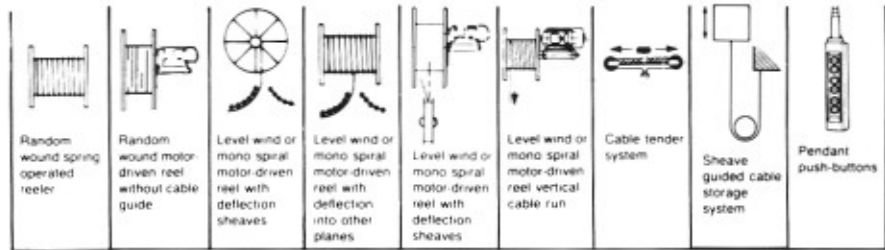


# CORDAFLEX® (SM) Fiber-Optic Composite Cable

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



**Application**

CORDAFLEX® (SM) cables are used for high speed, high tensile stress applications characterized by frequent dynamic load peaks. Such applications include magnet cranes, reeled container crane spreader ca-

ble, tender systems and motorized grabs. This cable construction is particularly resistant to the high torsion and transverse forces associated with high speed sheave guided systems and vertical applications.

**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 PROTO-LON® EP insulation is extruded onto the conductors. Individual conductor shielding is composed of very finely stranded tin coated copper braid. This shield has coverage of approximately 90%. An extruded nylon jacket covers the braided shields to enhance mechanical protection.

achieved through the use of a high tenacity wide mesh, synthetic textile braid which lies in a vulcanized bond between the inner and outer jacket. The extra heavy duty yellow neoprene jacket is designed to protect the conductor assembly from deformation caused by the high transverse forces experienced in extreme applications. The jacket material is highly oil and flame resistant.

A high tenacity KEVLAR® central messenger is placed within an EPDM filler. Torsion resistance is

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

**CORDAFLEX® (SM) Reinforced Spreader (RS) Reeling Cable**

In order to deal with dynamic tensile loads in high speed vertical reeling applications such as container crane spreaders, this enhanced version of CORDAFLEX® (SM) cable has been developed.

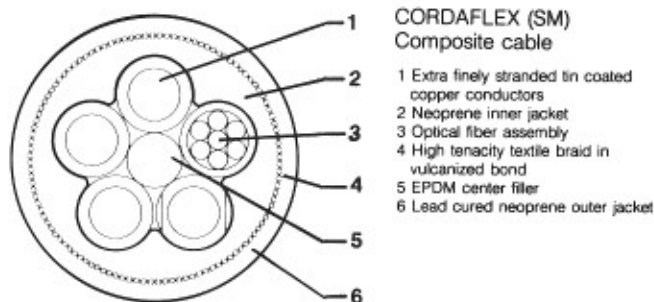
The major features of this cable are its heavy KEVLAR® reinforcement and modifications to the conductor length of lay. The special reinforcement incorporated in this construction has a breaking strength of 4,500 lbs. (20 kN).

Temperature Ratings	<ul style="list-style-type: none"> <li>• Maximum conductor temperature: 90°C</li> <li>• Minimum ambient temperature for full flexing operation: -20°C</li> <li>• Minimum permissible ambient temperature: -45°C</li> </ul>
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Ampacity and Voltage Drop	Table 3/3 to 3/9 on pages 40 & 41 may be used to determine the appropriate ampacity for CORDAFLEX (SM) cable. Table 3/12 on page 42 can then be applied to calculate voltage drop.
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Voltage Ratings	<ul style="list-style-type: none"> <li>• Rated voltage: 600 volts</li> <li>• Maximum permissible operating voltages are: <ul style="list-style-type: none"> <li>- Three phase and single phase A.C. system: 1200 volts</li> <li>- D.C. systems: 1800 volts</li> <li>- A.C. factory test voltage: 2500 volts (r.m.s.)</li> </ul> </li> </ul>
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Color Sequence for CORDAFLEX® (SM) 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.
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#### CORDAFLEX (SM) Composite Optical Fiber Cable

Control Conductors					Optical Fibers			Nominal Overall Diameter		Cable Weight		Maximum Continuous Safe Reeling Tension		
Anixter Part Number	Siemens Catalog Number	Number of Twisted Shielded Pairs	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 <sup>2</sup>										
4EC-1406SP-60F-05	5DH3 838	6	14	2.5	80	6	62.5	125	1.83	46.5	1760	2620	135	600

CORDAFLEX (SM) 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.