# ACSR/TW

**Shaped Wire Concentric-Lay Compact Aluminum Conductors Steel Reinforced (ACSR/TW)**
**Diameters Equal to Standard ACSR Sizes**

| Code Word | Size (kcmil) | Type No. | Cross Sectional Area ($in^2$) | | Stranding | | | Diameter (in) | | Weight (lbs/1000 ft) | | | Rated Breaking Strength (lbs) | Resistance (ohms/mile) | | Ampacity (amps) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Aluminum | Total | No of Layers of Aluminum | No. of Aluminum Wires | No. & Diameter Individual Steel Wire | Steel Core | Complete Cable | Alum. | Steel | Total | Standard Strength | DC @ 20°C | AC @ 75°C | @ 75°C |
| Mackenzie/TW | 1359.7 | 7 | 1.0679 | 1.1418 | 3 | 36 | 7 x 0.1559 | 0.3477 | 1.259 | 1280.0 | 250.0 | 1530.0 | 36900 | 0.0127 | 0.0159 | 1206 |
| Thames/TW | 1334.6 | 13 | 1.3480 | 1.1809 | 3 | 38 | 19 x 0.0944 | 0.4720 | 1.290 | 1260.1 | 451.2 | 1711.3 | 46300 | 0.0128 | 0.0160 | 1210 |
| St. Croix/TW | 1467.8 | 5 | 1.1529 | 1.2124 | 3 | 33 | 7 x 0.1041 | 0.3123 | 1.292 | 1383.0 | 202.0 | 1585.0 | 35800 | 0.0117 | 0.0149 | 1256 |
| Miramichi/TW | 1455.3 | 7 | 1.1430 | 1.2222 | 3 | 36 | 7 x 0.1200 | 0.3600 | 1.302 | 1372.0 | 268.0 | 1640.0 | 39200 | 0.0118 | 0.0150 | 1256 |
| Merrimack/TW | 1433.6 | 13 | 1.1250 | 1.2677 | 3 | 39 | 19 x 0.0978 | 0.4890 | 1.340 | 1355.8 | 484.3 | 1840.1 | 49700 | 0.0119 | 0.0150 | 1264 |
| Platte/TW | 1569.0 | 5 | 1.2323 | 1.2957 | 3 | 33 | 7 x 0.1074 | 0.3222 | 1.334 | 1478.0 | 215.0 | 1693.0 | 38200 | 0.0110 | 0.0140 | 1306 |
| Potomac/TW | 1557.4 | 7 | 1.2232 | 1.3079 | 3 | 36 | 7 x 0.1241 | 0.3723 | 1.350 | 1466.9 | 288.1 | 1755.0 | 41900 | 0.0111 | 0.0140 | 1307 |
| Rio Grande/TW | 1533.3 | 13 | 1.2043 | 1.3571 | 3 | 38 | 19 x 0.1012 | 0.5060 | 1.380 | 1449.0 | 519.0 | 1968.0 | 53200 | 0.0112 | 0.0141 | 1316 |
| Schuylkill/TW | 1657.4 | 7 | 1.3020 | 1.3920 | 3 | 36 | 7 x 0.1280 | 0.3840 | 1.386 | 1563.0 | 305.0 | 1868.0 | 44000 | 0.0104 | 0.0133 | 1356 |
| Pecos/TW | 1622.0 | 13 | 1.2739 | 1.4429 | 3 | 39 | 19 x 0.1064 | 0.5320 | 1.420 | 1533.7 | 573.2 | 2106.9 | 57500 | 0.0106 | 0.0133 | 1363 |
| Pee Dee/TW | 1758.6 | 7 | 1.3810 | 1.4770 | 3 | 38 | 7 x 0.1319 | 0.3957 | 1.427 | 1656.4 | 323.9 | 1980.3 | 46700 | 0.0098 | 0.0126 | 1404 |
| James/TW | 1730.6 | 13 | 1.3590 | 1.5314 | 3 | 34 | 19 x 0.1075 | 0.5375 | 1.470 | 1636.0 | 585.0 | 2221.0 | 59400 | 0.0099 | 0.0126 | 1415 |
| Athabaska/TW | 1949.6 | 7 | 1.5312 | 1.6377 | 3 | 44 | 7 x 0.1392 | 0.4176 | 1.504 | 1838.0 | 361.0 | 2199.0 | 51900 | 0.0088 | 0.0115 | 1491 |
| Cumberland/TW | 1926.9 | 13 | 1.5134 | 1.7049 | 3 | 42 | 19 x 0.1133 | 0.5665 | 1.550 | 1821.0 | 650.0 | 2471.0 | 65300 | 0.0089 | 0.0114 | 1507 |
| Powder/TW | 2153.8 | 8 | 1.6912 | 1.8290 | 4 | 64 | 19 x 0.0961 | 0.4805 | 1.602 | 2042.5 | 396.1 | 2438.6 | 61100 | 0.0080 | 0.0105 | 1584 |
| Santee/TW | 2627.3 | 8 | 2.0630 | 2.2268 | 4 | 64 | 19 x 0.1062 | 0.5310 | 1.761 | 2491.5 | 571.1 | 3062.6 | 74500 | 0.0066 | 0.0089 | 1768 |

Ampacity based on referenced conductor temperature, 25°C ambient temperature, 2 ft/sec wind, in sun, with an emmisivity of 0.5 and a coefficient of solar absorption of 0.5, at sea level.



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