

7. Overhead Conductors

7.1

All Aluminium Conductors (AAC)

Description: Hard drawn Aluminium wires, stranded in successive layers, in opposite direction to form the Aluminium stranded AAC conductors as per BS EN 50182 or IEC 61089.

Application: All Aluminium bare conductors are used for aerial distribution lines having relatively short spans, aerial feeders and bus bars of substations.

| Nominal Cross Sectional Area | No. & Dia. of Wires | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|------------------------------|---------------------|--------------------------|----------------|-------------------------------|----------------|
| mm ² | x/mm | mm | kN | Ω/km | kg/km |
| 16 | 7/1.70 | 5.10 | 3.02 | 1.7986 | 43.4 |
| 25 | 7/2.10 | 6.30 | 4.36 | 1.1787 | 66.3 |
| 35 | 7/2.50 | 7.50 | 6.01 | 0.8317 | 93.9 |
| 50 | 7/3.00 | 9.00 | 8.41 | 0.5776 | 135.2 |
| 50 | 19/1.80 | 9.00 | 8.94 | 0.5944 | 132.9 |
| 70 | 19/2.10 | 10.50 | 11.85 | 0.4367 | 180.9 |
| 95 | 19/2.50 | 12.50 | 16.32 | 0.3081 | 256.3 |
| 120 | 19/2.80 | 14.00 | 19.89 | 0.2456 | 321.5 |
| 150 | 37/2.25 | 15.80 | 26.48 | 0.1960 | 405.7 |
| 185 | 37/2.50 | 17.50 | 31.78 | 0.1588 | 500.9 |
| 240 | 61/2.25 | 20.30 | 43.66 | 0.1193 | 671.1 |
| 300 | 61/2.50 | 22.50 | 52.40 | 0.0966 | 828.5 |
| 400 | 61/2.89 | 26.00 | 68.02 | 0.0723 | 1107.1 |
| 500 | 61/3.23 | 29.10 | 82.47 | 0.0579 | 1382.9 |



| Name | Nominal Cross Sectional Area | No. & Dia. of wires | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|--------------|------------------------------|---------------------|--------------------------|----------------|-------------------------------|----------------|
| | mm ² | x/mm | mm | kN | Ω/km | kg/km |
| MIDGE | 23.3 | 7/2.06 | 6.18 | 4.20 | 1.2249 | 63.8 |
| GNAT | 26.9 | 7/2.21 | 6.63 | 4.83 | 1.0643 | 73.4 |
| MOSQUITO | 36.9 | 7/2.59 | 7.77 | 6.27 | 0.7749 | 100.8 |
| LADYBIRD | 42.8 | 7/2.79 | 8.37 | 7.28 | 0.6678 | 117.0 |
| ANT | 52.8 | 7/3.10 | 9.30 | 8.72 | 0.5409 | 144.4 |
| FLY | 63.6 | 7/3.40 | 10.2 | 10.49 | 0.4497 | 173.7 |
| BLUEBOTTLE | 73.6 | 7/3.66 | 11.0 | 11.78 | 0.3880 | 201.3 |
| EARWIG | 78.6 | 7/3.78 | 11.3 | 12.57 | 0.3638 | 214.7 |
| GRASSHOPPEER | 84.1 | 7/3.91 | 11.7 | 13.45 | 0.3400 | 229.7 |
| CLEGG | 95.6 | 7/4.17 | 12.5 | 15.30 | 0.2989 | 261.3 |
| WASP | 106.0 | 7/4.39 | 13.2 | 16.95 | 0.2697 | 289.6 |
| BEETLE | 106.4 | 19/2.67 | 13.4 | 18.08 | 0.2701 | 292.4 |
| BEE | 132.0 | 7/4.90 | 14.7 | 21.12 | 0.2165 | 360.8 |
| HORNET | 157.6 | 19/3.25 | 16.3 | 26.01 | 0.1823 | 433.2 |
| CATERPILLAR | 185.9 | 19/3.53 | 17.7 | 29.75 | 0.1546 | 511.1 |
| CHAFER | 213.2 | 19/3.78 | 18.9 | 34.12 | 0.1348 | 586.0 |
| SPIDER | 237.6 | 19/3.99 | 20.0 | 38.01 | 0.1210 | 652.9 |
| COCKROACH | 265.7 | 19/4.22 | 21.1 | 42.52 | 0.1081 | 730.4 |
| BUTTERFLY | 322.7 | 19/4.65 | 23.3 | 51.63 | 0.0891 | 886.8 |
| MOTH | 373.1 | 19/5.00 | 25.0 | 59.69 | 0.0770 | 1025.3 |
| DRONE | 372.4 | 37/3.58 | 25.1 | 59.59 | 0.0774 | 1027.1 |
| CENTIPEDE | 415.2 | 37/3.78 | 26.5 | 66.43 | 0.0695 | 1145.1 |
| MAYBUG | 486.1 | 37/4.09 | 28.6 | 77.78 | 0.0593 | 1340.6 |
| SCORPION | 529.8 | 37/4.27 | 29.9 | 84.77 | 0.0544 | 1461.2 |
| CICADA | 628.3 | 37/4.65 | 32.6 | 100.54 | 0.0459 | 1732.9 |

7. Overhead Conductors

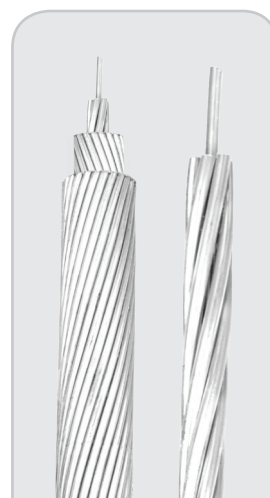
7.2

All Aluminium Alloy Conductors (AAAC)

Description: All Aluminium Alloy Conductors, stranded in successive layers to form the stranded AAAC conductor as per IEC 61089 or BS EN 50182 or ASTM B 399.

Application: AAACs are mainly used for overhead lines in transmission and distribution electrical networks, having relatively long spans. They are also used as a messenger to support overhead electrical cables.

| Nominal Cross sectional area | No. & Dia. of wires | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|------------------------------|---------------------|--------------------------|----------------|-------------------------------|----------------|
| mm ² | x/mm | mm | kN | Ω/km | kg/km |
| 16 | 7/1.70 | 5.10 | 4.69 | 2.0701 | 43.4 |
| 25 | 7/2.10 | 6.30 | 7.15 | 1.3566 | 66.2 |
| 35 | 7/2.50 | 7.50 | 10.14 | 0.9572 | 93.8 |
| 50 | 7/3.00 | 9.00 | 14.60 | 0.6647 | 135.1 |
| 50 | 19/1.80 | 9.00 | 14.26 | 0.6841 | 132.7 |
| 70 | 19/2.10 | 10.50 | 19.41 | 0.5026 | 180.7 |
| 95 | 19/2.50 | 12.50 | 27.51 | 0.3546 | 256.0 |
| 120 | 19/2.80 | 14.00 | 34.51 | 0.2827 | 321.2 |
| 150 | 37/2.25 | 15.80 | 43.40 | 0.2256 | 405.3 |
| 185 | 37/2.50 | 17.50 | 53.58 | 0.1827 | 500.3 |
| 240 | 61/2.25 | 20.30 | 71.55 | 0.1373 | 670.3 |
| 300 | 61/2.50 | 22.50 | 88.33 | 0.1112 | 827.5 |
| 400 | 61/2.89 | 26.00 | 118.04 | 0.0832 | 1105.9 |
| 500 | 61/3.23 | 29.10 | 147.45 | 0.0666 | 1381.4 |



| Name | Nominal Cross Sectional Area | No. & Dia. of wires | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|-----------|------------------------------|---------------------|--------------------------|----------------|-------------------------------|----------------|
| | mm ² | x/mm | mm | kN | Ω/km | kg/km |
| BOX | 18.8 | 7/1.85 | 5.55 | 5.55 | 1.7480 | 51.4 |
| ACACIA | 23.8 | 7/2.08 | 6.24 | 7.02 | 1.3828 | 64.9 |
| ALMOND | 30.1 | 7/2.34 | 7.02 | 8.88 | 1.0926 | 82.2 |
| CEDAR | 35.5 | 7/2.54 | 7.62 | 10.46 | 0.9273 | 96.8 |
| DEODAR | 42.2 | 7/2.77 | 8.31 | 12.44 | 0.7797 | 115.2 |
| FIR | 47.8 | 7/2.95 | 8.85 | 14.11 | 0.6875 | 130.6 |
| HAZEL | 59.9 | 7/3.30 | 9.90 | 17.66 | 0.5494 | 163.4 |
| PINE | 71.6 | 7/3.61 | 10.8 | 21.14 | 0.4591 | 195.6 |
| HOLLY | 84.1 | 7/3.91 | 11.7 | 24.79 | 0.3913 | 229.5 |
| WILLOW | 89.7 | 7/4.04 | 12.1 | 26.47 | 0.3665 | 245.0 |
| OAK | 118.9 | 7/4.65 | 14.0 | 35.07 | 0.2767 | 324.5 |
| MULBERRY | 150.9 | 19/3.18 | 15.9 | 44.52 | 0.2192 | 414.3 |
| ASH | 180.7 | 19/3.48 | 17.4 | 53.31 | 0.1830 | 496.1 |
| ELM | 211.0 | 19/3.76 | 18.8 | 62.24 | 0.1568 | 579.2 |
| POPLAR | 239.4 | 37/2.87 | 20.1 | 70.61 | 0.1387 | 659.4 |
| SYCAMORE | 303.2 | 37/3.23 | 22.6 | 89.40 | 0.1095 | 835.2 |
| UPAS | 362.1 | 37/3.53 | 24.7 | 106.82 | 0.0917 | 997.5 |
| YEW | 479.0 | 37/4.06 | 28.4 | 141.31 | 0.0693 | 1319.6 |
| TOTARA | 498.1 | 37/4.14 | 29.0 | 146.93 | 0.0666 | 1372.1 |
| RUBUS | 586.9 | 61/3.50 | 31.5 | 173.13 | 0.0567 | 1622.0 |
| SORBUS | 659.4 | 61/3.71 | 33.4 | 194.53 | 0.0505 | 1822.5 |
| ARAUCARIA | 821.1 | 61/4.14 | 37.3 | 242.24 | 0.0406 | 2269.4 |
| REDWOOD | 996.2 | 61/4.56 | 41.0 | 293.88 | 0.0334 | 2753.2 |

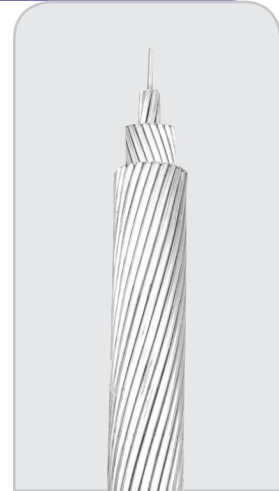
7. Overhead Conductors

7.3

Aluminium Conductors Steel Reinforced (ACSR)

Description: An outer layer of Aluminium conductor concentrically stranded over the central core of galvanized solid or stranded steel wires to form Aluminium steel reinforced conductors as per BS EN 50182 or ASTM B 232 or IEC 61089.

Application: ACSR conductors are widely used for electrical power transmission over long distances, since they are ideal for long overhead lines spans. They are also used as a messenger for supporting overhead electrical cables.



| Nominal Cross Sectional Area | No. & Dia. of wires | | Appro. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|------------------------------|---------------------|--------|-------------------------|----------------|-------------------------------|----------------|
| | Aluminium | Steel | | | | |
| mm ² | x/mm | x/mm | mm | kN | Ω/km | kg/km |
| 16/2.5 | 6/1.80 | 1/1.80 | 5.4 | 5.80 | 1.8769 | 61.6 |
| 25/4 | 6/2.25 | 1/2.25 | 6.75 | 8.95 | 1.2012 | 96.3 |
| 35/6 | 6/2.70 | 1/2.70 | 8.1 | 12.37 | 0.8342 | 138.7 |
| 50/8 | 6/3.20 | 1/3.20 | 9.6 | 16.81 | 0.5939 | 194.8 |
| 70/12 | 26/1.85 | 7/1.44 | 11.7 | 26.27 | 0.4132 | 282.2 |
| 95/15 | 26/2.15 | 7/1.67 | 13.6 | 34.93 | 0.3060 | 380.6 |
| 120/20 | 26/2.44 | 7/1.90 | 15.5 | 44.50 | 0.2376 | 491.0 |
| 150/25 | 26/2.70 | 7/2.10 | 17.1 | 53.67 | 0.1940 | 600.8 |
| 185/30 | 26/3.00 | 7/2.33 | 19.0 | 65.27 | 0.1571 | 741.0 |
| 210/35 | 26/3.20 | 7/2.49 | 20.3 | 73.36 | 0.1381 | 844.1 |
| 240/40 | 26/3.45 | 7/2.68 | 21.8 | 85.12 | 0.1188 | 980.1 |
| 380/50 | 54/3.00 | 7/3.00 | 27.0 | 121.30 | 0.0758 | 1442.5 |
| 490/65 | 54/3.40 | 7/3.40 | 30.6 | 150.81 | 0.0590 | 1852.9 |

7. Overhead Conductors

7.3

Aluminium Conductors Steel Reinforced (ACSR)-(continued)

