



CSA TECK 90 1000V PVC POWER CABLE

1000V Multi Conductor, 8AWG -1000 Kcmil Copper, FT4 - Flame Retardancy Rating, XLPE Insulation, Aluminum Interlocked Armour, Sunlight Resistant, -40°C - 90°C, Rated HL, AG14



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B stranded copper, compressed or compact, in accordance with ASTM B3 and B8.
2. **Insulation:** Cross-Linked Polyethylene (XLPE), Colour Code: 2/C black, white; 3/C red, black, blue; 4/C red, black, blue, white; For cables larger than No. 2 AWG or more than 4/C, the insulation is black and numbered
3. **Grounding Conductors:** Uninsulated Class B stranded grounding conductor
4. **Inner Jacket:** Black Polyvinyl Chloride (PVC)
5. **Armor:** Aluminum Interlocked Armour (AIA)
6. **Overall Jacket:** Black PVC (optional colours available)

APPLICATIONS AND FEATURES:

For exposed or concealed wiring in wet or dry locations. For use in ventilated, non-ventilated and ladder type cable troughs and ventilated flexible cableway in wet, dry, or hazardous locations. Sunlight Resistant. Typical applications are for control, lighting and power circuits in: pulp and paper mills, steel mills, food processing plants, commercial centers, mines, generating stations, refineries, industrial plants and chemical plants. Rated for 1000 lbs./FT maximum sidewall pressure.

- -40°C - CSA Cold Bend and Impact Temperature
- -25°C - Min. Installation Temperature
- 90°C - Max. Continuous Operating Temperature

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 174 Cables in Hazardous Locations
- CSA C22.2 No. 131 Type TECK 90 Cable
- CSA C22.2 No. 2556 & No. 0.3 Wire and Cable Test Methods
- CSA LTGG [-40°C] - as per C68.10 - for Cold Bend and Impact rating
- CSA HL - for Hazardous Locations rating
- CSA SUN RES - for Sunlight Resistant rating
- CSA AG14 - Acid Gas Compliance
- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test





SAMPLE PRINT LEGEND:

{SQMTR} SOUTHWIRE {CSA} LL90458 X/C XX AWG CU TECK 90 XLPE -40°C FT4 AG14 SUN RES 90°C 1000V HL USA





Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Strand | Insul. Thickness | Ground | Inner Jacket Thickness | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C† |
|---------------------|---------------|--------------|--------|------------------|--------------|------------------------|------------------|--------------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|-------------------------------------|
| | AWG/ Kcmil | | No. | mil | No. x AWG | mil | inch | mil | inch | lb/ 1000ft | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| 568605 ^A | 8 | 2 | 7 | 45 | 1x10 | 65 | 0.809 | 45 | 0.899 | 399 | 6.2 | 264 | 0.653 | 0.786 | 0.052 | 55 |
| 671448 | 8 | 2 | 7 | 45 | 1x10 | 65 | 0.809 | 45 | 0.899 | 397 | 6.2 | 264 | 0.653 | 0.786 | 0.052 | 55 |
| 561963 | 8 | 3 | 7 | 45 | 1x10 | 65 | 0.846 | 45 | 0.936 | 475 | 6.5 | 396 | 0.653 | 0.786 | 0.052 | 55 |
| 561964 | 8 | 4 | 7 | 45 | 1x10 | 65 | 0.905 | 55 | 1.015 | 578 | 7.1 | 528 | 0.653 | 0.786 | 0.052 | 44 |
| 573821 ^A | 6 | 2 | 7 | 60 | 1x8 | 65 | 0.941 | 45 | 1.031 | 540 | 7.2 | 419 | 0.411 | 0.495 | 0.051 | 75 |
| 671452 | 6 | 2 | 7 | 60 | 1x8 | 65 | 0.941 | 45 | 1.031 | 537 | 7.2 | 419 | 0.411 | 0.495 | 0.051 | 75 |
| 561965 | 6 | 3 | 7 | 60 | 1x8 | 65 | 1.099 | 45 | 1.189 | 714 | 8.3 | 629 | 0.411 | 0.495 | 0.051 | 75 |
| 561966 | 6 | 4 | 7 | 60 | 1x8 | 85 | 1.216 | 45 | 1.306 | 889 | 9.1 | 839 | 0.411 | 0.495 | 0.051 | 60 |
| 582005 | 4 | 2 | 7 | 60 | 1x8 | 85 | 1.144 | 55 | 1.254 | 759 | 8.7 | 667 | 0.258 | 0.310 | 0.048 | 95 |
| 561967 | 4 | 3 | 7 | 60 | 1x8 | 85 | 1.242 | 45 | 1.332 | 958 | 9.3 | 1001 | 0.258 | 0.310 | 0.048 | 95 |
| 561968 | 4 | 4 | 7 | 60 | 1x8 | 85 | 1.330 | 45 | 1.420 | 1150 | 9.9 | 1335 | 0.258 | 0.310 | 0.048 | 76 |
| 571184 ^A | 2 | 2 | 7 | 60 | 1x6 | 85 | 1.298 | 55 | 1.408 | 1050 | 9.8 | 1061 | 0.162 | 0.195 | 0.045 | 130 |
| 671456 | 2 | 2 | 7 | 60 | 1x6 | 85 | 1.298 | 55 | 1.408 | 1047 | 9.8 | 1061 | 0.162 | 0.195 | 0.045 | 130 |
| 561972 | 2 | 3 | 7 | 60 | 1x6 | 85 | 1.363 | 45 | 1.453 | 1286 | 10.1 | 1592 | 0.162 | 0.195 | 0.045 | 130 |
| 561973 | 2 | 4 | 7 | 60 | 1x6 | 85 | 1.465 | 45 | 1.555 | 1561 | 10.8 | 2123 | 0.162 | 0.195 | 0.045 | 104 |
| 561974 | 1 | 3 | 19 | 80 | 1x6 | 85 | 1.548 | 55 | 1.658 | 1604 | 11.6 | 2008 | 0.128 | 0.154 | 0.046 | 145 |
| 561975 | 1 | 4 | 19 | 80 | 1x6 | 85 | 1.672 | 55 | 1.782 | 1981 | 12.4 | 2678 | 0.128 | 0.154 | 0.046 | 116 |
