

AAC - ASTM - B All Aluminium Conductor



Eland Product Group: **A4A**

APPLICATION

AAC conductor is also known as aluminium stranded conductor. It is manufactured from electrolytically refined aluminium, with a minimum purity of 99.7%. AAC is used mainly in urban areas where the spacing is short and the supports are close. All aluminium conductors are made up of one or more strands of aluminium wire depending on the end usage. AAC is also used extensively in coastal regions because it has a high degree of corrosion resistance.

CABLE STANDARDS

ASTM - B 231 Metric Units, ASTM - B 231, TS IEC 1089, DIN 48201, BS 215, UNE 21.018



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CONSTRUCTION

Conductor

Hard drawn aluminium conductor as per EN 60889 Type AL1 according to BS 215

DIMENSIONS

ASTM - B 231

| CODE | SIZE AWG-MCM | STRANDING N2 X Q mm | SECTION mm ² | OVERALL DIAMETER mm | CABLE WEIGHT kg/km | RATED STRENGTH N | ELECTRICAL RESISTANCE | | | CURRENT CARRYING CAPACITY (1) A |
|-------------|-----------------|------------------------|----------------------------|---------------------------|--------------------------|------------------------|-----------------------|-----------------|--------|--|
| | | | | | | | DC 20°C / km | AC | | |
| | | | | | | | CC 25°C / km | CC 25°C / km | | |
| PEACHBELL | 6 | 7 x 1.55 | 13.21 | 4.65 | 36.6 | 2.5 | 1.1702 | 2.2129 | 2.6499 | 110 |
| ROSE | 4 | 7 x 1.96 | 21.12 | 5.88 | 58.3 | 3.92 | 1.3638 | 1.3914 | 1.6663 | 145 |
| IRIS | 2 | 7 x 2.47 | 33.54 | 7.41 | 92.7 | 6.01 | 0.0857 | 0.855 | 1.0486 | 195 |
| PANSY | 1 | 7 x 2.78 | 42.49 | 8.34 | 116.8 | 7.3 | 0.6801 | 0.6942 | 0.831 | 225 |
| POPPY | 1/0 | 7 x 3.12 | 53.52 | 9.36 | 147.5 | 8.86 | 0.539 | 0.5499 | 0.6588 | 260 |
| ASTER | 2/0 | 7 x 3.5 | 67.34 | 10.5 | 185.9 | 11.17 | 0.4275 | 0.4374 | 0.5226 | 305 |
| PHLOX | 3/0 | 7 x 3.93 | 84.91 | 11.79 | 234.4 | 13.35 | 0.3392 | 0.3468 | 0.415 | 350 |
| OXLIP | 4/0 | 7 x 4.42 | 107.4 | 13.26 | 295.6 | 17.05 | 0.2689 | 0.2747 | 0.3288 | 410 |
| SNEEZEWORTH | 250 | 7 x 4.8 | 127.6 | 14.4 | 349.3 | 20.12 | 0.2273 | 0.2324 | 0.2784 | 455 |
| VALERIAN | 250 | 17 x 2.91 | 126.4 | 14.55 | 349.3 | 20.74 | 0.2273 | 0.2324 | 0.2784 | 455 |
| DAISY | 266.8 | 7 x 4.96 | 135.3 | 14.88 | 327.8 | 21.5 | 0.2133 | 0.2181 | 0.261 | 475 |
| LAUREL | 266.8 | 19 x 3.01 | 135.2 | 15.05 | 327.8 | 22.12 | 0.2133 | 0.2181 | 0.261 | 475 |
| PEONY | 300 | 19 x 3.19 | 151.9 | 15.95 | 419.1 | 24.38 | 0.1897 | 0.1945 | 0.2324 | 515 |
| TULIP | 336.4 | 19 x 3.38 | 170.5 | 16.9 | 470 | 27.37 | 0.1691 | 0.1734 | 0.2076 | 555 |
| DAFFODIL | 350 | 19 x 3.45 | 177.6 | 17.25 | 489 | 28.45 | 0.1626 | 0.1666 | 0.1995 | 565 |
| CANNA | 397.5 | 19 x 3.68 | 202.1 | 18.4 | 55.4 | 31.64 | 0.1431 | 0.1473 | 0.1659 | 615 |

