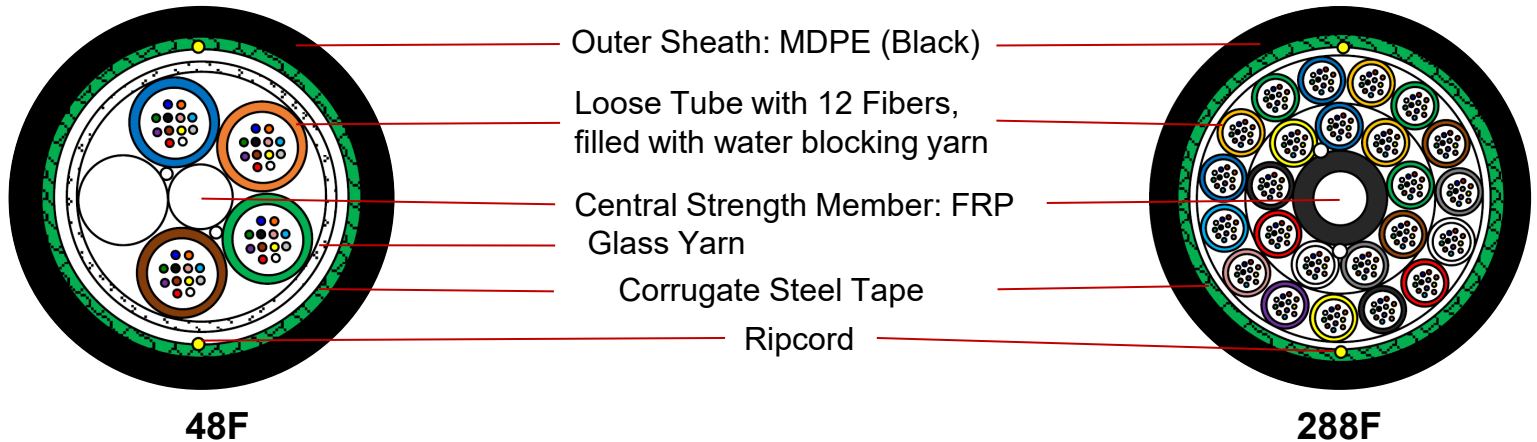


Single Jacket Armored Cable

4F – 432F | Duct, Buried and Lash Aerial Installation



Standards and Certifications

IEC 60793-1, IEC 60793-2, IEC 60794-3-10

Cable Specifications

PARAMETER		SPECIFICATION									
No. of Fibers		4	12	24	36	48	72	96	144	288	432
Loose Tube/ Filler	L1	1/4	1/4	2/3	3/2	4/1	6/0	8/0	12/0	9/0	6/0
	L2	-	-	-	-	-	-	-	-	15/0	12/0
	L3	-	-	-	-	-	-	-	-	-	18/0
Fibers/ Loose Tube		4	12								
Loose Tube OD (mm)		2.5									
Strength Member		Glass Yarns (GY)						-			GY
Outer Diameter (±5%) (mm)		12					12.4	14.0	17.2	20.1	24.0
Weight (±15%) (kg)		142					148	173	253	305	395
Max. Tensile Load (N)		Short Term: 2700; Long Term: 900									
Crush Resistance N/10cm		Short Term: 2200; Long Term: 1100									
Min. Bending Radius	Installation	20 x Cable OD									
	Operation	10 x Cable OD									
Temperature Range	Storage	-40° C to +75° C (-40° F to +167° F)									
	Installation	-30° C to +60° C (-22° F to +140° F)									
	Operation	-40° C to +70° C (-40° F to +158° F)									

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Color Coding and Cable Printing

Fiber Color Coding	01-12: Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Aqua
Tube Color Coding	1-12: Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Aqua 13-18#: Blue, Orange, Green, Brown, Grey, White
Cable Printing	Black outer sheath, laser or inkjet print, (2ft Interval)

#:Tube identification with black tracer

Optical Fiber

PARAMETER			SPECIFICATION	
Fiber Type			G.652.D	G.657.A1
Mode Field Diameter (μm)	1310nm		9.2 ± 0.4	9.1 ± 0.3
	1550nm		10.4 ± 0.5	10.3 ± 0.5
Outer Diameter (μm)			242±5	242±5
Cladding Diameter (μm)			125±0.7	125±0.7
Core/Clad Concentricity Error (μm)			≤ 0.5	≤ 0.5
Cladding Non-Circularity (%)			≤ 0.8	≤ 0.8
Attenuation (dB/km)	1310nm		≤0.36	≤0.36
	1550nm		≤0.23	≤0.23
Chromatic Dispersion (ps/(nm.km))	1285nm~1330nm		≤3.5	≤3.5
	1550nm		≤18.0	≤18.0
Zero dispersion slope (ps/(nm².km))	1300nm-1324nm		≤ 0.092	≤ 0.092
Polarization Mode Dispersion (PMD) (ps/√km)	Individual Value		≤0.2	≤0.15
	Link Value		≤0.06	≤0.06
Cable cut off wavelength (nm)			≤ 1260	≤ 1260
Macro Bending Loss (dB)	100 turns	1550nm	≤0.05	-
	Ø50 mm	1625nm	≤0.1	-
	10 turns	1550nm	-	≤0.25
	Ø30 mm	1625nm	-	≤1.0
	1 turn	1550nm	-	≤0.75
	Ø20 mm	1625nm	-	≤1.5
Fiber proof test level (kpsi)			100 (0.69Gpa)	100 (0.69Gpa)

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Test Methods

TEST	CONDITIONS	ACCEPTANCE CRITERIA
Tensile strength IEC 60794-1-2 E1	Tensile strength: 2700 N Sample length: ≥50m, Test duration: 1 min	- Fiber strain: ≤0.60%, - $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Crush resistance IEC 60794-1-2 E3	Crush: 2200/10cm Test duration: 1 min, number of tests: 3	- $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Impact IEC 60794-1-2 E4	Impact energy: 4.4 J R = 300 mm, number of places/tests: 3	- $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 25 cycles, 100N load	- $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m $\pm 90^\circ$, 5 cycles, 100N	- $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 4 bends, 3 cycles	- $\Delta\alpha \leq 0.05\text{dB}$ after test - No damage
Temperature cycling IEC 60794-1-2 F1	-40°C → +70°C 8 hours at each temperature step, 2 cycles	- $\Delta\alpha \leq 0.15\text{dB/km}$
Water penetration IEC 60794-1-2 F5	Sample length: 3 m, Test duration: 24 h Water column height: 1 m	- No water leakage

Logistics

CABLE TYPE	Dimensions – D*d*B (in cm) / Weight (kg)
	4000 m
4F – 48F	145*70*75 / 677
72F	145*70*75 / 701
96F	165*80*75 / 837
144F	175*90*105 / 1201
288F	195*100*105 / 1440
432F (2000m length)	195*120*105 / 1090

Drum Type: Wooden, Length (-1%/+3%)

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps