

Super Vu-Tron® Welding Cable

90°C 600 Volt UL/CSA RHH/RHW

Product Construction:

Conductor:

- 6 AWG through 4/0 AWG fully annealed stranded bare copper per ASTM B-172 Class M

Jacket:

- Super Vu-Tron®, orange
- Temperature range: -50°C to +90°C

Jacket Marking:

- #6 - #1 AWG: CAROL SUPER VU-TRON® WELDING CABLE-EXTRA FLEXIBLE (UL) 600 VOLT (-50°C to +90°C) OIL RESISTANT P-123-141 MSHA (SIZE) CSA 90°C ARC WELDING CABLE FT-1
- 1/0 - 4/0 AWG: CAROL SUPER VU-TRON® WELDING CABLE (SIZE) EXTRA FLEXIBLE (UL) 600 VOLT (-50°C to +90°C) OIL RESISTANT P-123-141 MSHA CSA 90°C ARC WELDING CABLE FT-1 TYPE RHH OR RHW (UL) 600V FOR CT USE

Applications:

- Secondary voltage resistance welding leads
- Power supply applications not exceeding 600 volts AC
- Sizes 1/0 and larger for permanent wiring in conduit or tray of 600V power supplies, hoists, cranes or other applications where flexible power leads must be installed in conduit, raceways or trays

Features:

- UL Listed
- CSA Certified
- Excellent flexibility to last longer in flex applications
- Abrasion-resistant
- Resists oils and solvents
- Rated -50°C for use in cold environments
- Weather-resistant
- Ozone-resistant
- Safety-colored for high visibility
- Assured longer service life, saving money in replacement costs, maintenance cost and downtime
- MSHA approved for flame resistance
- Sunlight-resistant

Industry Approvals:

- UL Listed
- CSA Certified
- MSHA Approved
- Meets UL Vertical Flame Test per UL 854
- RoHS Compliant

Packaging:

- 250' (76.2 m), 500' (152.4 m), and 1000' (304.8 m) reels
- Other put-ups available on special order

Suggested Ampacities:

For 600 Volt In-Line Applications

AWG	AMPERES	AWG	AMPERES
4/0	405	1	220
3/0	350	2	190
2/0	300	4	140
1/0	260	6	105

Per Standards: ICEA S-19-81 NEMA WC-3 Part 8, Appendix J Ampacities for portable cable in accordance with NEC Table 400.5(B).

May not be suitable for all installations per National Electrical Code®.



SUPER VU-TRON® WELDING CABLE—UL/CSA—CLASS M—34 AWG STRANDING

CATALOG NUMBER	COND. SIZE (AWG)	CONDUCTOR STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M ⁽¹⁵⁾	STD. CTN.
			INCHES	mm		
01768	6	660/34	0.370	9.40	125	250'
01767	4	1045/34	0.415	10.54	191	250'
01766	2	1666/34	0.475	12.07	259	250'
01765	1	2090/34	0.530	13.46	331	250'
01764†	1/0	2640/34	0.575	14.61	401	250'
01763†	2/0	3300/34	0.630	16.00	511	250'
01762†	3/0	4180/34	0.700	17.78	615	250'
01761†	4/0	5225/34	0.800	20.32	844	250'

® Actual shipping weight may vary.
† Type RHH/RHW - 600V for CT use.

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

AMPS	length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications						
	100'	150'	200'	250'	300'	350'	400'
100	4	4	2	2	1	1/0	1/0
150	4	2	1	1/0	2/0	3/0	3/0
200	2	1	1/0	2/0	3/0	4/0	4/0
250	1	1/0	2/0	3/0	4/0		
300	1/0	2/0	3/0	4/0			
350	1/0	3/0	4/0				
400	2/0	3/0					
450	2/0	4/0					
500	3/0	4/0					
550	3/0	4/0					
600	4/0						

REQUIRED CABLE SIZES SHOWN IN AWG NUMBERS

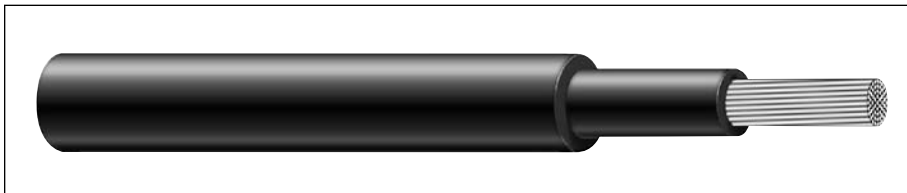
The total circuit length includes both welding and ground leads (Based on 4-volt drop) 60% duty cycle.