| CODE | SIZE AWG-MCM | STRANDING N2 X Q mm | SECTION mm ² | OVERALL DIAMETER mm | CABLE WEIGHT kg/km | RATED STRENGTH N | ELECTRICAL RESISTANCE | | | CURRENT CARRYING CAPACITY (1) Amps |
|-------------|-----------------|------------------------|----------------------------|---------------------------|--------------------------|------------------------|-----------------------|-----------------|-----------------|---|
| | | | | | | | DC 20°C / km | AC | | |
| | | | | | | | | CC 25°C / km | CC 25°C / km | |
| GOLDENTUFT | 450 | 19 x 3.91 | 228.1 | 19.55 | 682.6 | 35.11 | 0.1264 | 0.1299 | 0.156 | 665 |
| COSMOS | 477 | 19 x 4.02 | 241.2 | 20.1 | 666.4 | 37.2 | 0.1193 | 0.1224 | 0.1467 | 690 |
| SYRINGA | 477 | 37 x 2.88 | 241 | 20.16 | 666.4 | 38.67 | 0.1193 | 0.1224 | 0.1467 | 690 |
| ZINNIA | 500 | 19 x 4.12 | 253.3 | 20.6 | 698.6 | 38.98 | 0.1138 | 0.1168 | 0.1398 | 715 |
| HYACINTH | 500 | 37 x 2.95 | 252.9 | 20.65 | 698.6 | 40.54 | 0.1138 | 0.1168 | 0.1398 | 715 |
| DAHLIA | 556.5 | 19 x 4.35 | 282.4 | 21.75 | 777.4 | 43.39 | 0.1022 | 0.1089 | 0.1262 | 765 |
| MISTLETOE | 556.5 | 37 x 3.11 | 281.1 | 21.77 | 777.4 | 44.25 | 0.1022 | 0.1089 | 0.1262 | 765 |
| MEADOWSWEET | 600 | 37 x 3.23 | 303.2 | 22.61 | 838.1 | 47.62 | 0.09482 | 0.0982 | 0.1168 | 800 |
| ORCHID | 636 | 37 x 3.33 | 322.2 | 23.31 | 888.4 | 50.73 | 0.08947 | 0.09262 | 0.11063 | 835 |
| HEUCHERA | 650 | 37 x 3.37 | 330 | 23.59 | 908.1 | 51.84 | 0.08747 | 0.09098 | 0.10853 | 855 |
| VERBANA | 700 | 37 x 3.49 | 354 | 24.43 | 977.9 | 55.63 | 0.08123 | 0.08451 | 0.10069 | 880 |
| FLAG | 700 | 61 x 2.72 | 354.5 | 24.48 | 977.9 | 57.42 | 0.08123 | 0.08264 | 0.0982 | 900 |
| VIOLET | 715 | 37 x 3.53 | 362.1 | 24.71 | 999.6 | 56.96 | 0.07953 | 0.08264 | 0.0982 | 900 |
| NASTURTIUM | 715.5 | 61 x 2.75 | 362.35 | 24.73 | 999.6 | 58.3 | 0.07953 | 0.08264 | 0.0982 | 900 |
| PETUNNIA | 750 | 37 x 3.62 | 380.8 | 25.34 | 1047.7 | 58.3 | 0.07587 | 0.07894 | 0.09446 | 922 |
| CATTAIL | 750 | 61 x 2.82 | 381 | 25.38 | 1047.7 | 60.08 | 0.07585 | 0.07894 | 0.09446 | 922 |
| ARBUTIUS | 795 | 37 x 3.72 | 402.1 | 26.04 | 1110.6 | 61.86 | 0.07156 | 0.07457 | 0.08888 | 960 |
| ULAC | 795 | 61 x 2.9 | 402.9 | 26.1 | 1110.6 | 63.65 | 0.07156 | 0.07457 | 0.08888 | 960 |
| FUCHSIA | 800 | 37 x 3.75 | 408.7 | 26.25 | 1115.2 | 62.3 | 0.07116 | 0.07421 | 0.08825 | 960 |
| HELIOTROPE | 800 | 61 x 2.92 | 408.7 | 26.28 | 1115.2 | 64.08 | 0.07116 | 0.07421 | 0.08825 | 960 |
| ANEMONE | 874.5 | 37 x 3.91 | 444.3 | 27.37 | 1221.8 | 66.75 | 0.06506 | 0.06837 | 0.08081 | 1020 |
| CROCUS | 874.5 | 61 x 3.04 | 442.8 | 27.36 | 1221.8 | 70.31 | 0.06506 | 0.06837 | 0.08081 | 1020 |
| COCKCOMB | 900 | 37 x 3.96 | 455.7 | 27.72 | 1257.4 | 68.53 | 0.06332 | 0.0665 | 0.07894 | 1040 |
| SNAPDRAGON | 900 | 61 x 3.09 | 457.4 | 27.81 | 1257.4 | 70.76 | 0.06332 | 0.0665 | 0.07894 | 1040 |
| MAGNOLIA | 954 | 37 x 4.08 | 483.7 | 28.56 | 1332.8 | 75.215 | 0.05965 | 0.06276 | 0.07457 | 1080 |
| GOLDENROD | 954 | 61 x 3.18 | 484.5 | 28.62 | 1332.8 | 75.215 | 0.05965 | 0.06276 | 0.07457 | 1080 |
| HAWKWEED | 1000 | 37 x 4.17 | 505.3 | 29.19 | 1397 | 76.54 | 0.05689 | 0.06004 | 0.07146 | 1110 |
| CAMELLIA | 1000 | 61 x 3.25 | 506 | 29.25 | 1397 | 78.77 | 0.05689 | 0.06004 | 0.07146 | 1110 |
| BLUEBELL | 1033.5 | 37 x 4.24 | 522.4 | 29.68 | 1443.8 | 78.77 | 0.05505 | 0.0583 | 0.06906 | 1135 |
| LARKSPUR | 1035.5 | 61 x 3.31 | 524.9 | 29.79 | 1443.8 | 81.45 | 0.05505 | 0.0583 | 0.06906 | 1135 |
| MARIGOLD | 1272 | 61 x 3.43 | 563.6 | 30.87 | 1555.2 | 87.67 | 0.05112 | 0.05456 | 0.06437 | 1190 |
| HAWTHORN | 1192.5 | 61 x 3.55 | 603.8 | 31.95 | 1665.3 | 93.9 | 0.0477 | 0.05121 | 0.06033 | 1240 |
| NARCISSUS | 1272 | 61 x 3.67 | 645.3 | 33.03 | 1776.9 | 97.9 | 0.04472 | 0.04816 | 0.05673 | 1290 |
| COLIMBINE | 1351.5 | 61 x 3.78 | 684.5 | 34.02 | 1888.5 | 104.13 | 0.04209 | 0.04560 | 0.05377 | 1340 |
| CARNATION | 1431 | 61 x 3.89 | 72 | 35.01 | 1998.6 | 108.14 | 0.03976 | 0.04344 | 0.05102 | 1390 |
| GLADIOLUS | 1510.5 | 61 x 4 | 766.5 | 36 | 2110.3 | 113.92 | 0.03766 | 0.04134 | 0.04852 | 1430 |
| COREOPSIS | 1590 | 61 x 4.1 | 805.4 | 36.9 | 2222 | 120.15 | 0.03579 | 0.0396 | 0.04636 | 1480 |
| JESSANINE | 1750 | 61 x 4.3 | 885.8 | 38.7 | 2445.1 | 132.17 | 0.03251 | 0.03642 | 0.04262 | 1565 |
| COWSLIP | 2000 | 91 x 3.76 | 1010.4 | 41.36 | 2793.3 | 152.19 | 0.02845 | 0.03281 | 0.03803 | 1695 |
| SAGEBRUSH | 2250 | 91 x 3.99 | 1137.8 | 43.89 | 3174.3 | 167.77 | 0.02829 | 0.02987 | 0.03449 | 1810 |
| PIGWEEED | 2300 | 61 x 4.93 | 1164.4 | 44.37 | 3239.8 | 173.56 | 0.02473 | 0.02931 | 0.03386 | 1830 |
| LUPINE | 2500 | 91 x 4.21 | 1266.8 | 46.31 | 3527 | 186.46 | 0.02298 | 0.02791 | 0.03213 | 1920 |
| BITTERROOT | 2750 | 91 x 4.41 | 1390 | 48.51 | 3879.8 | 205.15 | 0.0207 | 0.02576 | 0.02937 | 2020 |
| TRILLIUM | 3000 | 127 x 3.9 | 1517 | 50.7 | 4232.4 | 223.84 | 0.01915 | 0.02461 | 0.02784 | 2120 |
| BLUEBONNET | 3500 | 127 x 4.22 | 1776.3 | 54.86 | 4985.4 | 261.22 | 0.01657 | 0.02231 | 0.02526 | 2295 |

