# 760213959 | D-096-CA-RB-F12NS/5L/99A



Fiber OSP cable, Steel Armored, Arid-Core, Dry Central Tube Ribbon, Multimode OM3, bend insensitive, Feet jacket marking, Black jacket color

### Product Classification

| Regional Availability        | Asia   Australia/New Zealand   EMEA   Latin America   North<br>America |
|------------------------------|--|
| Portfolio                    | CommScope®   |
| Product Type                 | Fiber OSP cable  |
| Product Series               | D-CA   |
| General Specifications       |  |
| Armor Type                   | Corrugated steel   |
| Cable Type                   | Ribbon central tube  |
| Construction Type            | Armored  |
| Subunit Type                 | Gel-free   |
| Fibers per Ribbon, quantity  | 12   |
| Jacket Color                 | Black  |
| Jacket Marking               | Feet   |
| Total Fiber Count            | 96   |
| Dimensions                   |  |
| Buffer Tube/Subunit Diameter | 7.9 mm   0.311 in  |
| Diameter Over Jacket         | 15.5 mm   0.61 in  |

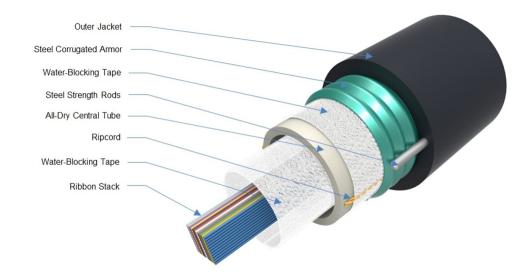
## Representative Image

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## Mechanical Specifications

| Minimum Bend Radius, loaded       | 309.9 mm   12.201 in                          |
|-----------------------------------|---|
| Minimum Bend Radius, unloaded     | 154.9 mm   6.098 in                           |
| Tensile Load, long term, maximum  | 800 N   179.847 lbf                           |
| Tensile Load, short term, maximum | 2700 N   606.984 lbf                          |
| Compression                       | 22 N/mm   125.623 lb/in                       |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3                      |
| Flex                              | 25 cycles                                     |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6                     |
| Impact                            | 4.4 N-m   38.943 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                        | OM3, bend insensitive   OM3, bend insensitive |

## Environmental Specifications

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## 760213959 | D-096-CA-RB-F12NS/5L/99A

| Installation temperature -30 °C to     | +60 °C (-22 °F to +140 °F)   |
|--|------------------------------|
| Operating Temperature -40 °C to        | +70 °C (-40 °F to +158 °F)   |
| Storage Temperature -40 °C to          | +75 °C (-40 °F to +167 °F)   |
| Cable Qualification Standards ANSI/ICE | A S-87-640   Telcordia GR-20 |
| Environmental Space Aerial, las        | shed   Buried                |
| Jacket UV Resistance UV stabil         | ized                         |
| Water Penetration 24 h                 |                              |
| Water Penetration Test Method FOTP-82  | IEC 60794-1 F5               |

#### **Environmental Test Specifications**

| Heat Age                      | -40 °C to +85 °C (-40 °F to +185 °F) |
|-------------------------------|--------------------------------------|
| Heat Age Test Method          | IEC 60794-1 F9                       |
| Low High Bend                 | -30 °C to +60 °C (-22 °F to +140 °F) |
| Low High Bend Test Method     | FOTP-37   IEC 60794-1 E11            |
| Temperature Cycle             | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3   IEC 60794-1 F1              |

#### Packaging and Weights

| Cable weight | 213 kg/km | 143.129 lb/kft |
|--------------|-----------|----------------|
|--------------|-----------|----------------|

#### Regulatory Compliance/Certifications

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

#### Included Products

CS-5Y-RB – 50µm OM3 Bend-Insensitive Multimode Fiber

### \* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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#### 50µm OM3 Bend-Insensitive Multimode Fiber

