

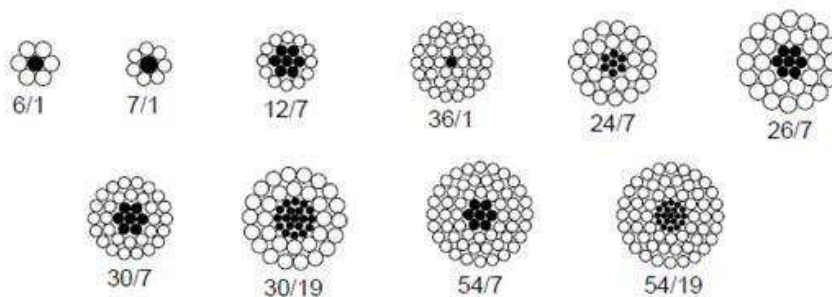


SPECIFICATIONS AND STANDARDS:

- ACSR bare conductor meets or exceeds the following ASTM standards:
- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes.
- B-231 Aluminum Conductors, Concentric-Lay-Stranded.
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, coated steel reinforced(ACSR)
- B-341 Aluminum-Coated Steel, Core Wire for Aluminum Conductors, Steel Reinforced (ACSR/AZ)
- B-498 Zinc-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced(ACSR)
- B-802 Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced(ACSR)

CONSTRUCTION:

Aluminum Conductors Steel Reinforced (ACSR) consists of a galvanized steel core of 1 wire, 7 wires or 19 wires surrounded by concentric layers of aluminum wire, when a conductor with a high current carrying capacity and comparatively low strength is required, special constructions are available with high aluminum content. Core wire for ACSR is available with class A, B, or C galvanizing; “aluminized” aluminum coated (AZ); or aluminum – clad (AW).



APPLICATIONS:

ACSR is used as bare overhead transmission cable and as primary and secondary distribution cable. ACSR offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing capacity.

This catalogue shows the most common sizes of conductor but other sizes, to any recognized standards or customer specification can also be supplied. ACSR insulated with XLPE or PVC can also be supplied as per customer's requirements.



ACSR conductors manufactured to ASTM B-232.

| Code word | Size (AWG or kcmil) | Stranding (Al/Stl) | Diameter(ins.) | | | | Weight per 1000 ft. | | | Content (%) | | Rated strength (Lbs) | Resistance Ω /1000 ft. | | Allowable ampacity+ (Amps) |
|-----------|---------------------|--------------------|-----------------|-------|------------|----------------|---------------------|-----|-------|-------------|-------|----------------------|-------------------------------|------------|----------------------------|
| | | | Individual wire | | Steel core | Complete cable | Al | St | Total | Al | St | | DC at 20°C | AC at 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 | 67.89 | 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 |
| Lbis | 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 |



Aluminum Conductor Steel Reinforced. Bare

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|----------|--------|-------|-------|-------|-------|-------|------|-----|------|-------|-------|-------|-------|-------|------|
| 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 | 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 |



Aluminum Conductor Steel Reinforced. Bare

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|----------|--------|-------|-------|-------|-------|-------|------|-----|------|-------|-------|-------|--------|-------|------|
| 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.

ACSR

| Code word | Size (AWG or kcmil) | Stranding (Al/Stl) | Diameter(ins.) | | | | Weight per 1000 ft. | | | Content (%) | | Rated strength (Lbs) | Resistance Ω /1000ft. | | Allowable ampacity+ (Amps) |
|------------------------|---------------------|--------------------|-----------------|-------|------------|----------------|---------------------|-----|-------|-------------|-------|----------------------|------------------------------|------------|----------------------------|
| | | | Individual wire | | Steel core | Complete cable | Al | St | Total | Al | St | | DC at 20°C | AC at 75°C | |
| | | | Al | St | | | | | | | | | | | |
| HIGH MECHANICAL | | | | | | | | | | | | | | | |
| 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.