ASTM - B 231

| CODE WORD | SIZE AWG or kcmil | STRANDING | | DIAMETER (ins) | | CROSS SECTIONAL AREA (sq ins) | WEIGHT PER 1000FT (lbs) | RATED STRENGTH (lbs) | RESISTANCE ohms/1000ft | | ALLOWABLE AMPACITY Amps |
|-------------|-------------------------|----------------|-------|--------------------|-------------------|--|----------------------------------|----------------------------|---------------------------|---------------|-------------------------------|
| | | No of Wires | Class | Individual Wire | Complete Cable | | | | DC at 20°C | DC at 75°C | |
| PEACHBELL | 6 | 7 | A | 0.0612 | 0.184 | 0.0206 | 25 | 563 | 0.658 | 0.805 | 103 |
| ROSE | 4 | 7 | A | 0.0772 | 0.232 | 0.0328 | 39 | 881 | 0.414 | 0.506 | 138 |
| IRIS | 2 | 7 | AA.A | 0.0974 | 0.292 | 0.0521 | 62 | 1350 | 0.26 | 0.318 | 185 |
| PANSY | 1 | 7 | AA.A | 0.1093 | 0.328 | 0.0657 | 78 | 1640 | 0.207 | 0.252 | 214 |
| POPPY | 1/0 | 7 | AA.A | 0.1228 | 0.368 | 0.0829 | 99 | 1990 | 0.164 | 0.2 | 247 |
| ASTER | 2/0 | 7 | AA.A | 0.1379 | 0.414 | 0.1045 | 125 | 2510 | 0.13 | 0.159 | 286 |
| PHOLOX | 3/0 | 7 | AA.A | 0.1548 | 0.464 | 0.1318 | 157 | 3040 | 0.103 | 0.126 | 331 |
| OXLIP | 4/0 | 7 | AA.A | 0.1739 | 0.522 | 0.1662 | 198 | 6830 | 0.0817 | 0.0999 | 393 |
| SNEEZEVVORT | 250 | 7 | A | 0.189 | 0.567 | 0.1964 | 234 | 4520 | 0.0691 | 0.846 | 425 |
| VALERIAN | 250 | 19 | A | 0.1147 | 0.574 | 0.1964 | 234 | 4660 | 0.0691 | 0.0846 | 425 |
| DAISY | 266.8 | 7 | AA | 0.1953 | 0.586 | 0.2095 | 250 | 4830 | 0.0648 | 0.0793 | 443 |
| LAUREL | 266.8 | 19 | A | 0.1185 | 0.593 | 0.2095 | 250 | 4970 | 0.0648 | 0.0793 | 444 |
| PEONY | 300 | 19 | A | 0.1257 | 0.629 | 0.2356 | 281 | 5480 | 0.0576 | 0.0706 | 478 |
| TULIP | 336.4 | 19 | A | 0.1331 | 0.666 | 0.2642 | 316 | 6150 | 0.514 | 0.063 | 513 |
| DAFFRODIL | 350 | 19 | A | 0.1357 | 0.679 | 0.2749 | 328 | 6390 | 0.494 | 0.0605 | 526 |
| CANNA | 397.5 | 19 | AA.A | 0.1447 | 0.724 | 0.3122 | 373 | 7110 | 0.0435 | 0.0534 | 570 |
| GOLDENTUFT | 450 | 19 | AA | 0.1538 | 0.769 | 0.3534 | 422 | 7890 | 0.0384 | 0.0427 | 616 |
| COSMOS | 477 | 19 | AA | 0.1584 | 0.793 | 0.3746 | 447 | 8360 | 0.0362 | 0.0455 | 639 |
| SYRINGA | 477 | 37 | A | 0.1135 | 0.795 | 0.3746 | 447 | 8690 | 0.0362 | 0.0445 | 639 |
| ZINNIA | 500 | 19 | AA | 0.1622 | 0.811 | 0.3927 | 469 | 8760 | 0.0346 | 0.0425 | 658 |
| HYACINTH | 500 | 37 | A | 0.1162 | 0.813 | 0.3927 | 468 | 9110 | 0.0346 | 0.0425 | 958 |
| DAHLIA | 556.5 | 19 | AA | 0.1711 | 0.856 | 0.4371 | 521 | 9750 | 0.0311 | 0.0382 | 703 |
| MISTLETOE | 556.5 | 37 | AA.A | 0.1226 | 0.858 | 0.4372 | 521 | 9940 | 0.0311 | 0.0382 | 704 |
| MEADOWSWEET | 600 | 37 | AA.A | 0.1273 | 0.891 | 0.4712 | 562 | 10700 | 0.0288 | 0.0355 | 738 |
| ORCHID | 636 | 37 | AA.A | 0.1311 | 0.918 | 0.4995 | 596 | 11400 | 0.0272 | 0.0355 | 765 |
| HEUCHERA | 650 | 37 | AA | 0.1326 | 0.928 | 0.5105 | 610 | 11600 | 0.0266 | 0.0328 | 775 |
| VERBENA | 700 | 37 | AA | 0.1375 | 0.963 | 0.5498 | 656 | 12500 | 0.0247 | 0.0305 | 812 |
| FLAG | 700 | 61 | A | 0.1071 | 0.964 | 0.5499 | 656 | 12400 | 0.0247 | 0.0305 | 812 |
| VIOLET | 715.5 | 37 | AA | 0.1391 | 0.974 | 0.562 | 671 | 12800 | 0.0242 | 0.0299 | 823 |
| NASTURTIUM | 715.5 | 61 | A | 0.1083 | 0.975 | 0.5621 | 671 | 13100 | 0.0242 | 0.0299 | 823 |
| PETUNNIA | 750 | 37 | AA | 0.1424 | 0.997 | 0.5891 | 703 | 13100 | 0.023 | 0.0286 | 847 |
| CATTAIL | 750 | 61 | A | 0.1109 | 0.998 | 0.5891 | 703 | 13500 | 0.023 | 0.0286 | 847 |
| ARBUTUS | 795 | 37 | AA | 0.1466 | 1.026 | 0.6244 | 745 | 13900 | 0.0217 | 0.027 | 878 |
| ULAC | 795 | 61 | A | 0.1142 | 1.028 | 0.6244 | 746 | 14300 | 0.0217 | 0.027 | 879 |
| COCKCOMB | 900 | 37 | AA | 0.156 | 1.093 | 0.7069 | 844 | 15400 | 0.0192 | 0.0239 | 948 |
| SNAPDRAGON | 900 | 61 | A | 0.1215 | 1.094 | 0.7069 | 844 | 15900 | 0.0192 | 0.0239 | 948 |
| MAGNOLIA | 954 | 37 | AA | 0.1606 | 1.124 | 0.7493 | 895 | 16400 | 0.0181 | 0.0226 | 982 |
| GOLDENROD | 954 | 61 | A | 0.1251 | 1.126 | 0.7493 | 895 | 16900 | 0.0181 | 0.0226 | 983 |
| HAWKWEED | 1000 | 37 | AA | 0.1644 | 1.15 | 0.7854 | 937 | 17200 | 0.0173 | 0.0216 | 1010 |
| CAMELIA | 1000 | 61 | A | 0.128 | 1.152 | 0.7854 | 937 | 17700 | 0.0173 | 0.0216 | 1011 |
| BLUEBELL | 1033.5 | 37 | AA | 0.1671 | 1.17 | 0.8117 | 968 | 17700 | 0.0167 | 0.021 | 1031 |
| LARKSPUR | 1033.5 | 61 | A | 0.1302 | 1.172 | 0.8117 | 969 | 18300 | 0.0167 | 0.021 | 1032 |
| MARIGOLD | 1113 | 61 | AA.A | 0.1351 | 1.216 | 0.8742 | 1044 | 19700 | 0.0155 | 0.0195 | 1079 |
| HAWTHORN | 1192.5 | 61 | AA.A | 0.1398 | 1.258 | 0.9366 | 1117 | 21100 | 0.0145 | 0.0183 | 1124 |
| NARCISSUS | 1272 | 61 | AA.A | 0.1444 | 1.3 | 0.999 | 1192 | 22000 | 0.0136 | 0.0173 | 1169 |
| COLUMBINE | 1351.5 | 61 | AA.A | 0.1489 | 1.34 | 1.061 | 1266 | 23400 | 0.0128 | 0.0163 | 1212 |

