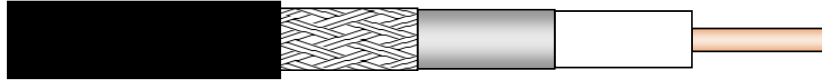


EC 600

Flexible 50 Ohms low loss coaxial cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper clad aluminium wire
Construction	-
Diameter (mm)	4.47
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	11.56
• Outer conductor	
Tape	aluminium tape
Diameter over tape (mm)	11.7
Braid	tinned copper braid
Diameter over braid (mm)	12.3
• Outer sheath	
Material	black polyethylene
Thickness (mm)	1.35
Diameter (mm)	15.0

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	8
b) 15 repeated bends (cm)	15
• Maximum pulling strength (daN)	
	50
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	175

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 2
• Nominal capacity (pF/m)	76.7
• Relative propagation velocity (%)	87
• Inductance (μH/m)	0.191
• DC-resistance at 20°C	
- inner conductor (Ω/km)	1.65
- outer conductor (Ω/km)	4.4
• RF peak voltage (kV)	1.6
• RF peak power (kW)	25.6
• Cut-off-frequency (GHz)	10
• Insulation resistance (MΩ.km)	>> 5000
• Screening attenuation	Class A+
• Attenuation^[1] and power rating	

Frequency	Attenuation at 20°C ^[2]	Mean power rating ^[3]
(MHz)	(dB/100m)	(kW)
10	0.8	9.74
20	1.1	6.87
30	1.4	5.59
80	2.3	3.39
100	2.5	3.03
150	3.1	2.46
200	3.6	2.12
300	4.5	1.72
400	5.2	1.48
450	5.5	1.39
500	5.8	1.31
600	6.4	1.19
700	7.0	1.10
800	7.5	1.02
894	7.9	0.96
960	8.3	0.93
1000	8.4	0.91
1500	10.5	0.73
1700	11.3	0.68
1800	11.6	0.66
1880	11.9	0.64
2000	12.3	0.62
2170	12.9	0.59
2200	13.0	0.59
2300	13.3	0.57
2400	13.6	0.56
2500	13.9	0.55
3000	15.4	0.50

[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 = 0.246
B = 0.00065

[2] Nominal values

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