



1/2" - Plenum Rated

FLAME RETARDANT

Cable type : 5129-PL

Reference : See Page 2

Cable with UV resistant, low smoke
flame retardant jacket according to UL-910 / NFPA 262
CATVP rated (Plenum)

CHARACTERISTICS

Construction

• Inner conductor	
Material	copper clad aluminium wire
Diameter (mm) (in)	4.8 (0.19)
• Dielectric	
Material	polyethylene
Diameter (mm) (in)	11.8 (0.46)
• Outer conductor	
Material	corrugated copper tube
Diameter (mm) (in)	13.8 (0.54)
• Outer sheath	
Thickness (mm) (in)	0.9 (0.04)
Diameter (mm) (in)	15.6 (0.61)

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm) (in)	12.5 (5.0)
b) 15 repeated bends (cm) (in)	12.5 (5.0)
• Maximum pulling strength (daN) (lb)	
	100 (225)
• Recommended temperature range	
- Storage	-15 to +85 °C (+5 to +185 °F)
- Installation	-15 to +60 °C (+5 to +140 °F)
- Operation	-15 to +85 °C (+5 to +185 °F)
• Max. length per hoisting grip (m) (ft)	
	70 (230)
• Maximum hanger spacing (m) (ft)	
	1 (3.3)
• Flat plate crush res. (kg/mm) (lb/in)	
	1.3 (75)
• Bending moment (Nm) (lb-ft)	
	6.0 (4.4)
• Approximate weight (kg/m) (lb/ft)	
	0.260 (0.176)

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 1
• Nominal capacity (pF/m) (pF/ft)	76 (23.2)
• Relative propagation velocity (%)	88
• Inductance (μ H/m) (μ H/ft)	0.189 (0.058)
• DC-resistance at 20°C (68°F)	
- inner conductor (Ω /km) (Ω /1000ft)	1.48 (0.45)
- outer conductor (Ω /km) (Ω /1000ft)	1.85 (0.56)
• RF peak voltage (kV)	1.5
• RF peak power (kW)	22.5
• Cut-off-frequency (GHz)	6.1
• Insulation resistance (M Ω .km)	>> 5000

Frequency	Attenuation at 20°C (68° F) ^[2]		Mean power rating ^[3]
	(MHz)	(dB/100m)	
10	0.57	0.174	18.90
20	0.81	0.247	13.20
30	1.00	0.305	10.73
80	1.68	0.512	6.40
100	1.89	0.576	5.68
150	2.35	0.716	4.57
200	2.75	0.838	3.90
300	3.44	1.05	3.12
400	4.05	1.23	2.65
450	4.3	1.32	2.48
500	4.6	1.40	2.33
600	5.1	1.56	2.10
700	5.6	1.70	1.92
800	6.1	1.84	1.77
894	6.5	1.97	1.66
960	6.7	2.05	1.59
1000	6.9	2.11	1.55
1500	8.8	2.70	1.21
1700	9.6	2.91	1.12
1800	9.9	3.02	1.08
1880	10.2	3.10	1.05
2000	10.6	3.22	1.01
2170	11.1	3.39	0.96
2200	11.2	3.42	0.96
2300	11.6	3.52	0.93
2400	11.9	3.62	0.90
2500	12.2	3.72	0.88
2700	12.8	3.90	0.84
3000	13.7	4.18	0.78
4000	16.6	5.05	0.65
6000	21.8	6.65	0.49

[1] The attenuation can be approximated by the formula:
 $\alpha (f[\text{MHz}]) = A \cdot \sqrt{f[\text{MHz}]} + B \cdot f[\text{MHz}]$ (dB/100m)
 A = 0.175
 B = 0.001374





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STANDARD FREQUENCY

VSWR characteristics		
• VSWR ^[4] _{max}	600 - 1000 MHz	< 1.15
• VSWR ^[4] _{max}	1700 - 2300 MHz	< 1.15
• VSWR ^[4] _{max}	2500 - 2700 MHz	< 1.15

EUPEN PN#	Jacket color
EC4-50-PL-BLU	BLUE
EC4-50-PL-WHT	WHITE
EC4-50-PL-BLK	BLACK
EC4-50-PL-RED	RED
EC4-50-PL-GRY	GRAY (SPECIAL ORDER)

PREMIUM FREQUENCY

VSWR characteristics		
• VSWR ^[4] _{max}	600 - 1000 MHz	< 1.15
• VSWR ^[4] _{max}	1700 - 2300 MHz	< 1.15
• VSWR ^[4] _{max}	2500 - 2700 MHz	< 1.15
• VSWR ^[4] _{max}	3400 - 4200 MHz	< 1.25
• VSWR ^[4] _{max}	5150 - 5950 MHz	< 1.25

EUPEN PN#	Jacket color
EC4-50-PL-BLU-WB	BLUE
EC4-50-PL-WHT-WB	WHITE
EC4-50-PL-BLK-WB	BLACK
EC4-50-PL-RED-WB	RED
EC4-50-PL-GRY-WB	GRAY (SPECIAL ORDER)

[2] Nominal values
 [3] Ambient temperature = 40°C (104°F); temperature of inner conductor = 100°C (212°F); VSWR = 1.0; no solar loading
 [4] Maximum VSWR value, measured on standard reel length

