ActiFi™ Composite Cable, Loose Tube, Indoor/Outdoor, FREEDM® Riser

Features and Benefits

12, 14, 16 or 20 AWG copper conductors
Power transmission with flexibility in design

2, 4, 6, 8, 12 or 24 ClearCurve® ZBL or SMF-28® Ultra fibers
Reliable performance in challenging routes

Individual fibers
Easily accessible for splicing

Mutual capacitance between adjacent conductors is <50 pF/ft

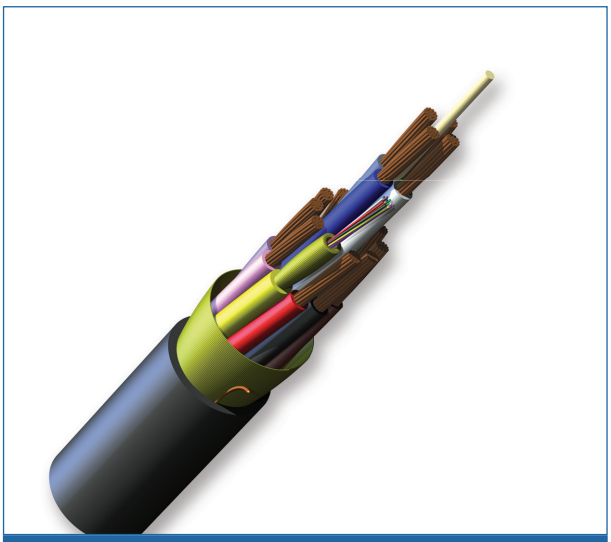
2-in-1 composite cable design
One cable meets power and signal needs

Conductor color code is same as Telcordia color code

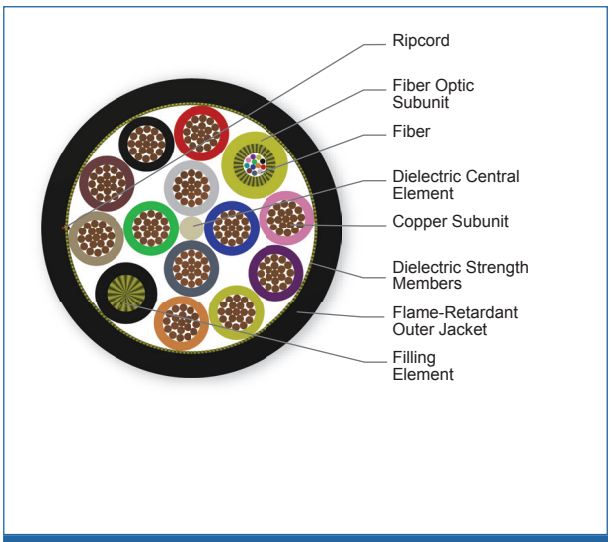
Conductor insulation material and thickness
PVC insulation, thickness varies depending on AWG size

ActiFi™ Composite FREEDM® Cables provide the ultimate solution for indoor-outdoor remote powering of distributed antenna systems (DAS), optical networks, small cells and more. The design uses fiber and linear-laid copper conductors rated at 300 VAC. These cables are suitable for use with remote powering systems and +/-190VDC installations in accordance with NEC Article 830.15. They may also be used with low voltage installa-tions in accordacne with NEC Article 725.

ActiFi Composite FREEDM Cables provide a time and cost-saving solution for installations requiring remotely powered equipment. By integrating linear-laid copper and loose tube fiber in one cable, class 3 limited power cables eliminate the need to install separate power and fiber cables. This saves installation time, labor costs and duct or tray space. This compact and versatile design is available with interlocking armor option for additional protection where conduit may not be feasible.



ActiFi™ Composite Cable, FREEDM® Riser, 12-Fibers



ActiFi™ Composite Cable, FREEDM® Riser, 12-Fibers

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Standards

Approvals and Listings	CSA certified listed to UL 444, CSA C22.2, No. 214 NEC Article 725 Class 3 (CL3R)
Common Installations	Compliant with ICEA S-83-696 (compliant at tensile loads listed in the specifications table)
Design and Test Criteria	ICEA S-120-742, UL-13; 300 VAC, 80 C

Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	0 °C to 60 °C (32 °F to 140 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
3.0 mm MIC® 250 2.0 with 12AWG					
2 - 4	2	124.90 kg/km (83.93 lb/1000 ft)	9.0 mm (0.35 in)	133.35 mm (5.25 in)	88.90 mm (3.50 in)
2	4	124.90 kg/km (83.93 lb/1000 ft)	9.0 mm (0.35 in)	133.35 mm (5.25 in)	88.90 mm (3.50 in)
4 - 12	4	203.80 kg/km (136.95 lb/1000 ft)	10.9 mm (0.43 in)	163.83 mm (6.45 in)	109.22 mm (4.30 in)
4 - 8	6	231.81 kg/km (155.77 lb/1000 ft)	13.3 mm (0.52 in)	198.12 mm (7.80 in)	132.08 mm (5.20 in)
6 - 12	2	133.50 kg/km (89.71 lb/1000 ft)	9.0 mm (0.35 in)	133.35 mm (5.25 in)	88.90 mm (3.50 in)
6 - 12	12	528.34 kg/km (355.03 lb/1000 ft)	17.9 mm (0.70 in)	266.70 mm (10.50 in)	177.80 mm (7.00 in)
12	6	240.14 kg/km (161.37 lb/1000 ft)	13.3 mm (0.52 in)	198.12 mm (7.80 in)	132.08 mm (5.20 in)
24	4	244.40 kg/km (164.23 lb/1000 ft)	12.5 mm (0.49 in)	186.69 mm (7.35 in)	124.46 mm (4.90 in)
24	6	277.38 kg/km (186.39 lb/1000 ft)	14.8 mm (0.58 in)	220.98 mm (8.70 in)	147.32 mm (5.80 in)