| Name | Nominal Cross Sectional Area | No. & Dia. of wires | | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight |
|----------|------------------------------|---------------------|--------|--------------------------|----------------|-------------------------------|----------------|
| | | Aluminium | Steel | | | | |
| | mm ² | x/mm | x/mm | mm | kN | Ω/km | kg/km |
| MOLE | 12.4 | 6/1.50 | 1/1.50 | 4.50 | 4.14 | 2.7027 | 42.8 |
| SQUIRREL | 24.5 | 6/2.11 | 1/2.11 | 6.33 | 7.87 | 1.3659 | 84.7 |
| GOPHER | 30.6 | 6/2.36 | 1/2.36 | 7.08 | 9.58 | 1.0919 | 106.0 |
| WEASEL | 36.9 | 6/2.59 | 1/2.59 | 7.77 | 11.38 | 0.9065 | 127.6 |
| FOX | 42.8 | 6/2.79 | 1/2.79 | 8.37 | 13.21 | 0.7812 | 148.1 |
| FERRET | 49.5 | 6/3.00 | 1/3.00 | 9.00 | 15.27 | 0.6757 | 171.2 |
| RABBIT | 61.7 | 6/3.35 | 1/3.35 | 10.1 | 18.42 | 0.5419 | 213.5 |
| MINK | 73.6 | 6/3.66 | 1/3.66 | 11.0 | 21.67 | 0.4540 | 254.9 |
| SKUNK | 100.1 | 12/2.59 | 7/2.59 | 13.0 | 52.79 | 0.4568 | 463.0 |
| BEAVER | 87.5 | 6/3.99 | 1/3.99 | 12.0 | 25.76 | 0.3820 | 302.9 |
| HORSE | 116.2 | 12/2.79 | 7/2.79 | 14.0 | 61.26 | 0.3936 | 537.3 |
| RACCOON | 92.0 | 6/4.09 | 1/4.09 | 12.3 | 27.06 | 0.3635 | 318.3 |
| OTTER | 97.9 | 6/4.22 | 1/4.22 | 12.7 | 28.81 | 0.3415 | 338.8 |
| CAT | 111.3 | 6/4.50 | 1/4.50 | 13.5 | 32.76 | 0.3003 | 385.3 |
| HARE | 122.5 | 6/4.72 | 1/4.72 | 14.2 | 36.04 | 0.2730 | 423.8 |
| DOG | 118.5 | 6/4.72 | 7/1.57 | 14.2 | 32.65 | 0.2733 | 394.0 |
| COYOTE | 151.8 | 26/2.54 | 7/1.91 | 15.9 | 45.86 | 0.2192 | 520.7 |
| COUGAR | 138.8 | 18/3.05 | 1/3.05 | 15.3 | 29.74 | 0.2188 | 418.8 |
| TIGER | 161.9 | 30/2.36 | 7/2.36 | 16.5 | 57.87 | 0.2202 | 602.2 |
| WOLF | 194.9 | 30/2.59 | 7/2.59 | 18.1 | 68.91 | 0.1829 | 725.3 |
| DINGO | 167.5 | 18/3.35 | 1/3.35 | 16.8 | 35.87 | 0.1814 | 505.2 |
| LYNX | 226.2 | 30/2.79 | 7/2.79 | 19.5 | 79.97 | 0.1576 | 841.6 |
| CARACAL | 194.5 | 18/3.61 | 1/3.61 | 18.1 | 40.74 | 0.1562 | 586.7 |
| PANTHER | 261.5 | 30/3.00 | 7/3.00 | 21.0 | 92.46 | 0.1363 | 973.1 |
| JAGUAR | 222.3 | 18/3.86 | 1/3.86 | 19.3 | 46.57 | 0.1366 | 670.8 |
| LION | 293.9 | 30/3.18 | 7/3.18 | 22.3 | 100.47 | 0.1213 | 1093.4 |
| BEAR | 326.1 | 30/3.35 | 7/3.35 | 23.5 | 111.50 | 0.1093 | 1213.4 |
| GOAT | 400.0 | 30/3.71 | 7/3.71 | 26.0 | 135.13 | 0.0891 | 1488.2 |
| SHEEP | 462.6 | 30/3.99 | 7/3.99 | 27.9 | 156.30 | 0.0771 | 1721.3 |
| ANTELOPE | 422.6 | 54/2.97 | 7/2.97 | 26.7 | 118.88 | 0.0773 | 1413.8 |
| BISON | 431.2 | 54/3.00 | 7/3.00 | 27.0 | 121.30 | 0.0758 | 1442.5 |
| DEER | 529.8 | 30/4.27 | 7/4.27 | 29.9 | 179.00 | 0.0673 | 1971.4 |
| ZEBRA | 484.5 | 54/3.18 | 7/3.18 | 28.6 | 131.92 | 0.0674 | 1620.8 |
| ELK | 588.5 | 30/4.50 | 7/4.50 | 31.5 | 198.80 | 0.0606 | 2189.5 |
| CAMEL | 537.7 | 54/3.35 | 7/3.35 | 30.2 | 146.40 | 0.0608 | 1798.8 |
| MOOSE | 597.0 | 54/3.53 | 7/3.53 | 31.8 | 159.92 | 0.0547 | 1997.3 |

7. Overhead Conductors

7.3

Aluminium Conductors Steel Reinforced (ACSR)-(continued)

