Total | Al          | Stl   |                       | DC @ 20°C                | AC @ 75°C |                                        |
|                                                                                                    |                     |                    | Al               | Stl   |            |                |                            |     |       |             |       |                       |                          |           |                                        |
| HIGH MECHANICAL STRENGTH                                                                           |                     |                    |                  |       |            |                |                            |     |       |             |       |                       |                          |           |                                        |
| Grouse                                                                                             | 80                  | 8/1                | .1               | .1667 | .1667      | .367           | 75                         | 74  | 149   | 50.48       | 49.52 | 5200                  | .207                     | .294      | 204                                    |
| Petrel                                                                                             | 101.8               | 12/7               | .0921            | .0921 | .2763      | .461           | 96                         | 158 | 254   | 37.79       | 62.21 | 10400                 | .158                     | .250      | 237                                    |
| Minorca                                                                                            | 110.8               | 12/7               | .0961            | .0962 | .2885      | .481           | 104                        | 172 | 276   | 37.75       | 62.25 | 11300                 | .145                     | .235      | 248                                    |
| Leghorn                                                                                            | 134.6               | 12/7               | .1059            | .1059 | .3177      | .53            | 127                        | 209 | 335   | 37.79       | 62.21 | 13600                 | .120                     | .204      | 273                                    |
| Guinea                                                                                             | 159.0               | 12/7               | .1151            | .1151 | .3453      | .576           | 150                        | 247 | 396   | 37.79       | 62.21 | 16000                 | .101                     | .181      | 297                                    |
| Dotterel                                                                                           | 176.9               | 12/7               | .1214            | .1214 | .3642      | .607           | 167                        | 274 | 441   | 37.79       | 62.21 | 17300                 | .0911                    | .169      | 312                                    |
| Dorking                                                                                            | 190.8               | 12/7               | .1261            | .1261 | .3783      | .63            | 180                        | 296 | 476   | 37.78       | 62.22 | 18700                 | .0845                    | .160      | 324                                    |
| Cochin                                                                                             | 211.3               | 12/7               | .1327            | .1327 | .398       | .663           | 199                        | 328 | 527   | 37.8        | 62.2  | 28400                 | .0763                    | .150      | 340                                    |
| +Conductor temperature of 75°C, ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec., in sun. |                     |                    |                  |       |            |                |                            |     |       |             |       |                       |                          |           |                                        |