These values for current-carrying capacity are based on a copper temperature of 60°C (140°F), an ambient temperature of 40°C (104°F) and yield load factors of from approximately 32% for the No. 2 AWG cable to approximately 23% for the No. 3/0 AWG cable, and higher for the smaller sizes. The sizes of cables generally used range from No. 2 AWG to No. 3/0 AWG. In actual service, the load factor may be much higher than indicated without overheating the cable as the ambient temperature will generally be substantially lower than 40°C.



Super Vu-Tron® EPR/CPE Diesel Locomotive Cable

90°C 2000 Volt DLO, UL RHH/RHW 600 Volts CSA R90 1000 Volt



14 AWG - 1111.1 kcmil DLO - 2000 VOLT

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS		APPROX. NET WEIGHT LBS/MFT ⁽⁵⁾
			INCHES	mm	INCHES	mm	(1)	(2)	
81914	14	19/0.0147	0.045	1.14	0.21	5.44	25	35	34
81912	12	19/0.0185	0.047	1.19	0.24	6.10	30	40	45
81910	10	27/24	0.045	1.14	0.26	6.60	40	55	60
81908	8	37/24	0.060	1.52	0.34	8.64	55	80	95
81906	6	61/24	0.060	1.52	0.40	10.16	75	105	145
81904	4	105/24	0.060	1.52	0.46	11.68	95	140	205
81902	2	154/24	0.060	1.52	0.52	13.21	130	190	295
81901	1	224/24	0.080	2.03	0.65	16.51	150	220	440
81911	1/0	280/24	0.080	2.03	0.69	17.53	170	260	515
81920	2/0	329/24	0.080	2.03	0.73	18.54	195	300	580
81930	3/0	456/24	0.080	2.03	0.81	20.57	225	350	770
81940	4/0	551/24	0.080	2.03	0.87	22.10	260	405	930
81926	262.6	650/24	0.095	2.41	1.00	25.40	296	467	1130
81931	313.3	777/24	0.095	2.41	1.06	26.92	326	522	1295
81937	373.7	925/24	0.095	2.41	1.10	27.94	362	591	1545
81944	444.4	1110/24	0.095	2.41	1.23	31.24	400	652	1820
81953	535.3	1332/24	0.120	3.05	1.34	34.04	445	728	2195
81964	646.4	1609/24	0.120	3.05	1.45	36.83	493	815	2560
81977	777.7	1924/24	0.120	3.05	1.50	38.10	546	904	3050
81929*	929.2	2299/24	0.120	3.05	1.67	42.42	602	1014	3625
81999	1111.1	2745/24	0.140	3.56	1.84	46.74	635	1115	4354

Dimensions and weights are nominal; subject to industry tolerances.

⁽¹⁾ Ampacities based on 90°C conductor and 30°C ambient temperature based on the National Electrical Code® for not more than three current-carrying conductors in raceway, cable or earth.

⁽²⁾ Ampacities based on single-conductor in free air, 90°C conductor temperature and an ambient air temperature of 30°C, in accordance with National Electrical Code® (NEC).

⁽⁵⁾ Actual shipping weight may vary.

* Non-stock item

Product Construction:

Conductor:

- 14 AWG through 1111.1 kcmil stranded tinned annealed copper per AAR 589

Insulation:

- Premium-grade 90°C EP

Jacket:

- Chlorinated Polyethylene (CPE), black

Jacket Marking:

- SIZES 14 THROUGH 1 AWG - CAROL SUPER VU-TRON® (SIZE) (STRANDING) 90°C DLO 2000 VOLTS P-7K-123040 MSHA CSA R90 1000V (UL) RHH OR RHW 600 VOLTS
- SIZES 1/0 THROUGH 646.4 - CAROL SUPER VU-TRON® (SIZE) 90°C DLO 2000 VOLTS P-7K-123040 MSHA CSA R90 1000V (-40°C) FT-1 (UL) RHH OR RHW 600 VOLTS SUNLIGHT RESISTANT FOR CT USE
NOTE: 535.3 AND 646.4 kcmil PRINTED (UL) RHH OR RHW 2000 VOLTS
- SIZES 777.7 THROUGH 1111.1 kcmil - CAROL SUPER VU-TRON® C(UL) TYPE RHW-2 2KV VW-1 FOR CT USE TYPE DLO 2000V 90°C P-102 MSHA

Applications:

- Diesel electric locomotives
- Telecom power supply
- Mining and earth-moving equipment
- Shipyards
- Motor leads
- Where flexible power leads must be installed in conduit or raceways

Features:

- 90°C temperature rating
- Excellent impact and abrasion resistance
- Resists oils, acids, alkalis, heat, flame
- Flexible tinned copper stranding
- FT4 upon request
- Sunlight-resistant

Industry Approvals:

- UL Listed
- Accepted for listing as flame-resistant by MSHA
- CSA R90
- RoHS Compliant

Packaging:

- Lengths cut to order

