



# 1 1/4"-A

## STANDARD

Cable type : 5328 A

Reference : EC6-50-A

Cable with standard UV resistant PE jacket,  
halogen free according to IEC 60754

## CHARACTERISTICS

### Construction

<b>• Inner conductor</b>	
Material	smooth copper tube
Diameter (mm) (in)	13 (0.51)
<b>• Dielectric</b>	
Material	gas-injected cellular polyethylene
Diameter (mm) (in)	33.5 (1.32)
<b>• Outer conductor</b>	
Material	corrugated copper tube
Diameter (mm) (in)	36 (1.42)
<b>• Outer sheath</b>	
Thickness (mm) (in)	1.5 (0.06)
Diameter (mm) (in)	39.0 (1.54)

### Mechanical characteristics

<b>• Minimum bending radius</b>	
a) single bending (cm) (in)	20 (7.9)
b) 15 repeated bends (cm) (in)	35 (13.8)
<b>• Maximum pulling strength (daN) (lb)</b>	
	240 (540)
<b>• Recommended temperature range</b>	
- Storage	-70 to +85 °C (-94 to +185 °F)
- Installation	-40 to +60 °C (-40 to +140 °F)
- Operation	-55 to +85 °C (-67 to +185 °F)
<b>• Max. length per hoisting grip (m) (ft)</b>	
	70 (230)
<b>• Maximum hanger spacing (m) (ft)</b>	
	1.4 (4.6)
<b>• Flat plate crush res. (kg/mm) (lb/in)</b>	
	2.4 (138)
<b>• Bending moment (Nm) (lb-ft)</b>	
	30 (22)
<b>• Approximate weight<sup>[4]</sup> (kg/km) (lb/ft)</b>	
	803 (0.544) / 889 (0.602)

### VSWR characteristics

<b>• VSWR<sup>[5]</sup><sub>max</sub></b>	<b>600 - 1000 MHz</b>	<b>&lt; 1.15</b>
<b>• VSWR<sup>[5]</sup><sub>max</sub></b>	<b>1700 - 2300 MHz</b>	<b>&lt; 1.15</b>
<b>• VSWR<sup>[5]</sup><sub>max</sub></b>	<b>2500 - 2700 MHz</b>	<b>&lt; 1.15</b>

[1] The attenuation can be approximated by the formula:

$$\alpha(f[\text{MHz}]) = A \cdot \sqrt{f[\text{MHz}]} + B \cdot f[\text{MHz}] \quad (\text{dB}/100\text{m})$$

A = 0.0783  
B = 0.00031

### Electrical characteristics

• Characteristic impedance ( $\Omega$ )	50 ± 1
• Nominal capacity (pF/m) (pF/ft)	76 (23.2)
• Relative propagation velocity (%)	88
• Inductance ( $\mu\text{H}/\text{m}$ ) ( $\mu\text{H}/\text{ft}$ )	0.189 (0.058)
• DC-resistance at 20°C (68°F)	
- inner conductor ( $\Omega/\text{km}$ ) ( $\Omega/1000\text{ft}$ )	0.95 (0.29)
- outer conductor ( $\Omega/\text{km}$ ) ( $\Omega/1000\text{ft}$ )	0.69 (0.21)
• RF peak voltage (kV)	4.3
• RF peak power (kW)	184
• Cut-off-frequency (GHz)	3.7
• Insulation resistance ( $M\Omega \cdot \text{km}$ )	>> 5000
<b>• Attenuation<sup>[1]</sup> and power rating</b>	

Frequency (MHz)	Attenuation at 20°C (68°F) <sup>[2]</sup>		Mean power rating <sup>[3]</sup> (kW)
	(dB/100m)	(dB/100ft)	
10	0.25	0.076	37.1
20	0.36	0.110	26.1
30	0.44	0.134	21.2
80	0.73	0.223	12.8
100	0.81	0.247	11.4
150	1.01	0.308	9.26
200	1.17	0.357	7.96
300	1.45	0.442	6.42
400	1.69	0.515	5.51
450	1.80	0.549	5.17
500	1.91	0.582	4.88
600	2.10	0.640	4.42
700	2.29	0.698	4.07
800	2.46	0.750	3.78
894	2.62	0.799	3.56
960	2.72	0.829	3.42
1000	2.79	0.851	3.34
1500	3.50	1.067	2.66
1700	3.76	1.146	2.48
1800	3.88	1.183	2.40
1880	3.98	1.213	2.34
2000	4.12	1.256	2.26
2170	4.32	1.317	2.15
2200	4.35	1.326	2.14
2300	4.47	1.363	2.08
2400	4.58	1.396	2.03
2500	4.69	1.430	1.98
2700	4.91	1.497	1.90
3000	5.22	1.591	1.78
3400	5.62	1.713	1.66
3600	5.81	1.771	1.60

[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] Standard PE jacket / HLFR Jacket

[5] Maximum VSWR value, measured on standard reel length