| 561976 | 1/0 | 3 | 19 | 80 | 1x6 | 85 | 1.632 | 55 | 1.742 | 1859 | 12.1 | 2534 | 0.102 | 0.122 | 0.044 | 170 |
| 561978 | 1/0 | 4 | 19 | 80 | 1x6 | 85 | 1.766 | 55 | 1.876 | 2315 | 13.1 | 3379 | 0.102 | 0.122 | 0.044 | 136 |
| 561948 | 2/0 | 3 | 19 | 80 | 1x6 | 85 | 1.727 | 55 | 1.837 | 2191 | 12.8 | 3194 | 0.081 | 0.097 | 0.043 | 195 |
| 561949 | 2/0 | 4 | 19 | 80 | 1x6 | 85 | 1.885 | 55 | 1.995 | 2787 | 13.9 | 4259 | 0.081 | 0.097 | 0.043 | 156 |
| 586400 | 3/0 | 2 | 19 | 80 | 1x4 | 85 | 1.738 | 65 | 1.870 | 2042 | 13.0 | 2684 | 0.064 | 0.078 | 0.042 | 225 |
| 561950 | 3/0 | 3 | 19 | 80 | 1x4 | 85 | 1.814 | 55 | 1.924 | 2621 | 13.4 | 4027 | 0.064 | 0.078 | 0.042 | 225 |
| 561952 | 3/0 | 4 | 19 | 80 | 1x4 | 115 | 1.989 | 55 | 2.099 | 3342 | 14.6 | 5369 | 0.064 | 0.078 | 0.042 | 180 |
| 561953 | 4/0 | 3 | 19 | 80 | 1x4 | 85 | 1.943 | 65 | 2.075 | 3205 | 14.5 | 5078 | 0.051 | 0.062 | 0.041 | 260 |
| 561954 | 4/0 | 4 | 19 | 80 | 1x4 | 115 | 2.175 | 65 | 2.307 | 4149 | 16.1 | 6771 | 0.051 | 0.062 | 0.041 | 208 |
| 561955 | 250 | 3 | 37 | 90 | 1x4 | 115 | 2.146 | 55 | 2.256 | 3761 | 15.7 | 6000 | 0.043 | 0.053 | 0.041 | 290 |
| 561956 | 250 | 4 | 37 | 90 | 1x4 | 115 | 2.332 | 65 | 2.464 | 4773 | 17.2 | 8000 | 0.043 | 0.053 | 0.041 | 232 |
| 561957 | 300 | 3 | 37 | 90 | 1x4 | 115 | 2.295 | 65 | 2.427 | 4388 | 16.9 | 7200 | 0.036 | 0.045 | 0.041 | 320 |
| 561958 | 300 | 4 | 37 | 90 | 1x4 | 115 | 2.498 | 65 | 2.630 | 5527 | 18.4 | 9600 | 0.036 | 0.045 | 0.041 | 256 |
| 561959 | 350 | 3 | 37 | 90 | 1x3 | 115 | 2.360 | 65 | 2.492 | 4939 | 17.4 | 8400 | 0.031 | 0.039 | 0.040 | 350 |
| 561960 | 350 | 4 | 37 | 90 | 1x3 | 115 | 2.571 | 65 | 2.703 | 6242 | 18.9 | 11200 | 0.031 | 0.039 | 0.040 | 280 |
| 561961 | 500 | 3 | 37 | 90 | 1x3 | 115 | 2.630 | 65 | 2.762 | 6545 | 19.3 | 12000 | 0.022 | 0.029 | 0.039 | 430 |
| 561962 | 500 | 4 | 37 | 90 | 1x3 | 115 | 2.872 | 65 | 3.004 | 8351 | 21.0 | 16000 | 0.022 | 0.029 | 0.039 | 344 |
| 592314 | 600 | 3 | 61 | 90 | 1x2 | 115 | 2.846 | 80 | 3.012 | 7779 | 21.0 | 14400 | 0.018 | 0.025 | 0.039 | 475 |
| 568478 | 750 | 3 | 61 | 90 | 1x2 | 115 | 3.115 | 80 | 3.283 | 9512 | 22.9 | 18000 | 0.014 | 0.022 | 0.038 | 535 |
| 568479 | 750 | 4 | 61 | 90 | 1x2 | 145 | 3.423 | 80 | 3.591 | 12223 | 25.1 | 24000 | 0.014 | 0.022 | 0.038 | 428 |
| 641155 | 1000 | 3 | 61 | 90 | 1x1 | 145 | 3.451 | 80 | 3.619 | 12221 | 25.3 | 24000 | 0.011 | 0.018 | 0.037 | 615 |





