

Class 3 Limited Power Cable, Indoor/ Outdoor, FREEDM® Riser

2 F, 2 Cu Conductor, 16AWG

CORNING

Corning Class 3 Limited Power 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 installations in accordance with NEC Article 725.

Corning Class 3 Limited Power 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.

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

<50 pF/ft

2-in-1 composite cable design

One cable meets power and signal needs

Conductor color code

Same as Telcordia color code

Conductor insulation material and thickness

PVC insulation, thickness varies depending on AWG size

Standards

Approvals and Listings

CSA certified listed to UL
444, CSA C22.2, No. 214

NEC Article 725 Class 3
(CL3R)

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Standards

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

General Specifications	
Environment	Indoor/Outdoor
Application	Vertical Riser
Cable Type	Loose Tube
Fiber Category	SMF-28 [®] Ultra fiber

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)

Cable Design	
Central Element	Jacketed GRP
Fiber Count	2
Fiber Coloring	Blue, Orange
Fibers per Tube	2
Number of Tube Positions	1
Number of Active Tubes	1
Buffer Tube Color Coding	Yellow
Buffer Tube Diameter	1.6 mm (0.06 in)
Number of Ripcords	1
Outer Jacket Material	Flame-retardant
Outer Jacket Color	Black
Conductor	16 AWG
Number of Conductors	2

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Mechanical Characteristics Cable

Weight	55.00 kg/km (36.96 lb/1000 ft)
Nominal Outer Diameter	6.1 mm (0.24 in)
Min. Bend Radius Installation	91.44 mm (3.60 in)
Min. Bend Radius Operation	60.96 mm (2.40 in)

Chemical Characteristics

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

Optical Characteristics (cabled)

Fiber Name	SMF-28® Ultra fiber
Fiber Category	ITU-T G.657.A1
Fiber Code	Z
Performance Option Code	01
Wavelengths	1310 nm / 1383 nm / 1550 nm
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Typical Attenuation	0.33 dB/km / 0.33 dB/km / 0.19 dB/km

* 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

Ordering Information

Part Number	002ZTF-21Y01M20
Product Description	Class 3 Limited Power, FREEDM® Cable, Riser, 2 F, 2 Cu Conductor, 16AWG



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