3/C CSA TECK 90 1000V ALUMINUM POWER CABLE

Three Conductor 1000V Multi Conductor, FT4 - Flame Retardancy Rating, Direct Burial, XLPE Insulation, Aluminum Interlocked Armour, Sunlight Resistant, -40ºC Min, 90ºC Max, Rated HL (Hazardous Locations)

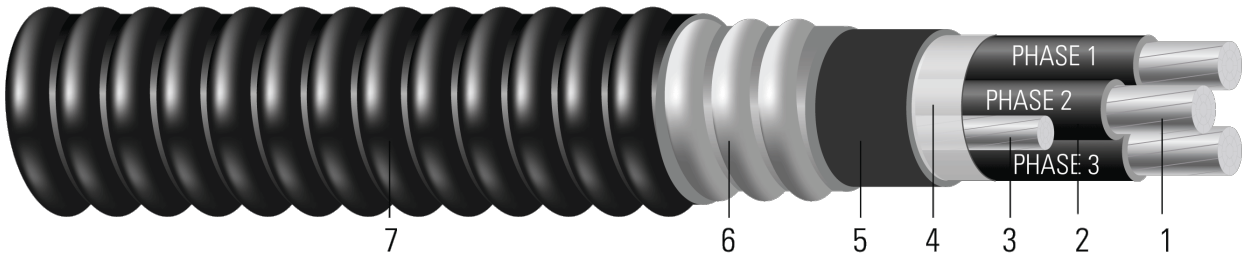


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series Aluminum.
2. **Insulation:** Cross-Linked Polyethylene (XLPE), Color Code: Black and numbered
3. **Grounding Conductors:** Uninsulated Aluminum Class B stranded grounding conductor
4. **Assembly:** Polypropylene tape
5. **Inner Jacket:** Black Polyvinyl Chloride (PVC)
6. **Armor:** Aluminum Interlocked Armour (AIA)
7. **Overall Jacket:** Black 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, hazardous locations or direct buried. 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. Voltage 1000V CSA / 600V UL.

SPECIFICATIONS:

- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 1569 Metal-Clad Cables
- 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 HL - for Hazardous Locations rating
- CSA SUN RES - for Sunlight Resistant rating
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

{SQMTR_DUAL} SOUTHWIRE® {CSA} LL90458 X/C XX AWG 8000 TECK 90 XLPE -40°C FT4 SUN RES 90°C 1000V HL USA {UL} E96627 TYPE MC XLPE 600V SUN. RES. DIRECT BURIAL 90°C

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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
584846^	6	7	0.169	0.295	60	1x6	6	65	0.773	1.09	55	1.2	0	537
674938^	4	7	0.213	0.339	60	1x6	6	85	0.908	1.227	55	1.337	0	685
584848^	2	6	0.268	0.394	60	1x6	6	85	1.027	1.346	55	1.456	0	819
584852	1	8	0.299	0.467	80	1x4	4	85	1.185	1.503	65	1.635	0	1031
584873	1/0	18	0.336	0.504	80	1x4	4	85	1.265	1.583	65	1.715	0	1144
584876	2/0	12	0.376	0.544	80	1x4	4	85	1.351	1.67	65	1.802	0	1294
584883	3/0	16	0.423	0.591	80	1x4	4	85	1.453	1.771	65	1.903	0	1459
584891	4/0	18	0.475	0.643	80	1x4	4	85	1.565	1.893	65	2.025	0	1717
583957	250	35	0.52	0.709	90	1x2	2	115	1.767	2.099	65	2.231	0	2105
615167	350	35	0.616	0.805	90	1x2	2	115	1.975	2.306	75	2.456	0	2593
583961	500	35	0.736	0.927	90	1x1	1	115	2.238	2.566	80	2.732	0	3285
668789	750	53	0.908	1.097	90	1x1/0	1/0	115	2.606	2.937	80	3.103	0	4318

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 Raceway 90°C
AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
6	8.4	472	0.674	0.84	0.051	55
4	9.4	751	0.424	0.528	0.048	75
2	10.2	1194	0.266	0.331	0.045	100
1	11.4	1506	0.211	0.263	0.046	115
1/0	12	1900	0.167	0.208	0.044	135
2/0	12.6	2395	0.133	0.166	0.043	150
3/0	13.3	3020	0.105	0.131	0.042	175
4/0	14.2	3808	0.084	0.105	0.041	205
250	15.6	4500	0.07	0.087	0.041	230
350	17.2	6300	0.051	0.064	0.04	280
500	19.1	9000	0.036	0.045	0.039	350
750	21.7	13500	0.023	0.03	0.038	435

* 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
584846^	6	7	4.29	7.49	1.52	1x6	6	1.65	19.63	27.69	1.40	30.48	0	799
674938^	4	7	5.41	8.61	1.52	1x6	6	2.16	23.06	31.17	1.40	33.96	0	1019
584848^	2	6	6.81	10.01	1.52	1x6	6	2.16	26.09	34.19	1.40	36.98	0	1219
584852	1	8	7.59	11.86	2.03	1x4	4	2.16	30.10	38.18	1.65	41.53	0	1534
584873	1/0	18	8.53	12.80	2.03	1x4	4	2.16	32.13	40.21	1.65	43.56	0	1702
584876	2/0	12	9.55	13.82	2.03	1x4	4	2.16	34.32	42.42	1.65	45.77	0	1926
584883	3/0	16	10.74	15.01	2.03	1x4	4	2.16	36.91	44.98	1.65	48.34	0	2171
584891	4/0	18	12.07	16.33	2.03	1x4	4	2.16	39.75	48.08	1.65	51.43	0	2555
583957	250	35	13.21	18.01	2.29	1x2	2	2.92	44.88	53.31	1.65	56.67	0	3133
615167	350	35	15.65	20.45	2.29	1x2	2	2.92	50.17	58.57	1.91	62.38	0	3859
583961	500	35	18.69	23.55	2.29	1x1	1	2.92	56.85	65.18	2.03	69.39	0	4889
668789	750	53	23.06	27.86	2.29	1x1/0	1/0	2.92	66.19	74.60	2.03	78.82	0	6426

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)

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
6	213.36	2100	2.2113	2.76	0.1673	55
4	238.76	3342	1.3911	1.73	0.1575	75
2	259.08	5313	0.8727	1.09	0.1476	100
1	289.56	6702	0.6923	0.86	0.1509	115
1/0	304.80	8455	0.5479	0.68	0.1444	135
2/0	320.04	10658	0.4364	0.54	0.1411	150
3/0	337.82	13439	0.3445	0.43	0.1378	175
4/0	360.68	16946	0.2756	0.34	0.1345	205
250	396.24	20025	0.2297	0.29	0.1345	230
350	436.88	28035	0.1673	0.21	0.1312	280
500	485.14	40050	0.1181	0.15	0.1280	350
750	551.18	60075	0.0755	0.10	0.1247	435

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

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