## 760245231 | Z-192-CN-RR-F12BK/8G1/99G/C



Fiber indoor/outdoor cable, All-Dielectric, LSZH Riser-Rated, Gel-Free, Central Tube Rollable Ribbon, 192 fiber, Singlemode G.657.A2/B2, Feet jacket marking, Black jacket color, Cca flame rating

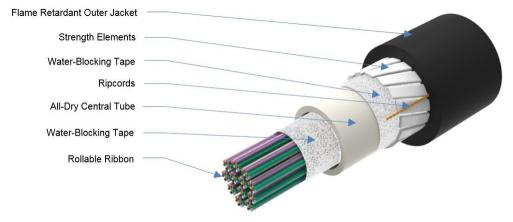
#### Product Classification

| Regional Availability        | Asia   Australia/New Zealand   EMEA   Latin America   North<br>America |
|------------------------------|--|
| Portfolio                    | CommScope®   |
| Product Type                 | Fiber indoor/outdoor cable   |
| Product Series               | Z-CN   |
| General Specifications       |  |
| Cable Type                   | Ribbon central tube  |
| Construction Type            | Non-armored  |
| Subunit Type                 | Gel-free   |
| Fibers per Ribbon, quantity  | 12   |
| Jacket Color                 | Black  |
| Jacket Marking               | Feet   |
| Total Fiber Count            | 192  |
| Dimensions                   |  |
| Buffer Tube/Subunit Diameter | 8.1 mm   0.319 in  |
| Diameter Over Jacket         | 12.5 mm   0.492 in   |
| Representative Image         |  |

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#### Mechanical Specifications

| Minimum Bend Radius, loaded       | 250 mm   9.843 in                     |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, unloaded     | 77 mm   3.031 in                      |
| Tensile Load, long term, maximum  | 800 N   179.847 lbf                   |
| Tensile Load, short term, maximum | 2670 N   600.24 lbf                   |
| Compression                       | 10 N/mm   57.101 lb/in                |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 25 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              |
| 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)  |
|--------------------------|--------------------------------------|
| Operating Temperature    | -40 °C to +70 °C (-40 °F to +158 °F) |
| Storage Temperature      | -40 °C to +70 °C (-40 °F to +158 °F) |

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| Cable Qualification Standards                | ANSI/ICEA S-104-696   EN 187105   Telcordia GR-409                         |
|--|--|
| EN50575 CPR Cable EuroClass Fire Performance | Сса  |
| EN50575 CPR Cable EuroClass Smoke Rating     | s1a  |
| EN50575 CPR Cable EuroClass Droplets Rating  | d0   |
| EN50575 CPR Cable EuroClass Acidity Rating   | a1   |
| Environmental Space                          | Aerial, lashed   Buried   Low Smoke Zero Halogen (LSZH)   Riser            |
| Flame Test Listing                           | NEC OFNR-ST1 (ETL) and c(ETL)  |
| Flame Test Method                            | CSA FT4   IEC 60332-1-2   IEC 60754-2   IEC 61034-2   UL<br>1666   UL 1685 |
| Jacket UV Resistance                         | UV stabilized  |
| Water Penetration                            | 24 h   |
| Water Penetration Test Method                | FOTP-82   IEC 60794-1 F5   |

### Environmental Test Specifications

| Cable Freeze                  | -2 °C   28.4 °F                      |
|-------------------------------|--------------------------------------|
| Cable Freeze Test Method      | FOTP-98   IEC 60794-1 F15            |
| Heat Age                      | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method          | IEC 60794-1 F9                       |
| Low High Bend                 | -20 °C to +60 °C (-4 °F to +140 °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

168 kg/km | 112.891 lb/kft

#### Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CENELEC       | EN 50575 compliant, Declaration of Performance (DoP) available                 |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| CENELEC       |  |

#### Included Products

CS-8G1-RR-I/O

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

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#### \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

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### CS-8G1-RR-I/O

Enhanced Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Rollable Ribbon 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 Tensile Stress                          | 100,000 psi (0.69 GPa)                  |
| 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                                  |

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### CS-8G1-RR-I/O

| 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                                    | 0.3 dB/km @ 1,550 nm   0.4 dB/km @ 1,310 nm                                   |
| Dispersion, maximum                                     | 18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285<br>nm to 1330 nm at 1310 nm |
| Index of Refraction                                     | 1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550<br>nm                     |
| Mode Field Diameter                                     | 8.6 μm @ 1,310 nm \mid 9.8 μm @ 1,550 nm                                      |
| Mode Field Diameter Tolerance                           | ±0.4 μm @ 1310 nm   ±0.5 μm @ 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 |

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