# 760245035 | P-144-MZ-8G1-F12YL



Fiber indoor cable, Plenum MPO Trunk, interlocking aluminum armored with plenum jacket, 144 fiber multi-unit with 12 fiber subunits, Gel-free, Singlemode G.657.A2, Feet jacket marking, Yellow jacket color

### Product Classification

Regional Availability	Asia   Australia/New Zealand   Latin America   Middle East /Africa   North America
Portfolio	CommScope®
Product Type	Fiber indoor cable
Product Series	P-MZ
General Specifications	
Armor Type	Interlocking aluminum
Cable Type	MPO trunk cable
Construction Type	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 Armor	20.96 mm   0.825 in
Diameter Over Jacket	23 mm   0.906 in

# Representative Image

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#### Mechanical Specifications

Minimum Bend Radius, loaded	345 mm   13.583 in
Minimum Bend Radius, unloaded	230 mm   9.055 in
Tensile Load, long term, maximum	400 N   89.924 lbf
Tensile Load, short term, maximum	1335 N   300.12 lbf
Compression	85 N/mm   485.363 lb/in
Compression Test Method	FOTP-41   IEC 60794-1 E3
Flex	300 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	35 N-m   309.776 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	104 m   341.207 ft
Optical Specifications	
Fiber Type	G.657.A2   G.657.A2/B2

#### **Environmental Specifications**

Installation temperature

0 °C to +70 °C (+32 °F to +158 °F)

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Operating Temperature	0 °C to +70 °C (+32 °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
Environmental Space	Plenum
Flame Test Listing	NEC OFCP (ETL) and c(ETL)
Flame Test Method	NFPA 130   NFPA 262

# Environmental Test Specifications

Heat Age	0 °C to +85 °C (+32 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	0 °C to +70 °C (+32 °F to +158 °F)
Low High Bend Test Method	FOTP-37   IEC 60794-1 E11
Temperature Cycle	0 °C to +70 °C (+32 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1 F1

# Packaging and Weights

#### Cable weight

392 kg/km | 263.412 lb/kft

#### Regulatory Compliance/Certifications

Agency	Classification
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

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# 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 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-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	±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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