General Cable

CORD & CORDSET

CAROL BRAND® Super Vu-Tron® CarolFlex® Carolprene®

CORD & CORDSET PRODUCTS FOR INDUSTRIAL, COMMERCIAL AND SPECIALTY APPLICATIONS

JUNE 2008

CAROL BRAND

Cord & Cordset

This catalog contains in-depth information on the most comprehensive line of cord and cordset products. General Cable's flexible cord products are available today for commercial, industrial and specialty applications. Our contractor-grade extension cords, specialty cords, utility lights and accessories provide power for tools and equipment, and temporary lighting on residential, commercial and industrial job sites.

The product and technical sections have been developed with an easy-to-use "spec-on-a-page" format. They feature the latest information on Carol Cord and Cordset Products, from applications and construction to detailed technical and specification data. There's also a user-friendly cable finder chart and a numerical part number index.

Our products are readily available through our network of authorized stocking distributors and distribution centers.

We are dedicated to customer service and satisfaction, so call our team of professionally trained sales personnel to meet your application needs.

General Cable

PRODUCT SELECTION LOCATOR

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General Cable

Now one industry leader focuses its worldwide resources on delivering maximum value to customers. It's the cost-effective advantage of a single resource, a single company that provides the broadest product range, the highest level of commitment to customer and technical support, the most cost-effective manufacturing and distribution, and the most responsive customer-first service. In today's highly competitive worldwide markets, General Cable provides the single-source solution with benefits that go straight to your bottom line. Ask your representative about other General Cable products.

The Power of ONE®

ANACONDA® BRAND

BICC® BRAND

Brand Rex BRAND

CAROL® BRAND

GenSPEED® BRAND

NEXTGEN® BRAND

Energy Cables

Underground High-Voltage and Extra-High-Voltage Cables

General Cable's complete line of Silec® insulated high- and extra-high-voltage underground energy cables, from 63kV up to 500kV, and our state-of-the-art accessories—such as pre-molded joints and terminals—enable us to provide turnkey design and engineering services for the global, systems-engineered, electric utility market.

Bare Overhead High-Voltage Transmission and Distribution Cables

Our BICC® Brand cables satisfy the varied and specialized demands of the electrical utility marketplace. Our TransPowr® bare aluminum overhead conductors are available in standard ACSR, specialized T-2 designs and high-temperature ACSS/TW designs. Our new ACCC/TW conductors feature an innovative composite core construction which possesses high temperature and increased strength characteristics.

Low- and Medium-Voltage Distribution Cables

General Cable's extensive line of BICC® Brand PowrServ® and EmPowr® copper and aluminum cables serves the total distribution needs of electric utilities, rural electric co-ops and the public power market for both traditional and renewable energy resources.

Industrial & Specialty Cables

Cord and Cordset Products

General Cable's Carol® Brand is the most recognized name in flexible cords for temporary power. Our extensive line includes portable cord, cordsets, portable power cable and premium-grade cable for commercial and industrial applications.

Electronic Cables

Our Carol® Brand products fulfill the complete wire and cable requirements of the fast-changing electronics, sound and security marketplaces. We offer hookup wire; communications cable; computer, coaxial and microphone cables; and special designs for security systems, fire alarms, and audio, video and digital broadcasts.

Industrial Cables

General Cable's industrial instrumentation, power and control cables serve an extensive range of markets, including power generation, refining and petrochemical, natural gas production, steel, pulp and paper, and factory automation.

Specialty Cables

General Cable manufactures a broad range of specialty cables that meet the exacting specifications for original equipment manufacturers (OEMs), military, transit, offshore and marine shipboard, nuclear, and mining applications. General Cable's engineered Brand Rex and Anaconda® Brand wire and cable solutions provide great lifecycle performance and reliability—meeting customer applications requirements today, while setting tomorrow's standards.

Specialty Wire Harnesses

We supply application-specific and custom-designed cable, harnesses and assemblies for a wide variety of OEM applications, including business machines, material handling equipment, factory automation, medical equipment and the automotive aftermarket. General Cable is a global leader in the manufacture of automotive wire and cable—from ignition wire sets and single leads to bulk ignition wire, primary wire and battery starter cable.

Communications Cables

Data Communications Cables

Our GenSPEED® Brand products are on the job wherever enhanced performance is critical–from 10 Gigabit Ethernet, token ring and broadband applications to patch panels, communications closets and plenum applications. We offer one of the most comprehensive lines of enhanced high-speed Category products, including PanGen™ structured cabling system solutions.

Fiber Optic Cables

We provide a full menu of NextGen® Brand fiber optic cables for data communications and voice and video networks. Our products range from tight buffer and armored products for military applications to loose tube and hybrid cables for communications networks. We also offer advanced Blolite® blown fiber systems for Local Area Networks and campus applications.

Telecommunications Cables

Our broad range of industry-standard General Cable outside plant wire and cable products ensures reliable, cost-effective performance. We provide air core, filled core and specialty wire products for aerial, buried and duct applications.

Take it to the Extreme with

SUPER VU-TRON® SUPREME

- **Super-tough** jacket construction to withstand daily abuse, temperature extremes (-50°C to 105°C) and high-stress industrial environments. Cut-, heat/flame-, sunlight- and chemical-resistant
- **Lasts longer** than standard SOOW due to Ultra-Flexible Class M Stranding (34 AWG)
- **Corrosion-resistant** tinned copper conductors to withstand salt and corrosive environments and enhance soldering performance
- **Added safety** with high-visibility yellow jacket
- **Ease of tracking** with Sequential Footage Marking
- **For global use** with CE Mark on 10 and 12 AWG SOOW

Go ahead, freeze it, heat it, beat it and mistreat it... you can't defeat it.

FULL LIFETIME WARRANTY

Tell your local distributor you want Super Vu-Tron Supreme for your OEM and MRO needs.

RoHS Compliant
Directive 2002/95/EC

General Cable
4 Tesseneer Drive, Highland Heights, KY 41076-9753
Phone: 1.800.243.8020 Fax: 1.859.572.9262
www.generalcable.com


General Cable
CAROL BRAND
Cord & Cordset

Portable Cord Specifications 1

When specifying and purchasing portable cord products, application details are important and often essential in determining the right product for the right job. Often, the same application can be served using one or more products.

Accurate understanding of the application and the environment where the cable is being used will often point to the product line providing the correct cord products. For those extreme application environments or very specific technical requirements, General Cable's engineering and customer service "Wire Wizards" are eager to assist you. We will help you find the right cable for your needs.

This easy-to-use checklist outlines the key questions you will need to ask to determine the right cable for a particular application:

1. What is the application? (identifies where cable is being used)
   a. Environmental Conditions
   b. Temperature/Humidity (minimum/maximum ranges)
   c. Moisture (will the cable be submerged or exposed to weather, rain, etc.?)
   d. Dirt/Dust
   e. Chemical Exposure (gases, oils, alkalis, acids, cleaning materials)
   f. Critical Service/ Reliability Needs
2. What is the voltage?
3. What is the amperage?
4. What is the gauge size?
5. How many conductors are required for the application?
6. What is the stranding? (some applications require higher count stranding for better flexibility)
7. What is the overall length needed? (important in calculating voltage drop)
8. Is any special color-coding of conductors needed?
9. Does this cable need agency approvals (UL, CSA, MSHA, RoHS, etc.)?

Answers to these questions will help you determine the right product for the application. While this information is sufficient for most application requirements, good engineering practices are still essential.

General Cable's customer service and engineering teams are ready to help you in finding the right cord product for all of your application needs. Our "Wire Wizards" have the skill and knowledge to select and even custom engineer cord products for your most demanding and challenging applications.

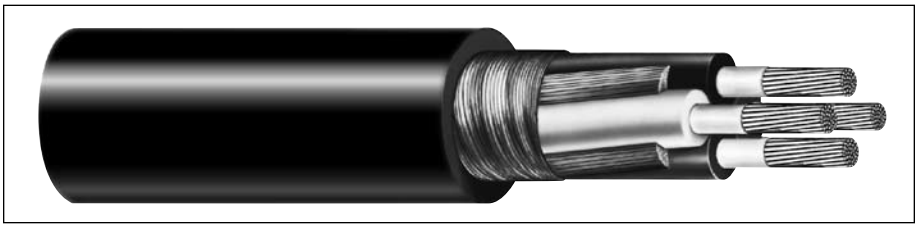
Index By Wire Type

Wire and Cable Abbreviations

E	Thermoplastic Elastomer (TPE)
J	Junior (300V)
O	Oil-Resistant
P	Parallel
S	Service (600V)
T	Thermoplastic/Vinyl
W	Weather Approved (water-, moisture-, damp-, sunlight-resistant)

EPDM	Ethylene-propylene-diene monomer rubber.
HPN	Two-conductor, neoprene-insulated heater cord. Parallel construction. For use in damp locations.
S	Heavy-duty, rubber-insulated portable cord. Stranded copper conductors with separator and individual rubber insulation. Two or more color-coded conductors cabled with filler, wrapped with separator and rubber jacketed overall. 600V.
SJ	Junior hard-service, rubber-insulated pendant or portable cord. Same construction as Type S, but 300V. Jacket thickness different.
SJEOW	Hard-service thermoplastic or rubber-insulated conductors and oil-resistant thermoplastic outer jacket. All-elastomer construction. 300V, 90˚C to 105˚C. Weather-resistant. Meets UL specifications.
SJEW	Hard-service thermoplastic or rubber-insulated conductors and overall thermoplastic jacket. All elastomer construction. 300V, 90˚C to 105˚C. Weather-resistant. Meets UL specifications.
SJO	Same as SJ, but carolprene, oil-resistant compound outer jacket. Can also be made water-resistant. 300V, 60˚C.
SJOO	Same as SJO but inner conductor insulation as well as the outer jacket is oil-resistant.
SJOOW	Same as SJOO but also water- and weather-resistant.
SJT	Junior hard-service thermoplastic or rubber-insulated conductors with overall thermoplastic jacket. 300V, 60˚C to 105˚C.
SJTO	Same as SJT, but oil-resistant thermoplastic outer jacket. 60˚C.
SJTW	Hard-usage thermoplastic or rubber-insulated conductors and overall thermoplastic jacket. 300V, 60˚C to 105˚C. Weather-resistant for outdoor use.
SO	Hard-service cord, same construction as Type S, except oil-resistant carolprene jacket. 600V, 60˚C to 90˚C.
SOO	Same as SO, but inner conductor insulation as well as the outer jacket is oil-resistant.
SOOW	Same as SOO, but also weather-, water- and sunlight- (UV) resistant.
SP-1	All-rubber, parallel-jacketed, two-conductor light-duty cord for pendant or portable use in damp locations. 300V.
SP-2	Same as SP-1, but heavier construction, with or without third conductor for grounding purposes. 300V.
SPT-1	Same as SP-1, except all-thermoplastic. 300V. With or without third conductor for grounding.
SPT-2	Same as SP-2, except all-thermoplastic. 300V. With or without third conductor for grounding.
SPT-3	Same as SP-3, except all-thermoplastic. 300V. With or without third conductor for grounding.
SRD	Portable range or dryer cable. Three or four rubber-insulated conductors with rubber or neoprene jacket, flat or round construction. 300V, 60°C rated.
SRDT	Same as SRD, except all-thermoplastic with a maximum temperature of 90˚C.
ST	Hard-service cord, jacketed, same as Type S except all-plastic construction. 600V, 60˚C to 105˚C.
STO	Same as ST, but with oil-resistant thermoplastic outer jacket. 600V, 60˚C.
STW	Extra-hard-usage cord, jacketed. 600V, 60˚C to 105˚C. Weather- and water-resistant for outdoor use.
SV	Vacuum cleaner cord, two- or three-conductor, rubber insulated. Overall rubber jacket. For light-duty in damp locations. 300V, 60˚C.
SVO	Same as SV, except oil-resistant carolprene jacket. 300V, 60˚C.
SVT	Same as SV, except all-plastic construction. With or without third conductor for grounding purposes only. 300V, 60˚C to 90˚C.
XLP	Crosslinked polyethylene.
XLPE	Crosslinked polyethylene.

Rubber Cord 2



Thermoset rubber cord products have evolved over the last 50 years from simple and unsophisticated to a product line where specialized, technologically advanced products are in demand for exacting commercial and industrial applications.

No longer are rubber cord products used only in applications where flexibility is needed; today typical applications require cord to perform well in environments of extreme heat and cold, and on jobsites and factory floors where resistance to oil, chemicals and abrasion is mandatory.

General Cable's role, as the producer of the premiere Carol® Brand rubber cord products, is to ensure that new product development, product innovation and quality not only keep pace with industry requirements, but also set the trends.

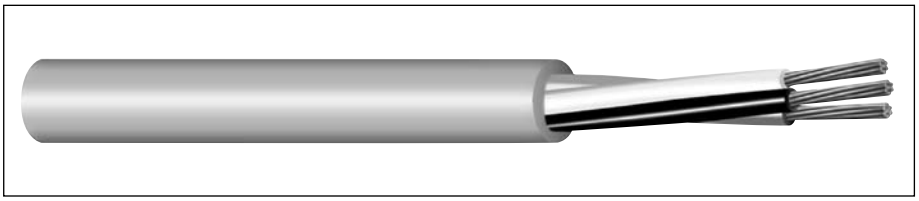
Our rubber cord products carry a full range of listings and certifications with Underwriters Laboratories, Inc. and the Canadian Standard Association. In addition, many products meet or exceed the requirements of OSHA, MSHA and other relevant industry standards.

Carol Brand is simply the most accepted in the industry, having proven itself on the job time after time. Our rubber cord line is the most comprehensive in the industry, ensuring that the proper Carol product can always be specified.

Super Vu-Tron® Supreme Types SJOOW/SOOW

105°C 300 and 600 Volt UL/CSA Portable Cord

NEW PRODUCT



TYPE SJOOW – 300 VOLT – UL/CSA												
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	STRAND O.D.	NOM. INS. THICKNESS		JACKET NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/ M'(S)	COPPER WT. LBS/M'	STD. CTN.
					INCHES	mm	INCHES	mm				
02601	2	18	41/34	.048"	0.030	0.76	0.310	7.87	10	60	10	1000'
02602	3	18	41/34	.048"	0.030	0.76	0.320	8.13	10	70	15	1000'
02603	4	18	41/34	.048"	0.030	0.76	0.345	8.76	7	85	20	250'
02604	2	16	65/34	.061"	0.030	0.76	0.315	8.00	13	67	16	1000'
02605	3	16	65/34	.061"	0.030	0.76	0.335	8.51	13	83	24	250'
02606	4	16	65/34	.061"	0.030	0.76	0.370	9.40	10	100	32	250'
02607	2	14	105/34	.078"	0.030	0.76	0.370	9.40	18	90	26	250'
02608	3	14	105/34	.078"	0.030	0.76	0.375	9.53	18	114	41	250'
02609	4	14	105/34	.078"	0.030	0.76	0.405	10.29	15	132	55	250'

TYPE SOOW – 600 VOLT – UL/CSA											
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOM. INS. THICKNESS		JACKET NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/ M'(S)	COPPER WT. LBS/M'	STD. CTN.
				INCHES	mm	INCHES	mm				
02631*	2	18	41/34	0.030	0.76	0.365	9.27	10	75	10	250'
02632	3	18	41/34	0.030	0.76	0.375	9.53	10	84	15	250'
02633*	4	18	41/34	0.030	0.76	0.400	10.16	7	110	21	250'
02634	2	16	65/34	0.030	0.76	0.370	9.40	13	86	16	250'
02635	3	16	65/34	0.030	0.76	0.395	10.03	13	105	24	250'
02636	4	16	65/34	0.030	0.76	0.425	10.80	10	127	32	250'
02621	5	16	65/34	0.030	0.76	0.515	13.08	8	181	40	250'
02637*	2	14	105/34	0.045	1.14	0.510	12.95	18	155	26	250'
02638	3	14	105/34	0.045	1.14	0.525	13.34	18	176	41	250'
02639	4	14	105/34	0.045	1.14	0.575	14.61	15	218	55	250'
02622*	5	14	105/34	0.045	1.14	0.675	17.15	12	285	66	250'
02641*	2	12	168/34	0.045	1.14	0.590	14.99	25	200	41	250'
02642	3	12	168/34	0.045	1.14	0.600	15.24	25	243	67	250'
02643	4	12	168/34	0.045	1.14	0.650	16.51	20	295	90	250'
02623*	5	12	168/34	0.045	1.14	0.730	18.54	16	315	103	250'
02645	3	10	259/34	0.045	1.14	0.660	16.76	30	299	99	250'
02646	4	10	259/34	0.045	1.14	0.710	18.03	25	413	132	250'
02624*	5	10	259/34	0.045	1.14	0.770	19.56	20	432	168	250'

* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green/Yellow
4	Black, White, Red, Green/Yellow
5	Black, White, Red, Orange, Green/Yellow

Product Construction:

Conductors:
- 18 through 10 AWG. fully annealed stranded tinned copper per ASTM B-174

Insulation:
- Premium-grade, color-coded, oil-resistant 105°C EPDM
- Color Code: See chart below

Jacket:
- Super Vu-Tron® Supreme, Yellow
- Temperature Range: –50°C to +105°C UL/CSA
- Voltage rating: 300 volts Type SJOOW 600 volts Type SOOW

Jacket Marking:
- CAROL SUPER VU-TRON SUPREME (SIZE) (mm^2) 105C (UL) WATER RESISTANT SJOOW (OR SOOW) CSA (–50C) FT-1 P-123-103 MSHA 300 (OR 600) VOLT RoHS MADE IN USA

Applications:
- Machine tools
- Power tools
- Dockside power applications
- Motor leads
- Portable machinery
- Cranes
- Submersible pumps
- Where water immersion is required
- Severe OEM/MRO applications

Features:
- Yellow stripe on green conductor
- Sequential footage marks
- Excellent flexibility in cold temperatures
- Last longer in flex applications
- Integral Flexfill®
- Ozone- and weather-resistant
- UL Listed and CSA Certified for indoor and outdoor use
- Water-resistant - can be immersed in water
- Safety-colored
- High heat and flame resistance
- Resistant to oils, acids and chemicals
- Excellent abrasion and cut resistance
- Class M stranding
- Tinned copper conductors - corrosion/ oxidation-resistant
- Sunlight- (UV) resistant

Industry Approvals:
- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant
- CE Mark - Sizes 10 AWG and 12 AWG SOOW
- OSHA Acceptable
- JC580

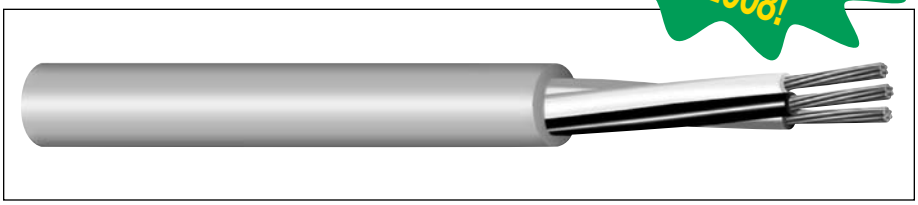
Packaging:
- 250' (76.2 m), 500' (152.4 m), 1000' (304.8 m)
- Other put-ups available on special order

CAROL BRAND RoHS Compliant Directive 2002/95/EC MSHA Mine Safety and Health Administration OSHA Acceptable Occupational Safety and Health Administration Certified Canadian Standard Association UL LISTED General Cable

Super Vu-Tron® III Types SJOOW/SOOW

105ºC 300 and 600 Volt UL/CSA Portable Cord

AVAILABLE BY SPECIAL ORDER THRU 2008!



Product Construction:

Conductors:

- 18 through 10 AWG fully annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded, oil-resistant 105ºC EPDM
- Color Code: See chart below

Jacket:

- Super Vu-Tron® III, Yellow
- Temperature Range: –50ºC to +105ºC UL/CSA
- Voltage rating: 300 volts Type SJOOW 600 volts Type SOOW

Jacket Marking:

- CAROL SUPER VU-TRON III (SIZE) 105C (UL) WATER RESISTANT SJOOW (OR SOOW) CSA (–50C) FT-1 P-123-103 MSHA 300 (OR 600) VOLT

Applications:

- Machine tools
- Power tools
- Dockside power applications
- Motor leads
- Portable machinery
- Cranes
- Submersible pumps

Features:

- Excellent flexibility in cold temperatures
- Last longer in flex applications
- Integral Flexfill®
- Ozone- and weather-resistant
- UL Listed and CSA Certified for indoor and outdoor use
- Water-resistant, sunlight- (UV) resistant
- Safety-colored
- High heat and flame resistance
- Resistant to oils, acids and chemicals
- Excellent abrasion and cut resistance

Industry Approvals:

- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant

Packaging:

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green
5	Black, White, Red, Orange, Green

TYPE SJOOW – 300 VOLT – UL/CSA

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M1(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
02001*	2	18	41/34	0.030	0.76	0.310	8.00	10	56	1000'
02002*	3	18	41/34	0.030	0.76	0.320	8.12	10	65	1000'
02003*	4	18	41/34	0.030	0.76	0.345	8.76	7	80	250'
02004*	2	16	65/34	0.030	0.76	0.315	8.00	13	68	1000'
02005*	3	16	65/34	0.030	0.76	0.335	8.51	13	80	250'
02006*	4	16	65/34	0.030	0.76	0.370	9.40	10	95	250'
02007*	2	14	41/30	0.030	0.76	0.370	9.40	18	90	250'
02008*	3	14	41/30	0.030	0.76	0.375	9.52	18	110	250'
02009*	4	14	41/30	0.030	0.76	0.405	10.29	15	130	250'

TYPE SOOW – 600 VOLT – UL/CSA

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M1(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
02031*	2	18	41/34	0.030	0.76	0.365	9.27	10	75	250'
02032*	3	18	41/34	0.030	0.76	0.375	9.53	10	80	250'
02033*	4	18	41/34	0.030	0.76	0.400	10.16	7	110	250'
02034*	2	16	65/34	0.030	0.76	0.370	9.40	13	75	250'
02035*	3	16	65/34	0.030	0.76	0.395	10.80	13	100	250'
02036*	4	16	65/34	0.030	0.76	0.425	10.80	10	120	250'
02021*	5	16	65/34	0.030	0.76	0.515	13.08	8	150	250'
02037*	2	14	41/30	0.045	1.14	0.510	12.95	18	155	250'
02038*	3	14	41/30	0.045	1.14	0.525	13.34	18	165	250'
02039*	4	14	41/30	0.045	1.14	0.575	14.61	15	215	250'
02022*	5	14	41/30	0.045	1.14	0.675	17.15	12	285	250'
02041*	2	12	65/30	0.045	1.14	0.590	14.99	25	200	250'
02042*	3	12	65/30	0.045	1.14	0.600	15.24	25	250	250'
02043*	4	12	65/30	0.045	1.14	0.650	16.51	20	280	250'
02023*	5	12	65/30	0.045	1.14	0.730	18.54	16	315	250'
02045*	3	10	104/30	0.045	1.14	0.660	16.76	30	320	250'
02046*	4	10	104/30	0.045	1.14	0.710	18.03	25	375	250'
02024*	5	10	104/30	0.045	1.14	0.770	19.56	20	432	250'

*** Non-stock item available by special order; minimum quantity purchase required.**

† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).

(S)Actual shipping weight may vary.

General Cable

UL LISTED

CSA Certified Canadian Standard Association

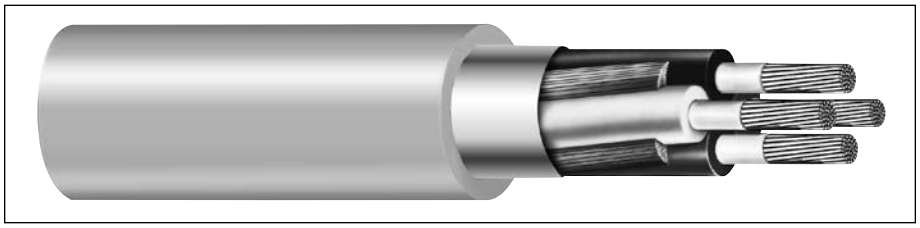
MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Carolprene® Jacketed Type SOOW

105°C 600 Volt UL/CSA Portable Cord



TYPE SOOW – 600 VOLT – UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
16163	3	16	26/30	0.030	0.76	0.390	9.91	13	96	250'
16164	4	16	26/30	0.030	0.76	0.420	10.67	10	113	250'
16173	3	14	41/30	0.045	1.14	0.540	13.72	18	167	250'
16174	4	14	41/30	0.045	1.14	0.575	14.61	15	200	250'
16183	3	12	65/30	0.045	1.14	0.595	15.11	25	214	250'
16184	4	12	65/30	0.045	1.14	0.650	16.51	20	265	250'
16193	3	10	104/30	0.045	1.14	0.660	16.76	30	279	250'
16194	4	10	104/30	0.045	1.14	0.735	18.67	25	347	250'

Cord furnished with UL and CSA labels.
* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

Product Construction:

Conductors:
- 16 through 10 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 105°C EPDM
- Color Code: See chart below

Jacket:
- Carolprene®, Yellow
- Temperature Range: -40°C to +105°C

Jacket Marking:
- CAROL (SIZE) (mm²) 105C (UL) WATER RESISTANT SOOW CSA (-40C) FT-2 P-123-103 MSHA 600 VOLT RoHS MADE IN USA

Applications:
- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery

Features:
- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance
- Water-resistant
- UL Listed and CSA certified for indoor and outdoor use

Industry Approvals:
- UL Flexible Cord
- CSA Flexible Cord
- MSHA Approved
- RoHS Compliant

Packaging:
- 250' (76.2 m), 1000' (304.8 m)
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
3	Black, White, Green
4	Black, White, Red, Green

Carolprene® Jacketed Type SOOW

90°C 600 Volt UL/CSA Portable Cord

Product Construction:

Conductors:

- 18 through 2 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:

- Carolprene®, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:

- CAROL (SIZE) (mm²) 90C (UL) WATER RESISTANT SOOW CSA (-40C) FT-2 P-7K-123033 MSHA 600 VOLT RoHS MADE IN USA

Applications:

- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery

Features:

- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance
- Water-resistant
- UL Listed and CSA certified for indoor and outdoor use

Industry Approvals:

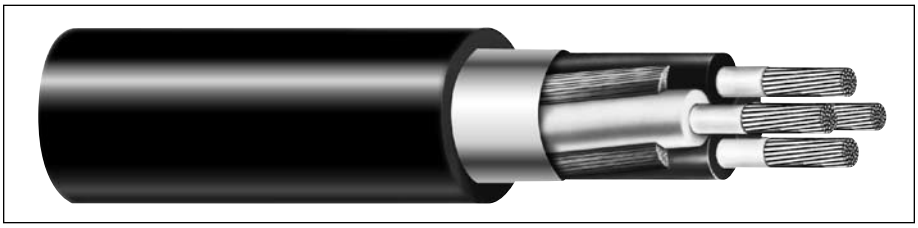
- UL Flexible Cord - Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant

Packaging:

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green
5	Black, White, Red, Orange, Green



TYPE SOOW – 600 VOLT – UL/CSA

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
02763	2	18	16/30	0.030	0.76	0.345	8.76	10	72	250'
02769	3	18	16/30	0.030	0.76	0.365	9.27	10	84	250'
02770	4	18	16/30	0.030	0.76	0.390	9.91	7	101	250'
02722	2	16	26/30	0.030	0.76	0.370	9.40	13	83	250'
02765	3	16	26/30	0.030	0.76	0.390	9.91	13	103	250'
02766	4	16	26/30	0.030	0.76	0.420	10.67	10	119	250'
02723	2	14	41/30	0.045	1.14	0.510	12.95	18	158	250'
02762	3	14	41/30	0.045	1.14	0.535	13.59	18	172	250'
02768	4	14	41/30	0.045	1.14	0.575	14.61	15	208	250'
02724	2	12	65/30	0.045	1.14	0.570	14.48	25	195	250'
02725	3	12	65/30	0.045	1.14	0.595	15.11	25	229	250'
02726	4	12	65/30	0.045	1.14	0.650	16.51	20	280	250'
02767	2	10	104/30	0.045	1.14	0.620	15.75	30	235	250'
02728	3	10	104/30	0.045	1.14	0.660	16.76	30	295	250'
02727	4	10	104/30	0.045	1.14	0.715	18.16	25	353	250'
16063	3	8	133/29	0.060	1.52	0.845	21.46	40	525	250'
16064	4	8	133/29	0.060	1.52	0.960	24.38	35	676	250'
16065	5	8	133/29	0.060	1.52	1.075	27.31	28	795	250'
16073	3	6	133/27	0.060	1.52	0.980	24.89	55	703	250'
16074	4	6	133/27	0.060	1.52	1.080	27.43	45	891	250'
16075	5	6	133/27	0.060	1.52	1.200	30.48	36	1123	250'
16083	3	4	133/25	0.060	1.52	1.140	28.96	70	1022	250'
16084	4	4	133/25	0.060	1.52	1.260	32.00	60	1336	250'
16085	5	4	133/25	0.060	1.52	1.365	34.67	48	1587	250'
16093	3	2	133/23	0.060	1.52	1.330	33.78	95	1484	250'
16094	4	2	133/23	0.060	1.52	1.460	37.08	80	1869	250'
16095*	5	2	133/23	0.060	1.52	1.580	40.13	64	2240	250'

Cord furnished with UL and CSA labels.
* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

General Cable

UL LISTED

CSA Certified Canadian Standard Association

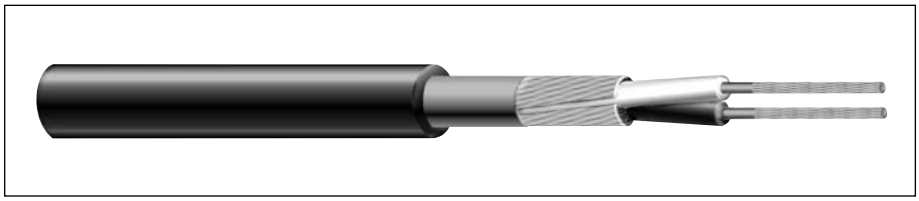
MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Carolprene® Jacketed Type SJOOW

90°C 300 Volt UL/CSA Portable Cord



TYPE SJOOW – 300 VOLT – UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
01310	2	18	16/30	0.030	0.76	0.285	7.24	10	51	1000'
01311	3	18	16/30	0.030	0.76	0.305	7.75	10	63	1000'
01344	4	18	16/30	0.030	0.76	0.330	8.38	7	76	250'
01312	2	16	26/30	0.030	0.76	0.310	7.87	13	60	1000'
01342	3	16	26/30	0.030	0.76	0.330	8.38	13	76	250'
01343	4	16	26/30	0.030	0.76	0.365	9.27	10	95	250'
01358	2	14	41/30	0.030	0.76	0.340	8.64	18	79	250'
01360	3	14	41/30	0.030	0.76	0.370	9.40	18	106	250'
01364	4	14	41/30	0.030	0.76	0.410	10.41	15	121	250'
01379	2	12	65/30	0.030	0.76	0.410	10.41	25	117	250'
01380	3	12	65/30	0.030	0.76	0.430	10.92	25	146	250'
01381	4	12	65/30	0.030	0.76	0.475	12.07	20	185	250'
01382*	2	10	104/30	0.045	1.14	0.560	14.22	30	210	250'
01383	3	10	104/30	0.045	1.14	0.580	14.73	30	242	250'
01384	4	10	104/30	0.045	1.14	0.655	16.64	25	304	250'

Cord furnished with UL and CSA labels.
* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 through 10 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:
- Carolprene®, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- CAROL (SIZE) (mm²) 90C (UL) WATER RESISTANT SJOOW CSA (-40C) FT-2 P-7K-123033 MSHA 300 VOLT RoHS MADE IN USA

Applications:
- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery

Features:
- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance
- Water-resistant
- UL Listed and CSA Certified for indoor and outdoor use

Industry Approvals:
- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green

CAROL BRAND
RoHS Compliant Directive 2002/95/EC
MSHA Mine Safety and Health Administration
Certified Canadian Standard Association
UL LISTED
General Cable

Carolprene® Jacketed Type SOOW(1)

90°C 600 Volt Portable Cord

Product Construction:

Conductors:
- 8 through 2 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:
- Carolprene®, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- CAROL (SIZE) TYPE SOOW 90C P-7K-123033 MSHA MADE IN USA

Applications:
- Portable tools and equipment
- Temporary and portable power
- Motors and associated machinery

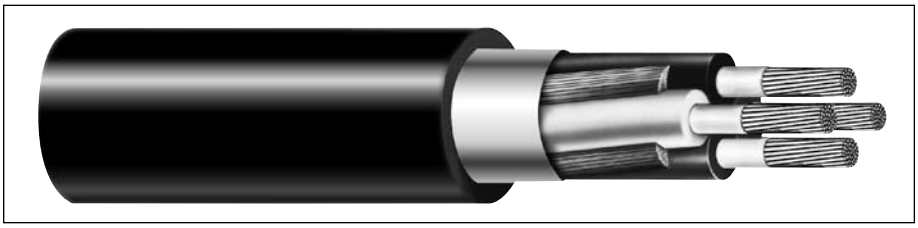
Features:
- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance

Industry Approvals:
- MSHA Approved
- RoHS Compliant

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green
5	Black, White, Red, Orange, Green



TYPE SOOW – 600 VOLT										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
01811*	2	8	65/26	0.050	1.27	0.660	16.76	40	283	250'
01812	3	8	65/26	0.050	1.27	0.695	17.65	40	340	250'
01827	4	8	65/26	0.050	1.27	0.760	19.30	35	491	250'
98267	5	8	65/26	0.050	1.27	0.840	21.34	28	550	250'
01825	3	6	101/26	0.050	1.27	0.790	20.07	55	531	250'
01824	4	6	101/26	0.050	1.27	0.865	21.97	45	660	250'
98270	5	6	101/26	0.050	1.27	0.945	24.00	36	759	250'
01823*	2	4	119/25	0.050	1.27	0.860	21.84	70	580	250'
01822	3	4	119/25	0.050	1.27	0.915	23.24	70	745	250'
01821	4	4	119/25	0.050	1.27	1.000	25.40	60	918	250'
98463	5	4	119/25	0.050	1.27	1.095	27.81	48	1030	250'
01819	3	2	133/.0211	0.055	1.40	1.085	27.56	95	1072	250'
01818	4	2	133/.0211	0.055	1.40	1.170	29.72	80	1344	250'
98187	5	2	133/.0211	0.055	1.40	1.390	35.31	64	1702	250'

(1) Not UL or CSA, but manufactured to acceptable commercial standards.
* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

General Cable

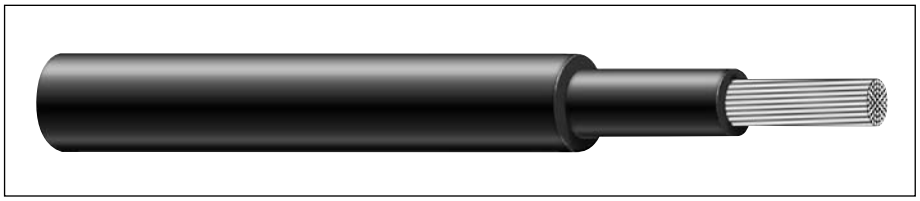
MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Super Vu-Tron® Type SO(1)

90°C 600 Volt



TYPE SO – 600 VOLT								
CATALOG NUMBER	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS(2)	APPROX. NET WT. LBS/M'(S)
			INCHES	mm	INCHES	mm		
77493*	18	16/30	0.030	0.76	0.180	4.57	7	19
77483*	16	26/30	0.030	0.76	0.200	5.08	10	25
77473*	14	41/30	0.045	1.14	0.240	6.09	15	40
77463*	12	65/30	0.045	1.14	0.265	6.60	20	50
77453*	10	104/30	0.045	1.14	0.305	7.75	25	75

(1) Not UL or CSA, but manufactured to acceptable commercial standards.
(2) These ampacities are based on a conductor temperature of 90°C and an ambient air temperature of 40°C, per ICEA Pub-S-68-16 NEMA WC-8 (latest edition). Ampacities based on NEC table 400.5(A).
* Non-stock item; minimum quantity purchase required.
(S) Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 through 10 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade 90ºC EPDM

Jacket:
- Super Vu-Tron®, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- (SIZE) TYPE SO 600 VOLT CAROL SUPER VU-TRON 90C P-123-MSHA

Applications:
- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery
- Flexible power leads

Features:
- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance

Industry Approvals:
- MSHA Approved
- RoHS Compliant

Packaging:
- Lengths cut to order

CAROL BRAND RoHS Compliant Directive 2002/95/EC MSHA Mine Safety and Health Administration General Cable

Type SJ

60°C 300 Volt UL/CSA Portable Cord

Product Construction:

Conductors:

- 18 through 10 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded EPDM
- Color Code: See chart below

Jacket:

- Rubber, Black
- Temperature Range: -40°C to +60°C

Jacket Marking:

- CAROL (SIZE) (mm^2) TYPE SJ 60C (UL) ---CSA TYPE SJ-FT2 300 VOLT RoHS MADE IN USA

Applications:

- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery

Features:

- Good flexibility in low temperatures
- Suitable for use in conditions where the cord is not subject to acid, grease, oil or solvents

Industry Approvals:

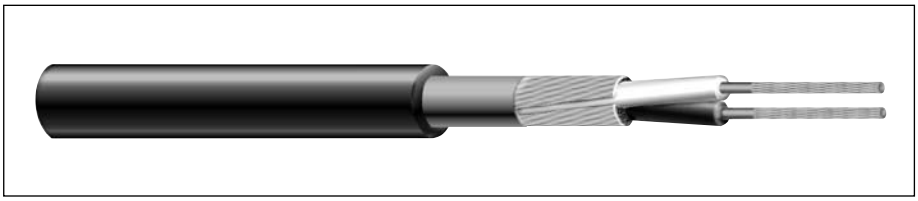
- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- RoHS Compliant

Packaging:

- 250' (76.2 m)
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green



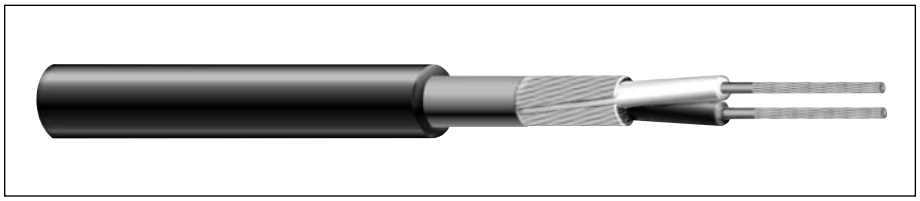
TYPE SJ – 300 VOLT – UL/CSA

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
01302	2	18	16/30	0.030	0.76	0.285	7.24	10	50	1000'
01303	3	18	16/30	0.030	0.76	0.305	7.75	10	63	1000'
01304	4	18	16/30	0.030	0.76	0.330	8.38	7	76	250'
01305	2	16	26/30	0.030	0.76	0.315	8.00	13	62	1000'
01306	3	16	26/30	0.030	0.76	0.330	8.38	13	76	250'
01307	4	16	26/30	0.030	0.76	0.365	9.27	10	97	250'
01361	2	14	41/30	0.030	0.76	0.340	8.64	18	79	250'
01362	3	14	41/30	0.030	0.76	0.370	9.40	18	106	250'
01366	4	14	41/30	0.030	0.76	0.415	10.54	15	135	250'
01368	2	12	65/30	0.030	0.76	0.410	10.41	25	117	250'
01369	3	12	65/30	0.030	0.76	0.430	10.92	25	145	250'
01370	4	12	65/30	0.030	0.76	0.470	11.94	20	182	250'
01376*	2	10	104/30	0.045	1.14	0.550	13.97	30	193	250'
01377	3	10	104/30	0.045	1.14	0.580	14.73	30	243	250'
01378	4	10	104/30	0.045	1.14	0.655	16.64	25	318	250'

* Non-stock item
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

Carolprene® Type SVO

90°C 300 Volt UL/CSA Portable Cord



TYPE SVO – 300 VOLT – UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
13002	2	18	41/34	0.015	0.38	0.225	5.72	10	34	1000'
13003	3	18	41/34	0.015	0.38	0.235	5.97	10	40	1000'

† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S)Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:
- Carolprene®, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- CAROL (SIZE) (mm²) TYPE SVO 90C (UL) ---CSA TYPE SVO FT-2 300 VOLT RoHS MADE IN USA

Applications:
- Vacuum cleaners
- Light-duty equipment
- Office equipment

Features:
- Maintains flexibility in cold temperatures
- Resistant to oil and moisture
- Good tensile strength, elongation and aging characteristics
- Excellent flex life

Industry Approvals:
- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- RoHS Compliant

Packaging:
- 250' (76.2 m)
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green

Super Vu-Tron® Multi-Conductor Type SOOW

90°C 600 Volt UL/CSA Portable Cord

Product Construction:

Conductors:
- 18 and 16 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:
- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- CAROL SUPER VU-TRON (SIZE) (mm^2) 90C (UL) WATER RESISTANT SOOW CSA (-40C) FT-2 P-7K-123033 MSHA 600 VOLT RoHS MADE IN USA

Applications:
- Control circuits
- Tools
- Heavy industrial, processing and construction equipment

Features:
- Extra-flexible stranding
- Abrasion-resistant
- Resists oils and solvents
- Flame-resistant
- Ozone-resistant
- 90°C rated conductors and jacket
- Water-resistant
- UL Listed and CSA Certified for indoor and outdoor use

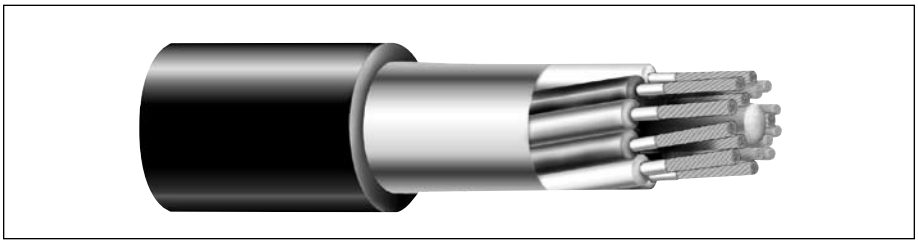
Industry Approvals:
- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant

Packaging:
- 5- through 8-conductor available on 250' (76.2 m), 500' (152.4 m), and 1000' (304.8 m) reels
- 9+ cond. available on long-length reels
- Other put-ups available on special order

COLOR CODE CHART

NO. OF COND.	COLOR	TRACER	NO. OF COND.	COLOR	TRACER
1	Black	–	12	Black	White
2	White	–	13	Red	White
3	Red	–	14	Green	White
4	Green	–	15	Blue	White
5	Orange	–	16	Black	Red
6	Blue	–	17	White	Red
7	White	Black	18	Orange	Red
8	Red	Black	19	Blue	Red
9	Green	Black	20	Red	Green
10	Orange	Black	21	Orange	Green
11	Blue	Black			

Note: Colors repeat after 21 conductors.



TYPE S00W – 600 VOLT – UL/CSA

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS[1]	APPROX. NET WT. LBS/M'[S]
				INCHES	mm	INCHES	mm		
09805	5	18	16/30	0.030	0.76	0.465	11.81	5.6	141
09806	6	18	16/30	0.030	0.76	0.495	12.57	5.6	152
09807	7	18	16/30	0.030	0.76	0.520	13.21	5.6	172
09808	8	18	16/30	0.030	0.76	0.530	13.46	4.9	177
09810	10	18	16/30	0.030	0.76	0.595	15.11	4.9	225
09812	12	18	16/30	0.030	0.76	0.600	15.24	3.5	240
09814	14	18	16/30	0.030	0.76	0.630	16.00	3.5	265
09816	16	18	16/30	0.030	0.76	0.700	17.78	3.5	310
09818*	18	18	16/30	0.030	0.76	0.760	19.30	3.5	345
09820	20	18	16/30	0.030	0.76	0.795	20.19	3.5	382
09822*	22	18	16/30	0.030	0.76	0.805	20.45	3.1	400
09824	24	18	16/30	0.030	0.76	0.850	21.59	3.1	451
09827*	27	18	16/30	0.030	0.76	0.865	21.97	3.1	475
09830*	30	18	16/30	0.030	0.76	0.915	23.24	3.1	533
09605	5	16	26/30	0.030	0.76	0.495	12.57	8.0	167
09606	6	16	26/30	0.030	0.76	0.520	13.21	8.0	182
09607	7	16	26/30	0.030	0.76	0.540	13.72	8.0	194
09608	8	16	26/30	0.030	0.76	0.575	14.61	7.0	218
09609	9	16	26/30	0.030	0.76	0.600	15.24	7.0	243
09610	10	16	26/30	0.030	0.76	0.620	15.75	5.0	255
09612	12	16	26/30	0.030	0.76	0.660	16.76	5.0	296
09614	14	16	26/30	0.030	0.76	0.730	18.54	5.0	352
09616	16	16	26/30	0.030	0.76	0.740	18.80	5.0	383
09618*	18	16	26/30	0.030	0.76	0.770	19.56	5.0	417
09620	20	16	26/30	0.030	0.76	0.810	20.57	5.0	457
09622*	22	16	26/30	0.030	0.76	0.900	22.86	4.5	510
09624	24	16	26/30	0.030	0.76	0.925	23.50	4.5	563
09626*	26	16	26/30	0.030	0.76	0.965	24.51	4.5	611
09630	30	16	26/30	0.030	0.76	1.010	25.65	4.5	767

[1] Values shown are for current-carrying conductors. A grounding conductor, or one which carries only the unbalance current from other conductors, is NOT counted in determining current carrying capacity. Ampacities based on NEC table 400.5(A).

* Non-stock item; minimum quantity purchase required.

[S] Actual shipping weight may vary.

General Cable

UL LISTED

CSA Certified Canadian Standard Association

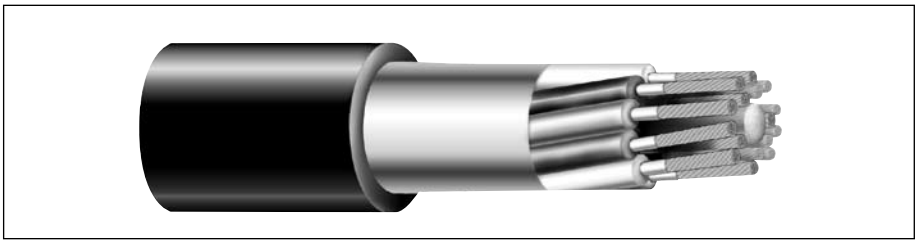
MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Super Vu-Tron® Multi-Conductor Type SOOW

90°C 600 Volt UL/CSA Portable Cord



TYPE S00W – 600 VOLT – UL/CSA									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS(1)	APPROX. NET WT. LBS/M(S)
				INCHES	mm	INCHES	mm		
09405	5	14	41/30	0.045	1.14	0.645	16.38	12.0	269
09406	6	14	41/30	0.045	1.14	0.710	18.03	12.0	317
09407	7	14	41/30	0.045	1.14	0.710	18.03	12.0	347
09408	8	14	41/30	0.045	1.14	0.760	19.30	10.5	430
09409*	9	14	41/30	0.045	1.14	0.830	21.08	10.5	417
09410	10	14	41/30	0.045	1.14	0.820	20.83	10.5	427
09412	12	14	41/30	0.045	1.14	0.855	21.72	7.5	493
09414	14	14	41/30	0.045	1.14	1.000	25.40	7.5	601
09416	16	14	41/30	0.045	1.14	1.030	26.16	7.5	678
09418*	18	14	41/30	0.045	1.14	1.100	27.94	7.5	720
09420	20	14	41/30	0.045	1.14	1.120	28.45	7.5	806
09424	24	14	41/30	0.045	1.14	1.260	32.00	6.7	1003
09428*	28	14	41/30	0.045	1.14	1.330	33.78	6.7	1080
09430*	30	14	41/30	0.045	1.14	1.335	33.91	6.0	1153
09205	5	12	65/30	0.045	1.14	0.715	18.16	16.0	333
09206	6	12	65/30	0.045	1.14	0.740	18.80	16.0	412
09207	7	12	65/30	0.045	1.14	0.790	20.07	16.0	465
09208	8	12	65/30	0.045	1.14	0.825	20.96	14.0	526
09209	9	12	65/30	0.045	1.14	0.900	22.86	14.0	517
09210	10	12	65/30	0.045	1.14	1.000	25.40	14.0	649
09212	12	12	65/30	0.045	1.14	1.010	25.65	10.0	669
09214	14	12	65/30	0.045	1.14	1.020	25.91	10.0	731
09216	16	12	65/30	0.045	1.14	1.135	28.83	10.0	933
09218*	18	12	65/30	0.045	1.14	1.175	29.85	10.0	920
09220	20	12	65/30	0.045	1.14	1.170	29.72	10.0	989
09224	24	12	65/30	0.045	1.14	1.435	36.45	9.0	1273
09226	26	12	65/30	0.045	1.14	1.380	35.05	9.0	1324
09227*	27	12	65/30	0.045	1.14	1.455	37.72	9.0	1325
09228*	28	12	65/30	0.045	1.14	1.500	38.10	9.0	1355
09230	30	12	65/30	0.045	1.14	1.455	36.96	9.0	1492
09005	5	10	104/30	0.045	1.14	0.770	19.56	20.0	472
09006	6	10	104/30	0.045	1.14	0.875	22.23	20.0	565
09007	7	10	104/30	0.045	1.14	0.900	22.86	20.0	552
09008*	8	10	104/30	0.045	1.14	0.935	23.75	17.5	682
09010	10	10	104/30	0.045	1.14	1.020	25.91	17.5	758
09012	12	10	104/30	0.045	1.14	1.070	27.18	12.5	871
09016*	16	10	104/30	0.045	1.14	1.230	31.24	12.5	1147
09020*	20	10	104/30	0.045	1.14	1.325	33.66	12.5	1445

(1) Values shown are for current-carrying conductors. A grounding conductor, or one which carries only the unbalance current from other conductors, is NOT counted in determining current carrying capacity. Ampacities based on NEC table 400.5(A).

* Non-stock item; minimum quantity purchase required.

(S) Actual shipping weight may vary.

Product Construction:

Conductors:

- 14 through 10 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:

- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:

- CAROL SUPER VU-TRON (SIZE) (mm^2) 90C (UL) WATER RESISTANT SOOW CSA (-40C) FT-2 P-7K-123033 MSHA 600 VOLT RoHS MADE IN USA

Applications:

- Control circuits
- Tools
- Heavy industrial, processing and construction equipment

Features:

- Extra-flexible stranding
- Abrasion-resistant
- Resists oils and solvents
- Flame-resistant
- Ozone-resistant
- 90°C rated conductors and jacket
- Water-resistant
- UL Listed and CSA Certified for indoor and outdoor use

Industry Approvals:

- UL Flexible Cord - UL Subject 62
- CSA Flexible Cord - C22.2-49
- MSHA Approved
- RoHS Compliant

Packaging:

- 5- through 8-conductor available on 250' (76.2 m), 500' (152.4 m), and 1000' (304.8 m) reels
- 9+ cond. available on long-length reels
- Other put-ups available on special order

COLOR CODE CHART

NO. OF COND.	COLOR	TRACER	NO. OF COND.	COLOR	TRACER
1	Black	–	12	Black	White
2	White	–	13	Red	White
3	Red	–	14	Green	White
4	Green	–	15	Blue	White
5	Orange	–	16	Black	Red
6	Blue	–	17	White	Red
7	White	Black	18	Orange	Red
8	Red	Black	19	Blue	Red
9	Green	Black	20	Red	Green
10	Orange	Black	21	Orange	Green
11	Blue	Black	Note: Colors repeat after 21 conductors.		

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

MSHA Mine Safety and Health Administration

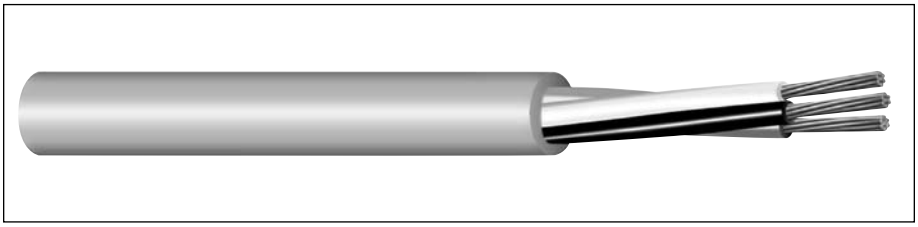
Certified Canadian Standard Association

UL LISTED

General Cable

Plastic Cord

3



Thermoplastic cord products have evolved into a product line where specialized, technologically advanced products are required to meet today's commercial and industrial applications.

No longer are plastic cord products used only in applications where oil resistance is needed; today typical applications require cord to perform well in environments of extreme heat and cold, and on jobsites and factory floors where resistance to oil, chemicals and abrasion is mandatory.

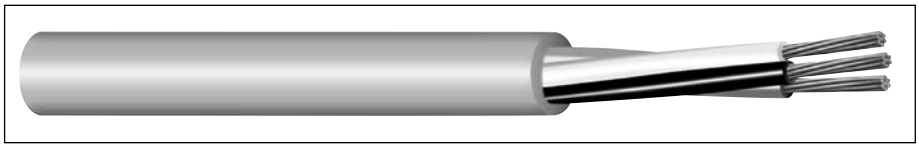
General Cable's role, as the producer of the premiere Carol® Brand plastic cord products, is to ensure that new product development, product innovation and quality not only keep pace with industry requirements, but also set the trends.

Our plastic cord products carry a full range of listings and certifications with Underwriters Laboratories, Inc. and the Canadian Standard Association. In addition, many products meet or exceed the requirements of OSHA, MSHA and other relevant industry standards.

Carol is simply the most accepted brand in the industry, having proven itself on the job time after time. Our plastic cord line is the most comprehensive in the industry, ensuring that the proper Carol product can always be specified.

Types SJTOW and STOW

90°C 300 and 600 Volt UL/CSA Portable Cord



TYPE SJTOW — 300 VOLT — UL/CSA									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M[1(S)]
				INCHES	mm	INCHES	mm		
86902*	2	18	16/30	0.030	0.76	0.290	7.37	10	42
86903*	3	18	16/30	0.030	0.76	0.305	7.75	10	54
86904*	4	18	16/30	0.030	0.76	0.335	8.51	7	65
86912*	2	16	26/30	0.030	0.76	0.315	8.00	13	57
86913	3	16	26/30	0.030	0.76	0.330	8.38	13	70
86914*	4	16	26/30	0.030	0.76	0.365	9.27	10	86
86922*	2	14	41/30	0.030	0.76	0.345	8.76	18	67
86923	3	14	41/30	0.030	0.76	0.365	9.27	18	92
86924	4	14	41/30	0.030	0.76	0.415	10.54	15	114
86932*	2	12	65/30	0.030	0.76	0.410	10.44	25	95
86933	3	12	65/30	0.030	0.76	0.430	10.92	25	132
86934*	4	12	65/30	0.030	0.76	0.475	12.07	20	167
86942*	2	10	104/30	0.045	1.14	0.550	13.97	30	160
86943*	3	10	104/30	0.045	1.14	0.580	14.73	30	230
86944*	4	10	104/30	0.045	1.14	0.635	16.12	25	285

TYPE STOW — 600 VOLT — UL/CSA									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M[1(S)]
				INCHES	mm	INCHES	mm		
86952*	2	18	16/30	0.030	0.76	0.350	8.89	10	60
86953	3	18	16/30	0.030	0.76	0.365	9.27	10	72
86954*	4	18	16/30	0.030	0.76	0.395	10.03	7	85
86962*	2	16	26/30	0.030	0.76	0.375	9.58	13	76
86963	3	16	26/30	0.030	0.76	0.395	10.08	13	90
86964	4	16	26/30	0.030	0.76	0.425	10.80	10	107
86972*	2	14	41/30	0.045	1.14	0.505	12.83	18	120
86973	3	14	41/30	0.045	1.14	0.535	13.59	18	156
86974	4	14	41/30	0.045	1.14	0.575	14.61	15	184
86982*	2	12	65/30	0.045	1.14	0.570	14.48	25	165
86983	3	12	65/30	0.045	1.14	0.600	15.24	25	208
86984*	4	12	65/30	0.045	1.14	0.650	16.51	20	254
86992*	2	10	104/30	0.045	1.14	0.620	15.75	30	195
86993*	3	10	104/30	0.045	1.14	0.655	16.64	30	262
86994	4	10	104/30	0.045	1.14	0.705	17.91	25	323

* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 through 6 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:
- Polyvinylchloride (PVC), Gray or Yellow
- Temperature range: -40°C to +90°C
- Voltage rating:
  300 Volts Type SJTOW
  600 Volts Type STOW

Jacket Marking:
- CAROL (SIZE) (mm^2) 90C UL WATER RESISTANT SJTOW (OR STOW) CSA (-40C) FT-2 RoHS MADE IN USA 300V (or 600V)

Applications:
- Portable tools
- Motors
- Floor maintenance equipment
- Hospital equipment
- Sound equipment
- Washing machines
- Portable lights
- Lamps and similar equipment

Features:
- Oil- and water-resistant jacket
- Resists:
  Oils
  Water
  Acids
  Alkalies
  Ozone
- UL Listed and CSA certified for indoor and outdoor use

Industry Approvals:
- UL Flexible Cord - UL Subject 62
- MSHA Approved (where applicable)
- CSA
- RoHS Compliant

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green

CAROL BRAND RoHS Compliant Directive 2002/95/EC MSHA Mine Safety and Health Administration LISTED General Cable

Types SJTO and STO

60°C 300 and 600 Volt UL Portable Cord

Product Construction:

Conductors:

- 18 through 6 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- Polyvinylchloride (PVC), Gray or Yellow
- Temperature range: -20°C to +60°C
- Voltage rating:
  300 Volts Type SJTO
  600 Volts Type STO

Jacket Marking:

- (SIZE) (mm^2) 60C SJTO (or STO)
  (UL) P-123 MSHA RoHS
  MADE IN USA 300V (or 600V)

Applications:

- Portable tools
- Motors
- Floor maintenance equipment
- Hospital equipment
- Sound equipment
- Washing machines
- Portable lights
- Lamps and similar equipment

Features:

- Oil-resistant jacket
- Resists:
  Oils
  Acids
  Alkalies
  Ozone

Industry Approvals:

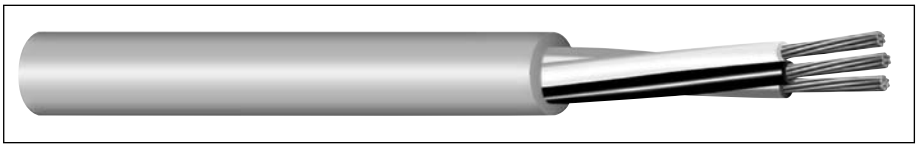
- UL Flexible Cord - UL Subject 62
- MSHA Approved (where applicable)
- RoHS Compliant

Packaging:

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

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green



TYPE SJTO — 300 VOLT — UL

CATALOG NUMBER		NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
GRAY	YELLOW				INCHES	mm	INCHES	mm			
86212	86162*	2	18	16/30	0.030	0.76	0.290	7.37	10	41	1000'
86213	86163	3	18	16/30	0.030	0.76	0.305	7.75	10	53	1000'
86214*	86164*	4	18	16/30	0.030	0.76	0.335	8.51	7	65	250'
86222	86172	2	16	26/30	0.030	0.76	0.315	8.00	13	57	1000'
86223	86173	3	16	26/30	0.030	0.76	0.330	8.38	13	67	250'
86224	86174	4	16	26/30	0.030	0.76	0.365	9.27	10	82	250'
86232*	86182	2	14	41/30	0.030	0.76	0.345	8.76	18	68	250'
86233	86183	3	14	41/30	0.030	0.76	0.365	9.27	18	92	250'
86234*	86184	4	14	41/30	0.030	0.76	0.415	10.54	15	114	250'
	86192*	2	12	65/30	0.030	0.76	0.410	10.41	25	91	250'
	86193	3	12	65/30	0.030	0.76	0.430	10.92	25	128	250'
	86194	4	12	65/30	0.030	0.76	0.475	12.07	20	163	250'
	86202*	2	10	104/30	0.045	1.14	0.550	13.97	30	160	250'
	86203	3	10	104/30	0.045	1.14	0.580	14.73	30	230	250'
	86204*	4	10	104/30	0.045	1.14	0.635	16.12	25	285	250'

TYPE STO — 600 VOLT — UL

CATALOG NUMBER		NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
GRAY	YELLOW				INCHES	mm	INCHES	mm			
86712*	86662*	2	18	16/30	0.030	0.76	0.350	8.89	10	56	250'
86713*	86663	3	18	16/30	0.030	0.76	0.365	9.27	10	72	250'
86714*	86664*	4	18	16/30	0.030	0.76	0.395	10.03	7	85	250'
86722	86672*	2	16	26/30	0.030	0.76	0.375	9.58	13	76	250'
86723	86673	3	16	26/30	0.030	0.76	0.395	10.08	13	90	250'
86724	86674*	4	16	26/30	0.030	0.76	0.425	10.80	10	107	250'
86732*	86682*	2	14	41/30	0.045	1.14	0.505	12.83	18	120	250'
86733*	86683	3	14	41/30	0.045	1.14	0.535	13.59	18	156	250'
86734*	86684	4	14	41/30	0.045	1.14	0.575	14.61	15	184	250'
86742*	86692*	2	12	65/30	0.045	1.14	0.570	14.48	25	165	250'
86743*	86693	3	12	65/30	0.045	1.14	0.600	15.24	25	208	250'
86744*	86694	4	12	65/30	0.045	1.14	0.650	16.51	20	254	250'
86752*	86702*	2	10	104/30	0.045	1.14	0.620	15.75	30	195	250'
86753*	86703*	3	10	104/30	0.045	1.14	0.655	16.64	30	262	250'
86754*	86704	4	10	104/30	0.045	1.14	0.705	17.91	25	323	250'

Meets Coast Guard Rules & Regulations Section 183.435 Item No. 2 and CG-259 Spec. Section 111.60-5 – Also Meets Federal Std. Spec. J-C 580B.

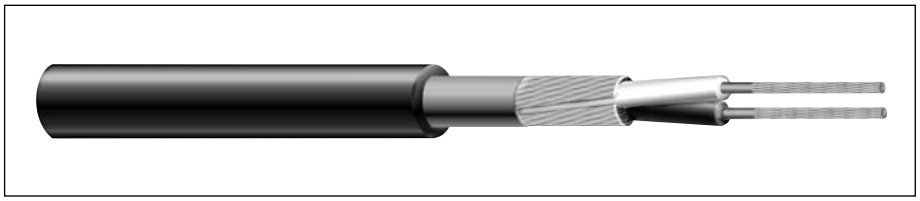
* Non-stock item; minimum quantity purchase required.

† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).

(S) Actual shipping weight may vary.

Type SVT

60°C 300 Volt UL/CSA Portable Cord



TYPE SVT — 300 VOLT — UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
86002	2	18	41/34	0.015	0.76	0.235	5.97	10	35	1000'
86003	3	18	41/34	0.015	0.76	0.240	6.10	10	40	1000'

† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 AWG. annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:
- Polyvinylchloride (PVC)
- Colors Available: Black, White, Gray
- Temperature range: -20°C to +60°C
- Ribbed Jacket

Jacket Marking:
- (SIZE) (mm^2) 60C SVT (UL) E# ---CSA LL# FT-2 RoHS MADE IN USA 300V

Applications:
- Vacuum cleaners
- Food mixers
- Office equipment

Features:
- Resists:
  Acids
  Alkalies
  Ozone

Industry Approvals:
- UL Listed
- CSA Certified
- RoHS Compliant

Packaging:
- 250' (76.2 m)
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green

Type SJT

60°C 300 Volt UL/CSA Portable Cord

Product Construction:

Conductors:

- 18 through 12 AWG. annealed stranded bare copper per ASTM B-174

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- Polyvinylchloride (PVC)
  18 and 16 AWG. - Black only
  14 and 12 AWG. - Orange only

Jacket Marking:

- (SIZE) (mm^2) 60C SJT E# (UL)---CSA LL# FT-2 RoHS MADE IN USA 300V

Applications:

- Portable tools
- Motors
- Portable lights
- Lamps

Features:

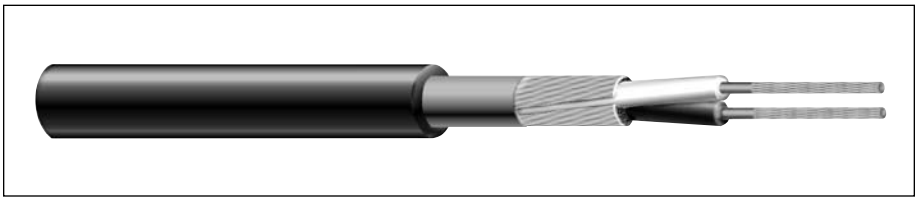
- Resists:
  Acids
  Alkalies
  Ozone

Industry Approvals:

- UL Listed
- RoHS Compliant

Packaging:

- 250' (76.2 m)
- Other put-ups available on special order



TYPE SJT — 300 VOLT — UL

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
86012*	2	18	16/30	0.030	0.76	0.285	7.24	10	45	1000'
86013	3	18	16/30	0.030	0.76	0.305	7.75	10	55	1000'
86022	2	16	26/30	0.030	0.76	0.315	8.00	13	50	1000'
86023	3	16	26/30	0.030	0.76	0.335	8.51	13	70	250'
86333	3	14	41/30	0.030	0.76	0.365	9.27	18	85	250'
86343	3	12	65/30	0.030	0.76	0.430	10.92	25	130	250'

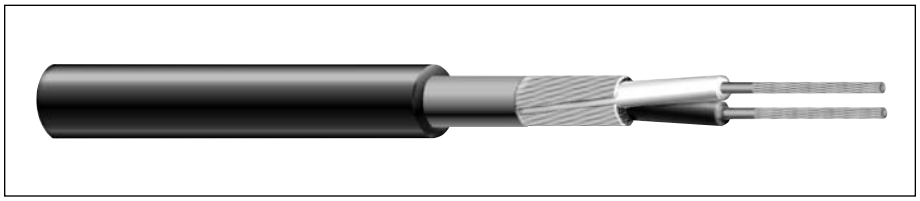
* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green

Type SJT

105°C 300 Volt UL/CSA Portable Cord



TYPE SJT — 300 VOLT — UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
86112*	2	18	16/30	0.030	0.76	0.285	7.24	10	45	1000'
86113	3	18	16/30	0.030	0.76	0.310	7.87	10	55	1000'

* Non-stock item; minimum quantity purchase required.
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

Product Construction:

Conductors:
- 18 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:
- Polyvinylchloride (PVC), White
- Temperature range: -20°C to +105°C

Jacket Marking:
- (SIZE) (mm^2) 105C SJT E# (UL)---CSA LL# FT-2 RoHS MADE IN USA 300V

Applications:
- For use in most hospital equipment

Features:
- Resists:
  Acids
  Alkalies
  Ozone

Industry Approvals:
- UL Listed
- CSA Certified
- RoHS Compliant

Packaging:
- 250' (76.2 m)
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green

Bus Drop Cable

60°C 600 Volt UL Listed

Product Construction:

Conductors:

- 14 through 2 AWG. annealed stranded bare copper per ASTM B-8 or B-174 as applicable

Insulation:

- Premium-grade, color-coded Polyvinylchloride (PVC)
- Color Code: Black, White, Red

Jacket:

- Polyvinylchloride (PVC) jacket, Gray
- Temperature range: -20°C to +60°C

Jacket Marking:

- INDENT PRINT: (SIZE) BUS DROP 600V (UL)

Applications:

- As branches from busways per NEC
- Connection of stationary equipment to facilitate relocation of equipment

Features:

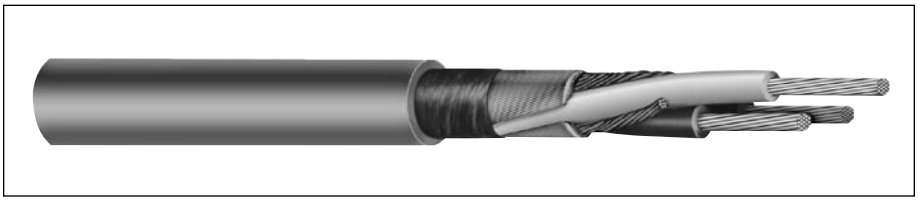
- Used in dry location
- One uninsulated ground conductor per interstice
- Resistant to oils, lubricants, water, acids, alkalies, ozone and abrasion

Industry Approvals:

- UL Listed
- RoHS Compliant

Packaging:

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



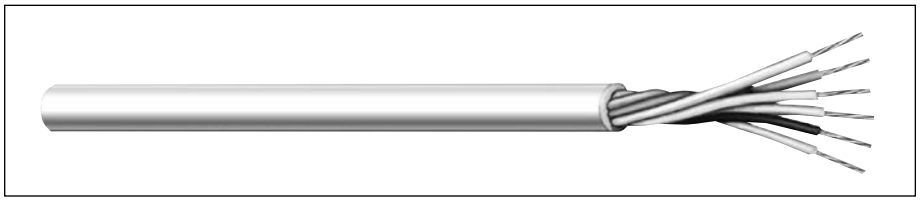
BUS DROP CABLE— 600 VOLT — UL

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm			
03714	3	14	19	0.030	0.76	0.400	10.16	15	120	250'
03712	3	12	19	0.030	0.76	0.440	11.18	20	150	250'
03710	3	10	19	0.030	0.76	0.500	12.70	30	225	250'
03708	3	8	19	0.045	1.14	0.665	16.89	40	370	250'
03706	3	6	19	0.060	1.52	0.815	20.70	55	600	250'
03704	3	4	19	0.060	1.52	0.955	24.26	70	820	250'
03702	3	2	133(1)	0.060	1.52	1.175	29.85	95	1190	250'

* Exceeds Class C stranding
† Green conductor for grounding only. Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

Thermostat Wire

105°C 150 Volt UL Type CL2



20 AWG THERMOSTAT WIRE — 150 VOLT — UL TYPE CL2									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05482	2	20	Solid	0.008	0.203	0.128	3.25	11	1000'
05483	3	20	Solid	0.008	0.203	0.135	3.43	16	1000'
05484	4	20	Solid	0.008	0.203	0.144	3.66	19	500'
05485	5	20	Solid	0.008	0.203	0.168	4.27	24	500'
05486	6	20	Solid	0.008	0.203	0.175	4.45	27	500'
05487	7	20	Solid	0.008	0.203	0.175	4.45	31	500'
05488	8	20	Solid	0.008	0.203	0.186	4.72	35	500'
05489*	9	20	Solid	0.008	0.203	0.210	5.33	40	500'
05481*	10	20	Solid	0.008	0.203	0.235	5.97	45	250'

18 AWG THERMOSTAT WIRE — 150 VOLT — UL TYPE CL2									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05582	2	18	Solid	0.008	0.203	0.145	3.68	16	1000'
05583	3	18	Solid	0.008	0.203	0.154	3.91	22	1000'
05584	4	18	Solid	0.008	0.203	0.170	4.32	28	500'
05585	5	18	Solid	0.008	0.203	0.193	4.90	36	500'
05586	6	18	Solid	0.008	0.203	0.200	5.08	42	500'
05587	7	18	Solid	0.008	0.203	0.210	5.33	48	500'
05588	8	18	Solid	0.008	0.203	0.230	5.84	54	500'
05589*	9	18	Solid	0.008	0.203	0.245	6.22	61	500'
05581	10	18	Solid	0.008	0.203	0.300	7.62	69	250'

(S) Actual shipping weight may vary.

