CSA TECK 90 CU 3/C 5000V NON-SHIELDED EPR POWER CABLE

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

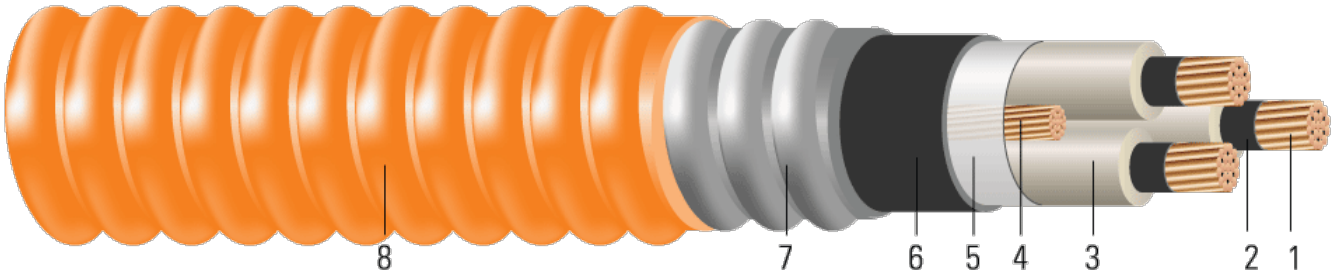


Image not to scale. See Table 1 for dimensions.

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:** No-Lead EPR (ethylene propylene rubber), Thickness: 0.090" (2.3 mm) - nominal, 90°C
4. **Grounding Conductor:** Class B compressed or compact stranded bare copper, in accordance with ASTM B3 and B8
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, EPR 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:

- 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

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- 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 3/C XX KCMIL CU TECK 90 EPCV CDRS 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	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
568467◊	2	7	0.283	0.505	90	1x6	6	85	1.267	1.585	55	1.695	703	1548
568468◊	1	19	0.322	0.55	90	1x6	6	85	1.364	1.682	55	1.792	865	1788
568470◊	1/0	19	0.362	0.59	90	1x6	6	85	1.45	1.769	55	1.879	1070	2055
568471◊	2/0	19	0.405	0.634	90	1x6	6	85	1.545	1.874	55	1.984	1327	2439
568472◊	3/0	19	0.456	0.684	90	1x4	4	85	1.653	1.982	55	2.092	1700	2893
568473◊	4/0	19	0.512	0.726	90	1x4	4	115	1.804	2.136	55	2.246	2110	3497
568474◊	250	37	0.558	0.778	90	1x4	4	115	1.916	2.248	55	2.358	2469	3954
568475◊	350	37	0.661	0.877	90	1x3	3	115	2.13	2.462	65	2.594	3439	5154
568476◊	500	37	0.789	1.002	90	1x3	3	115	2.4	2.732	65	2.864	4842	6785

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.)
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
2	11.9	1592	0.162	0.221	0.045	130
1	12.5	2008	0.128	0.175	0.046	145
1/0	13.2	2534	0.102	0.139	0.044	170
2/0	13.9	3194	0.082	0.112	0.043	195
3/0	14.6	4027	0.064	0.087	0.042	225
4/0	15.7	5078	0.051	0.07	0.041	260
250	16.5	6000	0.043	0.059	0.041	290
350	18.2	8400	0.031	0.043	0.04	350
500	20	12000	0.021	0.03	0.039	430

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

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Table 3 – Weights and Measurements (Metric)

Stock Number	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
568467◊	2	7	7.19	12.83	2.29	1x6	6	2.16	32.18	40.26	1.40	43.05	1046	2304
568468◊	1	19	8.18	13.97	2.29	1x6	6	2.16	34.65	42.72	1.40	45.52	1287	2661
568470◊	1/0	19	9.19	14.99	2.29	1x6	6	2.16	36.83	44.93	1.40	47.73	1592	3058
568471◊	2/0	19	10.29	16.10	2.29	1x6	6	2.16	39.24	47.60	1.40	50.39	1975	3630
568472◊	3/0	19	11.58	17.37	2.29	1x4	4	2.16	41.99	50.34	1.40	53.14	2530	4305
568473◊	4/0	19	13.00	18.44	2.29	1x4	4	2.92	45.82	54.25	1.40	57.05	3140	5204
568474◊	250	37	14.17	19.76	2.29	1x4	4	2.92	48.67	57.10	1.40	59.89	3674	5884
568475◊	350	37	16.79	22.28	2.29	1x3	3	2.92	54.10	62.53	1.65	65.89	5118	7670
568476◊	500	37	20.04	25.45	2.29	1x3	3	2.92	60.96	69.39	1.65	72.75	7206	10097

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.)
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
2	302.26	7084	0.5315	0.73	0.1476	130
1	317.50	8936	0.4199	0.57	0.1509	145
1/0	335.28	11276	0.3346	0.46	0.1444	170
2/0	353.06	14213	0.2690	0.37	0.1411	195
3/0	370.84	17920	0.2100	0.29	0.1378	225
4/0	398.78	22597	0.1673	0.23	0.1345	260
250	419.10	26700	0.1411	0.19	0.1345	290
350	462.28	37380	0.1017	0.14	0.1312	350
500	508.00	53400	0.0689	0.10	0.1280	430

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

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