

# 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 <sup>(15)</sup>	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**

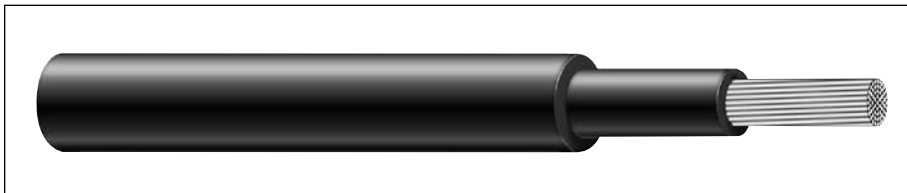
The total circuit length includes both welding and ground leads (Based on 4-volt drop) 60% duty cycle.

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 <sup>(5)</sup>
			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.

<sup>(1)</sup> 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.

<sup>(2)</sup> 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).

<sup>(5)</sup> 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