| CODE WORD | SIZE AWG or kcmil | STRANDING | | DIAMETER (ins) | | CROSS SECTIONAL AREA (sq ins) | WEIGHT PER 1000FT (lbs) | RATED STRENGTH (lbs) | RESISTANCE ohms/1000ft | | ALLOWABLE AMPACITY Amps |
|------------|-------------------------|----------------|-------|--------------------|-------------------|--|----------------------------------|----------------------------|---------------------------|---------------|-------------------------------|
| | | No of Wires | Class | Individual Wire | Complete Cable | | | | DC at 20°C | DC at 75°C | |
| CARNATION | 1431 | 61 | AA.A | 0.1532 | 1.379 | 1.124 | 1342 | 24300 | 0.0121 | 0.0155 | 1253 |
| GLADIOLUS | 1510.5 | 61 | AA.A | 0.1574 | 1.417 | 1.186 | 1416 | 25600 | 0.0144 | 0.0147 | 1294 |
| COREOPSIS | 1590 | 61 | AA | 0.1614 | 1.454 | 1.249 | 1489 | 27000 | 0.0109 | 0.0141 | 1333 |
| JESSAMINE | 1750 | 61 | AA | 0.1694 | 1.525 | 1.374 | 1641 | 29700 | 0.0988 | 0.0129 | 1408 |
| COWSLIP | 2000 | 91 | A | 0.1482 | 1.63 | 1.571 | 1873 | 34200 | 0.00864 | 0.0115 | 1518 |
| SAGEBRUSH | 2250 | 91 | A | 0.1572 | 1.729 | 1.767 | 2128 | 37500 | 0.00776 | 0.0105 | 1612 |
| LUPINE | 2500 | 91 | A | 0.1657 | 1.823 | 1.964 | 2365 | 41900 | 0.00698 | 0.00969 | 1706 |
| BITTERROOT | 2750 | 91 | A | 0.1739 | 1.913 | 2.16 | 2602 | 46100 | 0.00635 | 0.009 | 1793 |
| TRILLIUM | 3000 | 127 | A | 0.1537 | 1.996 | 2.356 | 2687 | 50300 | 0.00582 | 0.00834 | 1874 |
| BLUEBONNET | 3500 | 127 | A | 0.166 | 2.158 | 2.749 | 3344 | 58700 | 0.00499 | 0.00756 | 2024 |