| Name | Nominal Cross Sectional Area | No. & Dia. of wires | | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight | |
|-----------|------------------------------|---------------------|---------|--------------------------|----------------|-------------------------------|----------------|-------|
| | | Aluminium | Steel | | | | Aluminium | Steel |
| | mm ² | x/mm | x/mm | mm | kN | Ω/km | kg/km | kg/km |
| GROUSE | 40.5 | 8/2.54 | 1/4.24 | 9.3 | 23.1 | 0.7112 | 112 | 110 |
| PETREL | 51.6 | 12/2.34 | 7/2.34 | 11.7 | 46.2 | 0.5614 | 143 | 235 |
| MINORCA | 56.1 | 12/2.44 | 7/2.44 | 12.2 | 50.2 | 0.5163 | 156 | 256 |
| LEGHORN | 68.2 | 12/2.69 | 7/2.69 | 13.5 | 60.7 | 0.4248 | 189 | 311 |
| GUINEA | 80.4 | 12/2.92 | 7/2.92 | 14.6 | 71.1 | 0.3605 | 223 | 367 |
| DOTTEREL | 89.4 | 12/3.08 | 7/3.08 | 15.4 | 76.7 | 0.3240 | 248 | 409 |
| DORKING | 96.5 | 12/3.20 | 7/3.20 | 16.0 | 82.8 | 0.3002 | 268 | 441 |
| BRAHMA | 102.8 | 16/2.86 | 19/2.48 | 18.1 | 126.5 | 0.2819 | 285 | 722 |
| COCHIN | 107.1 | 12/3.37 | 7/3.37 | 16.9 | 91.8 | 0.2707 | 297 | 488 |
| TURKEY | 13.3 | 6/1.68 | 1/1.68 | 5.0 | 5.3 | 2.1570 | 36 | 17 |
| SWAN | 21.2 | 6/2.12 | 1/2.12 | 6.4 | 8.3 | 1.3545 | 58 | 27 |
| SWANATE | 21.1 | 7/1.96 | 1/2.61 | 6.5 | 10.5 | 1.3583 | 58 | 42 |
| SPARROW | 33.6 | 6/2.67 | 1/2.67 | 8.0 | 12.7 | 0.8530 | 92 | 44 |
| SPARATE | 33.5 | 7/2.47 | 1/3.30 | 8.3 | 16.1 | 0.8553 | 92 | 67 |
| ROBIN | 42.4 | 6/3.00 | 1/3.00 | 9.0 | 15.8 | 0.6764 | 117 | 55 |
| RAVEN | 53.5 | 6/3.37 | 1/3.37 | 10.1 | 19.5 | 0.5364 | 147 | 69 |
| QUAIL | 67.4 | 6/3.78 | 1/3.78 | 11.4 | 23.6 | 0.4255 | 185 | 87 |
| PIGEON | 85.1 | 6/4.25 | 1/4.25 | 12.7 | 29.5 | 0.3370 | 233 | 110 |
| PENGUIN | 107.2 | 6/4.77 | 1/4.77 | 14.3 | 37.1 | 0.2676 | 294 | 139 |
| WAXWING | 135.0 | 18/3.09 | 1/3.09 | 15.5 | 30.3 | 0.2133 | 373 | 59 |
| PARTRIDGE | 134.9 | 26/2.57 | 7/2.00 | 16.3 | 50.2 | 0.2142 | 373 | 172 |
| OSTRICH | 152.2 | 26/2.73 | 7/2.12 | 17.3 | 56.6 | 0.1906 | 421 | 193 |
| MERLIN | 170.2 | 18/3.47 | 1/3.47 | 17.4 | 38.2 | 0.1692 | 470 | 74 |
| LINNET | 170.6 | 26/2.89 | 7/2.25 | 18.3 | 62.8 | 0.1699 | 472 | 217 |
| ORIOLE | 170.5 | 30/2.69 | 7/2.69 | 18.8 | 77.4 | 0.1704 | 473 | 311 |
| CHICKADEE | 200.9 | 18/3.77 | 1/3.77 | 18.9 | 44.3 | 0.1432 | 555 | 87 |
| BRANT | 201.6 | 24/3.27 | 7/2.18 | 19.6 | 64.7 | 0.1437 | 558 | 204 |
| IBIS | 201.3 | 26/3.14 | 7/2.44 | 19.9 | 72.1 | 0.1438 | 558 | 256 |
| LARK | 200.9 | 30/2.92 | 7/2.92 | 20.5 | 88.7 | 0.1442 | 559 | 367 |
| PELICAN | 242.3 | 18/4.14 | 1/4.14 | 20.7 | 52.3 | 0.1193 | 667 | 105 |
| FLICKLER | 241.6 | 24/3.58 | 7/2.39 | 21.5 | 76.8 | 0.1199 | 670 | 245 |
| HAWK | 241.7 | 26/3.44 | 7/2.67 | 21.8 | 86.4 | 0.1199 | 670 | 308 |
| HEN | 241.3 | 30/3.20 | 7/3.20 | 22.4 | 105.9 | 0.1202 | 672 | 440 |
| OSPREY | 282.5 | 18/4.47 | 1/4.47 | 22.3 | 61.0 | 0.1022 | 777 | 122 |
| PARAKEET | 282.3 | 24/3.87 | 7/2.58 | 23.2 | 88.3 | 0.1026 | 782 | 285 |
| DOVE | 282.6 | 26/3.72 | 7/2.89 | 23.5 | 101.1 | 0.1025 | 781 | 359 |
| EAGLE | 282.1 | 30/3.46 | 7/3.46 | 24.2 | 122.9 | 0.1030 | 783 | 514 |
| PEACOCK | 306.1 | 24/4.03 | 7/2.69 | 24.2 | 95.9 | 0.0945 | 850 | 311 |
| SQUAB | 305.8 | 26/3.87 | 7/3.01 | 24.5 | 108.1 | 0.0945 | 849 | 390 |
| WOOD DUCK | 307.1 | 30/3.61 | 7/3.61 | 25.3 | 129.0 | 0.0947 | 851 | 559 |
| TEAL | 307.1 | 30/3.61 | 19/2.16 | 25.3 | 133.4 | 0.0947 | 851 | 547 |