Product Construction:

Conductors:
- 20 and 18 AWG. annealed solid bare copper per ASTM B-3

Insulation:
- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:
- Polyvinylchloride (PVC), White
- Temperature range: -20°C to +105°C

Jacket Marking:
- CAROL AWG. TYPE CL2 E# (UL) 105C SUNLIGHT RESISTANT - MADE IN USA

Applications:
- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

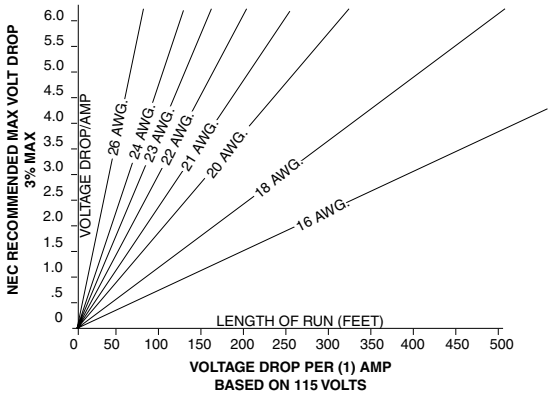
Industry Approvals:
- UL Listed Type CL2

Packaging:
- 4- through 10-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
7	White, Red, Green, Blue, Yellow, Brown, Orange
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black
9	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple
10	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray

APPROXIMATE VOLTAGE DROP/AMP AT 68°F



CAROL BRAND

UL LISTED

General Cable

Thermostat Wire

60ºC 30 Volt CSA Type LVT

Product Construction:

Conductors:

- 18 AWG. annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- Polyvinylchloride (PVC), Brown
- Temperature range: -20ºC to +60ºC

Jacket Marking:

- CAROL (SIZE) CSA LL# TYPE LVT FT-4

Applications:

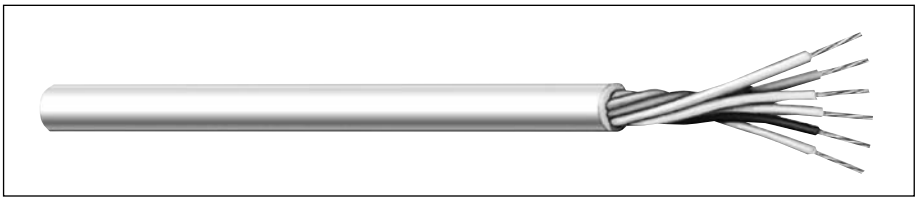
- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Industry Approvals:

- CSA Type LVT

Packaging:

- 4- through 10-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order

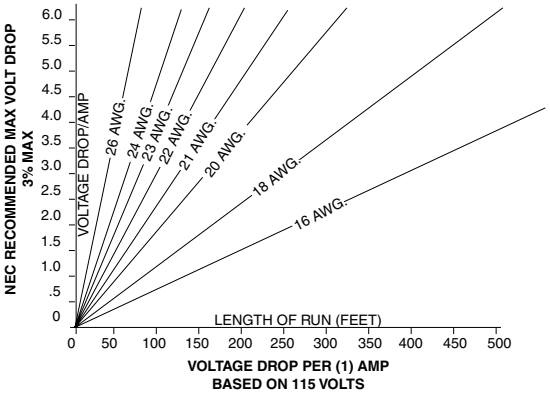


18 AWG THERMOSTAT WIRE — 30 VOLT — CSA TYPE LVT

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05092	2	18	Solid	0.016	0.41	0.210	5.33	25	2000'
05093*	3	18	Solid	0.016	0.41	0.220	5.59	33	500'
05094	4	18	Solid	0.016	0.41	0.242	6.15	41	1000'
05095	5	18	Solid	0.016	0.41	0.262	6.65	50	1000'
05096*	6	18	Solid	0.016	0.41	0.280	7.11	60	1000'
05097*	7	18	Solid	0.016	0.41	0.285	7.24	65	1000'
05098	8	18	Solid	0.016	0.41	0.304	7.75	74	1000'
05099*	9	18	Solid	0.016	0.41	0.328	8.33	83	1000'
05091*	10	18	Solid	0.016	0.41	0.360	9.14	92	250'

* Non-stock item; minimum quantity purchase required.
(S) Actual shipping weight may vary.

APPROXIMATE VOLTAGE DROP/AMP AT 68ºF



COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
7	White, Red, Green, Blue, Yellow, Brown, Orange
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black
9	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple
10	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray

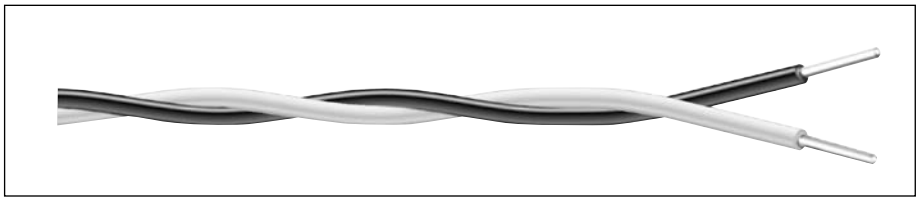
General Cable

Certified Canadian Standard Association

CAROL BRAND

Thermostat Wire, Unjacketed

60°C Low-Voltage and Intercom Cable



20 AWG — TWISTED CONDUCTORS — NO JACKET									
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M'(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05782	2	20	Solid	0.008	0.203	0.098	2.49	7.5	4000'
05783	3	20	Solid	0.008	0.203	0.106	2.69	11.0	2000'
05784*	4	20	Solid	0.008	0.203	0.119	3.01	15.0	2000'
05785*	5	20	Solid	0.008	0.203	0.133	3.38	18.5	1000'
05786*	6	20	Solid	0.008	0.203	0.147	3.73	22.0	1000'
05788*	8	20	Solid	0.008	0.203	0.162	4.11	30.0	1000'

* Non-stock item; minimum quantity purchase required.
(S) Actual shipping weight may vary.

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black

Product Construction:

Conductors:

- 20 AWG. annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -20°C to +60°C
- Color Code: See chart below

Jacket:

- This product is unjacketed

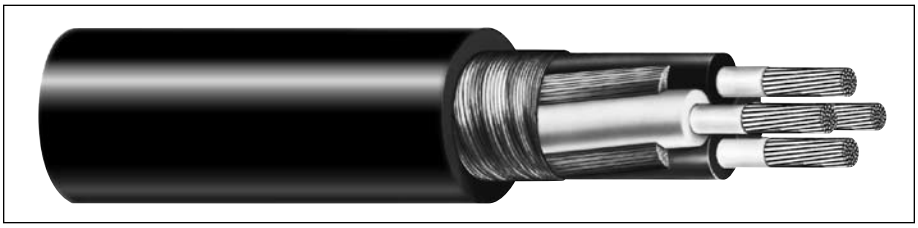
Applications:

- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Packaging:

- 4- through 8-conductor available on 250' (76.2 m) spools
- 2- and 3-conductor available on 500' (152.4 m) spools
- Other put-ups available on special order

Industrial Cord 4



No longer are industrial cord products used only in coal mines and industrial plants; today typical applications include providing temporary power to jobsites, as well as flexible power leads for installation in conduit.

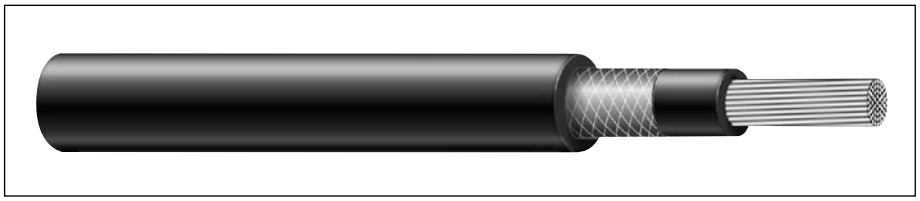
General Cable's role, as the producer of the premiere Carol® Brand industrial cord products, is to ensure that new product development, product innovation and quality not only keep pace with industry requirements, but also set the trends.

Our industrial cord products carry a full range of listings and certifications with Underwriters Laboratories, Inc. and the Canadian Standard Association. In addition, many products meet or exceed the requirements of UL, CSA, OSHA, MSHA, ICEA and other relevant industry standards.

Carol is simply the most accepted brand in the industry, having proven itself on the job time after time. Our industrial cord line is the most comprehensive in the industry, ensuring that the proper Carol product can always be specified.

Super Vu-Tron® Single Conductor

90°C (UL) Type W 2000 Volt and Type RHH/RHW 600 Volt Portable Power Cable



TYPE W 2000 VOLT (UL) AND TYPE RHH/RHW 600 VOLT (UL)												
CATALOG NUMBER	NO. OF COND.	AWG. OR kcmil	COND. STRAND	NOMINAL COND. O.D.		NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS		APPROX. NET WT. LBS/ M[(S)]
				INCHES	mm	INCHES	mm	INCHES	mm	(1)	(2)	
83008*	1	8	133	0.167	4.24	0.070	1.78	0.485	12.32	55	80	150
83006	1	6	259	0.210	5.33	0.070	1.78	0.565	14.35	75	105	214
83004	1	4	259	0.245	6.22	0.070	1.78	0.605	15.37	95	140	277
83002	1	2	259	0.334	8.48	0.070	1.78	0.680	17.27	130	190	387
83001	1	1	259	0.375	9.53	0.090	2.29	0.765	19.43	150	220	485
83010	1	1/0†	259	0.385	9.78	0.090	2.29	0.810	20.57	170	260	563
83020	1	2/0†	259	0.475	12.07	0.090	2.29	0.885	22.48	195	300	679
83030	1	3/0†	259	0.480	12.19	0.090	2.29	0.930	23.62	225	350	809
83040	1	4/0†	259	0.570	14.48	0.090	2.29	0.980	24.89	260	405	973
83250	1	250†	627	0.615	15.62	0.105	2.67	1.045	26.54	290	455	1155
83350	1	350†	855	0.725	18.42	0.105	2.67	1.145	29.08	350	570	1492
83500	1	500†	1235	0.880	22.35	0.105	2.67	1.310	33.27	430	700	2048

(1) Ampacities based on 90°C Conductor and 30°C Ambient temperature based on Table 310-16 in the National Electrical Code® for RHH/RHW with not more than three current-carrying conductors in raceway, cable or earth.

(2) Ampacities based on 90°C Conductor and 30°C Ambient temperature based on Table 310-17 and Table 400.5(B) in the National Electrical Code® for single-conductor cables.

(S) Actual shipping weight may vary.

† Designated for CT use.

Product Construction:

Conductor:

- 8 AWG. through 500 MCM fully annealed stranded bare copper

Insulation:

- Premium-grade 90ºC EPDM

Cable Reinforcement:

- An open polyester braid reinforcement is applied between the insulation and jacket for mechanical strength.

Jacket:

- Super Vu-Tron® 90ºC, Black
- Temperature Range: -40ºC to +90ºC
- Voltage rating:
  600 Volt Type RHH/RHW
  2000 Volt Type W

Jacket Marking:

- #8 - #1 AWG. — CAROL SUPER VU-TRON TYPE W PORTABLE POWER CABLE (UL) DRY 90C WET 75C 2000V SUNLIGHT RESISTANT P-7K-123049-MSHA (SIZE) TYPE RHH OR RHW (UL) 600V
- #1/0 AWG. - 500 KCMIL — CAROL SUPER VU-TRON TYPE W PORTABLE POWER CABLE (UL) DRY 90C WET 75C 2000V SUNLIGHT RESISTANT P-7K-123049-MSHA (SIZE) TYPE RHH OR RHW (UL) 600V FOR CT USE---CSA TYPE W (-40C) FT-5

Applications:

- Portable power systems
- Entertainment industry activities such as theatre, television, night clubs, motion pictures, mobile communication vans, spotlights and sound systems
- Other similar applications that would require permanent or temporary power
- Permanent wiring of 600 Volt power supplies, hoists, cranes and other applications where flexible power leads must be installed in conduit or raceways

Features:

- Water-resistant
- Sunlight-resistant
- Designed to withstand severe environmental conditions
- Withstands exposure to oil, acids, alkalies, heat, flame, moisture and chemicals
- Meets or exceeds flame test requirements of MSHA and UL

Industry Approvals:

- ICEA S-75-381 NEMA WC-58
- UL Type W
- UL Type RHH or RHW
- MSHA Approved
- RoHS Compliant

Packaging:

- Lengths cut to order

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

MSHA Mine Safety and Health Administration

UL LISTED

General Cable

Super Vu-Tron® Multi-Conductor Type W Round

90°C (UL) Type W 2000 Volt Portable Power Cable

Product Construction:

Conductor:

- 8 AWG. through 500 MCM fully annealed stranded bare copper

Insulation:

- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below

Jacket:

- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:

- SIZES SMALLER THAN 2-1/4" – CAROL SUPER VU-TRON (SIZE) TYPE W PORTABLE POWER CABLE (UL) 2000V DRY 90C WET 75C SUN RES CSA (-40C) FT-5 P-7K-123049 MSHA
- SIZES 2-1/4" AND LARGER – (SIZE) TYPE W CAROL SUPER VU-TRON 90C DRY AND WATER RESISTANT 75C 2000V SUN RES (UL) P-7K-123049 MSHA LR27161

Applications:

- Industrial and light- to medium-duty mining applications
- Heavy-duty service as power supply cable
- AC systems (grounded and ungrounded)
- Mobile and portable electrical equipment
- Motor and battery leads
- 2-conductor cables—use on DC or AC single-phase systems where grounding is not required
- 3-conductor cables—use on AC systems where no grounding is required, or on DC systems with one conductor for grounding
- 4-conductor cables—use on two- or three-phase AC systems with one conductor used for grounding
- 5-conductor cables—use in applications where separating the system neutral from the frame ground is required

Features:

- Withstands severe environmental conditions
- Indent-printed for easy identification
- Withstands exposure to oil, acid, alkalies, heat, moisture and most chemicals
- Rope lay stranding for maximum flex life
- Excellent impact resistance
- Cable core bound for superior flexibility and toughness

Industry Approvals:

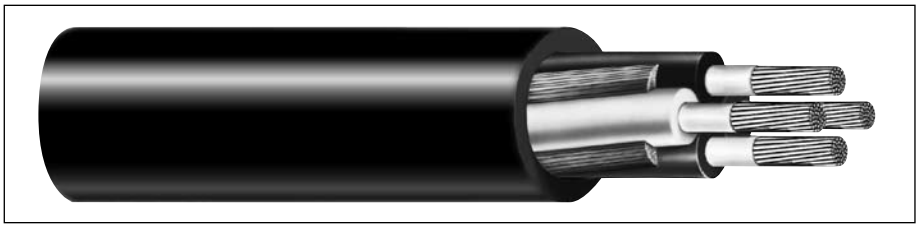
- CSA
- MSHA Approved
- UL Type W
- RoHS Compliant

Packaging:

- Lengths cut to order

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR**
2	Black, White
3	Black, White, Green
4	Black, White, Red, Green
5	Black, White, Red, Green, Orange



CATALOG NUMBER	NO. OF COND.	AWG. OR MCM	COND. STRAND	NOMINAL COND. O.D.		NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS(1)	APPROX. NET WT. LBS/M'(S)
				INCHES	mm	INCHES	mm	INCHES	mm		
2 CONDUCTOR – TYPE W – 2000 VOLT											
81312	2	8	133	0.167	4.24	0.060	1.52	0.770	19.56	74	334
81622	2	6	259	0.210	5.33	0.060	1.52	0.910	23.11	99	483
81642	2	4	259	0.245	6.22	0.060	1.52	1.020	25.91	130	664
81662	2	2	259	0.334	8.48	0.080	2.03	1.210	30.73	174	981
81372*	2	1	259	0.375	9.53	0.080	2.03	1.440	36.58	202	1490
81382*	2	1/0	259	0.385	9.78	0.080	2.03	1.435	36.45	234	1625
81392*	2	2/0	259	0.475	12.07	0.080	2.03	1.650	41.92	271	1880
81402*	2	3/0	259	0.530	13.46	0.080	2.03	1.770	44.96	313	2420
81412*	2	4/0	259	0.570	14.48	0.080	2.03	1.920	48.77	361	2940
3 CONDUCTOR – TYPE W – 2000 VOLT											
81313	3	8	133	0.167	4.24	0.060	1.52	0.925	23.50	74	490
81623	3	6	259	0.210	5.33	0.060	1.52	1.010	25.65	99	650
81643	3	4	259	0.245	6.22	0.060	1.52	1.095	27.81	130	835
81663	3	2	259	0.334	8.48	0.080	2.03	1.325	33.66	174	1233
81373*	3	1	259	0.375	9.53	0.080	2.03	1.500	38.10	202	1810
81383	3	1/0	259	0.385	9.78	0.080	2.03	1.610	40.89	234	2142
81393	3	2/0	259	0.475	12.07	0.080	2.03	1.720	43.69	271	2586
81403*	3	3/0	259	0.480	12.19	0.080	2.03	1.880	47.75	313	3381
81413*	3	4/0	259	0.570	14.48	0.080	2.03	1.935	49.15	361	3492
81423*	3	250	627	0.615	15.62	0.095	2.41	2.390	60.71	402	5070
81443*	3	350	855	0.725	18.42	0.095	2.41	2.680	68.07	495	6570
81473*	3	500	1235	0.880	22.35	0.095	2.41	3.030	76.96	613	8700
4 CONDUCTOR – TYPE W – 2000 VOLT											
81314	4	8	133	0.167	4.24	0.060	1.52	0.985	25.02	65	595
81624	4	6	259	0.210	5.33	0.060	1.52	1.085	27.56	87	783
81644	4	4	259	0.245	6.22	0.060	1.52	1.210	30.73	114	1072
81664	4	2	259	0.334	8.48	0.080	2.03	1.435	36.45	152	1592
81374	4	1	259	0.375	9.53	0.080	2.03	1.605	40.77	177	2051
81384	4	1/0	259	0.385	9.78	0.080	2.03	1.720	43.69	205	2742
81394	4	2/0	259	0.475	12.07	0.080	2.03	1.925	48.90	237	3228
81404	4	3/0	259	0.480	12.19	0.080	2.03	2.055	52.20	274	4048
81414	4	4/0	259	0.570	14.48	0.080	2.03	2.145	54.48	316	4603
5 CONDUCTOR – TYPE W – 2000 VOLT											
81315	5	8	133	0.167	4.24	0.060	1.52	1.050	26.67	52	675
81625	5	6	259	0.210	5.33	0.060	1.52	1.200	30.48	69	956
81645	5	4	259	0.245	6.22	0.060	1.52	1.360	34.54	91	1332
81665	5	2	259	0.334	8.48	0.080	2.03	1.600	40.64	121	2021
81375*	5	1	259	0.375	9.53	0.080	2.03	1.925	48.90	141	2923
81385	5	1/0	259	0.385	9.78	0.080	2.03	2.075	52.71	164	3142
81395*	5	2/0	259	0.475	12.07	0.080	2.03	2.160	54.86	189	4067
81405*	5	3/0	259	0.530	13.46	0.080	2.03	2.260	57.40	219	4900
81415*	5	4/0	259	0.570	14.48	0.080	2.03	2.460	62.48	252	5980

(1) Ampacities based on 90°C Conductor and 30°C Ambient temperature per Table 400.5(B) of the National Electrical Code®.

* Non-stock item; minimum quantity purchase required.

** Green conductor for grounding only.

(S) Actual shipping weight may vary.

General Cable

UL LISTED

CSA Certified Canadian Standard Association

MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Super Vu-Tron® Type G and Type G-GC Round

90°C (UL) 2000 Volt Portable Power Cable

3 CONDUCTOR – TYPE G-GC – 2000 VOLT

CATALOG NUMBER	NO. OF COND.	AWG. OR MCM	COND. STRAND	NOMINAL COND. O.D.		YELLOW GROUND CHECK AWG. SIZE	GREEN GROUND COND. AWG. SIZE	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURR. AMPS[1]	APPROX. NET WT. LBS/ M'[S]
				INCHES	mm			INCHES	mm	INCHES	mm		
82313	3	8	133	0.167	4.24	10	2#10	0.060	1.52	0.965	24.51	65	609
82623	3	6	259	0.210	5.33	10	2#10	0.060	1.52	1.050	26.67	87	797
82643	3	4	259	0.245	6.22	10	2#8	0.060	1.52	1.145	29.08	114	984
82663	3	2	259	0.334	8.48	10	2#7	0.080	2.03	1.345	34.16	152	1465
82373[2]	3	1	259	0.375	9.53	8	2#6	0.080	2.03	1.465	37.21	177	1807
82383[2]	3	1/0	259	0.385	9.78	8	2#5	0.080	2.03	1.605	40.77	205	2405
82393[2]	3	2/0	259	0.475	12.07	8	2#4	0.080	2.03	1.715	43.56	237	2510
82403[2]	3	3/0	259	0.480	12.19	8	2#3	0.080	2.03	1.850	46.99	274	3773
82413[2]	3	4/0	259	0.570	14.48	8	2#2	0.080	2.03	1.980	50.29	316	3946
82423[2]*	3	250	627	0.615	15.62	8	2#2	0.095	2.41	2.390	60.71	352	6060
82443[2]*	3	350	855	0.725	18.42	8	2#1/0	0.095	2.41	2.680	68.07	433	7400
82473[2]*	3	500	1235	0.880	22.35	8	2#2/0	0.095	2.41	3.030	76.96	526	10100

4 CONDUCTOR – TYPE G – 600/2000 VOLT

CATALOG NUMBER	NO. OF COND.	AWG. OR MCM	COND. STRAND	NOMINAL COND. O.D.		GREEN COND. AWG. SIZE	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS[1]	APPROX. NET WT. LBS/ M'[S]
				INCHES	mm		INCHES	mm	INCHES	mm		
82314	4	8	133	0.167	4.24	4#12	0.060	1.52	1.045	26.54	52	705
82624	4	6	259	0.210	5.33	4#12	0.060	1.52	1.125	28.58	70	914
82644	4	4	259	0.245	6.22	4#10	0.060	1.52	1.210	30.73	91	1370
82664	4	2	259	0.334	8.48	4#9	0.080	2.03	1.435	36.45	122	1802
82374[2]*	4	1	259	0.375	9.53	4#8	0.080	2.03	1.650	41.91	142	2479
82384[2]	4	1/0	259	0.385	9.78	4#7	0.080	2.03	1.720	43.69	164	3080
82394[2]	4	2/0	259	0.475	12.07	4#6	0.080	2.03	1.860	47.24	190	3119
82404[2]	4	3/0	259	0.480	12.19	4#5	0.080	2.03	2.075	52.71	219	4542
82414[2]	4	4/0	259	0.570	14.48	4#4	0.080	2.03	2.155	54.74	253	5078

[1] Ampacities based on 90°C Conductor and 30°C Ambient temperature per table 400.5(B) of the National Electrical Code®.
[2] UL Listed and c(UL) certified.
* Non-stock item; minimum quantity purchase required.
[S] Actual shipping weight may vary.

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
3	Black, White, Red
4	Black, White, Red, Orange

Product Construction:

Conductor:
- 8 AWG. through 500 MCM fully annealed stranded bare copper

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below
- Insulated grounds and ground checks

Jacket:
- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:
- TYPE G-GC (4/0 AND SMALLER) – CAROL SUPER VU-TRON (SIZE) TYPE G-GC PORTABLE POWER CABLE (UL) 2000V DRY 90C WET 75C SUN RES CSA (-40C) FT-5 P-7K-123049 MSHA
- TYPE G-GC (LARGER THAN 4/0) – (SIZE) TYPE G-GC CAROL SUPER VU-TRON 90C DRY AND WATER RESISTANT 75C 2000V SUN RES (UL) P-7K-123033 MSHA LR 27161
- TYPE G – CAROL SUPER VU-TRON (SIZE) TYPE G PORTABLE POWER CABLE (UL) 600/2000V DRY 90C WET 75C SUN RES CSA (-40C) FT-5 P-7K-123049 MSHA

Applications:
- Industrial and light- to medium-duty mining applications
- Heavy-duty service as power supply cable
- Mobile and portable electrical equipment
- 3- and 4-conductor—use on three-phase AC systems where grounding is required

Features:
- Excellent impact and abrasion resistance
- Withstand exposure to oil, acids, alkalies, heat, moisture and most chemicals
- Indent-printed for easy identification
- Rope lay stranding for maximum flex life
- Cable core bound for superior flexibility and toughness
- Non-wicking rubber fillers (GGC)
- Canadian color code available upon request

Industry Approvals:
- UL Type G, G-GC
- CSA
- MSHA Approved
- RoHS Compliant

Packaging:
- Lengths cut to order

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

MSHA Mine Safety and Health Administration

Certified Canadian Standard Association

UL LISTED

General Cable

Super Vu-Tron® Canadian Type G and Type G-GC Round

90°C (UL) 2000 Volt Portable Power Cable

Product Construction:

Conductor:
- 6 AWG. through 4/0 fully annealed stranded bare copper

Insulation:
- Premium-grade, color-coded 90°C EPDM
- Color Code: See chart below
- Insulated yellow ground check

Jacket:
- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

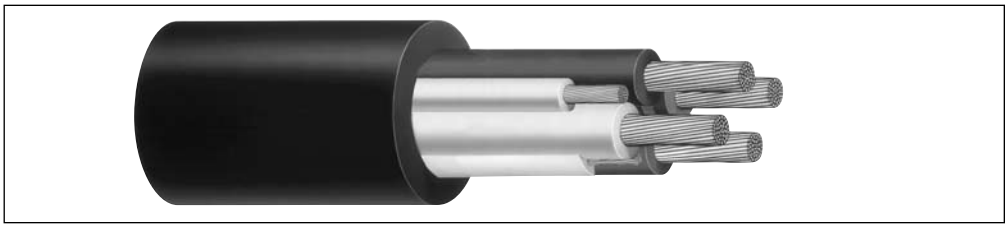
Jacket Marking:
- CAROL SUPER VU-TRON (SIZE) TYPE G-GC 2KV 90C (-40C) WET FT-5 CSA LR92874 P-7K-123049 MSHA
- TYPE G-GC (LARGER THAN 4/0) – (SIZE) TYPE G-GC CAROL SUPER VU-TRON 90C DRY AND WATER RESISTANT 75C 2000V SUN RES (UL) P-7K-123033 MSHA LR 27161
- TYPE G – CAROL SUPER VU-TRON (SIZE) TYPE G PORTABLE POWER CABLE (UL) 600/2000V DRY 90C WET 75C SUN RES CSA (-40C) FT-5 P-7K-123049 MSHA

Applications:
- Industrial and light- to medium-duty mining applications
- Heavy-duty service as power supply cable
- Mobile and portable electrical equipment
- 3- and 4-conductor—use on three-phase AC systems where grounding is required

Features:
- Excellent impact and abrasion resistance
- Withstand exposure to oil, acids, alkalies, heat, moisture and most chemicals
- Indent-printed for easy identification
- Rope lay stranding for maximum flex life
- Cable core bound for superior flexibility and toughness
- Non-wicking rubber fillers (GGC)
- Canadian color code available upon request

Industry Approvals:
- UL Type G, G-GC
- CSA
- MSHA Approved
- RoHS Compliant

Packaging:
- Lengths cut to order



3 CONDUCTOR – TYPE G-GC – 2000 VOLT

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL COND. O.D.		YELLOW GROUND CHECK AWG. SIZE	GREEN GROUND COND. AWG. SIZE	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURR. AMPS[1]	APPROX. NET WT. LBS/ M'[S]
				INCHES	mm			INCHES	mm	INCHES	mm		
83113	3	6	259	0.210	5.33	10	2#10	0.060	1.52	1.025	26.04	87	827
83123	3	4	259	0.245	6.22	10	2#8	0.060	1.52	1.140	28.96	114	1063
83133*	3	2	259	0.334	8.48	8	2#6	0.060	1.52	1.300	33.02	152	1590
83143	3	1	259	0.375	9.53	8	2#6	0.080	2.03	1.495	37.97	177	1980
83153	3	1/0	259	0.385	9.78	8	2#4	0.080	2.03	1.560	39.62	205	2467
83163*	3	2/0	259	0.475	12.07	8	2#4	0.080	2.03	1.670	42.42	237	2480
83183*	3	4/0	259	0.570	14.48	8	2#2	0.080	2.03	1.975	50.17	316	3744

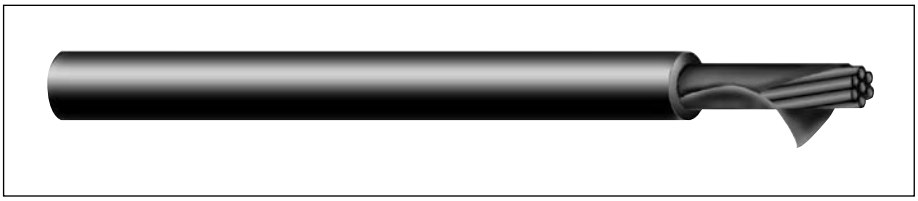
[1] Ampacity rating based on CEC/CSA.
[S] Actual shipping weight may vary.

COLOR CODE CHART

NO. OF CONDUCTORS	COLOR
3	Black, Red, Blue

Carolprene® Welding Cable

90°C 600 Volt



CAROLPRENE® WELDING CABLE – 600 VOLT – CLASS K – 30 AWG STRANDING						
CATALOG NUMBER	AWG. SIZE	CONDUCTOR STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M'(S)	STD. CTN.
			INCHES	mm		
01778	6	259/30	0.380	9.65	135	250'
01777	4	374/30	0.400	10.16	172	250'
01776	2	625/30	0.465	11.81	260	250'
01775	1	778/30	0.495	12.57	317	250'
01774	1/0	990/30	0.560	14.22	400	250'
01773	2/0	1248/30	0.615	15.62	487	250'
01772	3/0	1586/30	0.670	17.02	605	250'
01771	4/0	2054/30	0.750	19.05	827	250'
99142	250 MCM	2496/30	0.830	21.08	976	250'
99432	350 MCM	3432/30	0.960	24.38	1338	250'
99202	500 MCM	5054/30	1.200	30.48	1995	250'

(S) Actual shipping weight may vary.

Product Construction:

Conductor:

- 6 AWG. through 500 MCM fully annealed stranded bare copper Class K

Jacket:

- Premium-grade 90°C EPDM, Black
- Red also available
- Temperature Range: -40°C to +90°C

Jacket Marking:

- CAROLPRENE (SIZE) WELDING CABLE 600 VOLT

Applications:

- Secondary voltage resistance welding leads
- Power supply applications not exceeding 600 Volt AC

Features:

- Good flexibility
- Abrasion-resistant
- Good color retention

Packaging:

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

Industry Approvals:

- RoHS Compliant

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

	length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications						
AMPS	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 that indicated without overheating the cable as the ambient temperature will generally be substantially lower than 40°C.

Suggested Ampacities:

For 600 Volt In-Line Applications

AWG.	AMPERES	AWG.	AMPERES
500 MCM	695	1/0	190
350 MCM	552	1	160
250 MCM	445	2	140
4/0	310	4	100
3/0	265	6	75
2/0	223		

Ampacities for portable cable, continuous-duty (Ambient Temperature of 40°C).
May not be suitable for all installations per National Electrical Code®.

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

General Cable

Super Vu-Tron® Welding Cable

90ºC 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: -50ºC to +90ºC

Jacket Marking:
- #6 - #1 AWG.: CAROL SUPER VU-TRON WELDING CABLE–EXTRA FLEXIBLE (UL) 600 VOLT (-50 to +90C) OIL RESISTANT P-123-141 MSHA (SIZE) --- CSA 90C ARC WELDING CABLE FT-1
- 1/0 - 4/0 AWG.: CAROL SUPER VU-TRON WELDING CABLE (SIZE) EXTRA FLEXIBLE (UL) 600 VOLT (-50 to +90C) OIL RESISTANT P-123-141 MSHA --- CSA 90C 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 Volt 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 -50ºC 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

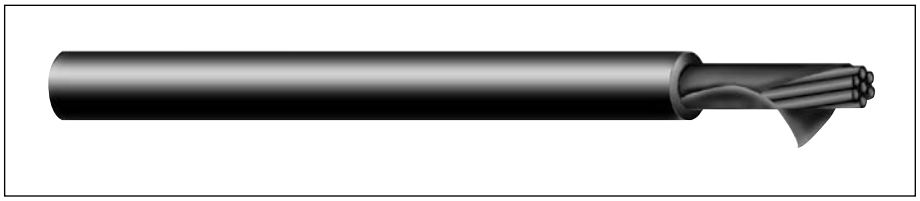
Industry Approvals:
- UL Listed
- CSA Certified
- MSHA Approved
- Meets UL Vertical Flame Test per UL 854
- RoHS Compliant

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-19-81NEMA 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	AWG. SIZE	CONDUCTOR STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M'(S)	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'

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

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

	length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications						
AMPS	**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 that indicated without overheating the cable as the ambient temperature will generally be substantially lower than 40°C.

General Cable

UL LISTED

CSA Certified Canadian Standard Association

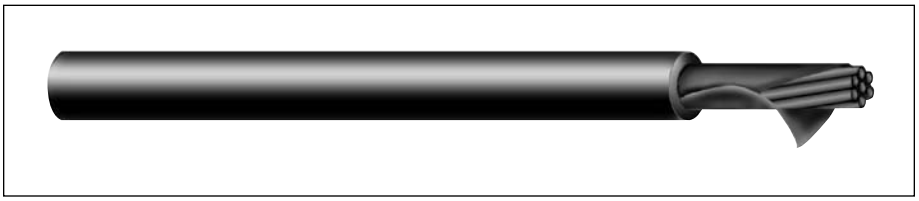
MSHA Mine Safety and Health Administration

RoHS Compliant Directive 2002/95/EC

CAROL BRAND

Super Vu-Tron® Entertainment Industry and Stage Lighting Cable

105°C 600 Volt UL Type SC and CSA Type PPC



UL TYPE SC - CSA TYPE PPC - 600 VOLT						
CATALOG NUMBER	AWG. SIZE	NOMINAL STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M'[S]	CURRENT AMPS[1]
			INCHES	mm		
01109*	8	168/30	0.385	9.78	110	80
01108	6	259/30	0.430	10.92	152	105
01107	4	418/30	0.475	12.07	215	140
01106	2	646/30	0.540	13.72	296	190
01105	1	836/30	0.580	14.73	360	220
01104	1/0	1032/30	0.615	15.62	424	260
01103	2/0	1290/30	0.655	16.64	513	300
01102*	3/0	1672/30	0.720	18.29	644	350
01101	4/0	2066/30	0.780	19.81	824	405

[1] Table 400-5(B) NEC

* Non-stock item; minimum quantity purchase required.

[S] Actual shipping weight may vary.

Product Construction:

Conductor:

- 8 AWG. through 4/0 AWG. fully annealed stranded bare copper per ASTM B-172

Jacket:

- Super Vu-Tron® 105°C, Black
- Temperature Range: -50°C to +105°C

Jacket Marking:

- CAROL (SIZE) (UL) 600 VOLT TYPE SC (-50C to +105C) OIL RES 60C MAX. AMPS NEC TABLE 400-5 (B) FOR 90C OUTDOOR --- CSA TYPE PPC 105C 600VOLT FT5

Applications:

- Portable power systems
- Entertainment industry activities such as theater, television, night clubs, motion pictures, mobile communication vans, spotlights and sound systems
- Other similar applications that would require temporary power

Features:

- Water-resistant
- Sunlight-resistant
- Designed to withstand severe environmental conditions
- Withstands exposure to oil, acids, alkalies, heat, flame, moisture and chemicals
- Meets or exceeds flame test requirements of MSHA, CSA and UL
- Indent printed

Industry Approvals:

- UL Listed
- CSA Certified
- RoHS Compliant

Packaging:

- Lengths cut to order

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

Certified Canadian Standard Association

UL LISTED

General Cable

Super Vu-Tron® Single Conductor Type W Extra-Flex

90°C 2000 Volt UL Listed

Product Construction:

Conductor:
- 8 AWG. through 250 MCM fully annealed stranded bare copper per ASTM B-172

Insulation:
- Premium-grade 90°C EPDM

Cable Reinforcement:
- An open polyester braid reinforcement is applied between the insulation and jacket for mechanical strength

Jacket:
- Super Vu-Tron® 90°C, Black
- Temperature Range: -40°C to +90°C

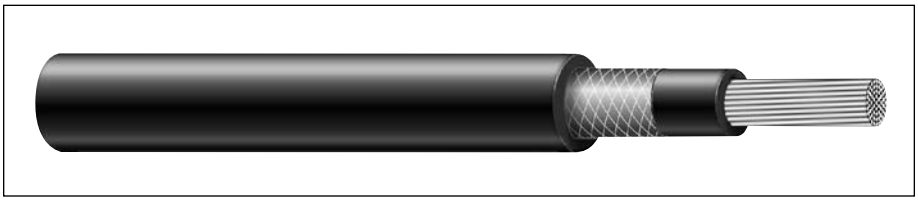
Jacket Marking:
- CAROL SUPER VU-TRON TYPE W PORTABLE POWER CABLE (SIZE) 2000V 90C DRY AND WATER RESISTANT 75C SUN RES (UL) P-7K-123049-MSHA--- CSA TYPE W (-40C) FT-5

Applications:
- Portable power systems
- Entertainment industry activities such as theater, television, night clubs, motion pictures, mobile communication vans, spotlights and sound systems
- Other similar applications that would require temporary power

Features:
- Water-resistant
- Sunlight-resistant
- Designed to withstand severe environmental conditions
- Withstands exposure to oil, acids, alkalies, heat, flame, moisture and chemicals
- Meets or exceeds flame test requirements of MSHA and UL

Industry Approvals:
- UL Listed
- MSHA Approved
- RoHS Compliant
- CSA Certified

Packaging:
- Lengths cut to order



TYPE W - 2000 VOLT - UL										
CATALOG NUMBER	AWG. OR MCM	NOMINAL STRAND	NOMINAL COND. O.D.		NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WT. LBS/M[(S)]	CURRENT AMPS[(1)]
			INCHES	mm	INCHES	mm	INCHES	mm		
80611*	8	168/30	0.165	4.19	0.060	1.52	0.440	11.18	149	80
80621*	6	260/30	0.205	1.55	0.060	1.52	0.530	13.46	205	105
80631*	4	418/30	0.255	6.48	0.060	1.52	0.585	14.86	264	140
80641	2	625/30	0.300	7.62	0.070	1.78	0.650	16.51	370	190
80651*	1	778/30	0.320	8.13	0.090	2.29	0.730	18.54	479	220
80661*	1/0	1056/30	0.395	10.03	0.090	2.29	0.750	19.05	535	260
80671*	2/0	1248/30	0.425	10.80	0.090	2.29	0.825	20.96	653	300
80681*	3/0	1672/30	0.500	12.70	0.090	2.29	0.855	21.72	755	350
80691	4/0	2054/30	0.550	13.97	0.090	2.29	0.980	24.89	1056	405
80701*	250 MCM	2496/30	0.625	15.88	0.105	2.67	1.000	25.40	1150	455

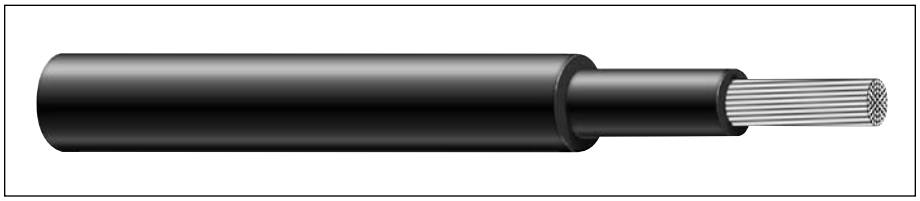
[(1)] Ampacities based on NEC table 400.5(B).

* Non-stock item; minimum quantity purchase required.

[(S)] Actual shipping weight may vary.

Super Vu-Tron® EPR/CPE Diesel Locomotive Cable

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



10 AWG - 777.7 kcmil DLO - 2000 VOLT									
CATALOG NUMBER	AWG. OR kcmil	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS		APPROX. NET WEIGHT LBS/MFT[S]
			INCHES	mm	INCHES	mm	(1)	(2)	
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

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).

[S] Actual shipping weight may vary.

Product Construction:

Conductor:

- 10 AWG. through 777.7 kcmil stranded tinned annealed copper per AAR 589

Insulation:

- Premium-grade 90°C EP

Jacket:

- Chlorinated Polyethylene (CPE), Black

Jacket Marking:

- SIZES 10 THROUGH 1 AWG - CAROL SUPER VU-TRON (SIZE) (STRANDING) 90C 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) 90C DLO 2000 VOLTS P-7K-123040 MSHA CSA R90 1000V (-40C) FT-1 – (UL) RHH OR RHW 600 VOLTS SUNLIGHT RESISTANT FOR CT USE
  NOTE: (535.3 AND 646.4 MCM PRINTED (UL) RHH OR RHW 2000 VOLTS)
- SIZE 777.7 MCM ONLY - CAROL SUPER VU-TRON C(UL) TYPE RHW-2 2KV VW-1 FOR CT USE TYPE DLO 2000V 90C P-102 MSHA

Applications:

- Diesel electric locomotives
- Telecom power supply
- Oil and gas drilling rigs
- 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, alkalies, heat, flame
- Flexible tinned copper stranding
- FT4 upon request

Industry Approvals:

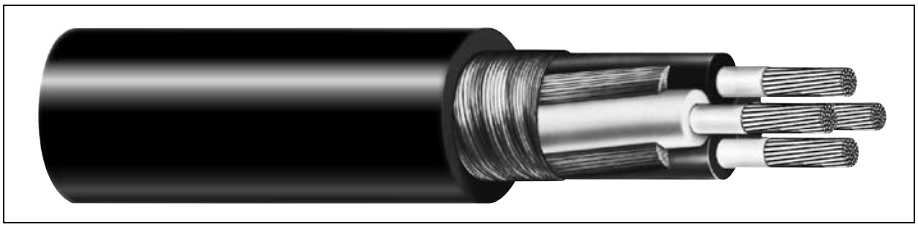
- UL Listed
- Accepted for listing as flame-resistant by MSHA
- CSA R90
- RoHS Compliant

Packaging:

- Lengths cut to order

CAROL BRAND® RoHS Compliant Directive 2002/95/EC MSHA Mine Safety and Health Administration CSA Certified Canadian Standard Association UL LISTED c UL LISTED General Cable

Specialty Cord 5



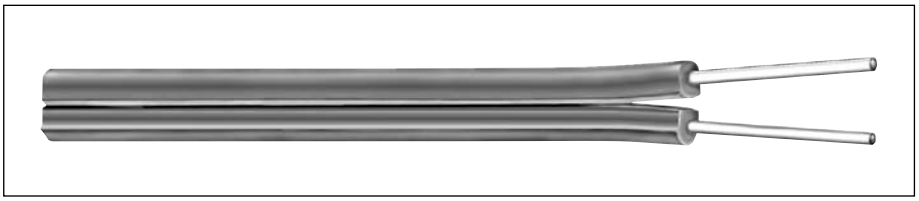
In today's world, the need for specialty cord products is constantly growing. General Cable offers a full line of Carol® Brand Cord products to meet a wide range of specialized applications.

Specialty Cord includes a wide range of hook-up wire, heater cord, lamp cord and fixture wire.

Like Carol® Brand Rubber, Plastic and Industrial Cord products, these cables carry the latest regulatory listings and certifications with Underwriters Laboratories, Inc. and the Canadian Standard Association where applicable.

Heater Cord Type HPN

90°C 300 Volt UL/CSA Portable Cord



TYPE HPN - 300 VOLT - UL/CSA										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS	APPROX. NET WT. LBS/M[1](S)	STD. CTN.
				INCHES	mm	INCHES	mm			
25202	2	18	41/34	0.045	0.76	0.145 X 0.285	3.68 X 7.24	10	31	1000'
25212	2	16	65/34	0.045	1.14	0.155 X 0.300	3.94 X 7.62	15	38	1000'

(S) Actual shipping weight may vary.

Product Construction:

Conductor:

- 18 through 16 AWG. fully annealed stranded bare copper per ASTM B-174

Insulation/Jacket:

- Carolprene®, Black
- Temperature Range: -20°C to +90°C

Jacket Marking:

- CAROL (SIZE) (mm^2) TYPE HPN (UL) E# HEATER CORD (90C) CSA LL# CPE 300 VOLT RoHS MADE IN USA

Applications:

- Portable heaters
- Toasters
- Irons
- Soldering irons
- Paint removers
- Other heat-related applications for industrial, commercial and home use

Features:

- Heat-resistant
- Oil-resistant

Industry Approvals:

- UL Listed
- CSA Certified

Packaging:

- 250' (76.2 m) spools
- Other put-ups available on special order

Hook-Up Wire UL Types MTW, TFF, AWM and CSA TEW

90ºC 600 Volt MTW, TFF 105ºC 600 Volt AWM/TEW

Product Construction:

Conductor:

- 18 through 8 AWG. fully annealed stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range:
  MTW: -40ºC to +90ºC
  TEW/AWM: -20ºC to +105ºC
- Color Code: See chart below

Jacket Marking:

- 18 and 16 AWG.:
  CAROL (SIZE) 600V E# MTW (UL) OR TFF OR AWM VW-1 --- CSA TEW 105C FT-1
- 14 through 8 AWG.:
  CAROL (SIZE) 600V E# MTW (UL) OR AWM VW-1 --- CSA TEW 105C FT-1

Applications:

- Motor and transformer lead
- External wiring of machinery

Features:

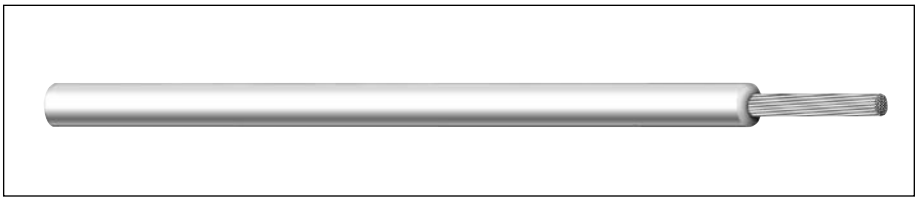
- Outstanding oil, flame and moisture resistance
- Extra-flexible

Industry Approvals:

- UL and NMTBA Type MTW/AWM
- CSA TEW
- Passes VW-1 Vertical Flame Test
- OSHA Acceptable
- AWM Style 1015 – 18-8 AWG.
- AWM Style 1335 – 18-10 AWG.
- AWM Style 1336 – 8 AWG.
- RoHS Compliant

Packaging:

- 18 and 16 AWG.:
  500' (152.4 m) spools
  2500' (762 m) spools
- 14 through 10 AWG.:
  500' (152.4 m) spools
  2500' (762 m) reels
- 8 AWG.: 500' (152.4 m) reels
- Other put-ups available on special order



UL TYPE MTW, AWM, TFF, CSA TYPE TEW - 600 VOLT

CATALOG NUMBER	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		STOCK COLORS	APPROX. NET WT. LBS/M[1](S)
			INCHES	mm	INCHES	mm		
76502	18	16/30	0.031	0.79	0.110	2.79	1-12	10
76512	16	26/30	0.031	0.79	0.123	3.12	1-12	14
76812	14	19/.0159	0.031	0.79	0.136	3.45	1-12	20
76822	12	19/.0185	0.031	0.79	0.155	3.94	1-7	28
76832	10	19/.0234	0.031	0.79	0.179	4.55	1-5	42
76843	8	19/.0295	0.045	0.79	0.242	6.15	1-5	72

(S) Actual shipping weight may vary.

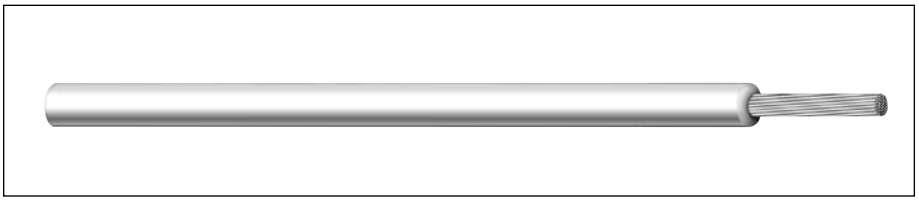
COLOR CODE CHART

STOCK COLORS	ORDERING SUFFIX	STOCK COLORS	ORDERING SUFFIX
Black	01	**Orange**	04
White	02	**Brown**	08
Red	03	**Purple**	19
Blue	07	**Gray**	10
Green	06	**Pink**	73
Yellow	05		

General Cable LISTED Certified Canadian Standard Association Recognized Component Underwriters Laboratories Inc. Passes UL VW-1 Flame Test Underwriters Laboratories, Inc. RoHS Compliant Directive 2002/95/EC CAROL BRAND

Heavy Wall UL Types MTW, AWM and NEC Type THW

90°C 600 Volts



AWM, MTW, THW - 600 VOLT - UL							
CATALOG NUMBER	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		APPROX. NET WT. LBS/M[1](S)
			INCHES	mm	INCHES	mm	
76954	6	19/.0372	0.060	1.52	0.315	8.00	110
76994	4	19/.0469	0.060	1.52	0.365	9.27	150

(S) Actual shipping weight may vary.

Product Construction:

Conductor:

- 6 and 4 AWG. fully annealed stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded PVC, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:

- CAROL 6 AWG. 600V E# MTW OR THW (UL) OR AWM

Applications:

- Motor and transformer lead
- External wiring of machinery

Features:

- Outstanding oil, flame and moisture resistance
- Extra flexible

Industry Approvals:

- UL Type AWM
- UL and NMTBA Type MTW
- NEC Type THW
- Passes UL VW-1 Vertical Flame Test
- RoHS Compliant

Packaging:

- 500' (152.4 m) reels
- Other put-ups available on special order

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

Passes UL VW-1 Flame Test
Underwriters Laboratories, Inc.

UL LISTED

General Cable

UL Type AWM

90°C 1000 Volts UL Listed

Product Construction:

Conductor:

- 14 AWG. fully annealed stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range: -20°C to +90°C
- Color Code: See chart below

Jacket Marking:

- CAROL (SIZE) 90C 1000 VOLT AWM

Applications:

- Motor and transformer lead
- External wiring of machinery

Features:

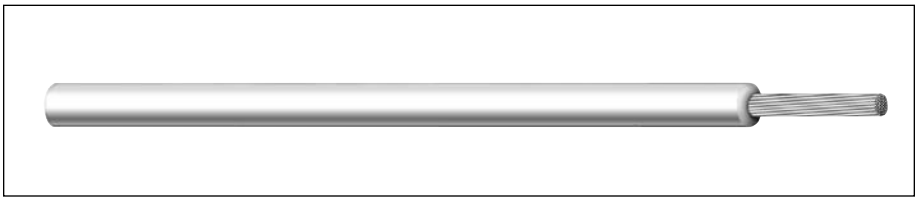
- Outstanding oil, flame and moisture resistance
- Extra-flexible

Industry Approvals:

- UL Type AWM

Packaging:

- 500' (152.4 m) spools
- Other put-ups available on special order



AWM - 1000 VOLT - UL								
CATALOG NUMBER	AWG. SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		STOCK COLORS	APPROX. NET WT. LBS/M[1](S)
			INCHES	mm	INCHES	mm		
76422*	14	19/.0147	0.030	0.76	0.138	3.51	1-8	20

(S) Actual shipping weight may vary.
* Non-stock item; minimum quantity purchase required.

COLOR CODE CHART

STOCK COLORS	ORDERING SUFFIX	STOCK COLORS	ORDERING SUFFIX
Black	01	**Green**	06
White	02	**Yellow**	05
Red	03	**Orange**	04
Blue	07	**Brown**	08

Lamp Cord Type SPT

60°C 300 Volts UL/CSA

TYPE SPT-1										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOM. INSULATION THICKNESS		NOMINAL O.D.		CURRENT AMPS(1)	APPROX. NET WEIGHT LBS/M(S)	JACKET COLOR CHART
				INCHES	mm	INCHES	mm			
02301	2	18	41/34	0.030	0.76	0.107 X 0.210	2.72 X 5.330	10	22	A
02304	2	18	41/34	0.030	0.76	0.107 X 0.210	2.72 X 5.330	10	22	D
02305	2	18	41/34	0.030	0.76	0.107 X 0.201	2.72 X 5.330	10	22	C
02306	2	18	41/34	0.030	0.76	0.107 X 0.201	2.72 X 5.330	10	22	B

TYPE SPT-2										
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	COND. STRAND	NOM. INSULATION THICKNESS		NOMINAL O.D.		CURRENT AMPS(1)	APPROX. NET WEIGHT LBS/M(S)	JACKET COLOR CHART
				INCHES	mm	INCHES	mm			
02303	2	16	65/34	0.045	1.14	0.155 X 0.295	3.94 X 7.490	13	37	A

(1) Ampacities based on NEC table 400.5(A).
(S) Actual shipping weight may vary.

Product Construction:

Conductor:

- 18 and 16 AWG. fully annealed bare or tinned copper per ASTM B-174

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Jacket Marking:

- SIZE) SPT-1 (OBSPT-2) E# (UL) --- CSA LL# FT-2

Applications:

- Small appliances
- Lamps
- Radios
- Jukeboxes

Industry Approvals:

- UL Listed
- CSA Certified
- RoHS Compliant

Packaging:

- 250' (76.2 m) spools
- Other put-ups available on special order

JACKET COLOR CODE CHART

A	Black or White or Brown
B	Clear Silver (tinned copper)
C	Clear Gold
D	Clear

Low-Voltage Landscape Lighting Wire

60°C 150 Volts UL

LOW-VOLTAGE LANDSCAPE LIGHTING WIRE - 150 VOLT - UL															
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FEET)	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		POWER RATING[1]			PKG PER CTN.	APPROX. WEIGHT PER CTN. (LBS)[S]	CARTON DIMENSIONS (H x W x D)	UPC NUMBER
					INCHES	mm	INCHES	mm	VOLTS	AMPS	WATTS				
02309.66.01	2	16	50	26/30	0.045	1.14	0.155 X 0.296	3.94 X 7.52	150	19	2850	12	27	8.5 x 12.25 x 14	079407901531
02309.67.01	2	16	100	26/30	0.045	1.14	0.155 X 0.296	3.94 X 7.52	150	19	2850	12	44	9.5 x 14 x 17	079407901548
02309.18.01	2	16	500	26/30	0.045	1.14	0.155 X 0.296	3.94 X 7.52	150	19	2850	1	19	10.625 x 10.625 x 6.313	079407901567
02310.66.01	2	14	50	41/30	0.045	1.14	0.170 X 0.354	4.32 X 8.99	150	27	4050	8	25	8.5 x 12.25 x 14	079407901579
02310.67.01	2	14	100	41/30	0.045	1.14	0.170 X 0.354	4.32 X 8.99	150	27	4050	8	45	9.5 x 14 x 17	079407901586
02310.18.01	2	14	500	41/30	0.045	1.14	0.170 X 0.354	4.32 X 8.99	150	27	4050	1	37	10.625 x 10.625 x 8.25	079407901604
02311.18.01	2	12	500	65/30	0.045	1.14	0.190 X 0.385	4.83 X 9.78	150	36	5400	1	58	10.625 x 10.625 x 8.25	079407901611
02311.66.01	2	12	50	65/30	0.045	1.14	0.190 X 0.385	4.83 X 9.78	150	36	5400	8	30	8.5 x 12.25 x 14	079407113378
02311.67.01	2	12	100	65/30	0.045	1.14	0.190 X 0.385	4.83 X 9.78	150	36	5400	8	59	9.5 x 14 x 17	079407113385
02312.38.01	2	10	500	19/.0234	0.045	1.14	0.400 X 0.200	10.16 X 5.08	150	47	7050	1	52	12 x 10 x 10	079407148160

[1] Amps and watts are offered ONLY as a guide to the end user.
[S] Actual shipping weight may vary.

Product Construction:

Conductor:

- 12,14 and 16 AWG. fully annealed stranded bare copper per ASTM B-3

Insulation:

- Premium-grade PVC, Black
- Duplex parallel design for easy tear-down during installation
- Polarity ridge on one leg for positive circuit identification
- Temperature Range: -20°C to +60°C

Jacket Marking:

- CAROL (SIZE) UNDERGROUND LOW ENERGY CIRCUIT CABLE SUNLIGHT RESISTANT FOR LOW VOLTAGE OUTDOOR LIGHTING E# (UL) -- CSA LL# LVLL 30V FT1

Applications:

- Low-voltage landscape lighting
- Low-voltage security lighting

Industry Approvals:

- UL Listed under a UL Miscellaneous Wire file
- UL Listed for outdoor applications
- UL Listed for direct-burial applications
- CSA approved
- RoHS Compliant

Packaging:

- Both 50' and 100' lengths are packaged in a sleeve
- 500' (513.4 m) spools
- Other put-ups available on special order

Low-Voltage Sprinkler Wire

60°C 30 Volts UL

LOW-VOLTAGE SPRINKLER WIRE - 30 VOLT - UL											
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FEET)	PACKAGE TYPE	POWER RATING[1]			PKG PER CTN.	APPROX. WEIGHT PER CTN. (LBS)[S]	CARTON DIMENSIONS (H x W x D)	UPC NUMBER
					VOLTS	AMPS	WATTS				
23824.60.01	4	18	100	Cuff	30	15	450	6	22	8.5 x 12.25 x 14	079407238248
23804.18.01	4	18	500	Spool	30	15	450	1	18	10.625 x 10.625 x 6.313	079407908047
23815.60.01	5	18	50	Cuff	30	15	450	6	13	8.5 x 12.25 x 14	079407238156
23825.60.01	5	18	100	Cuff	30	15	450	6	27	9.5 x 14 x 17	079407238255
23805.18.01	5	18	500	Spool	30	15	450	1	22	10.625 x 10.625 x 6.313	079407908054
23817.60.01	7	18	50	Cuff	30	15	450	6	18	8.5 x 12.25 x 14	079407238170
23827.60.01	7	18	100	Cuff	30	15	450	6	36	9.5 x 14 x 17	079407238279
23807.18.01	7	18	500	Spool	30	15	450	1	31	10.625 x 10.625 x 10.313	079407908078
23810.18.01	10	18	500	Reel	30	15	450	1	44	-	079407908108

[1] Amps and watts are offered ONLY as a guide to the end user.
[S] Actual shipping weight may vary.

Product Construction:

Conductor:
- 18 AWG. fully annealed solid bare copper per ASTM B-3

Insulation:
- Premium-grade, color-coded PVC
- Premium-grade PE jacket, Black
- Nylon rip cord to facilitate jacket removal
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Jacket Marking:
- CAROL (SIZE) 30V SPRINKLER SYSTEMS WIRE - DIRECT BURIAL E54567 (UL)

Applications:
- Low-voltage golf course satellite sprinkler control
- Residential sprinkler solenoid control

Industry Approvals:
- UL Listed under a UL Miscellaneous Wire file
- UL Listed for outdoors applications
- UL Listed for direct burial applications
- RoHS Compliant

Packaging:
- See tabular data above
- Other put-ups available on special order

COLOR CODE CHART

1	Black	**4**	Green	**7**	Blue	**10**	Purple
2	White	**5**	Orange	**8**	Brown		
3	Red	**6**	Yellow	**9**	Gray		

CAROL BRAND

RoHS Compliant Directive 2002/95/EC

UL LISTED

General Cable

Outdoor Extension Cords 6

General Cable, under the Carol® Brand name, offers a complete line of high-quality Outdoor Extension Cords designed to provide the best electrical performance for your application.

Carol's FrogHide® Ultra Flex® extension cords are the most flexible, durable rubber outdoor cords on the market with a name you won't forget. FrogHide cords are molecularly bonded to the caps and connectors, with heavy-duty strain reliefs built in for lasting strength, even in rough applications. Plus, they are resistant to water, oil, ozone and chemicals. FrogHide cords feature an exclusive personal identification system, so you can claim them as your own. They are easy to spot on the job, thanks to the bold, bright green color. FrogHide extension cords come with a limited lifetime warranty.

Lifetime Plus® Super Flex® extension cords have a connector end that lights up to indicate the power is on. Twice as flexible as other extension cords, the high-visibility yellow cord resists moisture and will not crack in arctic cold or melt in desert heat. The super-tough jacket provides extra resistance to cracking and abrasion. Lifetime Plus extension cords remain flexible to -50˚C.

The Carol line of All Weather extension cords and High Visibility All Weather extension cords are designed for excellent performance, even in freezing temperatures. These blue outdoor cords remain flexible to -50˚C.

Safety Orange® general-purpose outdoor extension cords and Powr-Centers® are basic necessities for every household tool box. The familiar orange jacket provides excellent visibility for improved safety on the job.

FrogHide® Ultra Flex® Extension Cords

3 Conductor Grounded • Type SJOW • -40ºC to 90˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
06425.63.06	3	14	25	Green	125	15	1875	10	3.0	30	079407064250
06450.63.06	3	14	50	Green	125	15	1875	6	6.0	36	079407064502
06400.63.06	3	14	100	Green	125	13	1625	4	11.4	46	079407064007
06225.61.06	3	12	25	Green	125	15	1875	6	4.3	26	079407062256
06250.61.06	3	12	50	Green	125	15	1875	4	7.9	32	079407062508
06200.61.06	3	12	100	Green	125	15	1875	2	15.9	32	079407062003

Product Description:

Carol® Brand FrogHide® Ultra Flex® extension cords are the most flexible, durable rubber outdoor cords on the market with a name you won't forget. FrogHide cords are molecularly bonded to the caps and connectors with heavy-duty strain reliefs built-in for lasting strength, even in rough applications. Plus, they are resistant to water, oil, ozone and chemicals. FrogHide cords feature an exclusive personal identification system, so you can claim them as your own. They are easy to spot on the job, thanks to the bold, bright green color. FrogHide extension cords come with a limited lifetime warranty.

Product Construction:

Conductor:
- 14 AWG. or 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90˚C EPDM

Jacket:
- CPE; Green
- Temperature Range: -40˚C to 90˚C
- Voltage Rating: 300 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:
- Chain saws
- Wet/dry vacs
- Orbital sanders
- Other outdoor equipment

Features:
- New technology molecularly bonds cap and connector
- Ultra-flexible
- Heavy-duty strain relief
- Personal identification system
- Resistant to water, oil, ozone and chemicals
- Limited lifetime warranty
- 3-conductor grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable

CAROL BRAND

OSHA Acceptable
Occupational Safety and Health Administration

UL LISTED

General Cable

Lifetime Plus® Super Flex® Lighted Extension Cords

3 Conductor Grounded • Type SJTW • -50ºC to 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
03387.63.05	3	16	25	Yellow	125	13	1625	12	1.7	20	079407033874
03390.63.05	3	14	25	Yellow	125	15	1875	12	2.5	30	079407033904
03391.63.05	3	14	50	Yellow	125	15	1875	6	4.7	28	079407033911
03392.63.05	3	14	100	Yellow	125	13	1625	4	9.2	37	079407033928
03397.61.05	3	12	25	Yellow	125	15	1875	6	3.7	22	079407033973
03398.61.05	3	12	50	Yellow	125	15	1875	4	7.0	28	079407033980
03399.61.05	3	12	100	Yellow	125	15	1875	2	13.1	26	079407033997

Product Description:

Lifetime Plus® Super Flex® extension cords have a connector end that lights up to indicate the power is on. Twice as flexible as other extension cords, the high-visibility yellow cord resists moisture and will not crack in arctic cold or melt in desert heat. The super-tough jacket provides extra resistance to cracking and abrasion. The Lifetime Plus extension cords have a limited lifetime warranty and remain flexible to -50˚C.

Product Construction:

Conductor:
- 14 AWG. or 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Yellow
- Temperature Range: -50˚C to 60˚C
- Voltage Rating: 300 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:
- Chain saws
- Wet/dry vacs
- Orbital sanders
- Other outdoor equipment

Features:
- Lights up with power
- Super-flexible
- Weather- and water-resistant
- Limited lifetime warranty
- 3-conductor grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable

General Cable

UL LISTED

OSHA Acceptable Occupational Safety and Health Administration

CAROL BRAND

Safety Orange® Extension Cords

3 Conductor Grounded • Type SJTW • -40°C to 60°C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
03318.63.04	3	16	10	Orange	125	13	1625	24	0.8	19	079407033188
03327.63.04	3	16	25	Orange	125	13	1625	24	1.8	43	079407033270
03354.63.04	3	16	50	Orange	125	13	1625	12	3.4	40	079407033546
03302.63.04	3	16	100	Orange	125	10	1250	4	6.6	26	079407033027
03328.63.04	3	14	25	Orange	125	15	1875	6	2.4	14	079407033287
03356.63.04	3	14	50	Orange	125	15	1875	4	4.6	18	079407033560
03304.63.04	3	14	100	Orange	125	13	1625	2	9.0	18	079407033041
06826.63.04	3	12	25	Orange	125	15	1875	4	3.4	14	079407068265
06853.63.04	3	12	50	Orange	125	15	1875	2	6.6	13	079407068531
06801.63.04	3	12	100	Orange	125	15	1875	2	13.0	26	079407068012

Product Construction:

Conductor:
- 16 AWG. through 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Orange
- Temperature Range: -40°C to 60°C
- Voltage Rating: 300 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:
- General use indoor/outdoor cord
- Vacuum cleaners
- Floor polishers
- Sanders
- Other power equipment

Features:
- Indoor/outdoor use
- 3 conductor grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable

CAROL BRAND

OSHA Acceptable Occupational Safety and Health Administration

UL LISTED

General Cable

Outdoor Powr-Center® Extension Cords

3 Conductor Grounded • Type STW, SJEOOW and SJTW • -40ºC to 60˚C • 300 and 600 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
STW-600V											
00594.63.04	3	12	2	Orange	125	15	1875	6	1.0	6	079407005949
00596.61.04	3	12	50	Orange	125	15	1875	2	11.1	22	079407005963
00597.61.04	3	12	100	Orange	125	15	1875	2	21.7	43	079407005970
SJTW-300V											
00690.63.04	3	14	10	Orange	125	15	1875	12	1.2	15	079407006908
00691.63.04	3	14	25	Orange	125	15	1875	6	2.6	16	079407006915
00692.63.04	3	14	50	Orange	125	15	1875	4	4.7	19	079407006922
00694.63.04	3	12	10	Orange	125	15	1875	12	1.8	22	079407006946
00696.63.04	3	12	50	Orange	125	15	1875	2	7.0	14	079407006960
00697.63.04	3	12	100	Orange	125	15	1875	2	13.4	27	079407006977
SJEOOW-300V											
00790.63.07	3	14	10	Blue	125	15	1875	12	1.3	16	079407007905
00791.63.07	3	14	25	Blue	125	15	1875	6	2.7	16	079407007912
00792.63.07	3	14	50	Blue	125	15	1875	4	4.8	19	079407007929
00793.63.07	3	14	100	Blue	125	13	1625	2	9.0	18	079407007936
00787.63.05	3	12	50	Yellow	125	15	1875	2	6.5	13	079407007875
00788.63.05	3	12	100	Yellow	125	15	1875	2	13.0	26	079407007882

Product Construction:

Conductor:
- 14 AWG. or 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Orange, TPE; Blue or Yellow
- Temperature Range: -40˚C to 60˚C
- Voltage Rating: 300 and 600 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:
- General use indoor/outdoor cord
- Chain saws
- Wet/dry vacs
- Orbital sanders
- Other power equipment

Features:
- Indoor/outdoor use
- 3 grounded outlets

Industry Approvals:
- UL Listed
- OSHA Acceptable

General Cable

UL LISTED

OSHA Acceptable Occupational Safety and Health Administration

CAROL BRAND

All Weather Extension Cords

3 Conductor Grounded • Type SJEOOW • -50˚C to 105˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
03654.63.07	3	16	25	Blue	125	13	1625	4	1.8	7	079407036547
03655.63.07	3	16	50	Blue	125	13	1625	4	3.2	13	079407036554
03660.63.07	3	14	25	Blue	125	15	1875	4	2.2	9	079407036608
03661.63.07	3	14	50	Blue	125	15	1875	4	4.3	17	079407036615
03662.63.07	3	14	100	Blue	125	13	1625	2	8.0	16	079407036622
03667.63.07	3	12	50	Blue	125	15	1875	2	6.5	13	079407036677
03668.63.07	3	12	100	Blue	125	15	1875	2	12.5	25	079407036684

Product Description:

The Carol® line of All Weather Extension Cords are designed for excellent performance, even in freezing temperatures. The blue outdoor cords remain flexible and resist cracking to -50˚C.

