



Fiber indoor cable, Low Smoke Zero Halogen Riser MPO Trunk, 144 fiber multi-unit with 12 fiber subunits, Gel-free, Singlemode G.657.A2/B2, Feet jacket marking, Yellow jacket color, Dca flame rating

Product Classification

| | |
|------------------------------|---|
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
| Portfolio | CommScope® |
| Product Type | Fiber indoor cable |
| Product Series | N-MP |

General Specifications

| | |
|-------------------------------------|-----------------|
| Cable Type | MPO trunk cable |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Jacket Color | Yellow |
| Jacket Marking | Feet |
| Subunit, quantity | 12 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 144 |

Dimensions

| | |
|-------------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 3 mm 0.118 in |
| Diameter Over Jacket | 14.22 mm 0.56 in |

Representative Image



Mechanical Specifications

| | |
|--|---------------------------------------|
| Minimum Bend Radius, loaded | 200 mm 7.874 in |
| Minimum Bend Radius, unloaded | 133 mm 5.236 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1335 N 300.12 lbf |
| Compression | 10 N/mm 57.101 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 300 cycles |
| Flex Test Method | FOTP-104 IEC 60794-1 E6 |
| Impact | 2.94 N-m 26.021 in lb |
| Impact Test Method | FOTP-25 IEC 60794-1 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | FOTP-33 IEC 60794-1 E1 |
| Twist | 10 cycles |
| Twist Test Method | FOTP-85 IEC 60794-1 E7 |
| Vertical Rise, maximum | 280 m 918.635 ft |

Optical Specifications

| | |
|-------------------|---------------------------|
| Fiber Type | G.657.A2/B2 G.657.A2/B2 |
|-------------------|---------------------------|

Environmental Specifications

| | |
|---------------------------------|-------------------------------------|
| Installation temperature | -20 °C to +60 °C (-4 °F to +140 °F) |
|---------------------------------|-------------------------------------|

760237978 | N-144-MP-8G1-F12YL/D

| | |
|---|---|
| Operating Temperature | -20 °C to +70 °C (-4 °F to +158 °F) |
| Storage Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Cable Qualification Standards | ANSI/ICEA S-83-596 Telcordia GR-409 |
| EN50575 CPR Cable EuroClass Fire Performance | Dca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d1 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |
| Environmental Space | Low Smoke Zero Halogen (LSZH) Riser |
| Flame Test Listing | NEC OFNR-ST1 (ETL) and c(ETL) |
| Flame Test Method | IEC 60332-3 IEC 60754-2 IEC 61034-2 UL 1666 UL 1685 |

Environmental Test Specifications

| | |
|--------------------------------------|-------------------------------------|
| Heat Age | -20 °C to +85 °C (-4 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | -20 °C to +70 °C (-4 °F to +158 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | -20 °C to +70 °C (-4 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

| | |
|---------------------|---------------------------|
| Cable weight | 146 kg/km 98.107 lb/kft |
|---------------------|---------------------------|

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CENELEC | EN 50575 compliant, Declaration of Performance (DoP) available |
| CHINA-ROHS | Below maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant |
| UK-ROHS | Compliant |



Included Products

| | | |
|-----------|---|--|
| CS-8G1-MP | – | Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2) |
|-----------|---|--|

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8G1-MP

Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber (ITU-T G.657.A2, B2)

Product Classification

| | |
|---------------------|---------------|
| Portfolio | CommScope® |
| Product Type | Optical fiber |

General Specifications

| | |
|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.3 µm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 249 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±13 µm |
| Coating Diameter Tolerance (Uncolored) | ±5 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

Dimensions

| | |
|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

| | |
|--|---|
| Macrobending, 15 mm Ø mandrel, 1 turn | 0.50 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 20 mm Ø mandrel, 1 turn | 0.10 dB @ 1,550 nm 0.20 dB @ 1,625 nm |
| Macrobending, 30 mm Ø mandrel, 10 turns | 0.03 dB @ 1,550 nm 0.10 dB @ 1,625 nm |
| Coating Strip Force, maximum | 8.9 N 2.001 lbf |
| Coating Strip Force, minimum | 1.3 N 0.292 lbf |
| Dynamic Fatigue Parameter, minimum | 20 |

Optical Specifications

| | |
|--|---------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |

CS-8G1-MP

| | |
|--|---------------------|
| Zero Dispersion Slope, maximum | 0.092 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1324 nm |
| Zero Dispersion Wavelength, minimum | 1302 nm |

Optical Specifications, Wavelength Specific

| | |
|--|---|
| Attenuation, maximum | 0.40 dB/km @ 1,310 nm 0.40 dB/km @ 1,385 nm 0.40 dB/km @ 1,550 nm 0.50 dB/km @ 1,625 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.467 @ 1,385 nm 1.468 @ 1,550 nm |
| Mode Field Diameter | 8.6 μm @ 1,310 nm 9.8 μm @ 1,550 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.06 ps/sqrt(km) |
| Standards Compliance | ITU-T G.657.A2 ITU-T G.657.B2 |

Environmental Specifications

| | |
|--|--------------------|
| Heat Aging, maximum | 0.05 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.05 dB/km |
| Temperature Humidity Cycling, maximum | 0.05 dB/km |
| Water Immersion, maximum | 0.05 dB/km @ 23 °C |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

* Footnotes

| | |
|--|---|
| Temperature Dependence, maximum | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F) |
| Temperature Humidity Cycling, maximum | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |