



# 3/8" -A - Hiflex

## STANDARD

Cable type : *5082 A*

Reference : *EC2-50-A-HF*

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

## CHARACTERISTICS

### Construction

• Inner conductor		
Material	copper clad aluminium wire	
Diameter (mm)	3.05	
• Dielectric		
Material	gas-injected cellular polyethylene	
Diameter (mm)	7.7	
• Outer conductor		
Material	corrugated copper tube	
Diameter (mm)	10.0	
• Outer sheath		
Material	black polyethylene	
Thickness (mm)	0.6	
Diameter (mm)	11.2	

### Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	2.5
b) 15 repeated bends (cm)	2.5
• Maximum pulling strength (daN)	51
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Max. length per hoisting grip (m)	70
• Maximum hanger spacing (m)	-
• Flat plate crush resistance (kg/mm)	2.2
• Bending moment (Nm)	2.1
• Approximate weight <sup>[4]</sup> (kg/km)	139 /

### VSWR characteristics

VSWR <sub>max</sub>	600 - 1000 MHz	< 1.15
VSWR <sub>max</sub>	1700 - 2700 MHz	< 1.20
VSWR <sub>max</sub>	3400 - 4000 MHz	< 1.20

### Electrical characteristics

• Characteristic impedance (Ω)	50 ± 1
• Nominal capacity (pF/m)	81
• Relative propagation velocity (%)	82
• Inductance (μH/m)	0.203
• DC-resistance at 20°C	
- inner conductor (Ω/km)	3.55
- outer conductor (Ω/km)	3.4
• RF peak voltage (kV)	1.1
• RF peak power (kW)	12.1
• Cut-off-frequency (GHz)	15
• Insulation resistance (MΩ.km)	>> 5000
• Attenuation <sup>[1]</sup> and power rating	

Frequency (MHz)	Attenuation at 20°C <sup>[2]</sup> (dB/100m)	Mean power rating <sup>[3]</sup> (kW)
20	1.60	4.43
30	1.97	3.61
80	3.24	2.20
100	3.62	1.96
150	4.46	1.59
200	5.17	1.37
300	6.37	1.12
400	7.40	0.96
450	7.87	0.90
500	8.31	0.86
600	9.15	0.78
700	9.92	0.72
800	10.64	0.67
894	11.28	0.63
960	11.72	0.61
1000	11.98	0.59
1500	14.87	0.48
1700	15.91	0.45
1800	16.41	0.43
1880	16.80	0.42
2000	17.37	0.41
2170	18.16	0.39
2200	18.30	0.39
2300	18.75	0.38
2400	19.19	0.37
2500	19.62	0.36
2700	20.47	0.35
3000	21.69	0.33
4000	25.45	0.28

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

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

$$A = 0.355$$

$$B = 0.0007491$$

[2] Nominal values

[3] Ambient temperature = 40°C; temperature of inner conductor = 100°C;

VSWR = 1.0; no solar loading

[4] Standard PE jacket / HLFR Jacket