CSA TECK 90 1000V PVC POWER OR CONTROL CABLE

1000V Multi Conductor, 14-10 AWG 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
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 Polyvinyl Chloride (PVC) (optional colours available)

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.

- -40°C - CSA Cold Bend and Impact Temperature
- -40°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
- 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
- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

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SAMPLE PRINT LEGEND:

{SQMTR} SOUTHWIRE {CSA} LL90458 X/C XX AWG CU TECK 90 XLPE -40°C FT4 AG14 SUN RES 90°C 1000V HL USA

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
TBA	14	7	0.071	0.161	45	1x14	14	50	0.454	0.664	45	0.754	52	305
568448◊	14	7	0.071	0.166	45	1x14	14	50	0.508	0.69	45	0.78	64	279
TBA	12	7	0.089	0.179	45	1x14	14	50	0.464	0.674	45	0.764	53	303
TBA	12	7	0.089	0.179	45	1x14	14	50	0.493	0.703	45	0.793	73	344
596503	12	7	0.089	0.184	45	1x14	14	65	0.581	0.776	45	0.866	94	353
582003◊	10	7	0.113	0.208	45	1x12	12	50	0.522	0.728	45	0.818	85	307
TBA	10	7	0.113	0.203	45	1x12	12	65	0.574	0.784	45	0.874	116	404
568611◊	10	7	0.113	0.208	45	1x12	12	65	0.639	0.838	45	0.928	150	436

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C
AWG/Kcmil	inch	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
14	5.3	2.631	3.265	0.058	25
14	5.5	2.631	3.265	0.058	20
12	5.3	1.662	2.063	0.054	30
12	5.5	1.662	2.063	0.054	30
12	6.1	1.662	2.063	0.054	24
10	5.7	1.04	1.291	0.05	40
10	6.1	1.04	1.291	0.05	40
10	6.5	1.04	1.291	0.05	32

* 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
TBA	14	7	1.80	4.09	1.14	1x14	14	1.27	11.53	16.87	1.14	19.15	77	454
568448◊	14	7	1.80	4.22	1.14	1x14	14	1.27	12.90	17.53	1.14	19.81	95	415
TBA	12	7	2.26	4.55	1.14	1x14	14	1.27	11.79	17.12	1.14	19.41	79	451
TBA	12	7	2.26	4.55	1.14	1x14	14	1.27	12.52	17.86	1.14	20.14	109	512
596503	12	7	2.26	4.67	1.14	1x14	14	1.65	14.76	19.71	1.14	22.00	140	525
582003◊	10	7	2.87	5.28	1.14	1x12	12	1.27	13.26	18.49	1.14	20.78	126	457
TBA	10	7	2.87	5.16	1.14	1x12	12	1.65	14.58	19.91	1.14	22.20	173	601
568611◊	10	7	2.87	5.28	1.14	1x12	12	1.65	16.23	21.29	1.14	23.57	223	649

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C
AWG/Kcmil	mm	Ω/km	Ω/km	Ω/km	Amp
14	134.62	8.6319	10.71	0.1903	25
14	139.70	8.6319	10.71	0.1903	20
12	134.62	5.4528	6.77	0.1772	30
12	139.70	5.4528	6.77	0.1772	30
12	154.94	5.4528	6.77	0.1772	24
10	144.78	3.4121	4.24	0.1640	40
10	154.94	3.4121	4.24	0.1640	40
10	165.10	3.4121	4.24	0.1640	32

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

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