

PowerShift Metro® Hybrid Cable with aluminum armor, 4X12AWG Power Conductors, 144-fiber

Product Classification

Regional Availability	Asia Australia/New Zealand EMEA Latin America North America
Portfolio	CommScope®
Product Type	Hybrid cable, copper and fiber
Product Brand	PowerShift Metro®

General Specifications

Application	Power and Fiber Distribution Cable
Cable Type	Wireless feeder
Conductors, quantity	4
Construction Type	Shielded
Fiber Short Description	RFF – 12AWG
Fiber Type, quantity	144
Fibers per Subunit, quantity	12
Inner Shield (Tape) Material	Corrugated aluminum
Jacket Color	Black with red stripe – power indicator
Strength Members	Glass reinforced plastic rod
Subunit, quantity	12
Total Fiber Count	144
Water Blocking Method	Water blocking tape(s) Water blocking threads

Dimensions

Buffer Tube/Subunit Diameter	2.54 mm 0.1 in
Diameter Over Jacket	23.419 mm 0.922 in

760221276 | HTC-144SM-DT-412-418-APVA

Conductor Gauge 12 AWG

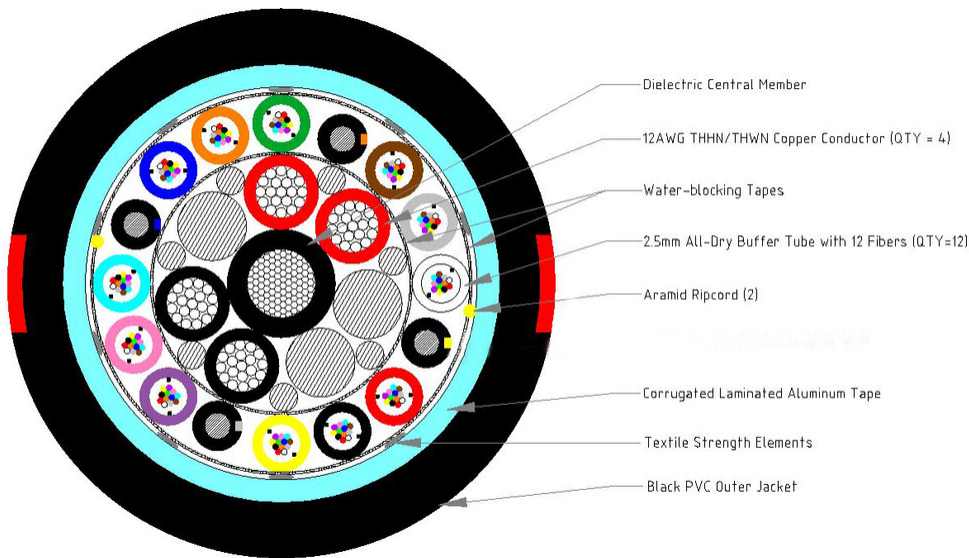
Electrical Specifications

dc Resistance Note Maximum value based on a standard condition of 20 °C (68 °F)

dc Resistance, maximum 5.413 ohms/km | 1.65 ohms/kft

Electrical Safety Standard UL 1277, Type TC-ER-OF

Representative Image



Material Specifications

Ripcord Material Para-aramid synthetic fiber

Mechanical Specifications

Minimum Bend Radius, multiple bends, loaded 436.88 mm | 17.2 in

Minimum Bend Radius, multiple bends, unloaded 279.4 mm | 11 in

Minimum Bend Radius, single bend, unloaded 279.4 mm | 11 in

Tensile Load, long term, maximum 800.68 N | 180 lbf

Tensile Load, short term, maximum 2,668.932 N | 600 lbf

Compression 2.25 kg/mm | 126 lb/in

Compression Test Method FOTP-41

Flex 25 cycles

Flex Test Method FOTP-104

Impact 2.17 ft lb | 2.942 N-m

Impact Test Method	FOTP-25
Twist	10 cycles
Twist Test Method	FOTP-85

Optical Specifications

Fiber Type	G.652.D and G.657.A1
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Environmental Specifications

Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +80 °C (-40 °F to +176 °F)
Cable Qualification Standards	ANSI/ICEA S-87-640 Telcordia GR-20 Telcordia GR-3173 Telcordia GR-421 UL 1277
Environmental Space	Wireless installation
Jacket UV Resistance	UV stabilized

Packaging and Weights

Cable weight	619.076 kg/km 416 lb/kft
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Included Products

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

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8G-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	±0.7 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
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Mechanical Specifications

Macrobending, 15 mm mandrel, 1 turn	0.50 dB @ 1,550 nm 1.00 dB @ 1,625 nm
Macrobending, 20 mm mandrel, 1 turn	0.10 dB @ 1,550 nm 0.20 dB @ 1,625 nm
Macrobending, 30 mm 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-8G-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