Product Construction:

Conductor:
- 16 AWG. through 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- TPE; Blue
- Temperature Range: -50˚C to 105˚C
- Voltage Rating: 300 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:

- Snow blowers
- Engine heaters
- Battery chargers
- Other outdoor equipment

Features:

- Flexible from -50˚C to 105˚C
- For harsh weather conditions
- 3-conductor grounded

Industry Approvals:

- UL Listed
- OSHA Acceptable

High Visibility All Weather Extension Cords

3 Conductor Grounded • Type SJEOOW • -50˚C to 105˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
03685.61.05	3	10	50	Yellow	125	15	1875	2	12.5	25	079407036851
03686.61.05	3	10	100	Yellow	125	15	1875	2	24.5	49	079407036868

Product Construction:

Conductor:
- 10 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded premium PVC

Jacket:
- TPE; Yellow
- Temperature Range: -50˚C to 105˚C
- Voltage Rating: 300 Volts

NEMA Configuration:
- 5-15P/5-15R

Applications:

- Heavy construction equipment
- Air compressors
- Circular saws
- Generators

Industry Approvals:

- UL Listed
- OSHA Acceptable

CAROL BRAND

OSHA Acceptable Occupational Safety and Health Administration

UL LISTED

General Cable

Application-Specific Extension Cords 7

General Cable offers a complete line of Power Supply Replacement Cords for use with power tools and household appliances. The three-conductor cords have either right angle or straight caps with a variety of plug configurations. The free ends are conveniently slit for ease of connection.

Carol® Brand Range Cords and Dryer Cords are available in three-wire and four-wire constructions, with an assortment of plug configurations. They are designed to accommodate virtually any household oven/range or clothes dryer.

Carol offers a wide assortment of Major Appliance Extension Cords with a variety of plug and cap configurations for use with air conditioners, refrigerators, freezers, microwave ovens, dehumidifiers and other large household appliances.

Pro Flex® Rubber Extension Cords

3 Conductor Grounded • Type SJ • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
06610.63.01	3	16	10	Black	125	13	1625	5-15P/5-15R	24	0.7	17	079407066100
06625.63.01	3	16	25	Black	125	13	1625	5-15P/5-15R	24	1.7	40	079407066254
06911.63.01	3	14	25	Black	125	15	1875	5-15P/5-15R	6	2.3	14	079407069118

Product Construction:

Conductor:
- 16 AWG. through 14 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded EPDM

Jacket:
- CPE; Black
- Temperature: 60˚C
- Voltage Rating: 300 Volts

Applications:
- Floor polishers
- Sanders

Features:
- General use indoor cord
- 3-conductor grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable for indoor use

Coiled Power Tool Extension Cords and Power Supply Cords

2 and 3 Conductor • Type SJT • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
06014.60.04	3	16	10	Orange	125	13	1625	5-15P/5-15R	10	1.1	11	079407060146
02551.70.01	3	16	12	Black	125	15	1875	5-15P	10	1.1	11	079407025510

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Orange or Black
- Voltage Rating: 300 Volts

Applications:
- Workshop and tool bench use

Features:
- Coiled cord expands from 3' to 10' or 12'
- Right-angle plug helps prevent the cord from being pulled from the socket

Features (cont'd.):
- 06014.60.04 and 02551.70.01 are 3-conductor grounded
- 02550.70.01 is 2-conductor non-grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable

Power Supply Replacement Cords with Switch

3 Conductor Grounded • Type SJ • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	SWITCH SPEED	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS						
02332.70.01	3	16	10	Black	125	10	1250	5-15P	1 Speed (On/Off)	25	0.9	22	079407023325
02333.70.01	4	16	10	Black	125	10	1250	5-15P	2 Speed (On/High/Low)	25	0.9	22	079407023332

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded EPDM

Jacket:
- CPE; Black

Applications:
- For replacement use
- For fan replacements

Features:
- Switch
- Straight plug
- Conductor stripped 5/8"
- Jacket removed 2"

Industry Approvals:
- UL Listed
- CSA

CAROL BRAND

UL LISTED

General Cable

Power Supply Replacement Cords

3 Conductor Grounded • Type SJ, SJOW and SJOOW • 60˚C • 300 Volts

CATALOG NUMBER	CORD TYPE	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING VOLTS	POWER RATING AMPS	POWER RATING WATTS	NEMA CONFIG.	PLUG CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
02685.70.01	SJOOW	3	18	8	Black	125	10	1250	5-15P	Straight	25	0.6	14	079407026852
02686.70.01	SJOW	3	16	8	Black	125	13	1625	5-15P	Straight	35	0.7	24	079407026869
04932.70.01	SJ	3	16	12	Black	125	13	1625	5-15P	Straight	50	0.8	40	079407049325
04929.70.01	SJ	3	16	9	Black	125	13	1625	5-15P	Straight	50	0.6	30	079407049295
04926.70.01	SJ	3	16	6	Black	125	13	1625	5-15P	Straight	50	0.6	28	079407049264

Product Construction:

Conductor:
- 18 AWG. or 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded EPDM

Jacket:
- CPE; Black

Applications:
- For replacement use

Features:
- For replacement use
- Straight plug

Industry Approvals:
- UL Listed
- CSA

Power Supply Replacement Cords

2 and 3 Conductor • Type SJT and ST • 60˚C • 300 Volts and 600 Volts

CATALOG NUMBER	CORD TYPE	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING VOLTS	POWER RATING AMPS	POWER RATING WATTS	NEMA CONFIG.	PLUG CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
300 Volt														
02523.73.01	SJT	3	18	3	Black	125	10	1250	5-15P	Straight	50	0.2	12	079407025237
01364.70.01	SJT	3	18	8'2"	Black	125	10	1250	5-15P	Straight	50	0.5	25	079407213641
02052.70.01	SJT	3	18	12	Black	125	10	1250	5-15P	Straight	50	0.7	36	079407020522
02524.73.01	SJT	3	16	3	Black	125	13	1625	5-15P	Straight	50	0.3	14	079407025244
02547.70.01	SJT	3	16	6	Black	125	13	1625	5-15P	Straight	25	0.5	13	079407018444
01513.70.01	SJT	3	16	8'2"	Black	125	13	1625	5-15P	Straight	45	0.7	32	079407315130
04949.60.10	SJT	3	16	9	Gray	125	13	1625	5-15P	Straight	50	0.7	35	079407049493
01614.70.01	SJT	3	16	12	Black	125	13	1625	5-15P	Straight	50	0.9	44	079407016143
01278.70.01	SJT	2	16	8	Black	125	13	1625	1-15P	Straight	30	0.5	14	079407012787
01950.70.01	SJT	3	14	8	Black	125	15	1875	5-15P	Straight	50	0.8	41	079407019502
600 Volt														
01951.70.01	ST	3	12	8	Black	125	15	1875	5-15P	Straight	25	1.8	45	079407719518

With Switch											SWITCH SPEED	PKG. PER CTN.	WT./UNIT LBS	WT./CTN. LBS	UPC CODE
01732.70.01	SJT	3	18	8	Black	125	10	1250	5-15P	Straight	1 Speed (On/Off)	25	0.7	18	079407017324
02053.70.01	SJT	3	18	12	Black	125	10	1250	5-15P	Straight	1 Speed (On/Off)	15	0.8	12	079407020539

With Strain Relief											STRAIN RELIEF	PKG. PER CTN.	WT./UNIT LBS	WT./CTN. LBS	UPC CODE
02548.70.01	SJT	3	16	6	Black	125	13	1625	5-15P	Straight	7" From Free End	25	0.5	13	079407025480

With Receptacle Only										RECEPTACLE CONFIG.	PKG. PER CTN.	WT./UNIT LBS	WT./CTN. LBS	UPC CODE
04530.73.01	SJT	3	16	6	Black	125	13	1625	5-15R	Straight	50	0.2	9	079407045303

Product Construction:

Conductor:
- 18 AWG. through 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Black or Gray

Applications:
- For replacement use

Features:
- Straight plug
- Conductor stripped 5/8”
- Jacket removed 1 1/2”

Industry Approvals:
- UL Listed
- CSA

General Cable

UL LISTED

Certified Canadian Standard Association

CAROL BRAND

Range Cords

Type SRDT • 50 AMPS • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
05604.63.10	3	2#6 & 1#8	4	Gray	250	50	12500	10-50P	12	1.8	22	079407056040
05606.63.10	3	2#6 & 1#8	6	Gray	250	50	12500	10-50P	12	2.6	31	079407056064
00604.63.01	4	2#6 & 2#8	4	Black	250	50	12500	14-50P	12	2.2	27	079407006045
00606.63.01	4	2#6 & 2#8	6	Black	250	50	12500	14-50P	6	3.2	19	079407006069

Product Construction:

Conductor:
- 8 AWG. through 6 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade PVC; Black or Gray

Applications:
- Ranges in homes built prior to 1997 (3-conductor)
- Ranges in homes built after 1997 (4-conductor)

Features:
- Right-angle cap
- Eyelet ends for safer hookups
- Strain-relief clamp protects cord from damage caused by pulling or stretching

Industry Approvals:
- UL Listed

Dryer Cords

Type SRDT • 30 AMPS • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
05654.63.10	3	3#10	4	Gray	250	30	7500	10-30P	12	1.2	14	079407056545
05656.63.10	3	3#10	6	Gray	250	30	7500	10-30P	12	1.5	18	079407056569
01004.63.01	4	4#10	4	Black	250	30	7500	14-30P	12	1.5	18	079407010042
01006.63.01	4	4#10	6	Black	250	30	7500	14-30P	6	2.1	12	079407010066

Product Construction:

Conductor:
- 10 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Black or Gray

Applications:
- Dryers in homes built prior to 1997 (3-conductor)
- Dryers in homes built after 1997 (4-conductor)

Features:
- Right-angle cap
- Eyelet ends for safer hookups

Features (Cont'd):
- Strain-relief clamp protects cord from damage caused by pulling or stretching

Industry Approvals:
- UL Listed
- Meets revised 1997 NEC requirements

Air Conditioner Replacement Cords

3 Conductor Grounded • Type SPT-3 • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PLUG CONFIG.	NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS						
04194.60.17	3	14	3	Beige	125	15	1875	Straight	5-15P	24	0.3	8	079407041947
04195.60.17	3	14	6	Beige	125	15	1875	Straight	5-15P	24	0.6	15	079407041657
04199.60.17	3	12	6	Beige	250	20	5000	Right Angle	6-20P	24	0.9	22	079407041992

Product Construction:

Conductor:
- 12 AWG. and 14 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Beige

Applications:
- For replacement use with air conditioners

Features:
- Conductor stripped 5/8"
- Free end slit 1 1/2"

Industry Approvals:
- UL Listed

CAROL BRAND

UL LISTED

General Cable

Major Appliance Cords

3 Conductor Grounded • Type SPT-3 • 15 and 20 AMPS • 60˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
00436.63.17	3	14	6	Beige	125	15	1875	5-15P/5-15R	24	0.6	15	079407004362
00439.63.17	3	14	9	Beige	125	15	1875	5-15P/5-15R	24	0.9	21	079407004393
00442.63.17	3	14	12	Beige	125	15	1875	5-15P/5-15R	12	1.2	14	079407004423
00762.63.17	3	12	9	Beige	250	20	5000	6-20P/6-20R	24	1.4	34	079407007622
00772.63.17	3	12	9	Beige	125	20	2500	5-20P/5-20R	24	1.4	34	079407007721

Product Construction:

Conductor:
- 12 and 14 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade PVC; Beige

Applications:
- Air conditioners
- Refrigerators
- Freezers
- Microwaves
- Dehumidifiers

Features:
- Molded right-angle plug

Industry Approvals:
- UL Listed

Power Supply Replacement Cords

3 Conductor Grounded • Type SPT-1 and SPT-3 • 60˚C • 300 Volts

CATALOG NUMBER	CORD TYPE	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PLUG CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
						VOLTS	AMPS	WATTS						
02050.70.10	SPT-1	3	18	8	Gray	125	10	1250	5-15P	Straight	50	0.4	21	079407020508
02522.73.01	SPT-3	3	16	6	Black	125	13	1625	5-15P	Straight	25	0.6	14	079407025220
04106.73.10	SPT-3	3	16	6	Gray	125	13	1625	5-15P	Right Angle	50	0.4	22	079407041060
04103.73.10	SPT-3	3	16	3	Gray	125	13	1625	5-15P	Right Angle	100	0.3	26	079407041039
04806.73.10	SPT-3	3	16	6	Gray	125	13	1625	5-15P	Straight	50	0.4	19	079407048069
04803.73.10	SPT-3	3	16	3	Gray	125	13	1625	5-15P	Straight	100	0.3	27	079407048038

Product Construction:

Conductor:
- 18 AWG. and 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Black, Gray or Beige

Applications:
- For replacement use

Features:
- Conductor stripped 5/8”
- Free end slit 1 1/2”

Industry Approvals:
- UL Listed

General Cable

UL LISTED

CAROL BRAND

Plug-it® Extension Cord Accessories 8

The Plug-it® Fluorescent Light turns your extension cord into a light. The portable light has no permanent cord attached, providing easy storage when not in use. Ideal for contractors and do-it-yourselfers alike, the impact-resistant Plug-it Fluorescent Light has a 13 Watt bulb that runs cool to the touch when in operation. A cord-locking screw secures extension cords and resists disconnection when in use.

Also available in the Plug-it series are adapters, Powr-Reels™ and the GFCI.

- The Plug-it Powr-Center Adapter features three outlets in a "T" configuration, adapting a single extension cord for more uses.
- The Plug-it Powr-Reel™ features an extension cord in a retractable reel. The sturdy metal reel case provides Tangle-Proof® instant cord storage for multiple workshop applications.
- The Plug-it Ground Fault Circuit Interrupter (GFCI) and Surge Protector Plug connects to any standard extension cord. This handy pocket-size adapter detects power leaks and cuts off electricity in less than a second to prevent electric shock. It is designed for use anywhere ground fault protection is desired including job-sites, workshops, garages, kitchens, bathrooms or outdoor outlets, and features convenient test and reset buttons.

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Plug-it® Fluorescent Utility Light

Cordless • Cool-Running • Impact-Resistant

CATALOG NUMBER	MAXIMUM BULB SIZE (WATTS)	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
07505.73.05	13	8	1.3	10	079407075058

Product Description:

The impact-resistant Plug-it® Fluorescent Light has a 13-Watt bulb that runs cool to the touch when in operation. A cord-locking screw secures the extension cord and resists disconnection when in use.

Product Construction:

Body:
- PVC; Yellow

Lens:
- Clear butyrate

Bulb:
- PLS 13-Watt fluorescent

Applications:

- Temporary lighting
- For general use only
- Not for use in hazardous locations

Features:

- Turns an extension cord into a light
- Connects to 3-conductor grounded extension cord
- Cool-running 13-Watt fluorescent bulb
- Rubberized hood
- Impact-resistant body and lens
- Swivel hook
- Locking screw system assures secure cord connections

Industry Approvals:

- UL Listed

Plug-it® Powr-Center® Adapter

"T" Configuration—Adapt extension cords for different uses

Product Construction:

Body:
- PVC; Beige

Applications:

- Adapts a single extension cord for multiple uses

Features:

- 3 convenient outlets

CATALOG NUMBER	VOLTS	AMPS	WATTS	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE	COLOR
04781.96.17	125	15	1875	5	0.6	3	079407047819	Beige

Industry Approvals:

- UL Listed

Plug-it® Powr-Reel™

3 Conductor Grounded • Type SJT • 60˚C • 300 Volts

Product Description:

The Plug-it® Powr-Reel™ features a super-flexible extension cord in a retractable cord reel. The sturdy metal reel case provides Tangle-Proof® instant cord storage for multiple workshop applications. The product includes hardware for either wall or ceiling mounting.

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
07518.61.05	3	16	25	Yellow	125	10	1250	2	8.5	17	079407075188

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Yellow

Reel Case:
- Steel; Yellow

Features:

- Tangle-Proof® instant cord storage
- Sturdy metal reel case
- For use with Plug-it® extension cord accessories
- Mounting hardware for either wall- or ceiling-mounting
- Cord locks in place; pull on cord to engage retractable reel

Applications:

- Workshops
- Garages

Industry Approvals:

- UL Listed
- OSHA Acceptable

General Cable

UL LISTED

OSHA Acceptable Occupational Safety and Health Administration

CAROL BRAND

Powr-Reel™ with 3 Outlets

3 Conductor Grounded • Type SJO • 90˚C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
44623.61.05	3	16	25	Yellow	125	10	1250	4	2.7	11	079407446230

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded 90˚C EPDM

Jacket:
- CPE; Yellow
- Voltage Rating: 300 Volts

Applications:
- Shop tools

Features:
- Tangle-Proof® instant cord storage
- Sturdy metal reel case
- Rubber cord
- 3 grounded outlets
- Cord locks in place; pull on cord to engage retractable reel

Industry Approvals:
- UL Listed
- OSHA Acceptable

Plug-it® Ground Fault Circuit Interrupter (GFCI) and Surge Protector Plug

CATALOG NUMBER	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
	VOLTS	AMPS	WATTS				
D7524.13.05	125	15	1875	6	0.3	2	079407075249

Product Description:
The Plug-it® Ground Fault Circuit Interrupter and Surge Protector Plug detects power leaks and cuts off electricity in less than one second to prevent electric shock.

Product Construction:

Body:
- PVC; Yellow

Applications:
- Use anywhere GFCI protection is desired: job sites, kitchens, bathrooms, garages and workshops

Features:
- Detects power leaks and cuts electricity off in less than a second to prevent electric shock
- Test and reset buttons
- Use with any standard extension cord
- Use indoor or outdoor
- Protects electrical circuitry from voltage fluctuations
- Maximum clamping voltage - 790 Volts
- MOV - 80 Joules

Industry Approvals:
- UL Listed
- OSHA Acceptable

Specialty Extension Cords and Lighting 9

Carol® Brand Specialty Extension Cord Products are uniquely designed for specific uses by contractors, do-it-yourselfers and homeowners alike.

The Shock Safe® 3-Outlet Powr-Center® has a built-in ground fault circuit interrupter (GFCI) for detecting power leaks. Featuring weather-resistant test and reset buttons, the GFCI cuts off electricity to prevent electric shock.

Carol offers 3-Outlet Powr-Centers® for use when multiple outlets are needed indoors. The three-conductor cords are designed specifically for household, office or workshop use.

Carol offers three-conductor standard Utility Lights with plastic or metal guards. Our Brooder Lamp and Clamp Lights are also available to meet your lighting needs.

Shock Safe® Ground Fault Circuit Interrupter (GFCI) Powr-Center®

3 Conductor • Type SJTW • -40°C to 60°C • 300 Volts

POWR-CENTER® WITH 3 OUTLETS											
CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
04000.63.05	3	12	2	Yellow	125	15	1875	6	1.3	8	079407040001

Product Description:

The Shock Safe® 3-outlet Powr-Center® has a built-in GFCI for detecting power leaks. Featuring weather-resistant test and reset buttons, the GFCI cuts off electricity to prevent electric shock.

Product Construction:

Conductor:
- 12 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Yellow
- Temperature Range: -40°C to 60°C
- Voltage Rating: 300 Volts

Applications:

- Power tools
- Appliances

Features:

- Integral GFCI detects power leaks and cuts off electricity to prevent electric shock
- Test and reset buttons
- 3-conductor grounded

Industry Approvals:

- UL Listed
- OSHA Acceptable

Household Powr-Centers®

3 Conductor Grounded • Type SPT-3 and SJT • 60°C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
TYPE SPT-3											
00655.63.04	3	14	3	Orange	125	15	1875	10	0.6	6	079407006557
TYPE SJT											
00565.63.17	3	16	9	Beige	125	13	1625	12	0.7	8	079407005659

Product Construction:

Conductor:
- 16 AWG. or 14 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Orange or Beige
- Voltage Rating: 300 Volts

Applications:

- Clocks
- Lamps
- Holiday lighting
- Other household appliances

Features:

- 3 grounded outlets

Industry Approvals:

- UL Listed

CAROL BRAND®

UL® LISTED

General Cable

Plastic Guard Utility Light

3 Conductor Grounded • Type SJT • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS				
04497.60.05	3	16	50	Yellow	125	13	1650	6	3.5	21	079407044979

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Yellow
- Voltage Rating: 300 Volts

Applications:
- Temporary lighting
- For general use only
- Not for use in hazardous locations

Features:
- Side outlet
- On/off switch
- 75-Watt bulb maximum
- Swivel hook
- Polypropylene guard

Industry Approvals:
- UL Listed
- OSHA Acceptable for general use

Metal Guard Utility Light

3 Conductor Grounded • Type SJT • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING			NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	AMPS	WATTS					
04455.60.05	3	16	25	Yellow	125	13	1650	15-15P	12	1.8	22	079407044559
04457.60.05	3	16	50	Yellow	125	13	1650	15-15P	6	3.5	21	079407044573

Product Construction:

Conductor:
- 16 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Yellow
- Voltage Rating: 300 Volts

Applications:
- Temporary lighting
- For general use only
- Not for use in hazardous locations

Features:
- Side outlet
- Metal hook
- On/off switch
- 75-Watt bulb maximum
- 3-conductor grounded

Industry Approvals:
- UL Listed
- OSHA Acceptable for general use

General Cable

UL LISTED

CAROL BRAND

Brooder and Heat Lamp

2 Conductor Polarized • Type SJTW • 105°C • 300 Volts • Non-UL

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING		NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	WATTS					
04127.60.01	2	18	8	Black	125	250	1-15P	12	1.0	12	079407041275

Product Construction:

Conductor:
- 18 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade, color-coded PVC

Jacket:
- PVC; Black
- Voltage Rating: 300 Volts

Applications:
- Temporary lighting
- Egg hatching

Features:
- 10 1/2" bell shade
- Porcelain socket
- Hanging clamp
- Swivel clamp with protective vinyl sleeve
- Protective bulb guard
- 250-Watt bulb maximum

Clamp Light

2 Conductor Polarized • Type SPT-2 • 105°C • 300 Volts

CATALOG NUMBER	NO. OF COND.	AWG. SIZE	LENGTH OF CORD (FT)	COLOR OF JACKET	POWER RATING		NEMA CONFIG.	PKG. PER CTN.	WT./ UNIT LBS	WT./ CTN. LBS	UPC CODE
					VOLTS	WATTS					
04170.60.02	2	18	6	White	125	150	1-15P	12	0.8	10	079407041701

Product Construction:

Conductor:
- 18 AWG. stranded bare copper per ASTM B-174

Insulation:
- Premium-grade PVC; White
- Voltage Rating: 300 Volts

Applications:
- Temporary lighting

Features:
- 8 1/2" bell shade
- Clamp with protective vinyl sleeve
- Adjustable ball joint
- Switch socket

Industry Approvals:
- UL Listed

General Information 10

As a helpful aid to our customers, this general information section provides useful wire and cable definitions that can assist the designer or application specialist in determining the best cord product specification.

Understanding and using proper wire and cable terminology gains additional importance, given the global application and use of cord and cordset products.

Quick-reference unit conversion and temperature conversion charts included in this section provide you with an understanding of the worldwide applications of our cord products.

Glossary

AAR: Association of American Railroads.

AC: Alternating Current (a.c.). Current in which the charge-flow periodically reverses and is represented by: $I = I_o \cos(2 f + \phi)$ where, I is the current, I_o is the amplitude, f the frequency, ϕ the phase angle.

ALS: A type of cable consisting of insulated conductors enclosed in a continuous, closely fitting aluminum tube.

ANSI: Abbreviation for American National Standards Institute.

ASME: Abbreviation for American Society of Mechanical Engineers.

ASTA: United Kingdom approval agency.

ASTM: Abbreviation for the American Society for Testing and Materials, a non-profit industry-wide organization which publishes standards, methods of test, recommended practices, definitions and other related material.

AWM: UL designation for appliance wiring material.

Abrasion Resistance: Ability of a wire, cable or material to resist surface wear.

Accelerated Aging: A test that attempts to duplicate long-time environmental aging in comparatively short time spans.

Accelerator: A chemical additive which hastens a chemical reaction under specific conditions.

Adhesive-Bonded: Cables bonded by adding an adhesive coating to the surface of the cable components, then joining and curing the adhesive to form a cable. See Bonded Cables.

Admittance: The measure of the ease with which an alternative current flows in a circuit. The reciprocal of impedance.

Aerial Cable: A cable suspended in the air on poles or other overhead structure.

Aging: The change in properties of a material with time under specific conditions.

Air Core Cable: A cable in which the interstices in the cable core are not filled with a moisture barrier.

Alligator Clip: A mechanical device shaped like alligator jaws used as a temporary connection on the end of interconnections wire.

Alloy: A metal formed by combining two or more different metals to obtain desirable properties.

Aluminum-Steel Conductor: A composite conductor made up of a combination of aluminum and steel wires.

Ambient Temperature: The temperature of a medium (gas or liquid) surrounding an object.

American Wire Gauge (AWG.): The standard system used for designating wire diameter. The lower the AWG. number, the larger the diameter. Also called the Brown and Sharpe (B&S) Wire Gauge.

Ampacity: See Current Carrying Capacity.

Ampere's Law: The magnetic intensity at any point near a current carrying conductor can be computed on the assumption that each infinitesimal length of the conductor produces at the point of an infinitesimal magnetic density. The resulting magnetic intensity at the point is the vector sum of the contributions of all the elements of the conductor.

Ampere: The unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.

Analog: Transmission data densities by continuously variable quantities.

Anneal: Relief of mechanical stress through heat and gradual cooling. Annealing copper renders it less brittle.

Annular Conductor: A number of wires stranded in three reversed concentric layers around a core.

Anti-Oxidant: A substance which prevents or slows down oxidation of material exposed to air.

Appliance Wire and Cable: A classification covering insulated wire and cable for internal wiring of appliances and equipment.

Arc Resistance: The time required for an arc to establish a conductive path in a material.

Armored Cable: A cable provided with a wrapping of metal for mechanical protection.

Attenuation: Power loss in an electrical system. In cables, generally expressed in db per unit length, usually 100 ft.

Audio Frequency: The range of frequencies audible to the human ear. Usually 20-20,000 Hz.

B & S Gauge: The same as American Wire Gauge (AWG.).

BCF: Abbreviation for billion conductor feet. A quantity derived by multiplying the number of conductors in a cable by the amount of cable. Usually used to indicate plant capacity or an annual requirement.

Band Marking: A continuous circumferential band applied to a conductor at regular intervals for identification.

Band Width: The frequency range of electrical signals transmitted.

Banded Cable: Two or more cables banded together by stainless steel strapping.

Barrel-Packed: Method of coiling into a fiber drum for shipment.

Belt: Number of layers of insulation on a conductor, or number of layers of jacket on a cable.

Belted-Type Cable: Multiple conductor cable having a layer of insulation over the assembled insulated conductors.

Bend Radius: The radius of the bend (usually designated as a multiple of product diameter) at which a wire product can safely be bent without significantly affecting its ability to function.

Bifilar: A winding made non-inductive by winding together (as one wire) two wires carrying current in opposite directions.

Bimetallic Wire: A wire formed of two different metals joined together (not alloyed). It can include wire with a steel core clad wire, or plated or coated wire.

Binder: A spirally served tape or thread used for holding assembled cable components in place awaiting subsequent manufacturing operations.

Binding Post: A device for clamping or holding electrical conductors in a rigid position.

Bond Strength: Amount of adhesion between bonded surfaces, e.g. in cemented ribbon cable.

Glossary

Bondable Wire: An insulated wire treated to facilitate adherence to materials such as potting compounds. Also, magnet wires used in making coils when bonding the turns together is desired.

Bonded Cable: Cable consisting of pre-insulated conductors or multiconductor components laid-in parallel and bonded into a flat cable. See Adhesive-Bonded.

Bonded Construction: An insulation construction in which the glass braid and nylon jacket are bonded together.

Booster: A device inserted into a line (or cable) to increase the voltage.

Boot: (1) Protective covering over a cable wire, or connector in addition to the normal jacketing or insulation. (2) A form placed around wire termination of a multiple-contact connector to contain the liquid potting compound before it hardens.

Braid: A fibrous or metallic group of filaments interwoven in cylindrical form to form a covering over one or more wires.

Braid Angle: The smaller of the two angles formed by the shielding strand and in the axis of the cable being shielded.

Braid Carrier: A spool or bobbin on a braid which holds one group of strands or filaments consisting of a specific number of ends. The carrier revolves during braiding operations.

Braid Ends: The number of strands used to make up one carrier. The strands are wound side by side on the carrier bobbin and lie parallel in the finished braid.

Braiding Machine: Machine used to apply braids to wire and cable and to produce braided sleeving and braids for tying or lacing purposes. Braiding machines are identified by the number of carriers.

Breakdown (Puncture): A disruptive discharge through the insulation.

Breakdown Voltage: The voltage at which the insulation between two conductors breaks down.

Breakout: The point at which a conductor or group of conductors breaks out from a multiconductor cable to complete circuits at various points along the main cable.

British Standard Wire Gauge: A modification of the Birmingham Wire Gauge and the legal standard of Great Britain for all wires. Also known as Standard Wire Gauge (SWG), New British Standard (NBS), English Legal Standard and Imperial Wire Guide.

Building Wire: Wire used for light and power, 600 volts or less, usually not exposed to outdoor environment.

Bunched Stranding: A group of strands twisted together in a random manner and the same direction without regard to geometric arrangement of specific strands.

Buncher: A machine that twists wires together in random arrangement.

Bundle: (fiber optic) A number of fibers grouped together, usually carrying a common signal.

Buried Cable: A cable installed directly in the earth without use of underground conduit. Also called Direct Burial Cable.

Bus: Wire used to connect two terminals inside of an electrical unit.

Bushing: A mechanical device used as a lining for an opening to prevent abrasion to wire and cable.

Butt: Joining of two conductors end-to-end, with no overlap and with the axes in line.

Butt Splice: A splice wherein two wires from opposite ends butt against each other, or against a stop, in the center of a splice.

Butt Wrap: Tape wrapped around an object or conductor in an edge-to-edge condition.

Byte: Typically a group of eight binary digits.

C-SJ: Same as SJ except extra-flexible conductor.

C-SJO: Same as SJO except extra-flexible conductor.

CATV: Acronym for Community Antenna Television.

CCTV: Acronym for Closed-Circuit Television.

CEBEC: Belgium Approval Agency; Comite Electrotechnique Belge Service de la Marque.

CEE: European Standards Agency; International Commission on Rules for the Approval of Electrical Equipment.

CENELEC: European Standards Agency; European Committee for Electrotechnical Norms.

CSA: Abbreviation for Canadian Standards Association, a non-profit independent organization which operates a listing service for electrical and electronic materials and equipment. The Canadian counterpart of the Underwriters Laboratories.

CV: Abbreviation for continuous vulcanization.

Cable: A stranded conductor with or without insulation and other coverings (single-conductor cable) or a combination of conductors (multiple-conductor cable). In fiber optics, a jacketed fiber or jacketed bundle in a form which can be terminated.

Cable Assembly: Typically, the cable and associated connectors; ready to install.

Cable Clamp: A device used to give mechanical support to the wire bundle or cable at the rear of a plug or receptacle.

Cable Clamp Adapter: A mechanical adapter that attaches to the rear of a plug or receptacle to allow the attachment of a cable clamp.

Cable Core: The portion of an insulated cable lying under a protective covering.

Cable Core Binder: A wrapping of tapes or cords around the conductors of a multiple-conductor cable used to hold them together.

Cable Filler: The material used in multiple-conductor cables to occupy the interslices formed by the assembly of the insulated conductors, thus forming a cable core.

Cable Sheath: The protective covering applied to cables.

Cable Vulcanizer: Compression molding machine used to repair cable jacketing that has had a part removed for splicing, for adding connectors or other devices or for replacing damaged sections.

Cabling: Twisting together two or more insulated conductors by machine to form a cable. In fiber optics, a method by which a group or bundle of fibers is mechanically assembled.

Cabling Factor: Used in the formula for calculating the diameter of an unshielded, unjacketed cable. D=Kd, where D is the cable diameter, K is the factor and d is the diameter of one insulated conductor.

Glossary

Capacitance: The ratio of the electrostatic charge on a conductor to the potential difference between the conductors required to maintain that charge.

Capacitance, Direct: The capacitance measured from one conductor to another conductor through a single insulating layer.

Capacitance, Mutual: The capacitance between two conductors (typically of a pair) with all other conductors, including shield, short circuited to ground.

Carrier: The woven element of a braid consisting of one or more ends (strands) which creates the interlaced effect. Also, a spindle, spool, tube or bobbin (on a braiding machine) containing yarn or wire, employed as a braid.