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| SIZE AWG or kcmil | STRANDING | | DIAMETER (ins) | | CROSS SECTIONAL AREA (sq ins) | WEIGHT PER 1000FT (lbs) | RATED STRENGTH (lbs) | RESISTANCE ohms/1000ft | | ALLOWABLE AMPACITY Amps |
|-------------------------|----------------|-------|--------------------|-------------------|--|----------------------------------|----------------------------|---------------------------|---------------|-------------------------------|
| | No of Wires | Class | Individual wire | Complete cable | | | | DC at 20°C | DC at 75°C | |
| 6 | 7 | B | 0.0612 | 0.184 | 0.0206 | 25 | 583 | 0.658 | 0.805 | 103 |
| 4 | 7 | B | 0.0772 | 0.232 | 0.328 | 39 | 881 | 0.414 | 0.506 | 138 |
| 3 | 7 | B | 0.0867 | 0.26 | 0.0413 | 49 | 1090 | 0.328 | 0.401 | 160 |
| 2 | 7 | B | 0.0974 | 0.292 | 0.0521 | 62 | 1350 | 0.26 | 0.318 | 185 |
| 1 | 19 | B | 0.0664 | 0.332 | 0.0657 | 79 | 1740 | 0.207 | 0.252 | 214 |
| 1/0 | 19 | B | 0.0745 | 0.373 | 0.0829 | 99 | 2160 | 0.164 | 0.2 | 248 |
| 2/0 | 19 | B | 0.0837 | 0.419 | 0.1045 | 125 | 2670 | 0.13 | 0.159 | 287 |
| 3/0 | 19 | B | 0.094 | 0.47 | 0.1318 | 157 | 3310 | 0.103 | 0.126 | 332 |
| 4/0 | 19 | B | 0.1055 | 0.528 | 0.1662 | 198 | 4020 | 0.0817 | 0.0999 | 384 |
| 250 | 37 | B | 0.0822 | 0.575 | 0.1964 | 234 | 4910 | 0.0691 | 0.0846 | 426 |
| 300 | 37 | B | 0.09 | 0.63 | 0.2356 | 281 | 5890 | 0.0576 | 0.0706 | 478 |
| 350 | 37 | B | 0.0973 | 0.681 | 0.2749 | 328 | 6760 | 0.0494 | 0.0605 | 527 |
| 400 | 37 | B | 0.104 | 0.728 | 0.3142 | 375 | 7440 | 0.0432 | 0.053 | 573 |
| 450 | 37 | B | 0.1103 | 0.772 | 0.3524 | 422 | 8200 | 0.0384 | 0.0472 | 616 |
| 500 | 37 | B | 0.1162 | 0.813 | 0.3927 | 468 | 9110 | 0.0346 | 0.0425 | 658 |
| 550 | 61 | B | 0.095 | 0.855 | 0.432 | 516 | 10500 | 0.0314 | 0.0387 | 699 |
| 600 | 61 | B | 0.0992 | 0.893 | 0.4721 | 563 | 11500 | 0.0288 | 0.0355 | 738 |
| 650 | 61 | B | 0.1032 | 0.929 | 0.5105 | 609 | 11900 | 0.0266 | 0.0328 | 776 |
| 700 | 61 | B | 0.1071 | 0.964 | 0.5498 | 656 | 12900 | 0.0247 | 0.0305 | 812 |
| 750 | 61 | B | 0.1109 | 0.998 | 0.5891 | 703 | 13500 | 0.023 | 0.0286 | 847 |
| 800 | 61 | B | 0.1145 | 1.031 | 0.6283 | 750 | 14400 | 0.0216 | 0.0268 | 882 |
| 900 | 61 | B | 0.1215 | 1.094 | 0.7069 | 844 | 15900 | 0.0192 | 0.0239 | 948 |
| 1000 | 61 | B | 0.128 | 1.154 | 0.7854 | 937 | 17700 | 0.0173 | 0.0216 | 1011 |
| 1100 | 61 | B | 0.1099 | 1.209 | 0.8669 | 1030 | 20000 | 0.0157 | 0.0198 | 1071 |
| 1200 | 91 | B | 0.1148 | 1.263 | 0.9425 | 1124 | 21400 | 0.0144 | 0.0182 | 1129 |
| 1250 | 91 | B | 0.1172 | 1.289 | 0.9818 | 1172 | 22300 | 0.0138 | 0.0175 | 1157 |
| 1300 | 91 | B | 0.1195 | 1.315 | 1.021 | 1218 | 23200 | 0.0133 | 0.0169 | 1184 |
| 1400 | 91 | B | 0.124 | 1.364 | 1.1 | 1311 | 24500 | 0.0123 | 0.0158 | 1237 |
| 1500 | 91 | B | 0.1284 | 1.412 | 1.178 | 1406 | 26200 | 0.0155 | 0.0148 | 1288 |
| 2 | 19 | C | 0.0591 | 0.296 | 0.0521 | 62 | 1410 | 0.26 | 0.318 | 185 |
| 2/0 | 37 | C | 0.06 | 0.42 | 0.1045 | 125 | 2760 | 0.13 | 0.159 | 287 |

