



## CSA TECK 90 1000V LSZH POWER CABLE

1000V Multi Conductor, 8AWG -1000 Kcmil 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; For cables larger than No. 2 AWG or more than 4/C, the insulation is black and numbered
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 Low Smoke Zero Halogen (LSZH)

### 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. Rated for 1000 lbs./FT maximum sidewall pressure.

- -40°C - CSA Cold Bend and Impact Temperature
- -25°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
- UL 1685 FT4-ST1 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- 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 ST1 Smoke Test - marked FT4-ST1
- 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
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems

**SAMPLE PRINT LEGEND:**

{SQMTR\_DUAL} SOUTHWIRE MASTER-DESIGN {CSA} LL90458 TECK 90 XLPE X/X XX AWG CU LSZH JACKET -40{D}C FT4-ST1 SUN RES AG14 90{D}C 1000V HL -- USA





**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Inner Jacket Thickness	Dia. Over Armor	Jacket Thickness	Approx. OD	Approx. Weight	Jacket Color
	AWG/ Kcmil	No.	No.	inch	mil	mil	inch	mil	inch	lb/1000ft	
138929	8	2	7	0.141	45	65	0.809	45	0.899	404	Black
TBA	8	3	7	0.141	45	65	0.846	45	0.936	475	Black
TBA	8	4	7	0.141	45	65	0.905	55	1.015	578	Black
TBA	6	2	7	0.177	60	65	0.941	45	1.031	537	Black
TBA	6	3	7	0.177	60	65	1.099	45	1.189	714	Black
TBA	6	4	7	0.177	60	85	1.216	45	1.306	889	Black
TBA	4	2	7	0.225	60	85	1.144	55	1.254	759	Black
TBA	4	3	7	0.225	60	85	1.242	45	1.332	958	Black
TBA	4	4	7	0.225	60	85	1.330	45	1.420	1150	Black
138930	3	2	7	0.247	60	85	1.239	45	1.329	911	Black
TBA	2	2	7	0.282	60	85	1.298	55	1.408	1047	Black
TBA	2	3	7	0.282	60	85	1.363	45	1.453	1286	Black
TBA	2	4	7	0.282	60	85	1.465	45	1.555	1561	Black
138931	1	2	19	0.322	80	85	1.471	45	1.561	1245	Black
TBA	1	3	19	0.322	80	85	1.548	55	1.658	1604	Black
TBA	1	4	19	0.322	80	85	1.672	55	1.782	1981	Black
TBA	1/0	3	19	0.361	80	85	1.632	55	1.742	1859	Black
TBA	1/0	4	19	0.361	80	85	1.766	55	1.876	2315	Black
138932	2/0	2	19	0.405	80	85	1.636	55	1.746	1681	Black
668221	2/0	3	19	0.405	80	85	1.727	55	1.838	2200	Black
TBA	2/0	4	19	0.405	80	85	1.885	55	1.995	2787	Black
TBA	3/0	2	19	0.456	80	85	1.738	65	1.870	2042	Black
TBA	3/0	3	19	0.456	80	85	1.814	55	1.924	2621	Black
TBA	3/0	4	19	0.456	80	115	1.989	55	2.099	3342	Black
TBA	4/0	3	19	0.512	80	85	1.943	65	2.075	3205	Black
TBA	4/0	4	19	0.512	80	115	2.175	65	2.307	4149	Black
TBA	250	3	37	0.558	90	115	2.146	55	2.256	3761	Black
TBA	250	4	37	0.558	90	115	2.332	65	2.464	4773	Black
TBA	300	3	37	0.610	90	115	2.295	65	2.427	4388	Black
TBA	300	4	37	0.610	90	115	2.498	65	2.630	5527	Black
TBA	350	3	37	0.661	90	115	2.360	65	2.492	4939	Black
TBA	350	4	37	0.661	90	115	2.571	65	2.703	6242	Black
TBA	500	3	37	0.789	90	115	2.630	65	2.762	6545	Black
TBA	500	4	37	0.789	90	115	2.872	65	3.004	8351	Black
TBA	600	3	61	0.865	90	115	2.846	80	3.012	7779	Black
TBA	750	3	61	0.968	90	115	3.115	80	3.283	9512	Black
TBA	750	4	61	0.968	90	145	3.423	80	3.591	12223	Black
TBA	1000	3	61	1.117	90	145	3.451	80	3.619	12221	Black

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item





^ Colour Code: 2/C black, Red

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	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance	Max Pull Tension	Max Pull Tension	Min Bending Radius	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	lb	lb	inch	Amp	Amp
8	0.653	0.786	0.052	264	264	6.2	50	55
8	0.653	0.786	0.052	396	396	6.5	50	55
8	0.653	0.786	0.052	528	528	7.1	40	44
6	0.411	0.495	0.051	419	419	7.2	65	75
6	0.411	0.495	0.051	629	629	8.3	65	75
6	0.411	0.495	0.051	839	839	9.1	52	60
4	0.258	0.310	0.048	667	667	8.7	85	95
4	0.258	0.310	0.048	1001	1001	9.3	85	95
4	0.258	0.310	0.048	1335	1335	9.9	68	76
3	0.205	0.267	0.031	842	842	9.3	100	115
2	0.162	0.195	0.045	1061	1061	9.8	115	130
2	0.162	0.195	0.045	1592	1592	10.1	115	130
2	0.162	0.195	0.045	2123	2123	10.8	92	104
1	0.128	0.154	0.046	1339	1339	10.9	130	145
1	0.128	0.154	0.046	2008	2008	11.6	130	145
1	0.128	0.154	0.046	2678	2678	12.4	104	116
1/0	0.102	0.122	0.044	2534	2534	12.1	150	170
1/0	0.102	0.122	0.044	3379	3379	13.1	120	136
2/0	0.081	0.097	0.043	2130	2130	12.2	175	195
2/0	0.081	0.097	0.043	3194	3194	12.8	175	195
2/0	0.081	0.097	0.043	4259	4259	13.9	140	156
3/0	0.064	0.078	0.042	2684	2684	13.0	200	225
3/0	0.064	0.078	0.042	4027	4027	13.4	200	225
3/0	0.064	0.078	0.042	5369	5369	14.6	160	180
4/0	0.051	0.062	0.041	5078	5078	14.5	230	260
4/0	0.051	0.062	0.041	6771	6771	16.1	184	208
250	0.043	0.053	0.041	6000	6000	15.7	255	290
250	0.043	0.053	0.041	8000	8000	17.2	204	232
300	0.036	0.045	0.041	7200	7200	16.9	285	320
300	0.036	0.045	0.041	9600	9600	18.4	228	256
350	0.031	0.039	0.040	8400	8400	17.4	310	350
350	0.031	0.039	0.040	11200	11200	18.9	248	280
500	0.022	0.029	0.039	12000	12000	19.3	380	430
500	0.022	0.029	0.039	16000	16000	21.0	304	344
600	0.018	0.025	0.039	14400	14400	21.0	420	475
750	0.014	0.022	0.038	18000	18000	22.9	475	535
750	0.014	0.022	0.038	24000	24000	25.1	380	428
1000	0.011	0.018	0.037	24000	24000	25.3	545	615





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