CBO: Rubber-insulated Brewery Cord.

Certificate of Compliance (C of C): A written statement; normally generated by a Quality Control Department, which states that the product being shipped meets customer's specifications.

Certified Test Report (CTR): A report reflecting actual test data on the cable shipped. Tests are normally conducted by the Quality Control Department, and show that the product being shipped meets the required test specifications.

Characteristic Impedance: The impedance that when connected to the output terminals of a transmission line, of any length, makes the line appear indefinitely long.

Chlorinated Polyethylene (CPE): Rubbery polymer used for insulation and jacketing of wire and cable. Manufactured by Dow Chemical under the trade name Tyrin.

Chlorosulfonated Polyethylene (CSPE): A rubbery polymer used for insulations and jackets. Manufactured by E.I. DuPont under the trade name of Hypalon.

Cigarette Wrap: Tape insulation wrapped longitudinally instead of spirally over a conductor.

Circuit: A complete path over which electrons can flow from the negative terminals of a voltage source through parts and wires to the positive terminals of the same voltage source.

Circuit Sizes: A popular term for building wire sizes 14 through 10 AWG..

Circular Mil: The area of a circle one mil (.001") in diameter; 7.854x10 7 sq. in. Used in expressing wire cross sectional area.

Cladding: Method of applying a layer of metal over another metal whereby the junction of the two metals is continuously welded. In fiber optics, a sheathing intimately in contact with the core of a higher refractive index material which serves to provide optical insulation and protection to the reflection interface.

Closed End Splice: An insulated splice in which two or more wires overlap and enter the splice from the same end of the barrel.

Coaxial Cable: A cable consisting of two cylindrical conductors with a common axis, separated by a dielectric.

Coaxial Connector: A connector that has a coaxial construction and is used with coaxial cable.

Coil Effect: The inductive effect exhibited by a spiral-wrapped shield, especially above audio frequencies.

Cold Flow: Permanent deformation of the insulation due to mechanical force of pressure (not due to heat softening).

Color Code: A color system for wire or circuit identification by use of solid colors, tracers braids, surface printing, etc.

Common Axis Cabling: In multiple cable constructions, a twisting of all conductors about a "common axis" to result in smaller-diameter constructions. Tends to result in greater susceptance to electromagnetic and electrostatic interference.

Compact Conductor: Stranded conductor rolled to deform the round wires to fill the normal interstices between the wires in a strand.

Composite (Clad) Wire: A wire having a core of one metal with a fused outer shell of different metals.

Composite Conductor: Two or more strands of different metals assembled and operated in parallel.

Compound: An insulating or jacketing material made by mixing two or more ingredients.

Compression Cable: A pipe type cable in which the pressure medium is separated from the insulation by a membrane or sheath.

Concentric: A central core surrounded by one or more layers of helically wound strands in a fixed round geometric arrangement.

Concentric Strand: A strand that consists of a central wire or core surrounded by one or more layers of spirally laid wires.

Concentric-Lay Cable: A concentric-lay conductor, or a multiple-conductor cable composed of a central core surrounded by one or more layers of helically laid insulated conductors.

Concentricity: The measurement of the location of the center of the conductor with respect to the geometric center of the circular insulation.

Conductance: The ability of a conductor to carry an electric charge. The ratio of the current flow to the potential difference causing the flow. The reciprocal of resistance.

Conductivity: The capacity of a material to carry electrical current—usually expressed as a percentage of copper conductivity (copper being one hundred percent).

Conductor: A wire (or combination of wires not insulated from one another) suitable for carrying electric current.

Conduit: A tube or trough in which insulated wires and cables are run.

Connector: A device used to provide rapid connect/disconnect service for electrical cable and wire terminations.

Contact: The part of a connector which actually carries the electrical current and is touched together or separated to control the flow.

Contact Inspection Hole: A hole in the cylindrical rear portion of contact used to check the depth to which a wire has been inserted.

Contact Size: The largest size wire which can be used with the specific contact. Also, the diameter of the engagement end of the pin.

Continuity Check: A test to determine whether electrical current flows continuously throughout the length of a single wire or individual wires in a cable.

Continuous Vulcanization: Simultaneous extrusion and vulcanization of rubber-like wire coating materials.

Glossary

Contrahelical: Cable spiraling in an opposite direction than the preceding layer within a wire or cable.

Control Cable: A multiconductor cable made for operation in control of signal circuits.

Controlled Impedance Cable: Package of two or more insulated conductors where impedance measurements between respective conductors are kept essentially constant throughout the entire length.

Copolymer: A compound resulting from the polymerization of two different monomers.

Copper-Clad: Steel with a coating of copper welded to it before drawing as opposed to copper-plated. Synonymous with Copperweld.

Copperweld: The trade name of Flexo Wire Division (Copperweld Steel Corp.) for their copper-clad steel conductors.

Cord: A small, flexible insulated cable.

Cord Set: Portable cords fitted with a wiring device at one or both ends.

Core: In cables, a component or assembly of components over which other materials are applied, such as additional components, shield, sheath or armor. In fiber optics, the transparent glass or plastic section with a high refractive index through which the light travels by internal reflections.

Corona: A discharge due to ionization of air around a conductor due to a potential gradient exceeding a certain critical value.

Corona Resistance: The time that the insulation will withstand a specified level of field-intensified ionization that does not result in the immediate complete breakdown of the insulation.

Corrosion: The destruction of the surface of a metal by chemical reaction.

Coverage: The calculated percentage which defines the completeness with which a metal braid covers the underlying surface. The higher percentage of coverage, the greater the protection against external interference.

Covering: Textile braid or jacket of rubber, plastics or other materials applied over wire and cables to provide mechanical protection and identification.

Crazing: The minute cracks on the surface of plastic materials.

Creep: The dimensional change with time of a material under load.

Creepage: The conduction of electricity across the surface of a dielectric.

Creepage Path: The path across the surface of a dielectric between two conductors.

Creepage Surface: An insulating surface which provides physical separation as a form of insulation between two electrical conductors of different potential.

Crimp: Act of compressing a connector barrel around a cable in order to make an electrical connection.

Crimp Termination: Connection in which a metal sleeve is secured to a conductor by mechanically crimping the sleeve with pliers, presses, or automated crimping machines.

Cross-linked: Inter-molecular bonds between long-chain thermoplastic polymers by chemical or electron bombardment means. The properties of the resulting thermosetting material are usually improved.

Crosstalk: Undesired electrical currents in conductors caused by electromagnetic or electrostatic coupling from other conductors or from external sources. Also, leakage of optical power from one optical conductor to another.

Cure: To change the physical properties of a material by chemical reaction.

Curing Cycle: The time, temperature and pressure required for curing.

Curl: The degree to which a wire tends to form a circle after removal from a spool. An indication of the ability of the wire to be wrapped around posts in long runs.

Current: The rate of transfer of electricity. Practical unit is the ampere which represents the transfer of one coulomb per second. In a simple circuit, current (I) produced by a cell or electromotive force (E) when there is an external resistance (R) and internal resistance (r) is:

$$I = \frac{E}{R + r}$$

Current-Carrying Capacity: The maximum current an insulated conductor can safely carry without exceeding its insulation and jacket temperature limitations.

Cut-Through Resistance: The ability of a material to withstand mechanical pressure usually a sharp edge or small radius, without separation.

Cycle: The complete sequence including reversal of the flow of an alternating electric current.

D.C.: Abbreviation for Direct Current.

DEMKO: Approval agency of Denmark.

DRT: Plastic range and dryer cord (CSA).

Decibel (db): A unit to express differences of power level. Used to express power gain in amplifiers or power loss in passive circuits or cables.

Delay Line: A cable made to provide very low velocity of propagation with long electrical delay for transmitted signals.

Depth of Crimp: Thickness of the crimped portion of a connector measured between two opposite points on the crimped surface.

Derating Factor: A factor used to reduce the current-carrying capacity of a wire when used in environments other than that for which the value was established.

Dielectric: An insulating medium which intervenes between two conductors and permits electrostatic attraction and repulsion to take place across it.

Dielectric Breakdown: The voltage required to cause an electrical failure or breakthrough of the insulation.

Dielectric Constant (K): The ratio of the capacitance of a condenser with dielectric between the electrodes to the capacitance when air is between the electrodes. Also called Permittivity and Specific Inductive Capacity.

Dielectric Loss: Power dissipated in an insulating medium as the result of the friction caused by molecular motion when an AC electric field is applied.

Dielectric Strength: The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

Dielectric Test: A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.

Glossary

Digital: Transmission data representative by discrete characters.

Dip Coating: An insulating coating applied to the conductor by passing the conductor through an applicator containing liquid insulating medium.

Direct Burial Cable: A cable installed directly in the earth.

Direct Capacitance: The capacitance measured directly from conductor to conductor through a single insulating layer.

Direct Current: An electric current which flows in only one direction.

Direct Current Resistance (DCR): The resistance offered by any circuit to the flow of direct current.

Direction of Lay: The lateral direction in which the strands of a conductor run over the top of the cable conductor as they recede from an observer looking along the axis of the conductor or cable. Also applies to twisted cable.

Discrete Wiring: Wire or wires having distinct identity and purpose.

Disruptive Discharge: A sudden, large increase in current through an insulation medium due to the complete failure of the medium under the electrostatic stress.

Disturbed Conductor: A conductor that receives energy generated by the field of another conductor or an external source, such as a transformer.

Drain Wire: In a cable, the uninsulated wire laid over the component or components and used as a ground connection.

Draw Feed Stock: Rod or wire that is subsequently drawn to a smaller size.

Drawing: In wire manufacture, pulling the metal through a die or series of dies to reduce diameter to a specified size.

Dual Coaxial Cable: Two individually insulated conductors laid parallel or twisted and placed within an overall shield and sheath.

Duct: An underground or overhead tube for carrying electrical conductors.

Duplex: Two-way data transmission on a four-wire transmission line.

Duplex Cable: A cable composed of two insulated single-conductor cables twisted together.

Duplex Parallel: Typically used in the thermo-couple industry to denote two parallel conductors of dissimilar metals insulated in parallel without twist and jacketed. Commonly applied to thermo-couple grades and extension wires.

Durometer: A measure of hardness.

E: Symbol for voltage. Usually used to represent direct voltage or the effective (root-mean-square) value of an alternating voltage.

EFTS: Abbreviation for Electronic Funds Transfer System.

EIA: Abbreviation for Electronic Industries Association.

EMI: Abbreviation for electromagnetic interference.

EPDM: Ethylene-propylene-diene monomer rubber.

EPR: Ethylene-propylene rubber.

ESTA: Australian approval agency, Electricity Trust of South Australia.

ETPC: Abbreviation for electrolytic tough pitch copper. It has a minimum conductivity of 99.9%.

Eccetricity: Like concentricity, a measure of the center of a conductor's location with respect to the circular cross-section of the insulation. Expressed as a percentage of displacement of one circle within the other.

Eddy Current: Circulating currents induced in conducting materials by varying magnetic fields.

Elastomer: A rubber or rubber-like material which will stretch repeatedly to 200 percent or more and return rapidly and with force to its approximate original shape.

Electro-Tinned: Electrolytic process of tinning wire using pure tin.

Electrode: A conductor through which a current enters or leaves a nonmetallic conductor.

Electromagnetic Coupling: Energy transfer by means of a varying magnetic field.

Electromagnetic Field: A rapidly moving electric field and its associated moving magnetic field.

Electromagnetic Induction: The production of a voltage in a coil due to a change in the number of magnetic lines of force (flux linkages) passing through the coil.

Electromotive Force (e.m.f.): Pressure or voltage. The force which causes current to flow in a circuit.

Electronic Wire and Cable: A length of conductive or semiconductive material used in an electronic application.

Elongation: The fractional increase in the length of a material stressed in tension.

Embossing: A marker identification by means of thermal indentation leaving raised lettering on the sheath material of cable.

Emergency Overload: Load which occurs when larger-than-normal currents are carried through a cable or wire over a certain period of time.

Enameled Wire: A conductor with a baked-on enamel film insulation. In addition to magnet wire, enameled insulation is used on thermocouple-type wires and other wires.

Ends: In braiding, the number of essentially parallel wires of threads on a carrier.

Energize: To apply rated voltage to a circuit or device in order to activate it.

Equilay: More than one layer of helically laid wires with the direction of lay reversed for successive layers, but with the length of lay the same for each layer.

Etched Wire: A process applied to fluoroplastic wire in which the wire is passed through a sodium bath to create a rough surface to allow epoxy resin to bond the fluoroplastic.

External Interference: The effects of electrical waves or fields which cause sounds other than the desired signal; static.

External Wiring: Electronic wiring which interconnects subsystems within the system.

Extruded Cable: Cable with conductors which are uniformly insulated and formed by applying a homogeneous insulation material in a continuous extrusion process.

Extrusion: Method of continuously forcing plastic, rubber or elastomer material through an orifice to apply insulation or jacketing over a conductor or cable core.

FAA: Federal Aeronautics Administration.

Glossary

FEP: Fluorinated ethylene propylene.

FI: Approval agency of Finland; Electrical Inspectorate.

FR-1: A flammability rating established by Underwriters Laboratories for wires and cables that pass a specially designed vertical flame test.

Farad: A unit of electrical capacity.

Fatigue Resistance: Resistance to metal crystallization which leads to conductors or wires breaking from flexing.

Feed-Through Insulators: Insulators that carry a metal conductor through the chassis while preventing the 'hot' lead from shorting to the ground chassis.

Feedthrough: (1) A conductor that connects patterns on opposite sides of a PCB. Also called Interfacial Connection. (2) A connector or terminal block, usually having double- ended terminals which permit simple distribution and bussing of electrical circuits.

Ferrule: A short tube used to make solderless connections to shielded or coaxial cable.

Fiber: A thread or threadlike structure. Also, a single discrete element used to transmit optical (light wave) information.

Fiber Optics: A lightwave or optical communications system in which electrical information is converted to light energy transmitted to another location through optical fibers and is there converted back into electrical information.

Fiber Tubing: A loose, crush-resistant cylinder applied over individual fibers to provide mechanical protection.

Field: An area of influence around a magnet or electric charge.

Field Coil: A suitable insulated winding to be mounted on a field pole to magnetize it.

Figure 8 Cable: An aerial cable configuration in which the conductors and the steel strand which supports the cable are integrally jacketed. A cross-section of the finished cable approximates the figure "eight."

Filament: Fiber characterized by extreme length.

Filled Cable: A telephone cable construction in which the cable core is filled with a material that will prevent moisture from entering or passing through the cable.

Filler: (1) A material used in multiconductor cables to occupy large interstices formed by the assembled conductors. (2) An inert substance added to a compound to improve properties or decrease cost.

Film: A thin, plastic sheet.

Fine Stranded Wire: Stranded wire with component strands of 36 AWG. or smaller.

Flame Resistance: The ability of a material not to propagate flame once the heat source is removable.

Flammability: The measure of the material's ability to support combustion.

Flashover: A disruptive discharge around or over the surface of a solid or liquid insulator.

Flat Braid: A woven braid of tinned copper strands rolled flat at time of manufacture to a specified width.

Flat Cable: A cable with two smooth or corrugated, but essentially flat, surfaces.

Flat Conductor: A wire having a rectangular cross-section as opposed to a round or square conductor.

Flat Conductor Cable: A cable with a plurality of flat conductors.

Flex Life: The measurement of the ability of a conductor or cable to withstand repeated bending.

Flexibility: The ease with which a cable may be bent.

Flexible: That quality of a cable or cable component which allows for bending under the influence of outside force, as opposed to limpness which is bending due to the cable's own weight.

Floating: Referring to a circuit which has no connection to ground.

Flux: (1) The lines of force which make up an electrostatic field. (2) The rate of flow of energy across or through a surface. (3) A substance used to promote or facilitate fusion.

Foamed Plastics: Insulations having a cellular structure.

Foil: A thin, continuous sheet of metal.

Free Connector: A connector for attachment to the free end of a wire or cable.

Funnel Entry: Flared or widened entrance to a terminal or connector wire barrel.

Fuse Wire: Wire made from an alloy that melts at a relatively low temperature.

Fused Coating: A metallic coating which has been melted and solidified, forming a metallurgical bond to the base material.

Fused Conductors: Individual strands of heavy tinned copper wire stranded together and then bonded together by induction heating.

Fused Spiral Tape: A PTFE insulated hookup wire. The spiral-wrapped conductor is passed through a sintering oven where overlaps are fused together.

GTO: Gast tube sign and oil-burner ignition cable. 5,000V-15,000V.

Galvanometer: An instrument for detecting or measuring small electrical current.

Gas-Filled Cable: A self-contained pressure cable in which the pressure medium is an inert gas having access to the insulation.

Gauge: A term used to denote the physical size of a wire.

Gimmick: A short length of wire soldered onto a circuit component and used as a small adjustable capacitor.

Ground: A conductive connection between an electrical circuit and the earth or other large conducting body to serve as an earth, thus making a complete electrical circuit.

Ground Conductor: A conductor in a transmission cable or line that is grounded.

Ground Insulation: The insulation used between a winding and the magnetic core or other structural parts, usually at ground potential.

Ground Loop: The generation of undesirable current flow within a ground conductor, owing to the circulation currents which originate from a second source of voltage.

Ground Plane: Expanded copper mesh which is laminated into some flat cable constructions as a shield.

Ground Potential: Zero potential with respect to the ground or earth.

HPN: Two-conductor, neoprene-insulated heater cord. Parallel construction. For use in damp locations.

Glossary

HSJ: Same as type HS but with #18, #16 and #14 conductors and differing thickness of jacket.

Hard-Drawn Copper Wire: Copper wire that has not been annealed after drawing.

Harness: An arrangement of wires and cables, usually with many breakouts, which have been tied together or pulled into a rubber or plastic sheath, used to interconnect an electric circuit.

Hash Mark Stripe: A non-continuous helical stripe applied to a conductor for identification.

Heat Distortion: Distortion of flow of a material or configuration due to the application of heat.

Heat Seal: Method of sealing a tape-wrap jacket by means of thermal fusion.

Heater Cord: Flexible stranded copper conductor, cotton-wrapped with rubber insulation and asbestos roving.

Helical Stripe: A continuous, colored, spiral stripe applied to a conductor for circuit identification.

Helix: Spiral winding.

Henry: The unit of inductance.

Hertz (Hz): A term replacing cycles-per-second as an indication of frequency.

Heterogeneous Insulation: A cable insulating system composed of two or more layers of different insulating materials.

Hi-Pot: A test designed to determine the highest voltage that can be applied to a conductor without breaking through the insulation.

High-Temperature Wire and Cable: Electrical wire and cables having thermal operating characteristics of 150°C and higher.

High Voltage: Generally, a wire or cable with an operating voltage of over 600 volts.

Holding Strength: Ability of a connector to remain assembled to a cable when under tension.

Homogeneous Insulation: A complete cable insulation structure whose components cannot be identified as layers of different materials.

Hook-Up Wire: A wire used for low-current, low-voltage (under 1000 volts) applications within enclosed electronic equipment.

Hot Stamping: Method of alpha numerical coding. Identification markings are made by pressing heated type and marking foil into softened insulation surfaces.

Hot Tin Dip: A process of passing bare wire through a bath of molten tin to provide a coating.

HS: 600V-rated rubber-insulated heater cord.

HSJ: 300V-rated rubber-insulated heater cord.

Hybrid Cable: Multi-conductor cable containing two or more types of components.

Hygroscopic: Capable of absorbing moisture from the air.

Hypalon: DuPont's trade name for their chlorosulfonated polyethylene, an ozone-resistant synthetic rubber.

ICEA: Abbreviation for Insulated Cable Engineers Association.

IEC: European Standardization agency, International Electrotechnical Commission.

IEEE: Abbreviation for Institute of Electrical and Electronics Engineers.

Ignition Cable: Cable designed for Automotive Ignition Systems.

ISA: Instrument Society of America.

Impedance: The total opposition that a circuit offers to the flow of alternating current or any other varying current at a particular frequency. It is a combination of resistance R and reactance X, measured in ohms.

Impedance Matching: Connecting cables and devices together which have the same impedance value in ohms.

Impulse: A surge of unidirectional polarity.

Impulse Strength: The voltage breakdown of insulation under voltage surges on the order of microseconds in duration.

Impulse Test: An insulation test in which the voltage applied is an impulse voltage of specified wave shape.

Inductance: The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.

Inductive Coupling: Crosstalk resulting from the action of the electromagnetic field of one conductor on the other.

Insertion Tool: A small, hand-held tool used to insert contacts into a connector.

Insulated Wire: A conductor of electricity covered with a non-conducting material.

Insulating Joint: A device which mechanically couples and electrically insulates the sheath and armor of contiguous lengths of cable.

Insulation: A material having high resistance to the flow of electric current. Often called a dielectric in radio frequency cable.

Insulation Adhesion: The degree of tightness of the insulation over the base conductor measured in terms of force required to remove a specified length of insulation from the wire.

Insulation Crimp: The area of a terminal, splice or contact that has been formed around the insulation of the wire.

Insulation Grip: Extended cylinders at the rear of crimp-type contacts designed to accept the bared wire and a small length of its insulation.

Insulation Piercing: A method of crimping whereby lances cut the insulation of the wires and enter into the strands to make electrical contact.

Insulation Resistance: The ratio of the applied voltage to the total current between two electrodes in contact with a specific insulation, usually expressed in megohms-M feet.

Insulation System: All of the insulation materials used to insulate a particular electrical or electronic product.

Integral Belt: A layer of insulation or semi-conductive material applied by extrusion over two or more insulated, twisted or parallel conductors to form a round, smooth diameter.

Glossary

Interconnecting Cable: The wiring between modules, between units or the larger portions of a system.

Interconnecting Wire: The physical wiring between components (outside a module), between modules, between units or between larger portions of a system or systems.

Interconnection: Mechanically joining devices together to complete an electrical circuit.

Interface: The two surfaces on the contact side of both halves of a multiple-contact connector which face each other when the connector is assembled.

Internal Wiring: Electronic wiring which interconnects components, usually within a sealed subsystem.

Interstices: Voids or valleys between individual strands in a conductor or between insulated conductors in a multiconductor cable.

Ionization Voltage (Corona Level): The minimum value of falling rms voltage which sustains electrical discharge within the vacuous or gas-filled spaces in the cable construction or insulation.

Irradiation: In insulations, the exposure of the material to high-energy emissions for the purpose of favorably altering the molecular structure.

JAN Specification: Joint Army-Navy specification (replaced by current Military Specifications).

Jack: A plug-in type terminal widely used in electronic apparatus for temporary connections.

Jacket: A rubber or synthetic covering applied over primary insulation, braids, shields, cable components or over the cable itself. In fiber optics, a covering, frequently plastic, over a fiber bundle of fibers, or cable which protects against the environment.

Jumper: A short length of conductor used to make a temporary connection between terminals, around a break in a circuit or around an instrument.

Junction: A point in a circuit where two or more wires are connected.

KEMA KEUR: Approval agency of the Netherlands.

KV: Kilovolt (1000 volts).

KVA: Kilovolt ampere.

KW: Kilowatt.

Kilo: A numerical prefix denoting 1000 (10^3).

Kynar: Pennwalt trade name for polyvinylidene fluoride. Typically used as insulation for wire wrap wire.

Lacing and Harnessing: A method of grouping wires by securing them in bundles of designated patterns.

Lacquer: A liquid resin or compound applied to textile braid to prevent fraying, moisture absorption, etc.

Laminated Tape: A tape consisting of two or more layers of different materials bonded together.

Lay: The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn about the axis of the conductor or cable.

Layer: Consecutive turns of a coil lying in a single plane.

Leaching and Non-Leaching: In a leaching wire, the plasticizer will migrate when exposed to heat. A non-leaching wire will retain its plasticizer under extreme temperature conditions and remain flexible after baking.

Lead: A wire, with or without terminals, that connects two points in a circuit.

Lead-Cured: A cable that is cured or vulcanized in a metallic lead mold.

Lead Dress: The placement or routing of wire and component leads in an electrical circuit.

Lead-in: The conductor or conductors that connect the antenna proper to electronic equipment.

Leakage Current: The undesirable flow of current through or over the surface of an insulation.

Life Cycle: A test to determine the length of time before failure in a controlled, usually accelerated, environment.

Limits of Error: The maximum deviation (in degrees of percent) of a thermocouple or thermocouple extension wire from standard emf-temperature to be measured.

Limpness: The ability of a cable to lay flat or conform to a surface.

Line Balance: The degree to which the conductors of a cable are alike in their electrical characteristics with respect to each other, to other conductors and to ground.

Line Drop: A voltage loss occurring between any two points in a transmission line due to the resonance reactance or leakage of the line.

Line Loss: The total of the various energy losses occurring in a transmission line.

Line Voltage: Voltage existing in a cable or circuit.

Local Area Network (LAN): A baseband or broadband interactive bi-directional communication systems for information exchange on a common transmission line.

Longitudinal Shield: A tape shield, flat or corrugated, applied longitudinally with the axis of the core being shielded.

Longitudinal Wrap: Tape applied longitudinally with the axis of the core being covered.

Loop Resistance: The total resistance of two conductors measured round trip from one end. Commonly used term in the thermocouple industry.

Looping-in: Wiring method which avoids tee joints by carrying the conductor or cable to and from the point to be supplied.

Loss: Energy dissipated without accomplishing useful work.

Loss Factor: The product of the dissipation and dielectric constant of an insulating material.

Lossy Line: A cable having large attenuation per unit of length.

Low-Loss Dielectric: An insulating material that has a relatively low dielectric loss, such as polyethylene or Teflon.

Low-Noise Cable: Cable configuration specially constructed to eliminate spurious electrical disturbances caused by capacitance changes or self-generated noise induced by either physical abuse or adjacent circuitry.

Low Tension: Low voltage, as applied to ignition cable.

Lug: Termination, usually crimped or soldered to the conductor, with provision for screwing on to the terminal.

Glossary

MATV: Acronym for Master Antenna Television System—a combination of components providing multiple television receiver operations from one antenna or group of antennas normally on a single building.

MCM: One thousand circular mils.

MHz: Megahertz.

MTW: Thermoplastic insulated machine tool wire.

Magnet Wire: Insulated wire intended for use in windings on motor, transformer and other coils for electromagnetic devices.

Magnetic Field: The region within which a body or current experiences magnetic force.

Magnetic Flux: The rate of flow of magnetic energy across or through a surface (real or imaginary).

Magnetic Noise: Caused by change in current level, e.g. ac powerline (creates magnetic field around the cable) this magnetic field causes the magnetic noise.

Marker Tape: A tape laid parallel to the conductors under the sheath in a cable, imprinted with the manufacturer's name and the specification to which the cable is made.

Meg or Mega: A numerical prefix denoting 1,000,000 (10^6).

Megarad: A unit for measuring radiation dosage.

Messenger: Supporting member, usually a high-strength steel wire, used to suspend aerial cable. The messenger may be an integral part of the cable, or exterior to it (lashed messenger).

Mft: A popular abbreviation for 1000 ft.

Mho: The unit of conductivity. The reciprocal of an ohm.

Micro: A numerical prefix denoting one-millionth (10^{-6}).

Microfarad: One-millionth of a farad, commonly abbreviated μF.

Micromicrofarad: One-millionth of a microfarad (uuf, uufd, mmf, mmfd, $\mu\mu$F are common abbreviations.)

Microwave: A short (usually less than 30 cm.) electrical wave.

Mil: A unit used in measuring diameter of a wire or thickness of insulation over a conductor. One-one thousandth of an inch (.001").

Mineral Insulated: Cable and thermocouple wire consisting of one or more conductors surrounded by magnesium oxide insulation and enclosed in a liquid- and gas-tight metallic sheathing.

Miniature Wire: Insulated conductors of approximately 20-34 AWG.

Mining Cable: A Flame-retardant cable specially constructed to withstand severe physical abuse for underground use in mines or tunnels.

Mis-Match: A termination having a different impedance than that for which a circuit or cable is designed.

Mode: One of the components of a general configuration of a propagating wave font.

Modem: Device which places and receives data signals over a common carrier's communication facility.

Modulus of Elasticity: The ratio of stress to strain in an elastic material.

Moisture Absorption: The amount of moisture, in percentage, that a material will absorb under specified conditions.

Moisture Resistance: The ability of a material to resist absorbing moisture from the air or when immersed in water.

Molded Plug: A connector molded on either end of a cord or cable.

Monomer: The basic chemical unit used in building a polymer.

Motor Lead Wire: Wire which connects to the fragile magnet wire found in coils, transformers and stator or field windings.

Multiconductor: More than one conductor within a single cable complex.

Multiple-Conductor Cable: A combination of two or more conductors cabled together and insulated from one another and from sheath or armor where used.

Multiple-Conductor Concentric Cable: An insulated central conductor with one or more tubular stranded conductors laid over it concentrically and insulated from one another.

Multiplexing: Simultaneous transmission of two or more messages over the same cable pair.

Mutual Capacitance: Capacitance between two conductors when all other conductors, including ground, are connected together and then regarded as an ignored ground.

Mylar®: DuPont trademark for polyester film.

NEMA: National Electrical Manufacturers Association.

NEMKO: Approval agency of Norway.

NFPA: Abbreviation for National Fire Protection Association. Administrative Sponsor of the National Electrical Code® (ANSI Standards Committee CI).

National Electrical Code®: A set of regulations governing construction and installation of electrical wiring and apparatus in the United States, established by the American National Board of Fire Underwriters.

National Electrical Code® Article 725: The NEC Article which covers remote control signal and communication power limited circuits that are not an integral part of the device or appliance.

National Electrical Code® Article 760: The NEC Article which covers the fire and burglar alarms installation of wire and equipment operating at 600 Volts or less.

National Electrical Code® Article 800: The NEC Article which covers telephone, telegraph as well as outside wiring for fire and burglar alarms.

NEC Type CL2: A Class 2 power-limited type cable for general use applications within a building under NEC Article 725, this type design is "Listed" by UL. These cables meet a 70,000 BTU flame test.

NEC Type CL2P: A Class 2 power-limited cable which is suitable for use in plenums in accordance with NEC Article 725. The cable meets the requirements of UL 910 the Steiner Tunnel test which classifies fire and smoke characteristics. The cable is "Listed" by UL.

NEC Type CL2R: A Class 2 power-limited cable which is suitable for use in riser shafts in accordance with NEC Article 725. These cables meet the UL 1666 flame test and are "Listed" by UL.

NEC Type CL2X: A Class 2 power-limited cable which is suitable for restricted applications (sic . . . less than 0.25" in diameter in residences, exposed lengths less than 10-ft.) or else in raceways under NEC Article 725. These cables meet a VW-1 flame test and are "Listed" by UL.

Glossary

NEC Type CM: A general application communications cable, Listed by UL, for use within buildings under NEC Article 800. It meets the requirements of the 70,000 BTU flame test.

NEC Type FPL: A general application fire-protection cable for use within buildings in accordance with NEC Article 760. These cables are Listed by UL and meet the 70,000 BTU flame test.

NEC Type MP: A general use, multipurpose cable which may be employed interchangeably in either a communications (Article 800), power-limited (Article 725) or fire protective (Article 760) application.

Neoprene: A synthetic rubber with good resistance to oil, chemical and flame. Also called polychloroprene.

Non-Contaminating: Type of PVC jacket material whose plasticizer will not migrate into the dielectric of a coaxial cable and thus avoids contaminating and destroying the dielectric.

Nylon: Thermoplastic with good chemical and abrasion resistance.

OSHA: Abbreviation for Occupational Safety and Health Act. Specifically the Williams-Steiger law passed in 1970 covering all factors relating to safety in places of employment.

OVE: Approval agency of West Germany; Oesterreichischer Verband fur Elektrotechnik

Off Center: Conductor displaced within the cross-section of its insulation.

Offgassing: Percentage of a specified gas released during the combustion of insulation or jacketing material.

Ohm: A unit of electrical resistance.

Oil Aging: Cable aged in an accelerated manner by placement in an oil bath and heated to a pre-set temperature for a stated time.

Oil-Filled Cable: A self-contained pressure cable in which the pressure medium is low viscosity oil having access to the insulation.

Open Cell: Foamed or cellular material with cells which are generally interconnected.

Oscillatory Surge: A surge which includes both positive and negative polarity values.

Outgassing: The dissipation of gas from a dielectric evidencing decomposition.

Overall Diameter: Finished diameter over wire or cable.

Overcoat Conductor: A stranded conductor made from individual strands of tin-coated wire stranded together, and then given an overall tin coat.

Overlap: The amount the trailing edge laps over the leading edge of a spiral tape wrap.

Oxygen Index: Percentage of oxygen necessary to support combustion in a gas mixture.

Ozone: Reactive form of oxygen, typically found around electrical discharges and present in the atmosphere in small quantities.

PCB: Printed Circuit Board.

PIC: A general term for any type of plastic-insulated telephone cable.

PLSJ: All-rubber, parallel-jacketed, two-conductor, light-duty cord for pendent or portable use in damp locations. 300V.

PLT: Same as PLSJ, except thermoplastic insulation.

POSJ: All-rubber, parallel light-duty rip-cord for use on lamps and small appliances. 300V, 60°C.

POT: Thermoplastic, parallel, light-duty rip-cord. 300V, 60°C to 105°C.

PTFE: Abbreviation for Polytetrafluoroethylene.

Packing Fraction: (fiber optic) The ratio of active cross-sectional area of fiber core, or cores, to the total end surface of the fiber, or fiber bundle.

Pair: Two insulated wires of a single circuit associated together; also known as a "balance" transmission line.

Parallel Pair: A duplex construction of two insulated conductors laid parallel and then covered overall with a braid or jacket.

Parallel Stripe: A stripe applied longitudinally on a wire or cable parallel to the axis of the conductor.

Patch Cable: A cable with plugs or terminals on each end of the conductors to temporarily connect circuits of equipment together.

Patch Cord: Braid covered with plugs or terminals on each end to connect jacks or blocks in switchboards or programming systems.

Pay-Off: The process of feeding a cable or wire from a bobbin, reel or other package.

Percentage Conductivity: Conductivity of a material expressed as a percentage of that of copper.

Periodicity: The uniformly spaced variations in the insulation diameter of a transmission cable that result in reflections of a signal, when its wavelength or a multiple thereof is equal to the distance between two diameter variations.

Permittivity: See Dielectric Constant.

Pick: Distance between two adjacent crossover points of braid filaments. The measurement in picks per inch indicates the degree of coverage.

Pico: A numerical prefix denoting one-millionth of one-millionth (10^{-12}).

Picofarad: One-millionth of one-millionth of a farad. A micromicrofarad or picofarad (abbreviation pf). (See $\mu\mu F$).

