

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

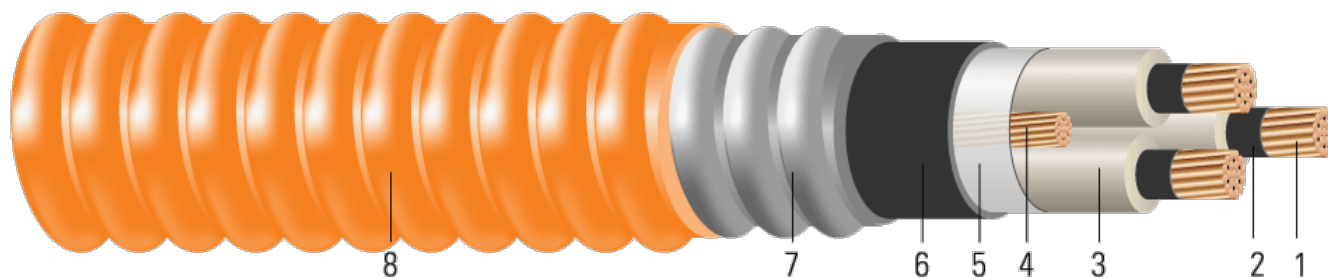


Image not to scale. See Table 1 for dimensions.

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 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 131 Type TECK 90 Cable
- CSA C22.2 No. 174 Cables in Hazardous Locations
- 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



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com



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**CABLETECH
SUPPORT™**

Services

- 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{D}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	Ground Size	Dia. Over Inner Jacket	Dia. Over Armour	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	inch	inch	AWG	inch	inch	inch	lb/1000ft
568467◇	2	7	0.28	0.49	6	1.22	1.55	1.68	1503
568468◇	1	19	0.32	0.53	6	1.32	1.64	1.75	1745
568470◇	1/0	19	0.36	0.57	6	1.41	1.73	1.83	2015
568471◇	2/0	19	0.41	0.62	6	1.5	1.82	1.95	2336
568472◇	3/0	19	0.46	0.67	4	1.61	1.94	2.06	2882
568473◇	4/0	19	0.51	0.72	4	1.79	2.12	2.22	3474
568474◇	250	37	0.56	0.78	4	1.91	2.24	2.36	3975
568475◇	350	37	0.66	0.88	3	2.14	2.47	2.62	5209
568476◇	500	37	0.79	1.01	3	2.41	2.74	2.89	6860
S000363	750	61	0.97	1.2	2	2.58	3.21	3.41	9750
S741532	1000	61	1.12	1.35	1	3.2	3.55	3.7	12353

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.)



Table 2 – Electrical and Engineering Data

Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitance	Inductance	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Capacitive Susceptance @ 60Hz phase-neutral	Phase Short Circuit Current @ 60Hz	Allowable Ampacity In Raceway 90°C†	Allowable Ampacity Directly Buried 90°C‡
AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	µF/1000ft	mH/1000ft	MΩ*1000ft	Ω/1000ft	µSiemens /1000ft	Amp	Amp	Amp
2	11.7	1593	0.162	0.218	0.0905	0.0907	0.0293	0.0342	34.13	4.8	130	~
1	12.2	2009	0.129	0.173	0.0979	0.0882	0.0271	0.0332	36.9	5.9	145	~
1/0	12.8	2534	0.102	0.134	0.1074	0.0855	0.0247	0.0322	40.5	6.3	170	262
2/0	13.6	3194	0.081	0.107	0.1167	0.0832	0.0227	0.0314	44.01	10	195	298
3/0	14.4	4027	0.0642	0.085	0.1297	0.0807	0.0204	0.0304	48.91	12.5	225	337
4/0	15.5	5078	0.051	0.068	0.143	0.0785	0.0186	0.0296	53.91	14	260	382
250	16.5	6000	0.0431	0.057	0.1479	0.0778	0.0179	0.0293	55.74	18	290	418
350	18.3	8400	0.0308	0.041	0.1711	0.0751	0.0155	0.0283	64.49	25	350	500
500	20.3	12000	0.0216	0.029	0.2	0.0725	0.0133	0.0273	75.42	36	430	602
750	23.8	18000	0.0144	0.02	0.2305	0.0706	0.0115	0.0266	86.91	51	535	731
1000	25.9	24000	0.0108	0.0155	0.2625	0.069	0.0101	0.026	98.96	70	615	827

† Ampacities are based on Table 2 of the 2015 Canadian Electrical Code Part I (30°C Ambient Temperature)

‡ Ampacities are based on Table D10A and Detail 1 of Diagram D10 of the 2015 Canadian Electrical Code Part I

Table 3 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Diameter Over Insulation	Ground Size	Dia. Over Inner Jacket	Dia. Over Armour	Approx. OD	Approx. Weight
	AWG/Kcmil	No.	mm	mm	AWG	mm	mm	mm	kg/km
568467◇	2	7	7.11	12.45	6	30.99	39.37	42.67	2237
568468◇	1	19	8.13	13.46	6	33.53	41.66	44.45	2597
568470◇	1/0	19	9.14	14.48	6	35.81	43.94	46.48	2999
568471◇	2/0	19	10.41	15.75	6	38.10	46.23	49.53	3476
568472◇	3/0	19	11.68	17.02	4	40.89	49.28	52.32	4289
568473◇	4/0	19	12.95	18.29	4	45.47	53.85	56.39	5170
568474◇	250	37	14.22	19.81	4	48.51	56.90	59.94	5915
568475◇	350	37	16.76	22.35	3	54.36	62.74	66.55	7752
568476◇	500	37	20.07	25.65	3	61.21	69.60	73.41	10209
S000363	750	61	24.64	30.48	2	65.53	81.53	86.61	14510
S741532	1000	61	28.45	34.29	1	81.28	90.17	93.98	18383

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.)