7. Overhead Conductors

7.3

Aluminium Conductors Steel Reinforced (ACSR) - (Continued)

| Name | Nominal Cross Sectional Area | No. & Dia. of wires | | Approx. Overall Diameter | Rated Strength | Max. d.c. Resistance at 20 °C | Approx. Weight | |
|----------|------------------------------|---------------------|---------|--------------------------|----------------|-------------------------------|----------------|-------|
| | | Aluminium | Steel | | | | Aluminium | Steel |
| | mm ² | x/mm | x/mm | mm | kN | Ω/km | kg/km | kg/km |
| SWIFT | 323.0 | 36/3.38 | 1/3.38 | 23.7 | 60.7 | 0.0893 | 888 | 70 |
| KINGBIRD | 232.0 | 18/4.78 | 1/4.78 | 23.9 | 69.7 | 0.0894 | 889 | 139 |
| ROOK | 232.1 | 24/4.14 | 7/2.76 | 24.8 | 101.0 | 0.0899 | 893 | 326 |
| GROSBEAK | 321.8 | 26/3.97 | 7/3.09 | 25.2 | 111.9 | 0.0900 | 893 | 409 |
| SCOTER | 322.6 | 30/3.70 | 7/3.70 | 25.9 | 135.5 | 0.0900 | 895 | 588 |
| EGRET | 322.6 | 30/3.70 | 19/2.22 | 25.9 | 140.6 | 0.0900 | 895 | 575 |
| FLAMINGO | 337.3 | 24/4.23 | 7/2.82 | 25.4 | 105.5 | 0.0859 | 936 | 342 |
| GANNET | 338.3 | 26/4.07 | 7/3.16 | 25.8 | 117.3 | 0.0857 | 936 | 429 |
| STILT | 363.3 | 24/4.39 | 7/2.92 | 26.3 | 113.3 | 0.0798 | 1005 | 367 |
| STARLING | 361.9 | 26/4.21 | 7/3.28 | 26.7 | 126.0 | 0.0800 | 1004 | 461 |
| REDWING | 362.1 | 30/3.92 | 19/2.35 | 27.5 | 154.0 | 0.0801 | 1006 | 646 |
| CUCKOO | 402.3 | 24/4.62 | 7/3.08 | 27.7 | 124.5 | 0.0720 | 1116 | 408 |
| DRAKE | 402.6 | 26/4.44 | 7/3.45 | 28.1 | 139.7 | 0.0720 | 1117 | 511 |
| TERN | 403.8 | 45/3.38 | 7/2.25 | 27.0 | 97.5 | 0.0720 | 1115 | 217 |
| COOT | 401.9 | 36/3.77 | 1/3.77 | 26.4 | 74.7 | 0.0717 | 1111 | 87 |
| CONDOR | 402.3 | 54/3.08 | 7/3.08 | 27.7 | 124.3 | 0.0720 | 1115 | 407 |
| MALLARD | 403.8 | 30/4.14 | 19/2.48 | 29.0 | 171.2 | 0.0721 | 1119 | 718 |
| RUDDY | 455.5 | 45/3.59 | 7/2.40 | 28.7 | 109.4 | 0.0636 | 1263 | 246 |
| CANARY | 456.3 | 54/3.28 | 7/3.28 | 29.5 | 141.0 | 0.0635 | 1263 | 461 |
| RAIL | 483.8 | 45/3.70 | 7/2.47 | 29.6 | 116.1 | 0.0599 | 1339 | 261 |
| CATBIRD | 484.6 | 36/4.14 | 1/4.14 | 29.0 | 87.9 | 0.0595 | 1335 | 105 |
| CARDINAL | 484.5 | 54/3.38 | 7/3.38 | 30.4 | 149.7 | 0.0599 | 1338 | 490 |
| ORTLAN | 523.9 | 45/3.85 | 7/2.57 | 30.8 | 123.3 | 0.0553 | 1450 | 283 |
| TANAGER | 522.8 | 36/4.30 | 1/4.30 | 30.1 | 94.8 | 0.0551 | 1444 | 113 |
| CURLEW | 522.5 | 54/3.51 | 7/3.51 | 31.6 | 161.8 | 0.0553 | 1450 | 529 |
| BLUEJAY | 565.5 | 45/4.00 | 7/2.66 | 32.0 | 132.7 | 0.0513 | 1562 | 304 |
| FINCH | 565.0 | 54/3.65 | 19/2.19 | 32.8 | 174.6 | 0.0516 | 1571 | 558 |
| BUNTING | 605.8 | 45/4.14 | 7/2.76 | 33.1 | 142.4 | 0.0479 | 1674 | 326 |
| GRACKLE | 602.8 | 54/3.77 | 19/2.27 | 34.0 | 186.9 | 0.0483 | 1681 | 599 |
| BITTERN | 644.4 | 45/4.27 | 7/2.85 | 34.2 | 151.6 | 0.0450 | 1786 | 348 |
| PHEASANT | 645.1 | 54/3.90 | 19/2.34 | 35.1 | 194.1 | 0.0452 | 1795 | 639 |
| SKYLARK | 643.3 | 36/4.77 | 1/4.77 | 33.4 | 116.7 | 0.0448 | 1777 | 140 |
| DIPPER | 684.2 | 45/4.40 | 7/2.93 | 35.2 | 160.7 | 0.0423 | 1897 | 370 |
| MARTIN | 685.4 | 54/4.02 | 19/2.41 | 36.2 | 206.1 | 0.0425 | 1906 | 679 |
| BOBOLINK | 725.2 | 45/4.53 | 7/3.02 | 36.3 | 170.5 | 0.0399 | 2010 | 392 |
| PLOVER | 726.9 | 54/4.14 | 19/2.48 | 37.2 | 218.4 | 0.0401 | 2019 | 719 |
| NUTHATCH | 746.2 | 45/4.65 | 7/3.10 | 37.2 | 177.6 | 0.0379 | 2120 | 413 |
| PARROT | 766.1 | 54/4.25 | 19/2.55 | 38.2 | 230.5 | 0.0380 | 2129 | 758 |
| LAPWING | 807.5 | 45/4.77 | 7/3.18 | 38.2 | 187.4 | 0.0359 | 2232 | 435 |