Pigtail Wire: Fine-stranded, extra-flexible, rope- lay lead wire attached to a shield for terminating purposes.

Pitch Diameter: Diameter of a circle passing through the center of the conductors in any layer of a multiconductor cable.

Pitch: In flat cable, the nominal distance between the index edges of two adjacent conductors.

Plain Conductor: A conductor consisting of only one metal.

Plain Weave: A weave used on woven cables. Threads between the wires act as binders and give the cable lateral stiffness and linear flexibility. Also called Standard and Square Weave.

Planetary Cabler: A cabler capable of laying down any number of shielded overbraided or jacketed singles, pairs, called groups, or any combination of them in sequence.

Planetary Twister: A twisting machine whose payoff spools are mounted in rotating cradles that hold the axis of the spool in a fixed direction as the spools are revolved so the wire will not kink as it is twisted.

Plastic Deformation: Change in dimensions under load that is not recovered when the load is removed.

Glossary

Plasticizer: A chemical agent added to plastics to make them softer and more pliable.

Plenum: The air return path of a central air handling system, either ductwork or open space over a suspended ceiling.

Plenum Cable: Cable approved by a recognized agency such as UL for installation in plenums without the need for conduit.

Plug: The part of the two mating halves of a connector which is movable when not fastened to the other mating half.

Ply: The number of individual strands or filaments twisted together to form a single thread.

Point-to-Point Wiring: An interconnecting technique wherein the connections between components are made by wires routed between connecting points.

Polarization: The orientation of a flat cable or a rectangular connector.

Polychloroprene: Chemical name for Neoprene.

Polyester: Polyethylene terephthalate extensively as a moisture resistant cable core wrap.

Polyethylene: A thermoplastic material having excellent electrical properties.

Polyhalocarbon: A general name for polymers containing halogen atoms. The halogens are fluorine, chlorine, bromine and iodine.

Polymer: A material of high molecular weight formed by the chemical union of monomers.

Polyolefin: Any of the polymers and copolymers of the ethylene family of hydrocarbons.

Polypropylene: A thermoplastic similar to polyethylene but stiffer and having higher softening point (temperature); excellent electrical properties.

Polyurethane: Class of polymers known for good abrasion and solvent resistance (may be applied in solid or cellular form).

Polyvinyl Chloride: A general-purpose thermoplastic widely used for wire and cable insulations and jackets.

Porosity: Multiple voids in an insulation cross-section.

Potting: The sealing of a cable termination or other component with a liquid which thermosets into an elastomer.

Power Cables: Cables of various sizes construction and insulation, single- or multi-conductor, designed to distribute primary power to various types of equipment.

Power Factor: The ratio of resistance to impedance. The ratio of the actual power of an alternating current to apparent power. Mathematically the cosine of the angle between the voltage applied and the current resulting.

Pre-Bond: Stranded wire which has been fused, topcoat-tinned, or overcoat-tinned.

Primary Insulation: The first layer of non-conductive material applied over a conductor whose prime function is to act as electrical insulation.

Primary: The transformer winding which receives the energy from a supply circuit.

Printed Wiring: A printed circuit intended to provide point-to-point electrical connections.

Programming: Ability to select various circuit patterns by interconnecting appropriate contacts on one side of a connector plug or panel.

Propagation Delay: Time delay between input and output of signal.

Propagation Time: Time required for a wave to travel between two points on a transmission line.

Proximity Effect: Nonuniform current distribution over the cross-section of a conductor caused by the variation of the current in a neighboring conductor.

Pulling Eye: A device used to pull cable into or from a duct.

Pulse: Energy which changes abruptly from an intensity to another. May be light energy or electrical energy.

Pulse Cable: A type of coaxial cable constructed to transmit repeated high- voltage pulses without degradation.

Quad: A series of four separately insulated conductors, generally twisted together in pairs. Also, a series-parallel combination of transistors with increased reliability because failure of one transistor will not disable the entire circuit.

Quadders: Three-bay machines which can twist four wires together and cable braided and shielded wires with varying lay lengths.

Rated Voltage: The maximum voltage at which an electrical component can be operated for extended periods without undue degradation or safety hazard.

R-F: Radio-frequency.

REA: Abbreviation for Rural Electrification Administration.

RG/U: General utility-grade military coaxial cable.

Random Winding: A winding in rotating equipment wherein the wires do not lie in an even pattern.

Reactance: The opposition offered to the flow of alternating current by inductance or capacitance of a compound or circuit.

Red Plaque: A powdery, brown-red growth found on silvercoated copper conductors and shield braids.

Redraw: The consecutive drawing of wire through a series of dies to reach a desired wire size.

Reducing Joint: A joint between two lengths of cable where the conductors are not the same size.

Reel: A revolvable flanged device made of wood metal, used for winding flexible metal wire or cable.

Reflection Loss: The part of a signal which is lost due to reflection of power at a line discontinuity.

Reinforced Sheath: The outermost covering of a cable that has cable sheath constructed in layers with the addition of a reinforcing material, usually a braided fiber, molded in place between layers.

Remanence: The magnetic induction that remains in a magnetic circuit after the removal of an applied magnetomotive force.

Resistance: A measure of the difficulty in moving electrical current through a medium when voltage is applied. It is measured in ohms.

Resistive Conductor: A conductor with high electric resistance.

Glossary

Retractile Cord: A cord having specially treated insulation or jacket so that it will retract.

Return Wire: A ground wire or the negative wire in a direct-current circuit.

Ribbon Cable: A flat cable of individually insulated conductors lying parallel and held together by means of adhesive or woven textile yarn.

Ridge Marker: One or more ridges running laterally along the outer surface of a plastic-insulated wire for purposes of identification.

Rigid Bay: Cabling equipment that maintains component sequence, and can produce cables with distinct layers.

Rigid Coaxial Cable: Nonflexible coaxial cable, usually a metal tube-armored coaxial cable.

Ring Tongue: A solderless terminal that connects wire to a stud.

Ringing Out: Locating or identifying specific conductive paths by passing current through selected conductors.

Rip-Cord: Two or more insulated conductors in a parallel configuration which may be separated to leave the insulation of each conductor intact.

Rope Concentric: A group of standard conductors assembled in a concentric manner.

Rope Lay Conductor: A conductor composed of a central core surrounded by one or more layers of helically laid groups of wires.

Rope Unilay: A group of stranded conductors assembled in a unilay manner.

Round Wire Shields: Shields constructed from bare, tinned or silver-plated copper wire that include braided, spiral and reverse spiral.

Rubber (Wire Insulation): Term used to describe wire insulations made of thermosetting elastomers, occur naturally or may be made synthetically.

Rulan: DuPont's trade name for their flame-retardant polyethylene insulating material.

S: Heavy-duty, rubber-insulated portable cord. Stranded copper conductors with separator and individual rubber insulation. Two or more color-coded conductors cabled with filler wrapped with separator and rubber jacketed overall. 600V.

SAE: Society of Automotive Engineers.

SANZ: Standards Association of New Zealand.

SBR: Copolymer of styrene and butadiene. Most commonly used type of synthetic rubber.

Secondary Insulation: A nonconductive material that protects the conductor against abrasion and provides a second electrical barrier.

Segmental Conductor: A stranded conductor consisting of three or more stranded conducting elements, each element having approximately the shape of the sector of a circle, assembled to give a substantially circular cross-section.

Selenium Cure: Process used to cure neoprene and rubber-jacketed wires and cables.

Self-Extinguishing: Characteristic of a material whose flame is extinguished after the igniting flame source is removed.

Semi-Conducting Jacket: A jacket having a sufficiently low resistance so that its outer surface can be kept at substantially ground potential.

Semi-Rigid: A cable containing a flexible inner core and a relatively inflexible sheathing.

Semi-Solid: An insulation cross-section having a partially open space between the conductor and the insulation perimeter.

SEMKO: Approval agency for Sweden.

Separator: A layer of insulating material which is placed between a conductor and its dielectric, between a cable jacket and the components it covers or between various components of a multiple-conductor cable.

Serve: A filament or group of filaments such as fibers or wires, wound around a central core.

Serving: A wrapping applied over the core of a cable or over a wire.

Sheath: The outer covering or jacket of a multi-conductor cable.

Shield Coverage: Amount of outer cable covered by the shielding material.

Shield Effectiveness: The ability of a shield to screen out undesirable signals.

Shield: In cables, a metallic layer placed around a conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires or external fields.

Shielded Line: A transmission line whose elements confine propagated radio waves to an essentially finite space inside a tabular conducting surface called the sheath, thus preventing the line from radiating radio waves.

Shielded-Type Cable: A cable in which the surface of the insulation is at ground potential.

Shunt Wire: A conductor joining two parts of an electric circuit to divert part of the current.

Signal: A current used to convey information, either digital, analog, audio or video.

Silicone: A material made from silicon and oxygen. Can be in thermosetting elastomer or liquid form. The thermosetting elastomer form is noted for high heat resistance.

Silicone Treating: A silicone liquid treatment applied to insulated conductors to allow for easy jacket stripping.

Single-Faced Tape: Fabric tape finished on one side with a rubber or synthetic compound.

Sizing: Applying a material to a surface to fill pores.

SJ: Junior hard-service, rubber-insulated pendant or portable cord. Same construction as type S, but 300V. Jacket thickness different.

SJO: Same as SJ, but carolprene, oil-resistant compound outer jacket. Can also be made "water-resistant." 300V, 60°C.

SJT: Junior hard-service thermoplastic or rubber- insulated conductors with overall thermoplastic jacket. 300V, 60°C to 105°C.

SJTO: Same as SJT but oil-resistant thermoplastic outer jacket. 60°C.

SJOO: Same as SJO with oil-resistant insulation.

SJOOW: Same as SJOO with the added UL + CSA Approval for outdoor use and water resistance.

Skeleton Braid: Widely separated braid of fiber copper, or steel, used to hold core together, for reinforcing jacket or for shielding.

Skin Tape: Filled tape coated on one or both sides with a thin film of uncured rubber or synthetic compound to produce a coating suitable for vulcanization.

Glossary

Skin Effect: The tendency of alternating current as its frequency increases, to travel only on the surface of a conductor.

Sleeve: A braided, knifed or woven tube used over wires or components as insulation tubing. Also called Sleeving.

Solid Conductor: A conductor consisting of a single wire.

SO: Hard-service cord, same construction as type S except oil-resistant Carolprene® jacket. 600V, 60° to 90°C

SOO: Same as SO with oil-resistant insulation.

SOOW: Same as SOO with the added UL + CSA Approval for outdoor use and water resistance.

SOW: Same as SO with the added UL and CSA approval for outdoor use and water resistance.

SP-1: All-rubber, parallel-jacketed two-conductor light-duty cord for pendant or portable use in damp locations. 300V.

SP-2: Same as SP-1, but heavier construction, with or without third conductor for grounding purposes. 300V.

SP-3: Same as SP-2 but heavier construction for refrigerators or room air conditioners. 300V.

SPT-1: Same as SP-1, except all-thermoplastic. 300V. With or without third conductor for grounding.

SPT-2: Same as SP-2 except all-thermoplastic. 300V. With or without third conductor for grounding.

SPT-3: Same as SP-3, except all-thermoplastic. 300V. With or without third conductor for grounding.

Span: In flat conductors, distance between the reference edge of the first and the last conductor. In round conductors, distance between centers of the first and last conductors.

Spark Test: A test designed to locate pin-holes in the insulation of a wire or cable by application of a voltage for a very short period of time while the wire is being drawn through the electrode field.

Specific Gravity: The ratio of the density (mass per unit volume) of a material to that of water.

Spiral Shield: A metallic shield of fine-stranded wires applied spirally rather than braided.

Spiral Stripe: A color-coding stripe applied helically to the surface of an insulated wire or cable.

Spiral Wrap: The helical wrap of a tape or thread over a core.

Splice: A connection of two or more conductors or cables to provide good mechanical strength as well as good conductivity.

SRD: Portable range or dryer cable. Three or four rubber-insulated conductors with rubber or neoprene jacket, flat or round construction. 300V, 60°C.

SRDT: Same as SRD, except all-thermoplastic with a maximum temperature of 90°C.

ST: Hard-service cord, jacketed, same as type S except all-plastic construction. 600V, 60°C to 105°C.

Standing Wave Ratio: In a transmission line, waveguide or analogous system, a figure of merit used to express the efficiency of the system in transmitting power.

Stay Cord: A component of a cable used to anchor the cable ends at their points of termination and to keep any pull of the cable from being transferred to the electrical connections.

STO: Same as ST but with oil-resistant thermoplastic outer jacket. 600V, 60°C.

Strand: One of the wires of any stranded conductor.

Strand Lay: The distance of advance of one strand of a spirally stranded conductor, in one turn, measured axially.

Stranded Conductor: A conductor composed of groups of wires twisted together.

Strap: Square- or rectangular-section bare conductor manufactured and used in coil form.

Strip: To remove insulation from a cable.

Structural Return Loss: Backward-reflected energies from uneven parts of the cable structure are termed structural return loss.

Surface Resistivity: The resistance of a material between two opposite sides of a unit square of its surface. It is usually expressed in ohms.

SV: Vacuum cleaner cord two- or three-conductor rubber-insulated. Overall rubber jacket. For light duty in damp locations. 300V, 60°C.

SVO: Same as SV except carolprene jacket, 300V, 60°C.

SVT: Same as SV except all-plastic construction. With or without third conductor for grounding purposes only. 300V, 60°C to 90°C.

Sweep Test: A test given to check attenuation by oscilloscope, as in coaxial cable.

TEW: Canadian Standard Association type appliance wires. Solid or stranded single-conductor, plastic-insulated. 600V, 105°C.

TF: Fixture wire, thermoplastic-covered solid or 7-strands. 60°C.

TFE: Teflon® (tetrafluoroethylene).

TFF: Same as TF but flexible stranding. 60°C.

THHN: 90°C, 600V nylon jacketed building wire.

THW: Thermoplastic vinyl-insulated building wire. Flame-retardant, moisture- and heat-resistant. 75°C. Dry and wet locations.

THWN: Same as THW but with nylon jacket overall. 75°C.

TW: Thermoplastic vinyl-jacketed building wire, moisture-resistant 60°C.

Take-Up: The process of accumulating wire or cable onto a reel, bobbin or some other type of pack. Also, the device for pulling wire or cable through a piece of equipment or machine.

Tank Test: A voltage dielectric test in which the test sample is submerged in water and voltage is applied between the conductor and water as ground.

Tape: A relatively narrow woven or cut strip of fabric, paper or film material.

Tape Cable: A form of multiple-conductor consisting of parallel metal strips imbedded in insulating material.

Tape Wrap: A spirally applied tape over an insulated or uninsulated wire.

Taped Insulation: Insulation of helically wound tapes applied over a conductor or over an assembled group of insulated conductors.

Glossary

Taping: Process of insulating continuous-length, large-diameter wires with tape of nonextrudable materials.

Tear Strength: The force required to initiate or continue a tear in a material under specified conditions.

Teflon®: DuPont's trade name for fluorocarbon resins. FEP, PFA and TFE are typical materials.

Tefzel: DuPont's trade name for a fluorocarbon material typically used as a wire wrap insulation.

Telemetry Cable: Cable used for transmission of information from instruments to the peripheral recording equipment.

Temperature Rating: The maximum temperature at which an insulating material may be used in continuous operation without loss of its basic properties.

Tensile Strength: The pull stress required to break a given specimen.

Tension Member: A member included in a fiber cable to add tensile strength.

Terminals: Metal wire termination devices designed to handle one or more conductors, and to be attached to a board bus or block with mechanical fasteners or clipped on.

Test Lead: A flexible, insulated lead wire used for making tests, connecting instruments to a circuit temporarily or for making temporary electrical connections.

Textile Braid: Any braid made from threads of cotton, silk or synthetic fibers.

Thermal Aging: Exposure to a thermal condition or programmed series of conditions for predescribed periods of time.

Thermocouple Lead Wire: An insulated pair of wires used from the couple to a junction box.

Thermoplastic: A material which softens when heated and becomes firm on cooling.

Thermoset: A material which hardens or sets when heat is applied, and which, once set cannot be resoftened by heating. The application of heat is called "curing."

Three-Phase Current: Current delivered through three wires, with each wire serving as a return for the other two.

Three-Phase Three-Wire System: An alternating current supply system comprising three conductors over which three-phase power is sent.

Three-Wire System: A d-c or single-phase a-c system comprising three conductors, one of which is maintained at a potential midway between the potential of the other two.

Tin Overcoat (TOC): Tinned copper wire stranded, then coated with pure tin.

Tinsel Wire: A low-voltage stranded wire with each strand a very thin conductor ribbon spirally wrapped around a textile yarn.

Topcoat: Bare (untinned) copper wire, stranded then coated with pure tin.

Tracer: A means of identifying polarity.

Transmission: Transfer of electric energy from one location to another through conductors or by radiation or induction fields.

Transmission Cable: Two or more transmission lines. See Transmission Line.

Transmission Line: A signal-carrying circuit with controlled electrical characteristics used to transmit high-frequency or narrow-pulse signals.

Transmission Loss: The decrease or loss in power during transmission of energy from one point to another. Usually expressed in decibels.

Transposition: Interchanging the relative positions of wires to neutralize the effects of induction to or from other circuits or, to minimize interference pickup by the lead-in during reception.

Tray: A cable tray system is an assembly of units or sections, and ancillary filings, made of noncombustible materials used to support cables. Cable tray systems include ladders troughs channels, solid bosom trays and similar structures.

Tray Cable: A factory-assembled multi-conductor or multipair control cable approved under the National Electrical Code for installation in trays.

Triaxial: A three-conductor cable with one conductor in the center, a second circular conductor shield concentric with the first, and third circular conductor shield insulated from and concentric with the first and second, usually with insulation, and over a braid or impervious sheath overall.

Triboelectric Noise: Noise generated in a shielded cable due to variations in capacitance between shielding and conductor as the cable is flexed.

Triple Cable: A cable composed of three insulated single conductors and one bare conductor all twisted together. It may or may not have a common covering of binding.

True Concentric: A cable in which each successive layer has a reversed direction of lay from the preceding layer.

Tubing: A tube of extruded nonsupported plastic material.

Twin Cable: A pair of insulated conductors twisted, sheathed or held together mechanically and not identifiable from each other in a common covering.

Twin Coaxial: A configuration containing two separate complete coaxial cables laid parallel or twisted around each other in one complex.

Twin Line: A transmission line which has a solid insulating material, in which the two conductors are placed in parallel to each other.

Twinner: A device for twisting together two conductors.

Twisted Pairs: A cable composed of two small insulated conductors twisted together without a common covering.

UF: Thermoplastic underground feeder and branch circuit cable.

UHF: Abbreviation for ultra high frequency, 300 to 3,000 MHz.

UL: Underwriters Laboratories, Inc.

UTE: Approval agency for France; Union Technique de l'Electricite.

Unbalanced Line: A transmission line in which voltages on the two conductors are unequal with respect to ground.

Unidirectional Concentric Stranding: A stranding where each successive layer has a different lay length, thereby retaining a circular form without migration of strands from one layer to another.

Unidirectional Stranding: A term denoting that in a stranded conductor, all layers have the same direction of lay.

Glossary

Unilay Strand: A conductor constructed with a central core surrounded by more than one layer of helically-laid wires, with all layers having a common length and direction of lay.

VDE: West Germany approval agency.

VHF: Abbreviation for very high frequency, 30 to 300 MHz.

VSWR: Abbreviation for volume standing wave ratio.

VW-1: A flammability rating established by Underwriters Laboratories for wires and cables that pass a specially designed vertical flame test (formerly designated FR-1-).

Velocity of Propagation: The speed of an electrical signal down a length of cable compared to speed in free space expressed as a percent. It is the reciprocal of the square root of the dielectric constant of the cable insulation.

Volt: A unit of electromotive force.

Voltage: The term most often used in place of electromotive force, potential difference or voltage drop to designate the electric pressure that exists between two points and is capable of producing a current when a closed circuit is connected between two points.

Voltage Drop: A term used to express the amount of voltage loss in a conductor of given size and length drawing a given current.

Voltage Rating: The highest voltage that may be continuously applied to a wire in conformance with standards or specifications.

Voltage Standing Wave Ration (VSWR): The ratio of the maximum effective voltage to the minimum effective voltage measured along the length of a mis-matched radio frequency transmission line.

Volume Resistivity (Specific Insulation Resistance): The electrical resistance between opposite faces of a 1 cm. cube of insulating material commonly expressed in ohms/centimeter.

Vulcanization: A chemical reaction in which the physical properties of an elastomer are changed by reacting it with sulfur or other cross-linking agents.

Wall Thickness: The thickness of the applied insulation or jacket.

Water Absorption: A test to determine the water absorbed by a material after a given immersion period.

Waterblocked Cable: A cable constructed with no internal voids in order to allow no longitudinal water passage under a given pressure.

Watt: A unit of electric power.

Wave Length: The distance, measured in the direction of propagation, of a repetitive electrical pulse or waveform between two successive points that are characterized by the same phase of vibration.

Wicking: The longitudinal flow of a liquid in a wire or cable due to capillary action.

Wire: A conductor, either bare or insulated.

Wire Gauge: A system of numerical designation of wire sizes.

Wire Nut: A closed-end splice that is screwed on instead of crimped.

Wire Wrapped Connection: A solderless connection made by wrapping bare wire around a square or rectangular terminal with a power or hand tool.

Wire Wrapping Tools: Portable electric tools and automatic stationary machines used to make solderless wrapped connections of wires to terminals.

Wire and Cable Marker: Device for identification marking of wire and cable.

Wire and Cable Tying, Clamping and Harnessing Devices: Tying faces lacing cords and flexible sleevings which are use for wire and cable bundling, harnessing and holding. Other devices include plastic ties or clamps, spiral-cut plastic tubing and plastic U-shaped trays or ducts.

Wire and Lead Cutters: Tools for cutting range from plier-type cutters to semiautomatic or fully automatic machines integrated with other wire processing operations such as stripping, forming and terminating.

Wrapper: An insulating barrier applied as a sheet or tape wrapped around a co~l periphery.

XLPE: Crosslinked polyethylene.

Yield Strength: The minimum stress at which a material will start to physically deform without increase in load.

Zytel: DuPont's trade name for nylon resins.

Unit Conversion Factors

Unit Conversion Factors

UNIT	X CONSTANT	= UNIT	UNIT	X CONSTANT	= UNIT
BTU	778.0	foot-pound (ft-lb)	gallons	3.785332	liters (l)
BTU	1054.8	joules	gallons	0.13368	cubic foot (ft^3)
BTU	0.293	watt-hours (w-hr)	gallons	231.0	cubic inch (in^3)
centimeters (cm)	0.032808	feet (ft)	gallons	3785.332	cubic centimeter (cm^3)
centimeters (cm)	0.3937	inches (in)	grams (g)	15.432	grains
centimeters (cm)	0.00001	kilometers (km)	gram/centimeter^3 (gm/cm^3)	0.0361275	pounds/in^3 (lb/in^3)
centimeters (cm)	0.010	meters (m)	horsepower (hp)	33000.0	ft-lb/min
centimeters (cm)	10.0	millimeters (mm)	horsepower (hp)	550.0	ft-lb/sec
circular mils	0.00064516	circular millimeters	horsepower (hp)	745.7	watts (w)
circular mils	0.0000007854	inches^2 (in^2)	inch (in)	0.027178	yards (yd)
circular mils	0.00050671	square millimeters (mm^2)	inch (in)	0.083333	feet (ft)
circular mils	0.7854	$mils^2$	inch (in)	0.00002540	kilometer (km)
cubic centimeter (cm^3)	0.000035314	cubic foot (ft^3)	inch (in)	0.025400	meter (m)
cubic centimeter (cm^3)	0.061023	cubic inch (in^3)	inch (in)	2.54000514	centimeter (cm)
cubic centimeter (cm^3)	0.000001	cubic meter (m^3)	inch (in)	25.4000514	millimeter (mm)
cubic centimeter (cm^3)	0.0026417	gallons	inch (in)	1000.0	mils
cubic foot (ft^3)	1728.0	cubic inch (in^3)	joules	0.000948	BTU
cubic foot (ft^3)	28317.016	cubic centimeter (cm^3)	joules	10^7	ergs
cubic inch (in^3)	0.00057870	cubic feet (ft^3)	liters (l)	61.0250	cubic inch (in^3)
cubic inch (in^3)	0.000016387	cubic meter (m^3)	meters (m)	1.093611	yards (yd)
cubic inch (in^3)	16.387162	cubic centimeter (cm^3)	meters (m)	3.2808333	feet (ft)
cubic meter (m^3)	1000000.0	centimeter (cm)	meters (m)	39.37	inch (in)
cubic meter (m^3)	35.314456	cubic foot (ft^3)	meters (m)	100.0	centimeter (cm)
cubic meter (m^3)	264.17	gallons	miles	1760.0	yards (yd)
feet (ft)	0.00018939	miles	miles	5280.0	feet (ft)
feet (ft)	0.33333	yards (yd)	miles	1.6093	kilometer (km)
feet (ft)	12	inches (in)	millimeters (mm)	0.0032808	feet (ft)
feet (ft)	0.00030480	kilometers (km)	millimeters (mm)	0.03937	inch (in)
feet (ft)	0.30480	meters (m)	millimeters (mm)	0.001	meters (m)
feet (ft)	30.480	centimeters (cm)	millimeters (mm)	0.01	centimeters (cm)
feet (ft)	304.80	millimeters (mm)	millimeters (mm)	39.3701	mils
feet/pound (ft/lb)	0.00067197	meters/grams (m/g)	millimeters (mm)	1000.0	microns (u)
foot-pound (ft-lb)	0.001285	BTU	watts (w)	44.25	ft-lb/minute
foot-pound (ft-lb)	1.356	joules	watts (w)	0.737562	ft-lb/sec
foot-pound (ft-lb)	0.1383	kilogram/meter (kg/m)	watts (w)	0.001341	horsepower (hp)
			watt-hours (w-hr)	3.41266	BTU

Temperature Conversion Chart

To use this chart, find your known temperature (˚F or ˚C) in the shaded column. If the known temperature is in ˚C and you wish to know its value in ˚F, move to the adjacent right-hand column. If the known temperature is in ˚F and you wish to know its value in ˚C, move to the adjacent left-hand column.

Temperature Conversion Formulas	
°C =	$\frac{5}{9}$ (°F - 32)
°F =	($\frac{9}{5}$ x °C) + 32

°C	KNOWN TEMP	°F	°C	KNOWN TEMP	°F	°C	KNOWN TEMP	°F	°C	KNOWN TEMP	°F	°C	KNOWN TEMP	°F
-45.0	**-49.0**	-56.2	-17.2	**1.0**	33.8	10.6	**51.0**	123.8	38.3	**101.0**	213.8	66.1	**151.0**	303.8
-44.4	**-48.0**	-54.4	-16.7	**2.0**	35.6	11.1	**52.0**	125.6	38.9	**102.0**	215.6	66.7	**152.0**	305.6
-43.9	**-47.0**	-52.6	-16.1	**3.0**	37.4	11.7	**53.0**	127.4	39.4	**103.0**	217.4	67.2	**153.0**	307.4
-43.3	**-46.0**	-50.8	-15.6	**4.0**	39.2	12.2	**54.0**	129.2	40.0	**104.0**	219.2	67.8	**154.0**	309.2
-42.8	**-45.0**	-49.0	-15.0	**5.0**	41.0	12.8	**55.0**	131.0	40.6	**105.0**	221.0	68.3	**155.0**	311.0
-42.2	**-44.0**	-47.2	-14.4	**6.0**	42.8	13.3	**56.0**	132.8	41.1	**106.0**	222.8	68.9	**156.0**	312.8
-41.7	**-43.0**	-45.4	-13.9	**7.0**	44.6	13.9	**57.0**	134.6	41.7	**107.0**	224.6	69.4	**157.0**	314.6
-41.1	**-42.0**	-43.6	-13.3	**8.0**	46.4	14.4	**58.0**	136.4	42.2	**108.0**	226.4	70.0	**158.0**	316.4
-40.6	**-41.0**	-41.8	-12.8	**9.0**	48.2	15.0	**59.0**	138.2	42.8	**109.0**	228.2	70.6	**159.0**	318.2
-40.0	**-40.0**	-40.0	-12.2	**10.0**	50.0	15.6	**60.0**	140.0	43.3	**110.0**	230.0	71.1	**160.0**	320.0
-39.4	**-39.0**	-38.2	-11.7	**11.0**	51.8	16.1	**61.0**	141.8	43.9	**111.0**	231.8	71.7	**161.0**	321.8
-38.9	**-38.0**	-36.4	-11.1	**12.0**	53.6	16.7	**62.0**	143.6	44.4	**112.0**	233.6	72.2	**162.0**	323.6
-38.3	**-37.0**	-34.6	-10.6	**13.0**	55.4	17.2	**63.0**	145.4	45.0	**113.0**	235.4	72.8	**163.0**	325.4
-37.8	**-36.0**	-32.8	-10.0	**14.0**	57.2	17.8	**64.0**	147.2	45.6	**114.0**	237.2	73.3	**164.0**	327.2
-37.2	**-35.0**	-31.0	-9.4	**15.0**	59.0	18.3	**65.0**	149.0	46.1	**115.0**	239.0	73.9	**165.0**	329.0
-36.7	**-34.0**	-29.2	-8.9	**16.0**	60.8	18.9	**66.0**	150.8	46.7	**116.0**	240.8	74.4	**166.0**	330.8
-36.1	**-33.0**	-27.4	-8.3	**17.0**	62.6	19.4	**67.0**	152.6	47.2	**117.0**	242.6	75.0	**167.0**	332.6
-35.6	**-32.0**	-25.6	-7.8	**18.0**	64.4	20.0	**68.0**	154.4	47.8	**118.0**	244.4	75.6	**168.0**	334.4
-35.0	**-31.0**	-23.8	-7.2	**19.0**	66.2	20.6	**69.0**	156.2	48.3	**119.0**	246.2	76.1	**169.0**	336.2
-34.4	**-30.0**	-22.0	-6.7	**20.0**	68.0	21.1	**70.0**	158.0	48.9	**120.0**	248.0	76.7	**170.0**	338.0
-33.9	**-29.0**	-20.2	-6.1	**21.0**	69.8	21.7	**71.0**	159.8	49.4	**121.0**	249.8	77.2	**171.0**	339.8
-33.3	**-28.0**	-18.4	-5.6	**22.0**	71.6	22.2	**72.0**	161.6	50.0	**122.0**	251.6	77.8	**172.0**	341.6
-32.8	**-27.0**	-16.6	-5.0	**23.0**	73.4	22.8	**73.0**	163.4	50.6	**123.0**	253.4	78.3	**173.0**	343.4
-32.2	**-26.0**	-14.8	-4.4	**24.0**	75.2	23.3	**74.0**	165.2	51.1	**124.0**	255.2	78.9	**174.0**	345.2
-31.7	**-25.0**	-13.0	-3.9	**25.0**	77.0	23.9	**75.0**	167.0	51.7	**125.0**	257.0	79.4	**175.0**	347.0
-31.1	**-24.0**	-11.2	-3.3	**26.0**	78.8	24.4	**76.0**	168.8	52.2	**126.0**	258.8	80.0	**176.0**	348.8
-30.6	**-23.0**	-9.4	-2.8	**27.0**	80.6	25.0	**77.0**	170.6	52.8	**127.0**	260.6	80.6	**177.0**	350.6
-30.0	**-22.0**	-7.6	-2.2	**28.0**	82.4	25.6	**78.0**	172.4	53.3	**128.0**	262.4	81.1	**178.0**	352.4
-29.4	**-21.0**	-5.8	-1.7	**29.0**	84.2	26.1	**79.0**	174.2	53.9	**129.0**	264.2	81.7	**179.0**	354.2
-28.9	**-20.0**	-4.0	-1.1	**30.0**	86.0	26.7	**80.0**	176.0	54.4	**130.0**	266.0	82.2	**180.0**	356.0
-28.3	**-19.0**	-2.2	-0.6	**31.0**	87.8	27.2	**81.0**	177.8	55.0	**131.0**	256.8	82.8	**181.0**	357.8
-27.8	**-18.0**	-0.4	0.0	**32.0**	89.6	27.8	**82.0**	179.6	55.6	**132.0**	269.6	83.3	**182.0**	359.6
-27.2	**-17.0**	1.4	0.6	**33.0**	91.4	28.3	**83.0**	181.4	56.1	**133.0**	271.4	83.9	**183.0**	361.4
-26.7	**-16.0**	3.2	1.1	**34.0**	93.2	28.9	**84.0**	183.2	56.7	**134.0**	273.2	84.4	**184.0**	363.2
-26.1	**-15.0**	5.0	1.7	**35.0**	95.0	29.4	**85.0**	185.0	57.2	**135.0**	275.0	85.0	**185.0**	365.0
-25.6	**-14.0**	6.8	2.2	**36.0**	96.8	30.0	**86.0**	186.8	57.8	**136.0**	276.8	85.6	**186.0**	366.8
-25.0	**-13.0**	8.6	2.8	**37.0**	98.6	30.6	**87.0**	188.6	58.3	**137.0**	278.6	86.1	**187.0**	368.6
-24.4	**-12.0**	10.4	3.3	**38.0**	100.4	31.1	**88.0**	190.4	58.9	**138.0**	280.4	86.7	**188.0**	370.4
-23.9	**-11.0**	12.2	3.9	**39.0**	102.2	31.7	**89.0**	192.2	59.4	**139.0**	282.2	87.2	**189.0**	372.2
-23.3	**-10.0**	14.0	4.4	**40.0**	104.0	32.2	**90.0**	194.0	60.0	**140.0**	284.0	87.8	**190.0**	374.0
-22.8	**-9.0**	15.8	5.0	**41.0**	105.8	32.8	**91.0**	195.8	60.6	**141.0**	285.8	88.3	**191.0**	375.8
-22.2	**-8.0**	17.6	5.6	**42.0**	107.6	33.3	**92.0**	197.6	61.1	**142.0**	287.6	88.9	**192.0**	377.6
-21.7	**-7.0**	19.4	6.1	**43.0**	109.4	33.9	**93.0**	199.4	61.7	**143.0**	289.4	89.4	**193.0**	379.4
-21.1	**-6.0**	21.2	6.7	**44.0**	111.2	34.4	**94.0**	201.2	62.2	**144.0**	291.2	90.0	**194.0**	381.2
-20.6	**-5.0**	23.0	7.2	**45.0**	113.0	35.0	**95.0**	203.0	62.8	**145.0**	293.0	90.6	**195.0**	383.0
-20.0	**-4.0**	24.8	7.8	**46.0**	114.8	35.6	**96.0**	204.8	63.3	**146.0**	294.8	91.1	**196.0**	384.8
-19.4	**-3.0**	26.6	8.3	**47.0**	116.6	36.1	**97.0**	206.6	63.9	**147.0**	296.6	91.7	**197.0**	386.6
-18.9	**-2.0**	28.4	8.9	**48.0**	118.4	36.7	**98.0**	208.4	64.4	**148.0**	289.4	92.2	**198.0**	388.4
-18.3	**-1.0**	30.2	9.4	**49.0**	120.2	37.2	**99.0**	210.2	65.0	**149.0**	300.2	92.8	**199.0**	390.2
-17.8	**0.0**	32.0	10.0	**50.0**	122.0	37.8	**100.0**	212.0	65.6	**150.0**	302.0	93.3	**200.0**	392.0

CAROL BRAND

General Cable

Cord Technical Information 11

As applications become more intricate, specifying wire and cable products to meet commercial, industrial and specialty requirements has become more time-consuming and complex.