| SIZE AWG or kcmil | STRANDING | | DIAMETER (ins) | | CROSS SECTIONAL AREA (sq ins) | WEIGHT PER 1000FT (lbs) | RATED STRENGTH (lbs) | RESISTANCE ohms/1000ft | | ALLOWABLE AMPACITY Amps |
|-------------------------|----------------|-------|--------------------|-------------------|--|----------------------------------|----------------------------|---------------------------|---------------|-------------------------------|
| | No of Wires | Class | Individual wire | Complete cable | | | | DC at 20°C | DC at 75°C | |
| 3/0 | 37 | C | 0.0673 | 0.471 | 0.1318 | 157 | 3.41 | 0.1030 | 0.126 | 332 |
| 4/0 | 37 | C | 0.0756 | 0.529 | 0.1662 | 198 | 4.23 | 0.0817 | 0.0999 | 384 |
| 250 | 61 | C | 0.064 | 0.576 | 0.1964 | 234 | 5.03 | 0.0691 | 0.0846 | 427 |
| 300 | 61 | C | 0.0701 | 0.631 | 0.2356 | 281 | 5.93 | 0.0576 | 0.0706 | 478 |
| 350 | 61 | C | 0.0757 | 0.681 | 0.2749 | 328 | 6.92 | 0.0494 | 0.0605 | 527 |
| 400 | 61 | C | 0.081 | 0.729 | 0.3142 | 375 | 7.78 | 0.0432 | 0.053 | 573 |
| 450 | 61 | C | 0.0859 | 0.773 | 0.3534 | 422 | 8.75 | 0.0384 | 0.0472 | 617 |
| 500 | 61 | C | 0.0905 | 0.815 | 0.3927 | 468 | 9.54 | 0.0346 | 0.0425 | 659 |
| 550 | 91 | C | 0.0777 | 0.855 | 0.432 | 515 | 10.8 | 0.0314 | 0.0387 | 699 |
| 600 | 91 | C | 0.0812 | 0.893 | 0.4712 | 562 | 11.5 | 0.0288 | 0.0355 | 738 |
| 650 | 91 | C | 0.0845 | 0.93 | 0.5105 | 609 | 12.5 | 0.0266 | 0.0328 | 776 |
| 700 | 91 | C | 0.0877 | 0.964 | 0.5498 | 656 | 13.5 | 0.0247 | 0.0305 | 812 |
| 750 | 91 | C | 0.0908 | 0.999 | 0.5891 | 703 | 14.2 | 0.023 | 0.0286 | 848 |
| 800 | 91 | C | 0.0938 | 1.032 | 0.6283 | 750 | 15.1 | 0.0216 | 0.0247 | 882 |
| 900 | 91 | C | 0.0994 | 1.093 | 0.7069 | 843 | 17.1 | 0.0192 | 0.0239 | 948 |
| 1000 | 91 | C | 0.1048 | 1.153 | 0.7854 | 937 | 18.2 | 0.0173 | 0.0216 | 1011 |

TS IEC 1089

| CODE AL mm ² | CANADA STANDARD | | AREAS | | NO. OF WIRES | DIAMETER OF WIRES mm | CONDUCTOR DIAMETER mm | RATED STRENGTH kg | DC RESISTANCE AT 20°C ohms/km | UNIT WEIGHT kg/km | PACKING OF REELS | | |
|-------------------------------|--------------------|----------------|--------------------------|---|-----------------|----------------------------|-----------------------------|-------------------------|--|-------------------------|------------------|--------------|------------------|
| | Type | Section AWG | Total mm ² | Copper Equivalent mm ² | | | | | | | Reel type | In one reel | |
| | | | | | | | | | | | | Lengths m | Net weight kg |
| 21 | ROSE | 4 | 21.14 | 13.3 | 7 | 1.96 | 5.88 | 416 | 1.3558 | 57.8 | R-100 | 10000 | 578 |
| 27 | LILY | 3 | 26.6 | 16.73 | 7 | 2.2 | 6.6 | 514 | 1.0776 | 72.8 | R-100 | 8000 | 583 |
| 34 | IRIS | 2 | 33.53 | 21.09 | 7 | 2.47 | 7.41 | 637 | 0.8537 | 91.8 | R-100 | 6400 | 588 |
| 42 | PANSY | 1 | 42.49 | 26.72 | 7 | 2.78 | 8.34 | 777 | 0.6743 | 116.8 | R-100 | 5000 | 582 |
| 53 | POPPY | 1/0 | 53.48 | 33.63 | 7 | 3.12 | 9.36 | 941 | 0.5354 | 146.4 | R-100 | 4000 | 586 |
| 67 | ASTER | 2/0 | 67.14 | 42.22 | 7 | 3.5 | 10.5 | 1185 | 0.4254 | 184.4 | R-100 | 3000 | 554 |
| 85 | PHLOX | 3/0 | 84.91 | 53.4 | 7 | 3.93 | 11.79 | 1435 | 0.3372 | 232.5 | R-100 | 2400 | 558 |
| 107 | OXLIP | 4/0 | 107.38 | 67.53 | 7 | 4.42 | 13.26 | 1814 | 0.2662 | 294 | R-100 | 1900 | 559 |
| 126 | VALERIAN | 250000 | 126.38 | 79.46 | 19 | 2.91 | 14.55 | 2261 | 0.2277 | 347.5 | R-100 | 1600 | 556 |
| 135 | DAISY | 266800 | 135.28 | 85.07 | 19 | 3.01 | 15.05 | 2421 | 0.2127 | 372.1 | R-100 | 1500 | 556 |
| 152 | PEONY | 300000 | 151.28 | 95.47 | 19 | 3.19 | 15.95 | 2671 | 0.1896 | 417.7 | R-120 | 1750 | 731 |