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Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
24	12	544.70 kg/km (366.02 lb/1000 ft)	17.9 mm (0.70 in)	266.70 mm (10.50 in)	177.80 mm (7.00 in)
3.0 mm MIC® 250 2.0 with 14AWG					
2 - 12	2	56.55 kg/km (38.00 lb/1000 ft)	7.5 mm (0.30 in)	114.30 mm (4.50 in)	76.20 mm (3.00 in)
4 - 12	4	139.49 kg/km (93.73 lb/1000 ft)	9.5 mm (0.37 in)	140.97 mm (5.55 in)	93.98 mm (3.70 in)
4 - 12	6	219.89 kg/km (147.76 lb/1000 ft)	11.3 mm (0.44 in)	167.64 mm (6.60 in)	111.76 mm (4.40 in)
6 - 24	12	365.92 kg/km (245.89 lb/1000 ft)	14.2 mm (0.56 in)	213.36 mm (8.40 in)	142.24 mm (5.60 in)
24	2	96.52 kg/km (64.86 lb/1000 ft)	8.3 mm (0.33 in)	125.73 mm (4.95 in)	83.82 mm (3.30 in)
24	4	148.99 kg/km (100.12 lb/1000 ft)	9.7 mm (0.39 in)	148.59 mm (5.85 in)	99.06 mm (3.90 in)
MIC® 250 2.0 with 16AWG					
2 - 12	2	55.00 kg/km (36.96 lb/1000 ft)	6.1 mm (0.24 in)	91.44 mm (3.60 in)	60.96 mm (2.40 in)
2 - 12	4	88.90 kg/km (59.74 lb/1000 ft)	7.4 mm (0.29 in)	110.49 mm (4.35 in)	73.66 mm (2.90 in)
2 - 12	6	132.58 kg/km (89.09 lb/1000 ft)	8.7 mm (0.34 in)	129.54 mm (5.10 in)	86.36 mm (3.40 in)
6 - 24	12	224.92 kg/km (151.14 lb/1000 ft)	11.2 mm (0.44 in)	167.64 mm (6.60 in)	111.76 mm (4.40 in)
24	2	58.69 kg/km (39.44 lb/1000 ft)	6.3 mm (0.25 in)	95.25 mm (3.75 in)	63.50 mm (2.50 in)
MIC® 250 2.0 with 20AWG					
2 - 12	2	32.93 kg/km (22.13 lb/1000 ft)	5.3 mm (0.21 in)	80.01 mm (3.15 in)	53.34 mm (2.10 in)
2 - 12	4	50.84 kg/km (34.16 lb/1000 ft)	6.0 mm (0.24 in)	91.44 mm (3.60 in)	60.96 mm (2.40 in)
2 - 12	6	68.23 kg/km (45.85 lb/1000 ft)	6.9 mm (0.27 in)	102.87 mm (4.05 in)	68.58 mm (2.70 in)
6 - 24	12	122.10 kg/km (82.05 lb/1000 ft)	9.0 mm (0.35 in)	133.35 mm (5.25 in)	88.90 mm (3.50 in)

Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU

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Transmission Performance

Single-mode		
Fiber Name	ClearCurve® ZBL	SMF-28® Ultra fiber
Fiber Category	G.657.B3/G.652.D	ITU-T G.657.A1
Fiber Code	U	Z
Performance Option Code	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.35/0.35/0.20	0.33/0.33/0.19

** For more information on typical attenuation please see the Corning whitepaper at http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_rl/LAN-1863-AEN.pdf*

** * SMF-28® Ultra fiber delivers up to 10x better macrobend loss performance compared to the G.652.D standard and up to 33 percent better macrobend loss performance than the G.657.A1 standard for 10mm radii bends.*

Ordering Information | *Note: Contact Customer Care at 1-800-743-2675 for other options.*

□	□	□	□	□	F	-	□	□	□	0	1	M	2	0
1			2	3	4		5	6	7	8		9	10	

1 Select fiber count.
002 = 2 fiber 008 = 8 fiber
004 = 4 fiber 012 = 12 fiber
006 = 6 fiber 024 = 24 fiber

2 Select fiber type.
U = ClearCurve® ZBL (OS2)
Z = SMF28® Ultra fiber (OS2)

3 Select cable construction.
T = MIC® 250 2.0
D = 3.0 mm MIC® 250

4 Defines outer jacket.
F = Indoor/outdoor riser

5 Select number of copper conductors.
2 = 2 conductors
4 = 4 conductors
6 = 6 conductors
M = 12 conductors

6 Select unit of measure.
1 = Feet
2 = Meter

7 Select cable construction.
Z = MIC® 250 2.0 with 20 AWG
Y = MIC® 250 2.0 with 16 AWG
X = 3.0 mm MIC® 250 2.0 with 14 AWG
W = 3.0 mm MIC® 250 2.0 with 12 AWG

8 Defines performance option code.
01 = Single-mode, OS2
(Max. attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable construction.
M= Hybrid (composite) cable

10 Defines print code.
20 = Non-armored

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Notes

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