Today's designers, installers and contractors must be aware not only of general power transmission types but also of the myriad of materials available to meet specific environmental and electrical performance criteria.

This technical section is presented to aid in the selection of cord products to best suit specific designs and applications.

For technical issues and questions, please contact your local General Cable distributor, your retailer or your Inside Sales Representative.

Index Page

AWG to Metric Conversion Chart

SIZE (AWG.)	mm^2	SIZE (AWG.)	mm^2
18	0.82	1/0	53.5
16	1.31	2/0	64.4
14	2.08	3/0	85.0
12	3.31	4/0	107.0
10	5.26	250	127.0
9	6.63	300	152.0
8	8.37	350	177.0
6	13.30	500	253.0
4	21.15	600	304.0
2	33.62	750	380.0
1	42.40	1000	507.0

Common Wire Conductor Stranding

STRANDING CLASS	14–2 AWG.	1–4/0 AWG.	250 MCM – 500 MCM
B	7 STR	19 STR	37 STR
C	19 STR	37 STR	61 STR
D	37 STR	61 STR	91 STR
G	49 STR	133 STR	259 STR
H	133 STR	259 STR	427 STR
I	All sizes use 24 AWG. wires		
K	All sizes use 30 AWG. wires		
M	All sizes use 34 AWG. wires		

Bend Radius Calculation per ICEA

Bend Radius = 6 x nominal OD (typically in inches)

Applies to the following cable types:

SJ	G-GC
SO	Welding
W	Stage Lighting & Entertainment
G	

Installation – Training and Bending Limitations

Physical Limitations Training and Bending

Overview

Training is the positioning of cable when it is not under tension. Bending is the positioning of cable when it is under tension. When installing cable, the object is to limit the mechanical forces so that the cable's physical and electrical characteristics are maintained for the expected service life. Bends in conductors, multiconductor cables or assemblies of conductors shall be made so that the cable will not be damaged.

A nonshielded cable can tolerate a sharper bend than a shielded cable. This is especially true for cables having helically applied metallic shielding tapes which, when bent too sharply, can separate or buckle and cut into the insulation. Remember that offsets are bends.

The problem is compounded by the fact that most tapes are under jackets that conceal such damage. The extruded polymers used for insulation shields have sufficient conductivity and coverage initially to pass acceptance testing, then fail prematurely due to corona at the shield/insulation interface.

Minimum Bending Radius in Accordance with National Electric Code

Voltage	Conductors	Shielding	Cable Types	Minimum Bending Radius as a Multiple of Conductor/Assembly Diameter		
600V	Single	Nonshielded	All	5X		
601-2000V			All	8X		
600V or 2000V	Multiconductor or Multiplexed	Nonshielded	TC or TC-ER	1 in. (25 mm) or less	Over 1 in. to 2 in. (>25 mm to 50 mm)	Over 2 in. (>50 mm)
				4X	5X	6X
			MC[1]	7X		
		Shielded	All	12X		
			TC or TC-ER	12X		
			MC	12X/7X[1]		

[1] Per 330.24B Interlocked-Type Armor or Corrugated Sheath.

Cord Product Coding System

Cord Packaging and Color Codes

Example: **02725.41.01**

Product Number

Packaging Code Identification Numbers

CODE	PACKAGING	CODE	PACKAGING
15/R5	250' Spool	41	1000' Reel
18/R8	500' Spool	43	2000' Reel
21	1000' Spool	44	2500' Reel
24	2500' Spool	46	5000' Reel
35	250' Reel	85	250' Coil
38	500' Reel	99	LL Reel
40	LL Reel	XX	Shorts

Jacket Color Code Identification Numbers

CODE	COLOR	CODE	COLOR
01	Black	07	Blue
02	White	08	Brown
03	Red	10	Gray
04	Orange	13	Pink
05	Yellow	19	Purple
06	Green	77	Light blue

General Cable

CAROL BRAND

Voltage Drop Calculations

To Find Volts Lost:

1. Multiply current (amperes) by the distance (feet in one conductor) by the figure in the table below for the type of system and wire used.
2. Place a decimal in front of the last six figures.
3. The result is number of volts lost.

Note: For AC 3 Phase Current Voltage Drop obtained is phase-to-phase.

WIRE SIZE	POWER FACTOR %	AC SINGLE PHASE	AC THREE PHASE	DC	WIRE SIZE	POWER FACTOR %	AC SINGLE PHASE	AC THREE PHASE	DC
14 AWG.	100	5880	5090	5880	**3/0 AWG.**	100	149	129	144
	90	5360	4640			90	179	155	
	80	4790	4150			80	181	156	
	70	4230	3660			70	177	153	
	60	3650	3160			60	171	148	
12 AWG.	100	3690	3190	3690	**4/0 AWG.**	100	121	104	114
	90	3380	2930			90	152	131	
	80	3030	2620			80	156	135	
	70	2680	2320			70	155	134	
	60	2320	2010			60	151	131	
10 AWG.	100	2320	2010	2820	**250 MCM**	100	102	89	97
	90	2150	1861			90	136	117	
	80	1935	1675			80	143	123	
	70	1718	1487			70	143	124	
	60	1497	1296			60	141	122	
8 AWG.	100	1462	1265	1462	**300 MCM**	100	86	75	81
	90	1373	1189			90	121	104	
	80	1248	1081			80	128	111	
	70	1117	969			70	131	113	
	60	981	849			60	130	113	
6 AWG.	100	918	795	918	**350 MCM**	100	74	64	69
	90	882	764			90	109	95	
	80	812	703			80	118	102	
	70	734	636			70	122	105	
	60	653	565			60	122	106	
4 AWG.	100	578	501	578	**400 MCM**	100	66	57	60
	90	571	494			90	101	88	
	80	533	462			80	111	96	
	70	489	423			70	115	99	
	60	440	381			60	116	101	
2 AWG.	100	367	318	363	**500 MCM**	100	54	47	48
	90	379	328			90	89	78	
	80	361	313			80	99	86	
	70	337	292			70	105	91	
	60	309	268			60	108	93	
1 AWG.	100	291	252	288	**600 MCM**	100	47	41	40
	90	311	269			90	83	72	
	80	299	259			80	93	81	
	70	284	246			70	99	86	
	60	264	229			60	103	89	
1/0 AWG.	100	233	202	229	**750 MCM**	100	39	34	32
	90	257	222			90	75	65	
	80	252	218			80	86	75	
	70	241	209			70	93	81	
	60	227	106			60	97	84	
2/0 AWG.	100	187	162	181	**1000 MCM**	100	31	27	24
	90	213	184			90	67	58	
	80	212	183			80	79	68	
	70	206	178			70	86	75	
	60	196	169			60	91	78	

Insulation and Jacket Properties

TYPICAL PROPERTIES OF COMMON INSULATING MATERIALS										
PARAMETER	PVC	PE	PP	XLPE	NYLON	EPDM	TFE	BUTYL RUBBER	SILICONE RUBBER	TPR
Specific Gravity	1.37	0.92	0.89	0.93-1.18	1.09	1.43	2.17	1.40	1.60	1.16-1.20
Dielectric Constant										
(a) 60 Hz	6.0	2.26	2.6	3.0	4.6	3.4	2.1	4.1	3.3	2.8
(b) 1000 Hz	5.0	2.25		3.0	4.5	3.4	2.1	4.0	3.1	2.8
Dielectric Strength, v/mil										
(a) 0.010" wall	1800	2100	850	-	1000	700	2000	700	600	625
(b) 0.040" wall	800	1050	450	700	470	500	950	500	400	
Tensile Strength, PSI x 1000	1.5-3.8	1.4-2.4	2.9-4.5	1.8-2.5	8.8-11.9	0.8-1.2	2.0-6.0	0.5-1.5	0.6-1.2	2.3
Service Temp. Range, °C	-55/+105	-90/+90	-40/+105	-55/+105	-55/+105	-55/+105	-90/+260	-40/+90	-80/+200	-55/+90
Elongation, %	200-375	350-550	700	250-400	150-380	250-450	200-500	200-400	125-400	500
Water Absorption, % in 24 hr	<0.75	<0.02	<0.02	<0.01	2.5	<0.1	<0.01	<1.0	<1.0	<0.6
Flame Resistance	Self-Extinguishing	Support Flame	Support Flame	Slow Flame	Self-Extinguishing	Supports Flame	Non-Flammable	Slow Burning	Slow (Non-Cond. Ash)	Flammable
Ozone Resistance	Excellent	Good	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent
Flexibility	Good	Good	Good	Good-Fair	Good-Fair	Excellent	Good	Excellent	Excellent	Excellent
Abrasion Resistance	Good	Good	Fair	Excellent	Excellent	Fair	Excellent	Poor	Poor	Good-Fair
Acid Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent
Base Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Excellent
Hydraulic Fluid Resistance	Good-Fair	Fair-Poor	Fair	Good-Fair	Good-Fair	Good-Fair	Excellent	Poor	Fair-Poor	Poor
Organic Solvent Resistance	Fair-Poor	Poor	Fair	Fair	Good-Fair	Fair-Poor	Excellent	Good-Fair	Poor	Poor

NOTE: The above is representative of performance. For specific compound performance, consult factory.

TYPICAL PROPERTIES OF COMMON JACKETING MATERIALS									
PARAMETER	PVC	PE	NYLON	CPE	TFE	SILICONE RUBBER	NEOPRENE	POLY-URETHANE	TPR
Specific Gravity	1.37	0.92	1.09	1.46	2.17	1.24	1.52	1.3	1.16-1.20
Tensile Strength, PSI x 1000	1.5-3.8	1.4-2.4	8.8-119	1.2-2.0	2.0-6.0	0.6-1.2	1.5-2.5	>3.5	2.3
Elongation, %	200-375	350-550	150-380	300-500	200-500	125-400	300-500	540-700	500
Service Temp. Range,°C	-55/+105	-80/+75	-55/+105	-50/+105	-90/+200	-80/+200	-65/+90	-65/+75	-55/+90
Ozone Resistance	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent	Good	Excellent
Weatherability	Good-Fair	Excellent-Good	Fair-Poor	Excellent	Excellent	Excellent	Good	Good	Excellent
Flame Resistance	Self-Extinguishing	Supports Flame	Flammable	Self-Extinguishing	Non-Flammable	Slow-Burn (Non-Cond. Ash)	Self-Extinguishing	Slow-Burn	Flammable
Flexibility	Good	Good	Good-Fair	Excellent	Good	Excellent	Excellent	Excellent	Excellent
Abrasion Resistance	Good	Good	Excellent	Good	Excellent	Poor	Excellent	Excellent	Good-Fair
Acid Resistance	Excellent	Excellent	Poor	Good	Excellent	Poor	Good	Fair	Excellent
Base Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Fair	Excellent
Hydraulic Fluid Resistance	Good-Fair	Fair-Poor	Good-Fair	Good	Excellent	Fair-Poor	Good	Poor	Good
Organic Solvent Resistance	Fair-Poor	Poor	Good-Fair	Good	Excellent	Poor	Good	Poor	Poor
Resistance to Tearing	Good	Good	Excellent	Good	Good	Fair	Good	Excellent	Good-Fair

NOTE: The above is representative of performance. For specific compound performance, consult factory.

Government and Military Wire and Cable Specifications

J-C-90: Flexible cord and fixture wire.
J-C-96: Neoprene jacketed telephone wire.
J-C-580: Flexible cord and fixture wire.
J-C-0741: Rubber and/or neoprene welding cable.
MIL-C-17: Coaxial cable – polyethylene and Teflon dielectric.
MIL-C-915, MIL-C-2194: Shipboard cable.
MIL-C-1486: 10 conductor WM-46/U only.
MIL-C-3078: Cable, electric, insulated low tension single conductor.
MIL-C-3432: 300 volt and 600 volt rubber insulated power and control cable.
MIL-C-3458: Cables, telephone.
MIL-C-3702: Cable, power electrical, ignition, high tension.
MIL-C-3849: Tinsel cord. Light duty low voltage flexible cord for switchboards, microphones, telephones, etc.
MIL-C-3883: Cord electrical (audio frequency).
MIL-C-3884: Conductor electrical (short lay).
MIL-C-4839: KEL-F insulated cable, WF-15/U.
MIL-C-4866: RG-62 B/U cable.
MIL-C-4921A (ASG): Single conductor 8 AWG. 5,000 volt cable with butyl compound insulation and polychloroprene. For airport lighting.
MIL-C-5136: Cable, power, electric, polychloroprene sheathed, buna compound insulated.
MIL-C-5767: Low temperature rubber portable cords.
MIL-C-6166: Cord, headset-microphone CX1301/AR.
MIL-C-7078: 600 volt aircraft cable.
MIL-C-8721 (ASG): Cable, ignition high tension, aircraft quality.
MIL-C-8721: Miniature coaxial cables with Teflon TFE cores.
MIL-C-8817 (ASG): Cable ignition, high tension, aircraft quality.
MIL-C-9360: RG 134/U cable
MIL-C-10065: Cables, special purpose electrical (multi-pair) audio frequency.
MIL-C-10369: Cable, telephone field, for rapid payout.
MIL-C-10392: Cables, special purpose, electric (miniature).
MIL-C-10581: Cables telephone, cable assemblies, telephone, coil assembly, telephone loading
MIL-C-11060: Cables, twisted pair, internal hook-up, unshielded and shielded.
MIL-C-11097: Cable, telephone (Wire W-50-A).
MIL-C-11311: Telephone cable types WD-31/U and WT-24/U.
MIL-C-11440: Cable, power electrical.
MIL-C-12064: Low temperature power cable and cords for Arctic service.
MIL-C-12423: Cable, telephone WD-33 U.
MIL-C-12881: Cables, telephone, switchboard (cable and cable assemblies).
MIL-C-12992: Cable assembly, power, electrical (Cord CX-227 TVQ- 1).
MIL-C-13066: Cable, telephone (submarine No. 19 AWG. and No. 22 AWG.).
MIL-C-13077: Cable, special purpose, electrical.
MIL-C-13486: Cables, special purpose electrical: low tension, heavy duty, single CDR & multiconductor shielded arid unshielded
MIL-C-13777: Multi-conductor missile ground support cable.
MIL-C-13892: Cable, telephone (flexible).
MIL-C-14189: Cable, power electrical, 3000 volt, for field use.
MIL-C-15325: Cable, tow, electric (three conductor).
MIL-C-15479: Cables, power, electrical, submarine, Navy Standard Harbor Defense.
MIL-C-18959: Cable power, electrical, portable neoprene jacketed 600 volt.
MIL-C-18961: Cable, special purpose, electrical and wire, electrical, shot
MIL-C-18962: Cable, power, electrical, direct burial, neoprene jacketed 600 volt.
MIL-C-19381 (Ships): Cables, special purpose, electrical nuclear plant.
MIL-C-19547: Cables, electrical, special purpose, shore use.
MIL-C-19638: Cables, power electric, submarine, Navy Harbor Defense.
MIL-C-19654: Cable, telephone, submarine.
MIL-C-19787: Cable, electric, torpedo, 65 conductor (torpedo control, electric setting).
MIL-C-19883: Cables, special purpose, electric, for remote control radar set AN/FPN-28.
MIL-C-21069: Cable, electrical, shield, 600 volt (non-flexing service).
MIL-C-22667: Cable, special purpose, buoyant, electrical (submarine use).
MIL-C-23020: Coaxial cable for use inside submarines (water blocked).
MIL-C-23206: Cable, special purpose, electrical. Silicone rubber, water blocked.
MIL-C-23437: Cable, electrical, shielded pairs.
MIL-C-24145 (Ships): Cable, electrical special purpose for shipboard use (water blocked and non-water blocked). Formerly BuShip 660 L.
MIL-C-24640: Cable, electrical, lightweight for shipboard use.
MIL-C-24643: Cable and cord, electrical, low-smoke for shipboard use.
MIL-C-25115: RG-62 C/U.
MIL-C-25509: RG-115 A U
MIL-C-26468 (USAF): Cables, guided missile, ground installation, general requirements for.
MIL-C-27072: Multi-conductor ground support cable.
MIL-C-27212: Cable, power, electrical, airport lighting control.
MIL-C-27500: Shielded and unshielded aircraft and missile cables.
MIL-C-36359 (USAF): Power cable of two voltage range for airport lighting 8 AWG. (3,000-5,OOOV) CCLP insulated.
MIL-C-55021: Cables, twisted pairs and triples, internal hook-up, shielded and unshielded.
MIL-C-55036: Cable, telephone, WM130##/6.
MIL-E-9085 (USAF): Electrical cord, WM-85/u.
MIL-E-9088 (USAF): Electrical cord, WF-15/u.
MIL-R-833 (USAF): RF cable, RG12/u.
MIL-STD-122: Color code for chassis wiring for electronic equipment.
MIL-STD-681: Identification coding and application of hook-up wire.
MIL-W-76: General purpose hook-up wire. Vinyl insulated types LW, MW and HW.
MIL-W-438: Wire ignition electric power.
MIL-C-442: Thermoplastic or rubber jacketed two conductor parallel rip cord.
MIL-W-583: Wire, magnet, electrical.
MIL-W-3093: Wire, insulated, W-121, W-122, W-123, WD15/u, WD-16, WF-9/u, WT-3/u (distributing, frame wires).
MIL-W-3104: Wire, insulated No. 20 AWG., extra flexible).
MIL-W-3975: Wire, electrical (tinsel).
MIL-W-3861: Wire, electrical (bare copper).
MIL-W-5086: 600 volt aircraft wire (copper conductors).
MIL-W-5088: Installation of wiring and wiring devices in aircraft.
MIL-W-5274: Spec for aircraft wire, Type I 600V, Type II 600V, Type 111 300 rating
MIL-W-5845: Wire, electrical, iron and constantan, thermocouple.
MIL-W-5846: Wire, electrical, chromel and alumel, thermocouple.
MIL-W-5908: Wire, electrical, copper and constantan, thermocouple.
MIL-W-6370: Wire, electrical, insulated antenna.
MIL-W-7072: 600 volt aircraft wiring (aluminum conductors).
MIL-W-7500: Wire, electrical, WS-31-U.
MIL-W-8160: Installation of wire in guided missiles.
MIL-W-877: 600 volt silicone rubber insulated aircraft wire.
MIL-W-12349: KEL-F insulated hook-up wire.
MIL-W-12410: General purpose hook-up wire similar to MIL-W-76.
MIL-W-12995: Wire, electrical (W-29 and W-120).
MIL-W-13075: Wire, electrical
MIL-W-13169: Wire, electrical (for instrument test leads).
MIL-W-13241: Wire, electrical.
MIL-W-16400: General specification for electronic equipment, Naval ship and shore.
MIL-W-16878: Electronic hook-up wire. Includes vinyl (Types B, C, and D), Teflon (Types ET, E, EE, KT, K and KK) and polyethylene (Type J).
MIL-W-17211 (Ships): Wire, electrical, radio antenna 7/12, 7/14, 7/16, 7/18, 7/20, 7/22.
MIL-W-19150: Wire, insulated, hard drawn copper.
MIL-W-19583 (Navy): Wire, electrical, magnet, high temperature, film insulated.
MIL-W-21306: Wire, electrical twisted pair, color coded switchboard.
MIL-W-22759: Teflon and Tefzel insulated airframe wire.
MIL-W-25038: Wire, electrical, high temperature and fire-resistant aircraft.
MIL-W-27300: Teflon insulated 600 volt aircraft wire.
MIL-W-81044: Irradiated wire for aircraft and hook-up.
MIL-W-81381: Wire, electric polyamide insulated copper and copper alloy (Kapton H-film).
MIL-W-81822: Solid conductor, wire wrap insulated and uninsulated.
NAS-702: General purpose PVC insulated hook-up wire.
NAS-703: High temperature general purpose Teflon TFE insulated wire. Similar to Types E and EE of MIL-W-16878.

Cordset Technical Information 12

General Cable takes pride in offering high-quality cordsets to our customers that provide reliable service year after year in the most rugged uses and application conditions. From our innovative **Plug-it®** line of cordset products and extension cord accessories to the ultimate extension cord in the industry – **FrogHide®** – we sell the products that power you forward.

Handy information and technical data in this section will help in the correct selection and matching of our cordset products to your application. For difficult applications or more detailed technical questions, please contact your local General Cable distributor, your retailer, or your Inside Sales Representative.

Extension Cord Facts

What does AWG. mean?

AWG. means American Wire Gauge. It designates the size of the copper wire. The standard sizes for extension cords are 16 AWG., 14 AWG., 12 AWG. and 10 AWG. The smaller the AWG. number, the larger the size of the copper wire and wattage rating.

What do the AMP and Watt ratings mean?

Never plug more than the specific number of watts into a cord. For example, could you plug a 150 Watt lamp, a 60 Watt lamp and a 10 AMP appliance into an extension cord rated 13 AMPS/1625 Watts?

Use the AMP to Watt Conversion Table to determine the total number of Watts to be used (150 Watts + 60 Watts + 1250 Watts = 1460 Watts). Therefore it is safe to use the 13 AMP/1625 Watt extension cord.

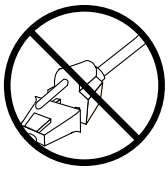
Always look for the Underwriters Laboratory label which is permanently attached or molded into the cord. Read the label for instructions and electrical ratings.

AMPS To WATTS (@ 125V) Conversion Table		
0	=	0
1	=	125
2	=	250
3	=	375
4	=	500
5	=	625
6	=	750
7	=	875
8	=	1000
9	=	1125
10	=	1250
11	=	1375
12	=	1500
13	=	1625
14	=	1750
15	=	1875

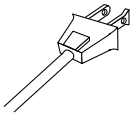
How to use an extension cord properly.

- Be sure the cord you have selected meets the intended use. Never use a cord outdoors that is not marked for outdoors.
- Inspect cord thoroughly before each use. Do not use if damaged.

- Do not remove, bend or modify any metal prongs or pins of plug.
- Look for the number of watts on appliances to be plugged into cord.
- Refer to UL Label on cord for specific wattage.
- Do not connect a three-prong plug into a two-hole cord.



- Do not plug more than the specified number of watts into a cord.
- Make sure appliance is off before connecting cord to outlet.



- A polarized plug has one blade wider than the other.
- Fully insert plug into outlet.
- Do not use excessive force to make connections.
- Do not run cords through doorways, holes in ceilings, walls or floors.
- Do not use an extension cord when wet.

- Keep extension cords away from water.
- Keep children and pets away from extension cords.

- Avoid overheating. Uncoil cord and do not cover it with any other material.
- Do not plug one extension cord into another.
- Do not drive, drag or place objects over extension cord.
- Always grasp plug when removing it from cord or outlet.
- Do not unplug by pulling on cord.

- Always store extension cords indoors.

- Do not walk on cord.
- Always unplug cord when not in use.
- Always look for the Underwriters Laboratory (UL) label which is permanently attached or molded into the cord. Read the label for instructions and electrical ratings.

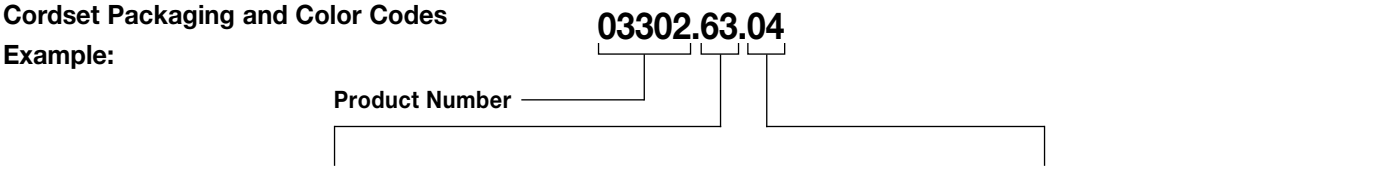
CAROL BRAND

General Cable

Cordset Product Coding System

Cordset Packaging and Color Codes

Example:



Packaging Code Identification Numbers

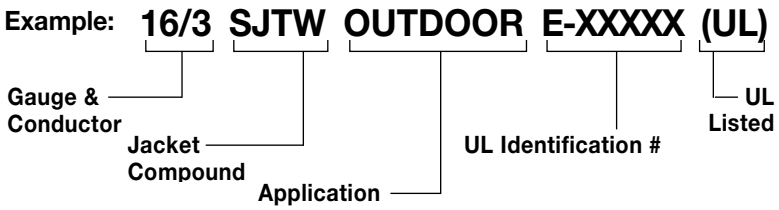
CODE	PACKAGING	CODE	PACKAGING
13	Clamshell	70	Bulk (with tie)
60	Cuff	73	Bulk (without tie)
61	Box	96	Card
63	Sleeve		

Jacket Color Code Identification Numbers

CODE	COLOR	CODE	COLOR
00	No color	06	Green
01	Black	07	Blue
02	White	08	Brown
03	Red	10	Gray
04	Orange	17	Beige
05	Yellow		

Surface Printed Legend

Our extension cords have surface-printed jackets to provide a means of identifying and distinguishing between different types of extension cords.



Inner Wire Color Code Chart

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Green, Red

Understanding Wire Gauge

- Gauge refers to the size of the wire
- The thinner the wire, the higher the gauge number
- The thicker the wire, the lower the gauge number

- The lower the gauge, the more electrical current (amps) the wire can carry
- The lower the gauge, the longer distance the wire can be run from an electrical source

How to Select the Right Extension Cord

1. Look up the AMP rating on the power tool or appliance.
2. Determine the maximum distance the tool or appliance will be from the electrical outlet.
3. Use the Extension Cord Selector chart below to identify the proper gauge.

Extension Cord Selector

EQUIPMENT	AMP RATING
Circular Saw	12-15
Power Drill	3-7
Hedge Trimmer	2-3
Weed Trimmer	2-4
Chain Saw	7-12
Leaf Blower	6-12
Bug Killer	1-2
Lawn Mower	6-12

Extension Cord Selector

MAXIMUM DISTANCES	UP TO 10 AMPS	UP TO 15 AMPS
0' to 25'	16 Gauge	14 Gauge
25' to 50'	16 Gauge	14 Gauge
50' to 75'	16 Gauge	12 Gauge
75' to 100'	16 Gauge	12 Gauge

Extension Cord Performance Guide

	FROGHIDE® ULTRA FLEX® RUBBER	LIFETIME PLUS® SUPER FLEX®	ALL WEATHER BLUE	SAFETY ORANGE®
Low-Temp Flex	Excellent	Good	Good	Fair
Room-Temp Flex	Excellent	Very Good	Very Good	Good
Oil Resistance	Excellent	Very Good	Very Good	Fair
Cap/Cord Bonding	Excellent	Very Good	Very Good	Good
Abrasion Resistance	Excellent	Very Good	Very Good	Very Good
Chemical Resistance	Excellent	Very Good	Very Good	Very Good
Heat Softening	Excellent	Fair	Fair	Fair
Water Resistance	Excellent	Excellent	Excellent	Excellent
Flame Resistance	Excellent	Very Good	Very Good	Very Good

Ground Fault Circuit Interrupters (GFCI)

What is the GFCI?

The GFCI is a fast-acting circuit interrupter that senses small current imbalances.

These small imbalances in the circuit are caused by current leakage to ground and, in a fraction of a second, the GFCI shuts off the electricity. The GFCI continually matches the amount of current going to an electrical device against the amount of current returning from the device along the normal path. Whenever the amount "going" differs from the amount "returning" by approximately 5 milliamps, the GFCI interrupts the electrical power within as little as 1/40 of a second.

What are OSHA's Electrical Standards for Construction?

GFCIs can be used successfully to reduce electrical hazards on construction sites...

Tripping of GFCIs - interruption of current flow - is sometimes caused by wet connectors and tools. It is a good practice to limit exposure of connectors and tools to excessive moisture by using watertight or sealable connectors. Providing more GFCIs or shorter circuits can prevent tripping caused by the cumulative leakage from several tools or by leakages from extremely long circuits.

To help cope with the electrical hazards at construction sites...

The Occupational Safety and Health Administration (OSHA) issued a revision of OSHA safety and health regulation, 29 Code of Federal Regulations Part 1926, Subpart K (Electrical Standards of Construction). This revision was published in the federal Register and contains the requirements for the GFCI and the assured equipment grounding conductor program.

What are the Employer's Responsibilities on a Construction Site?

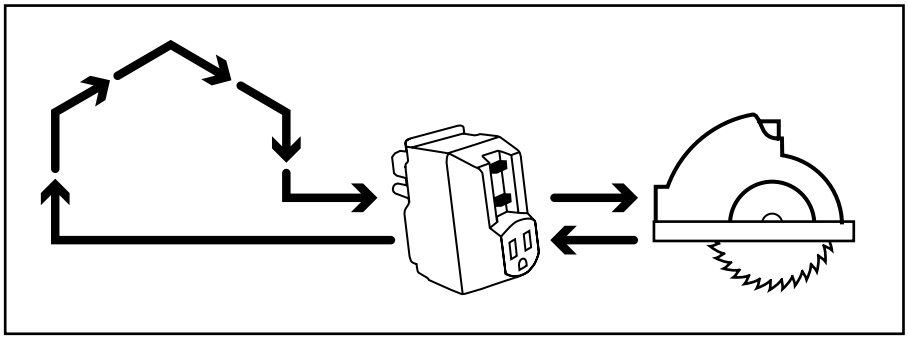
OSHA ground-fault protection rules and regulations have been determined necessary and appropriate for employee safety and health.

Therefore, it is the employer's responsibility to provide either...

- Ground-fault circuit interrupters on construction sites for receptacle outlets in use and not a part of the permanent wiring of the building or structure.
- A scheduled and recorded assured equipment grounding conductor program on construction sites, covering all cordsets, receptacles that are not part of the permanent wiring of the building or structure, and equipment connected by cord and plug that are for use or used by employees.

It is also the employer's responsibility to provide approved ground fault circuit interrupters for a 120-volt, single-phase, 15- and 20-ampere receptacle outlets on construction sites that are not part of the permanent wiring of the building or structure, and that are in use by employees. Receptacles on the ends of extension cords are not part of the permanent wiring and, therefore must be protected by GFCIs whether or not the extension cord is plugged into permanent wiring.

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. An effective program includes provisions for the systematic identification, evaluation and prevention or control of general workplace hazards, specific job hazards and potential hazards that may arise from foreseeable conditions. An effective program will include management commitment and employee involvement, work site analysis, hazard prevention and control, training and the proper equipment.



NEMA Receptacle and Plug Chart

	VOLTAGE	LINE NO.	15 AMPERE		20 AMPERE	
			RECEPTACLE	PLUG	RECEPTACLE	PLUG
2 Pole 2 Wire	125V	1	1-15R	1-15P		
	250V	2	2-15R	2-15P	2-20R	2-20P
2 Pole 3 Wire Grounding	125V	5	5-15R	5-15P	5-20R	5-20P
	250V	6	6-15R	6-15P	6-20R	6-20P
	277V	7	7-15R	7-15P	7-20R	7-20P
3 Pole 3 Wire	125/250V	10			10-20R	10-20P
	3 ϕ Δ 250V	11	11-15R	11-15P	11-20R	11-20P
3 Pole 4 Wire Grounding	125/250V	14	14-15R	14-15P	14-20R	14-20P
	3 ϕ Δ 250V	15	15-15R	15-15P	15-20P	15-20P
4 Pole 4 Wire	3 ϕ Y 120/208V	18	18-15R	18-15P	18-20R	18-20P

NEMA Receptacle and Plug Chart

	VOLTAGE	LINE NO.	30 AMPERE RECEPTACLE	30 AMPERE PLUG	50 AMPERE RECEPTACLE	50 AMPERE PLUG	60 AMPERE RECEPTACLE	60 AMPERE PLUG
2 Pole 2 Wire	125V	1						
	250V	2	2-30R 	2-30P 				
2 Pole 3 Wire Grounding	125V	5	5-20R 	5-30P 	5-50R 	5-50P 		
	250V	6	6-30R 	6-30P 	6-50R 	6-50P 		
	277V	7	7-30R 	7-30P 	7-50R 	7-50P 		
3 Pole 3 Wire	125/250V	10	10-30R 	10-30P 	10-50R 	10-50P 		
	3 ϕ Δ 250V	11	11-30R 	11-30P 	11-50R 	11-50P 		
3 Pole 4 Wire Grounding	125/250V	14	14-30R 	14-30P 	14-50R 	14-50P 	14-60R 	14-60P 
	3 ϕ Δ 250V	15	15-30R 	15-30P 	15-50R 	15-50P 	15-60R 	15-60P 
4 Pole 4 Wire	3 ϕ Y 120/208V	18	18-30R 	18-30P 	18-50R 	18-50P 	18-60R 	18-60P 

LOCKING-TYPE PLUGS AND RECEPTACLES

VOLTAGE	LINE NO.	15 AMPERE RECEPTACLE	15 AMPERE PLUG	20 AMPERE RECEPTACLE	20 AMPERE PLUG	30 AMPERE RECEPTACLE	30 AMPERE PLUG
125V	L-1	L1-15R 	L1-15P 				
250V	L-2			L2-20R 	L2-20P 		
125V	L-5	L5-15R 	L5-15P 	L5-20R 	L5-20P 	L5-30R 	L5-30P 
250V	L-6	L6-15R 	L6-15P 	L6-20R 	L6-20P 	L6-30R 	L6-30P 
277V, A.C.	L-7	L7-15R 	L7-15P 	L7-20R 	L7-20P 	L7-30R 	L7-30P 
480V	L-8			L8-20R 	L8-20P 	L8-30R 	L8-30P 
600V	L-9			L9-20R 	L9-20P 	L9-30R 	L9-30P 

General Cable

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General Cable
4 Tesseneer Drive
Highland Heights, Kentucky 41076-9753
U.S.A.

Telephone (800) 243-8020
Fax (859) 572-9262
International Telephone +1 859 572 8000
International Fax +1 859 572 8058

www.generalcable.com

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