#### Product Classification

| Product TypeOptical fiberGeneral Specifications125 μmCladding Diameter125 μmCladding Diameter Tolerance±1.0 μmCladding Non-Circularity, maximum1%Coating Diameter (Colored)250 μmCoating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Diameter Tolerance (Uncolored)±10 μmCore Diameter50 μmFore Diameter Tolerance±3 μmProof Test689.476 N/mm²   100000 psi | Portfolio                                     | CommScope®                 |
|---|---|----------------------------|
| Cladding Diameter125 μmCladding Diameter Tolerance±1.0 μmCladding Non-Circularity, maximum1%Coating Diameter (Colored)250 μmCoating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter Tolerance50 μmCore Diameter Tolerance±10 μmCore Diameter Tolerance12 μm   | Product Type                                  | Optical fiber              |
| Cladding Diameter Tolerance±1.0 μmCladding Non-Circularity, maximum1 %Coating Diameter (Colored)250 μmCoating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Diameter Tolerance (Uncolored)±0 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±10 μm  | General Specifications                        |                            |
| Cladding Non-Circularity, maximum1 %Coating Diameter (Colored)250 μmCoating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±3 μmCore Diameter Tolerance±1 μm  | Cladding Diameter                             | 125 µm                     |
| Coating Diameter (Colored)250 μmCoating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±13 μmCore Diameter Tolerance±1 μm   | Cladding Diameter Tolerance                   | ±1.0 μm                    |
| Coating Diameter (Uncolored)245 μmCoating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±3 μmCore Diameter Tolerance1 μm   | Cladding Non-Circularity, maximum             | 1 %                        |
| Coating Diameter Tolerance (Colored)±15 μmCoating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±3 μmCore/Clad Offset, maximum1 μm   | Coating Diameter (Colored)                    | 250 µm                     |
| Coating Diameter Tolerance (Uncolored)±10 μmCoating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±3 μmCore/Clad Offset, maximum1 μm   | Coating Diameter (Uncolored)                  | 245 µm                     |
| Coating/Cladding Concentricity Error, maximum12 μmCore Diameter50 μmCore Diameter Tolerance±3 μmCore/Clad Offset, maximum1 μm   | Coating Diameter Tolerance (Colored)          | ±15 μm                     |
| Core Diameter50 μmCore Diameter Tolerance±3 μmCore/Clad Offset, maximum1 μm   | Coating Diameter Tolerance (Uncolored)        | ±10 μm                     |
| Core Diameter Tolerance±3 μmCore/Clad Offset, maximum1 μm   | Coating/Cladding Concentricity Error, maximum | 12 µm                      |
| Core/Clad Offset, maximum 1 µm  | Core Diameter                                 | 50 µm                      |
|   | Core Diameter Tolerance                       | ±3 µm                      |
| Proof Test 689.476 N/mm²   100000 psi   | Core/Clad Offset, maximum                     | 1 µm                       |
|   | Proof Test                                    | 689.476 N/mm²   100000 psi |

## Mechanical Specifications

| Macrobending, 15 mm Ø mandrel, 2 turns | 0.20 dB @ 850 nm   0.50 dB @ 1,300 nm |
|--|---------------------------------------|
| Macrobending, 30 mm Ø mandrel, 2 turns | 0.10 dB @ 850 nm   0.30 dB @ 1,300 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     | 18                                    |
|  |                                       |

## **Optical Specifications**

| Numerical Aperture                  | 0.2                 |
|-------------------------------------|---------------------|
| Numerical Aperture Tolerance        | ±0.015              |
| Point Defects, maximum              | 0.2 dB              |
| Zero Dispersion Slope, maximum      | 0.105 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1340 nm             |

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## CS-5Y-RB

Zero Dispersion Wavelength, minimum

1295 nm

#### Optical Specifications, Wavelength Specific

| Attenuation, maximum         | 1.50 dB/km @ 1,300 nm   3.50 dB/km @ 850 nm          |
|------------------------------|--|
| Backscatter Coefficient      | -68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm              |
| Bandwidth, Laser, minimum    | 2,000 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| Bandwidth, OFL, minimum      | 1,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| Differential Mode Delay Note | Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm |
| Index of Refraction          | 1.478 @ 1,300 nm   1.482 @ 850 nm                    |
| Standards Compliance         | TIA-492AAAC (OM3)                                    |

## **Environmental Specifications**

| Heat Aging, maximum                   | 0.10 dB/km @ 85 °C |
|---------------------------------------|--------------------|
| Temperature Dependence, maximum       | 0.1 dB/km          |
| Temperature Humidity Cycling, maximum | 0.1 dB/km          |
| Water Immersion, maximum              | 0.10 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)<br>up to 95% relative humidity |

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