All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

^ Colour Code: 2/C black, Red



Table 2 – Weights and Measurements (Metric)

| Stock Number | Cond. Size | Cond. Number | Strand | Insul. Thickness | Ground | Inner Jacket Thickness | Dia. Over Armour | Jacket Thickness ¹ | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|--------------|------------|--------------|--------|------------------|-----------|------------------------|------------------|-------------------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|------------------------------------|
| | AWG/Kcmil | | No. | mm | No. x AWG | mm | mm | mm | mm | kg/km | mm | newton | Ω/km | Ω/km | Ω/km | Amp |
| 568605 | 8 | 2 | 7 | 1.14 | 1x10 | 1.65 | 20.55 | 1.14 | 22.83 | 594 | 157.48 | 1175 | 2.14 | 2.58 | 0.1706 | 55 |
| 671448 | 8 | 2 | 7 | 1.14 | 1x10 | 1.65 | 20.55 | 1.14 | 22.83 | 591 | 157.48 | 1175 | 2.14 | 2.58 | 0.1706 | 55 |
| 561963 | 8 | 3 | 7 | 1.14 | 1x10 | 1.65 | 21.49 | 1.14 | 23.77 | 707 | 165.10 | 1762 | 2.14 | 2.58 | 0.1706 | 55 |
| 561964 | 8 | 4 | 7 | 1.14 | 1x10 | 1.65 | 22.99 | 1.40 | 25.78 | 860 | 180.34 | 2350 | 2.14 | 2.58 | 0.1706 | 44 |
| 573821 | 6 | 2 | 7 | 1.52 | 1x8 | 1.65 | 23.90 | 1.14 | 26.19 | 804 | 182.88 | 1865 | 1.35 | 1.62 | 0.1673 | 75 |
| 671452 | 6 | 2 | 7 | 1.52 | 1x8 | 1.65 | 23.90 | 1.14 | 26.19 | 799 | 182.88 | 1865 | 1.35 | 1.62 | 0.1673 | 75 |
| 561965 | 6 | 3 | 7 | 1.52 | 1x8 | 1.65 | 27.91 | 1.14 | 30.20 | 1063 | 210.82 | 2799 | 1.35 | 1.62 | 0.1673 | 75 |
| 561966 | 6 | 4 | 7 | 1.52 | 1x8 | 2.16 | 30.89 | 1.14 | 33.17 | 1323 | 231.14 | 3734 | 1.35 | 1.62 | 0.1673 | 60 |
| 582005 | 4 | 2 | 7 | 1.52 | 1x8 | 2.16 | 29.06 | 1.40 | 31.85 | 1130 | 220.98 | 2968 | 0.85 | 1.02 | 0.1575 | 95 |
| 561967 | 4 | 3 | 7 | 1.52 | 1x8 | 2.16 | 31.55 | 1.14 | 33.83 | 1426 | 236.22 | 4454 | 0.85 | 1.02 | 0.1575 | 95 |
| 561968 | 4 | 4 | 7 | 1.52 | 1x8 | 2.16 | 33.78 | 1.14 | 36.07 | 1711 | 251.46 | 5941 | 0.85 | 1.02 | 0.1575 | 76 |
| 571184 | 2 | 2 | 7 | 1.52 | 1x6 | 2.16 | 32.97 | 1.40 | 35.76 | 1563 | 248.92 | 4721 | 0.53 | 0.64 | 0.1476 | 130 |
| 671456 | 2 | 2 | 7 | 1.52 | 1x6 | 2.16 | 32.97 | 1.40 | 35.76 | 1558 | 248.92 | 4721 | 0.53 | 0.64 | 0.1476 | 130 |
| 561972 | 2 | 3 | 7 | 1.52 | 1x6 | 2.16 | 34.62 | 1.14 | 36.91 | 1914 | 256.54 | 7084 | 0.53 | 0.64 | 0.1476 | 130 |
| 561973 | 2 | 4 | 7 | 1.52 | 1x6 | 2.16 | 37.21 | 1.14 | 39.50 | 2323 | 274.32 | 9447 | 0.53 | 0.64 | 0.1476 | 104 |
| 561974 | 1 | 3 | 19 | 2.03 | 1x6 | 2.16 | 39.32 | 1.40 | 42.11 | 2387 | 294.64 | 8936 | 0.42 | 0.51 | 0.1509 | 145 |
| 561975 | 1 | 4 | 19 | 2.03 | 1x6 | 2.16 | 42.47 | 1.40 | 45.26 | 2948 | 314.96 | 11917 | 0.42 | 0.51 | 0.1509 | 116 |
| 561976 | 1/0 | 3 | 19 | 2.03 | 1x6 | 2.16 | 41.45 | 1.40 | 44.25 | 2766 | 307.34 | 11276 | 0.33 | 0.40 | 0.1444 | 170 |
| 561978 | 1/0 | 4 | 19 | 2.03 | 1x6 | 2.16 | 44.86 | 1.40 | 47.65 | 3445 | 332.74 | 15037 | 0.33 | 0.40 | 0.1444 | 136 |
| 561948 | 2/0 | 3 | 19 | 2.03 | 1x6 | 2.16 | 43.87 | 1.40 | 46.66 | 3261 | 325.12 | 14213 | 0.27 | 0.32 | 0.1411 | 195 |
| 561949 | 2/0 | 4 | 19 | 2.03 | 1x6 | 2.16 | 47.88 | 1.40 | 50.67 | 4148 | 353.06 | 18953 | 0.27 | 0.32 | 0.1411 | 156 |
| 586400 | 3/0 | 2 | 19 | 2.03 | 1x4 | 2.16 | 44.15 | 1.65 | 47.50 | 3039 | 330.20 | 11944 | 0.21 | 0.26 | 0.1378 | 225 |
| 561950 | 3/0 | 3 | 19 | 2.03 | 1x4 | 2.16 | 46.08 | 1.40 | 48.87 | 3900 | 340.36 | 17920 | 0.21 | 0.26 | 0.1378 | 225 |
| 561952 | 3/0 | 4 | 19 | 2.03 | 1x4 | 2.92 | 50.52 | 1.40 | 53.31 | 4973 | 370.84 | 23892 | 0.21 | 0.26 | 0.1378 | 180 |
| 561953 | 4/0 | 3 | 19 | 2.03 | 1x4 | 2.16 | 49.35 | 1.65 | 52.71 | 4770 | 368.30 | 22597 | 0.17 | 0.20 | 0.1345 | 260 |
| 561954 | 4/0 | 4 | 19 | 2.03 | 1x4 | 2.92 | 55.24 | 1.65 | 58.60 | 6174 | 408.94 | 30131 | 0.17 | 0.20 | 0.1345 | 208 |
| 561955 | 250 | 3 | 37 | 2.29 | 1x4 | 2.92 | 54.51 | 1.40 | 57.30 | 5597 | 398.78 | 26700 | 0.14 | 0.17 | 0.1345 | 290 |
| 561956 | 250 | 4 | 37 | 2.29 | 1x4 | 2.92 | 59.23 | 1.65 | 62.59 | 7103 | 436.88 | 35600 | 0.14 | 0.17 | 0.1345 | 232 |
| 561957 | 300 | 3 | 37 | 2.29 | 1x4 | 2.92 | 58.29 | 1.65 | 61.65 | 6530 | 429.26 | 32040 | 0.12 | 0.15 | 0.1345 | 320 |
| 561958 | 300 | 4 | 37 | 2.29 | 1x4 | 2.92 | 63.45 | 1.65 | 66.80 | 8225 | 467.36 | 42720 | 0.12 | 0.15 | 0.1345 | 256 |
| 561959 | 350 | 3 | 37 | 2.29 | 1x3 | 2.92 | 59.94 | 1.65 | 63.30 | 7350 | 441.96 | 37380 | 0.10 | 0.13 | 0.1312 | 350 |
| 561960 | 350 | 4 | 37 | 2.29 | 1x3 | 2.92 | 65.30 | 1.65 | 68.66 | 9289 | 480.06 | 49840 | 0.10 | 0.13 | 0.1312 | 280 |
| 561961 | 500 | 3 | 37 | 2.29 | 1x3 | 2.92 | 66.80 | 1.65 | 70.15 | 9740 | 490.22 | 53400 | 0.07 | 0.10 | 0.1280 | 430 |
| 561962 | 500 | 4 | 37 | 2.29 | 1x3 | 2.92 | 72.95 | 1.65 | 76.30 | 12428 | 533.40 | 71200 | 0.07 | 0.10 | 0.1280 | 344 |
| 592314 | 600 | 3 | 61 | 2.29 | 1x2 | 2.92 | 72.29 | 2.03 | 76.50 | 11576 | 533.40 | 64080 | 0.06 | 0.08 | 0.1280 | 475 |
| 568478 | 750 | 3 | 61 | 2.29 | 1x2 | 2.92 | 79.12 | 2.03 | 83.39 | 14155 | 581.66 | 80100 | 0.05 | 0.07 | 0.1247 | 535 |
| 568479 | 750 | 4 | 61 | 2.29 | 1x2 | 3.68 | 86.94 | 2.03 | 91.21 | 18190 | 637.54 | 106800 | 0.05 | 0.07 | 0.1247 | 428 |
| 641155 | 1000 | 3 | 61 | 2.29 | 1x1 | 3.68 | 87.66 | 2.03 | 91.92 | 18187 | 642.62 | 106800 | 0.04 | 0.06 | 0.1214 | 615 |





All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

^ Colour Code: 2/C black, Red

