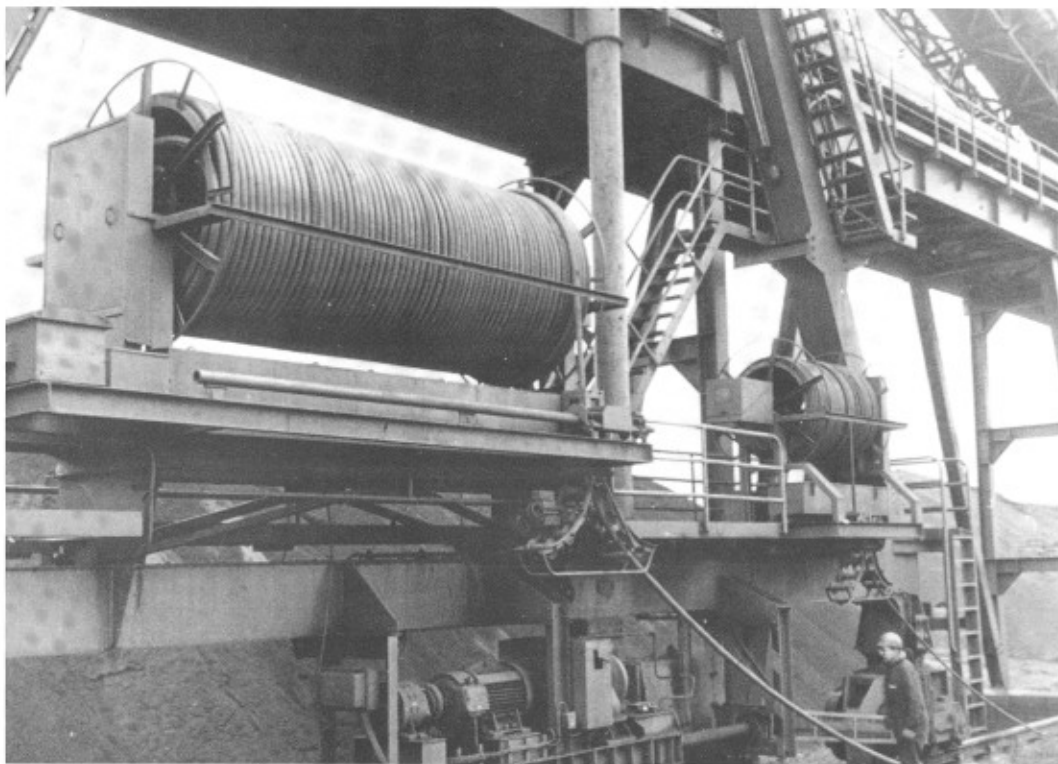
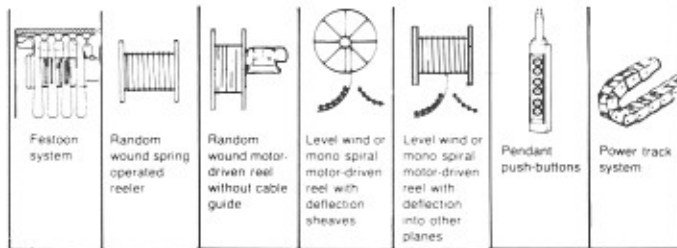


CORDAFLEX® (K) Fiber-Optic Composite Cable

Fiber-Optic Composite, Portable Reel and Festoon Cable -
EP Insulation, Optical Fiber Assembly, Dual Black Neoprene Lead
Cured Jacket with Braid Reinforcement 90°C, 600 Volt



2

Application

CORDAFLEX (K) cable is ideal for cable handling systems where extended flex life is the major consideration. Such systems may include cable reelers with roller guides, random cable reelers without guides and festoon systems.

The extremely flexible conductor assembly and jacket material ensure superior cable flex life for applications characterized by moderate tensions and repeated bending. The fiber-optic assembly is mounted in the construction like a conductor to evenly distribute loading.

Design

Extra finely stranded, tin coated copper conductors are laid up with a short length of lay to provide a flexible conductor assembly. Highly ozone resistant PROTON EP insulation is extruded onto the conductors. Textile fillers are used in conjunction with talcum lubrication to complete the assembly. These features provide a free riding construction that is easily flexed. Individual conductor shielding and twisted pair shielding is composed of very finely stranded tin coated copper braid. These shields have coverage of approximately 90%. An extruded nylon jacket covers

these braided shields to enhance mechanical protection.

A wide mesh textile braid, laying in a vulcanized bond between the inner and outer jacket, provides torsion resistance. The heavy duty black neoprene lead cured jacket is designed to capitalize on the high flexibility of the conductor assembly with particular emphasis on low temperature, sub-zero performance. The jacket also is highly oil and flame resistant.

CORDAFLEX (K) cables meet or exceed NSHTou construction requirements specified in VDE 0250.

Temperature Ratings

- Maximum permissible conductor temperature: 90°C
- Minimum ambient temperature for optimum fully flexible operation: -35°C
- Minimum permissible ambient temperature: -55°C

Ampacity and Voltage Drop

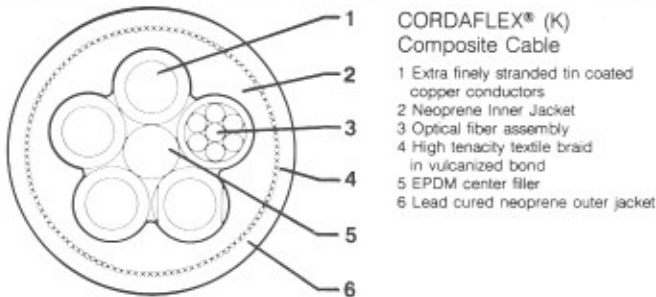
Tables 3/3 to 3/9 on pages 40 & 41 may be used to determine the appropriate ampacity for CORDAFLEX (K) cables. Table 3/12 on page 42 can then be applied to calculate voltage drop.

Voltage Ratings

- Rated voltage: 600 volts
- Maximum permissible operating voltages are:
 - Three phase and single phase A.C. systems: 1200 volts
 - D.C. systems: 1800 volts
 - A.C. factory test voltage: 2500 volts (r.m.s.)

Color Sequence for CORDAFLEX® (K) Cables

Method 4, according to ICEA S-68-516 and NEMA WC 8, is used to identify conductors. All conductors are black insulated and sequentially numbered.



CORDAFLEX (K) Composite Cable

Control Conductors					Optical Fibers			Nominal Overall Diameter		Cable Weight		Maximum Continuous Safe Reeling Tension		
Anixter Part Number	Siemens Catalog Number	Number of Conductors	Conductor Size		Approximate Number of Strands Per Conductor	Number of Glass Fibers	Nominal diameter of fiber Core (µm)	Nominal diameter of fiber Cladding (µm)	Inch	mm	Lbs/1000 ft	kg/km	lbs	Newtons
			AWG	mm ²										
4EC-1620-40F	5DH3 872	20	16	1.5	50	4	62.5	125	1.3	33	810	1210	135	600

Note: Cordaflex (K) composite optical/control or composite optical/power cables can be offered in a broad variety of different combinations. The item shown above is a typical example of a custom solution. We invite your inquiries for special requirements.