



# CSA TECK 90 AL 3/C 5000V NON-SHIELDED TRXLPE POWER CABLE

5000V, Non-Shielded, TRXLPE Insulated, FT4, -40°C, HL (Hazardous Locations), AG14 & 90°C

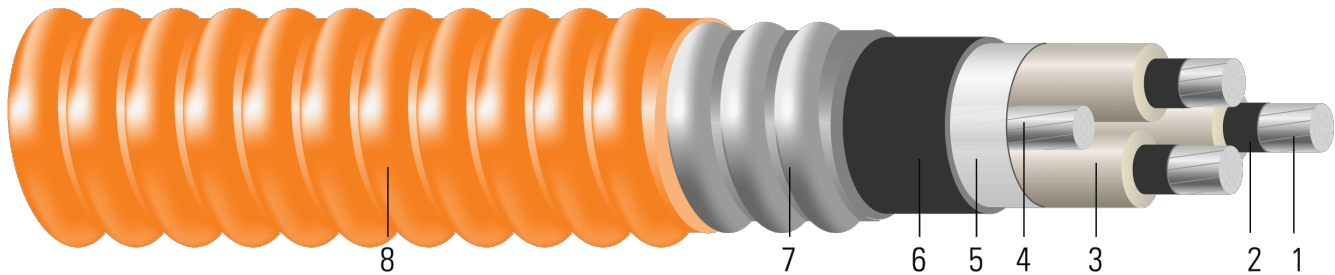


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series Aluminum ACM, in accordance with ASTM B801
2. **Conductor Shield:** Extruded semi-conducting thermosetting polymeric layer
3. **Insulation:** TRXLPE - Tree Retardant Cross-Linked Polyethylene, Thickness: 0.090" (2.3 mm) - nominal, 90°C
4. **Grounding Conductor:** Class B compact stranded 8000 Series, Bare Aluminum
5. **Binder:** Polypropylene tape
6. **Inner Jacket:** Black PVC, Thickness: No. 2 AWG to No. 3/0 AWG = 0.080" (2.0 mm), No. 4/0 AWG to 500 kcmil = 0.110" (2.8 mm), 750 kcmil to 1000 kcmil = 0.140" (3.6 mm)
7. **Armor:** Aluminum Interlocked Armour (AIA)
8. **Overall Jacket:** Orange PVC (optional colours available), Thickness: No. 2 AWG to 250 kcmil = 0.060" (1.5 mm), 350 kcmil to 750 kcmil = 0.075" (1.9 mm), 1000 kcmil = 0.090" (2.3 mm)

## APPLICATIONS AND FEATURES:

Southwire's 5KV TECK 90, 5000V, non-shielded, TRXLPE insulated power cable is a CSA approved armoured cable for industrial and commercial medium voltage applications. FT4, -40°C, 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:

- 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





- 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 [symbol - lightning bolt] #P# CSA LL90458 3/C [AWG 2 to 1000 kcmil] CPT AL TECK 90 TR-XLPE CDRS WITH GROUND 40°C FT4 SUN. RES. AG14 5000V HL YEAR SEQUENTIAL METER MARKS

**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Insul. Thickness	Ground	Inner Jacket Thickness	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	inch	mil	No. x AWG	mil	inch	mil	inch	lb/1000ft
669241	2	6	0.268	90	1x6	85	1.565	55	1.675	1031
669248	350	35	0.615	90	1x2	115	2.402	65	2.534	2691
TBA	500	35	0.736	90	1x1	115	2.627	65	2.757	3480

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM

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
2	11.7	1194	0.267	0.321	0.035	135
350	17.7	6300	0.050	0.062	0.029	363
500	19.2	9000	0.035	0.046	0.030	447

\* 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	Ground	Inner Jacket Thickness	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	mm	mm	No. x AWG	mm	mm	mm	mm	kg/km
669241	2	6	6.81	2.29	1x6	2.16	39.75	1.40	42.55	1534
669248	350	35	15.62	2.29	1x2	2.92	61.01	1.65	64.36	4005
TBA	500	35	18.69	2.29	1x1	2.92	66.73	1.65	70.03	5179

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM

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)**

2	297.18	5313	0.8760	1.05	0.1148	135
350	449.58	28035	0.1640	0.20	0.0951	363
500	487.68	40050	0.1148	0.15	0.0984	447





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

