# CSA TECK 90 1000V LSZH 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 Low Smoke Zero Halogen (LSZH)

## 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
- UL 1685 FT4-ST1 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- 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 ST1 Smoke Test - marked FT4-ST1
- 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)



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- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems

## SAMPLE PRINT LEGEND:

{SQMTR_DUAL} SOUTHWIRE MASTER-DESIGN {CSA} LL90458 TECK 90 XLPE X/X XX AWG CU LSZH JACKET -40{D}C FT4-ST1 SUN RES AG14 90{D}C 1000V HL -- USA

## Table 1 – Weights and Measurements

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Ground | Ground Size | Inner Jacket Thickness | Dia. Over Inner Jacket | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | No. | inch | inch | mil | No. x AWG | AWG | mil | inch | inch | mil | inch | lb/ 1000ft | lb/1000ft |
| 500 | 37 | 0.789 | 0.969 | 90 | 1x3 | 3 | 115 | 2.581 | 2.891 | 65 | 3.021 | 6400 | 8272 |

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
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Electrical and Engineering Data

| Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|---|---|---|---|---|---|---|
| AWG/ Kcmil | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| 500 | 21.1 | 16000 | 0.021 | 0.027 | 0.039 | 344 |

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

## Table 3 – Weights and Measurements (Metric)

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Ground | Ground Size | Inner Jacket Thickness | Dia. Over Inner Jacket | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | No. | mm | mm | mm | No. x AWG | AWG | mm | mm | mm | mm | mm | kg/km | kg/km |
| 500 | 37 | 20.04 | 24.61 | 2.29 | 1x3 | 3 | 2.92 | 65.56 | 73.43 | 1.65 | 76.73 | 9524 | 12310 |

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
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 4 – Electrical and Engineering Data (Metric)

| Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|---|---|---|---|---|---|---|
| AWG/ Kcmil | mm | newton | Ω/km | Ω/km | Ω/km | Amp |
| 500 | 535.94 | 71200 | 0.0689 | 0.09 | 0.1280 | 344 |

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.


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