



STANDARD

Cable type :

5092

Reference :

EC4-50-HF

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

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 60754-2, IEC 60332-1-2, IEC 60332-3 Cat. C and IEC 61034-1+2

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
- **Jacket**
 - Material black polyethylene
 - Thickness (mm) 0.65
 - Diameter (mm) 13.5

Mechanical

- **Minimum bending radius**
 - a) single bending (cm) 3
 - b) 15 repeated bends (cm) 4
- **Maximum pulling strength (daN)** 70
- **Recommended temperature range**
 - Storage -70 to +85 °C
 - Installation -40 to +60 °C
 - Operation -55 to +85 °C
- **Maximum length per hoisting grip (m)** 70
- **Maximum hanger spacing** 0.5
- **Flat plate crush resistance (kg/mm)** 1.7
- **Bending moment (Nm)** 2.7
- **Weight (kg/km)** 200

[1] $a = 0.30018$
 $b = 0.001327$
 $\propto(f) = a \cdot \sqrt{f} + b \cdot f$ [dB/100m]

Electrical

- **Characteristic impedance (Ω)** 50 $\pm$ 1
- **Nominal capacity (pF/m)** 82
- **Relative propagation velocity (%)** 82
- **Inductance (μ H/m)** 0.200
- **DC-resistance at 20 °C**
 - inner conductor (Ω /km) 2.65
 - outer conductor (Ω /km) 3.0
- **RF peak voltage (kV)** 1.13
- **RF peak power (kW)** 12.8
- **Cut-off-frequency (GHz)** 13.2
- **Insulation resistance (M Ω .km)** >>5000

Attenuation [1] and power rating

Frequency (MHz)	Attenuation at 20 °C ^(*) (dB/100m)	Mean power rating ^(**) (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

(*) nominal values

(**) Ambient temperature = 40 °C; Temperature of inner conductor = 100 °C; VSWR = 1.0; no solar loading



716MBL12X



NF50B12X



716MB12X



NM50BL12X

CONNECTORS & TOOLS

Reference	Description
716MB12X	7-16 DIN male, with silicone gasket
716FB12X	7-16 DIN female, with silicone gasket
716MBL12X	7-16 DIN male, right angle, with silicone gasket
NM50B12X	N male, with silicone gasket
NF50B12X	N female, with silicone gasket
NM50BL12X	N male, right angle, with silicone gasket
SPTC50B12X	Cable preparation tool for straight connectors
SPTC50BL12X	Cable preparation tool for right angle connectors
Cutting knife (d)	Spare parts for cable preparation tools
Peeling knife (e)	(Refer to installation instruction of the tool)



SPTC50B12X



SPTC50BL12X

Specification of N-connectors 7-16 connectors

Electrical

• Nominal impedance (Ω)	50	50
• Reflection coefficient at 2 GHz	≤ 0.02 (*)	≤ 0.02 (*)
• Insulation resistance ($G\Omega$)	≥ 5	≥ 10
• Test voltage (at sea level) (kV rms, 50 Hz)	2.5	4
• Working voltage (at sea level) (kV rms, 50 Hz)	1	2.7
• Screening effectiveness up to 1 GHz (dB)	>128	>128
• Outer contact resistance (m Ω)	≤ 1	≤ 1
• Inner contact resistance (m Ω)	≤ 1	≤ 1
• PIM ratio (2 x 20 W carrier) (dBc)	≤ -155 (Typical -163)	

Mechanical

• Torque on coupling nut (Nm)	8	30
• Cable retention (N)	>400	>700

Environmental

• Temperature range ($^{\circ}\text{C}$)	-40 to +85
• Degree of protection (humidity)	IP67, IP68

Materials

• External parts	Passivated silver plated or electroless nickel plated brass	
• Outer contact	Passivated silver plated brass	
• Inner contact	Passivated silver plated Cu alloy	
• Dielectric	PTFE	TPX
• Gaskets	High quality silicone	

(*) ≤ 0.03 for right angle connector

ACCESSORIES

Description	Reference
• Grounding clamp with normal outlet	GCS12X
• Fixing clamps	see page 35
• Additional weatherproofing	see page 41



GCS12X