DIN 48201

| CODE | SECTION mm ² | STRANDING | | OVERALL DIAMETER mm | RATED STRENGTH N | ELECTRICAL RESISTANCE ohms/km | CABLE WEIGHT kg/km | CURRENT CARRYING CAPACITY (1) Amps |
|------|----------------------------|-----------|------|---------------------------|------------------------|-------------------------------------|-----------------------|--|
| | | No | Q mm | | | | | |
| 16 | 15.89 | 7 | 1.7 | 5.1 | 2840 | 1.8018 | 44 | 110 |
| 25 | 24.25 | 7 | 2.1 | 6.3 | 4170 | 1.1808 | 67 | 145 |
| 35 | 34.46 | 7 | 2.5 | 7.5 | 5740 | 0.8332 | 94 | 180 |
| 50 | 49.48 | 7 | 3 | 9 | 7950 | 0.5786 | 135 | 225 |
| 50 | 48.36 | 19 | 1.8 | 9 | 8440 | 0.595 | 133 | 225 |
| 70 | 65.82 | 19 | 2.1 | 10.5 | 11250 | 0.4371 | 181 | 270 |
| 95 | 93.27 | 19 | 2.5 | 12.5 | 15650 | 0.3085 | 256 | 340 |

| CODE | SECTION mm ² | STRANDING | | OVERALL DIAMETER mm | RATED STRENGTH N | ELECTRICAL RESISTANCE ohms/km | CABLE WEIGHT kg/km | CURRENT CARRYING CAPACITY (1) Amps |
|------|----------------------------|-----------|------|---------------------------|------------------------|-------------------------------------|-----------------------|--|
| | | No | Q mm | | | | | |
| 120 | 117 | 19 | 2.8 | 14 | 18750 | 0.2459 | 322 | 390 |
| 150 | 147.1 | 37 | 2.25 | 15.7 | 25250 | 0.1961 | 406 | 455 |
| 185 | 181.6 | 37 | 2.5 | 17.5 | 30450 | 0.1587 | 501 | 520 |
| 240 | 242.5 | 61 | 2.25 | 20.2 | 39350 | 0.1192 | 670 | 625 |
| 300 | 299.4 | 61 | 2.5 | 22.5 | 47550 | 0.0965 | 827 | 710 |
| 400 | 400.1 | 61 | 2.89 | 26 | 60700 | 0.0722 | 1105 | 855 |
| 500 | 499.8 | 61 | 3.23 | 29.1 | 74500 | 0.0578 | 1381 | 990 |
| 625 | 626.3 | 91 | 2.96 | 32.6 | 95000 | 0.0462 | 1733 | 1140 |
| 800 | 802.1 | 91 | 3.35 | 36.8 | 118200 | 0.0361 | 2219 | 1340 |
| 1000 | 999.7 | 91 | 3.74 | 41.1 | 145500 | 0.029 | 2766 | 1540 |

BS 215

| CODE | SECTION mm ² | | STRANDING | | OVERALL DIAMETER mm | RATED STRENGTH N | ELECTRICAL RESISTANCE ohms/km | CONDUCTOR WEIGHT kg/km |
|-----------|----------------------------|-----------|-----------|------|---------------------------|------------------------|-------------------------------------|---------------------------|
| | Nominal | Theorical | No | Q mm | | | | |
| MIDGE | 22 | 23.33 | 7 | 2.06 | 6.18 | 3990 | 1.227 | 64 |
| ANT | 50 | 52.83 | 7 | 3.1 | 9.3 | 8280 | 0.5419 | 145 |
| FLY | 60 | 63.55 | 7 | 3.4 | 10.2 | 9900 | 0.4505 | 174 |
| WASP | 100 | 106 | 7 | 4.39 | 13.17 | 16000 | 0.2702 | 290 |
| HORNET | 150 | 157.6 | 19 | 3.25 | 16.25 | 25700 | 0.1825 | 434 |
| CHARFER | 200 | 213.2 | 19 | 3.78 | 18.9 | 35400 | 0.1349 | 587 |
| COCKROACH | 250 | 265.7 | 19 | 4.22 | 21.1 | 40400 | 0.1083 | 731 |
| BUTTERFLY | 300 | 322.7 | 19 | 4.65 | 23.25 | 48750 | 0.08916 | 888 |
| CENTIPEDE | 400 | 415.2 | 37 | 3.78 | 26.46 | 63100 | 0.06944 | 1145 |

Basic Technical Data of Stranded Conductors

| NO. OF WIRES AL | FINAL MODULES OF ELASTICITY | | COEFFICIENT OF LINEAR EXPANSION | |
|--------------------|-----------------------------|-----------------------|---------------------------------|-------------------------|
| | kg/mm ² | Lb/in ² | 1/°C | 1/F° |
| 7 | 6000 | 8.5 x 10 ⁶ | 23 x 10 ⁻⁶ | 12.8 x 10 ⁻⁶ |
| 19 | 5700 | 8.1 x 10 ⁶ | | |
| 37 | 5700 | 8.1 x 10 ⁶ | | |
| 61 | 5500 | 7.8 x 10 ⁶ | | |
| 91 | 5500 | 7.8 x 10 ⁶ | | |

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.