CSA TECK 90 CU 5000V NON-SHIELDED TRXLPE POWER CABLE

5000V, Non-Shielded, TRXLPE Insulated (Treeing Retardant), FT4, -40°C, HL (Hazardous Locations), 90°C

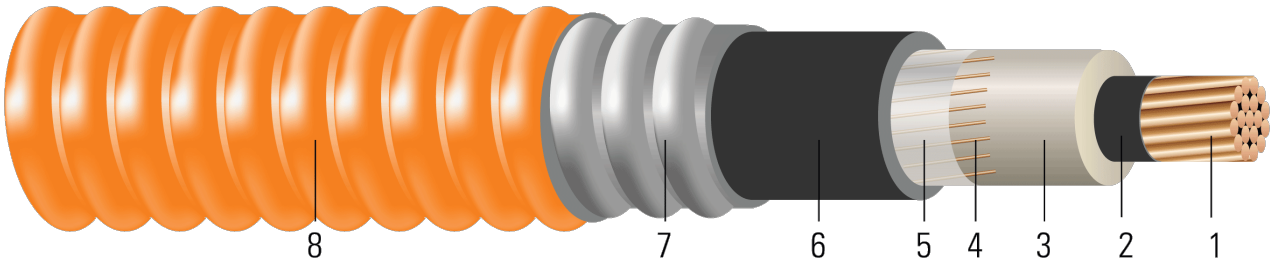

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B stranded copper, compressed or compact, in accordance with ASTM B3 and B8.
2. **Conductor Shield:** Extruded semi-conducting thermosetting polymeric layer
3. **Insulation:** TRXLPE (tree retardant cross linked polyethylene), Thickness: 0.090 inches (2.3 mm) - nominal, Insulation Level: 100% - ungrounded system, Temperature Rating: 90°C
4. **Concentric Bonding Conductors:** Class B, concentric bare copper wire serve
5. **Binder:** Polypropylene tape
6. **Inner Jacket:** Black PVC, Thickness: No. 2 AWG to No. 1/0 AWG = 0.045" (1.2 mm), No. 2/0 AWG to 1000 kcmil = 0.060" (1.6 mm)
7. **Armor:** Aluminum Interlocked Armour (AIA)
8. **Overall Jacket:** Orange PVC (optional colours available), Thickness: No. 2 AWG to 400 kcmil = 0.045" (1.2 mm), 500 kcmil to 1000 kcmil = 0.055" (1.4 mm)

APPLICATIONS AND FEATURES:

Southwire's Teck 90, 5000V, non-shielded, TRXLPE insulated (treeing resistant) power cable is a CSA approved armoured cable for industrial and commercial medium voltage applications. FT4, -40C, HL , AG14 and 90°C rated for use in harsh Canadian environments. Rated for installation in cable trays, duct banks, direct burial, troughs, hazardous locations, continuous rigid cable supports, and is concrete encaseable.

- -40°C - CSA Cold Bend and Impact Temperature
- -25°C - Min. Installation Temperature
- 90°C - Max. Continuous Operating Temperature
- 140°C for Emergency Overload Temperature
- 250°C for Short Circuit 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

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- CSA HL - for Hazardous Locations rating
- CSA SUN RES - for Sunlight Resistant rating
- CSA AG14 - Acid Gas Compliance
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

SAMPLE PRINT LEGEND:

SOUTHWIRE {CSA} LL90458 1/C XX KCMIL CU TECK 90 TRXLPE CDR WITH GROUND -40°C FT4 SUN. RES. AG14 5000V HL {YYYY} USA {SEQUENTIAL METER MARKS}

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Insul. Thickness	Concentric Neutral	Inner Jacket Thickness	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	No.	inch	mil	No. x AWG	mil	inch	mil	inch	lb/1000ft	lb/1000ft
596111	500	37	0.789	90	17x12	60	1.621	55	1.731	1901	2652

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Other conductor sizes and outer jacket colours are available upon request. (#s in brackets represent # of strands / conductor. Number of strands may vary as per CSA standard.)
** Non-Standard sizes are available upon request. Reel sizes are not guaranteed. The factory reserves the right to make changes as necessary to optimize manufacturing requirements.
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 Air 90°C
AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
500	12.1	4000	0.022	0.029	0.040	616

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

Table 3 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Insul. Thickness	Concentric Neutral	Inner Jacket Thickness	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	No.	mm	mm	No. x AWG	mm	mm	mm	mm	kg/km	kg/km
596111	500	37	20.04	2.29	17x12	1.52	41.17	1.40	43.97	2829	3947

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Other conductor sizes and outer jacket colours are available upon request. (#s in brackets represent # of strands / conductor. Number of strands may vary as per CSA standard.)
** Non-Standard sizes are available upon request. Reel sizes are not guaranteed. The factory reserves the right to make changes as necessary to optimize manufacturing requirements.
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)

500	307.34	17800	0.0722	0.10	0.1312	616

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

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