



1/2" - Hiflex

STANDARD

Cable type : **5092**
Reference : **EC4-50-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)	3.55
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	9.0
• Outer conductor	
Material	corrugated copper tube
Diameter (mm)	12.2
• Outer sheath	
Material	black polyethylene
Thickness (mm)	0.7
Diameter (mm)	13.6

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	3
b) 15 repeated bends (cm)	3
• Maximum pulling strength (daN)	70
• 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)	0.5
• Flat plate crush resistance (kg/mm)	2.05
• Bending moment (Nm)	2.2
• Weight (kg/km)	200

FLAME RETARDANT

Cable type : **5092-HLFR**
Reference : **EC4-50-HF-FR**

Cable with UV resistant, halogen free, low smoke,
flame retardant jacket according to IEC 60754,
IEC 60332-1, IEC 60332-3 cat. C and IEC 61034

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 1
• Nominal capacity (pF/m)	82
• Relative propagation velocity (%)	82
• Inductance ($\mu H/m$)	0.203
• DC-resistance at 20°C	
- inner conductor (Ω/km)	2.65
- outer conductor (Ω/km)	3.0
• RF peak voltage (kV)	1.1
• RF peak power (kW)	12.8
• Cut-off-frequency (GHz)	13.2
• Insulation resistance (M Ω .km)	>> 5000
• Attenuation^[1] and power rating	

Frequency	Attenuation at 20°C ^[2]	Mean power rating ^[3]
(MHz)	(dB/100m)	(kW)
10	0.96	9.90
20	1.37	6.96
30	1.68	5.66
80	2.79	3.42
100	3.13	3.04
150	3.88	2.46
200	4.51	2.11
300	5.60	1.70
400	6.53	1.46
450	6.96	1.37
500	7.38	1.29
600	8.15	1.17
700	8.87	1.07
800	9.55	1.00
894	10.16	0.94
960	10.57	0.90
1000	10.82	0.88
1500	13.62	0.70
1700	14.63	0.65
1800	15.12	0.63
1880	15.51	0.61
2000	16.08	0.59
2170	16.86	0.57
2200	17.00	0.56
2300	17.45	0.55
2400	17.89	0.53
2500	18.33	0.52
3000	20.42	0.47
4000	24.29	0.39
6000	31.21	0.31

[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 = 0.30018
B = 0.001327

[2] Nominal values

[3] Ambient temperature = 40°C; temperature of inner conductor = 100°C;
VSWR = 1.0; no solar loading

