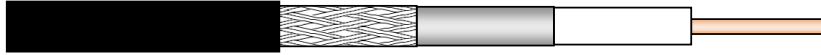




EC 400

Flexible 50 Ohms low loss coaxial cable.

This cable is compatible to the LMR-400 cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper wire
Construction	-
Diameter (mm)	2.7
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	7.25
• Outer conductor	
Tape	aluminium tape, bonded to the dielectric
Diameter over tape (mm)	7.35
Braid	tinned copper braid
Diameter over braid (mm)	8.0
• Outer sheath	
Material	black polyethylene
Thickness (mm)	1.1
Diameter (mm)	10.2

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	2.5
b) 15 repeated bends (cm)	5
• Maximum pulling strength (daN)	
	40
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	120

Connectors

Type	PartNr.	Manufacturer
N(m)	J01020A0127	Telegärtner
N(f)	J01021A0155	Telegärtner
N(m) - 90°	J01020B0081	Telegärtner
N(m)	350.055.117.T2	COMPEL
N(f)	350.055.617.T2	COMPEL
N(m) - 90°	350.055.167.T2	COMPEL



Electrical characteristics

• Characteristic impedance (Ω)	50 ± 2
• Nominal capacity (pF/m)	78.5
• Relative propagation velocity (%)	85
• Inductance (μH/m)	0.196
• DC-resistance at 20°C	
- inner conductor (Ω/km)	2.95
- outer conductor (Ω/km)	6.4
• RF peak voltage (kV)	1.0
• RF peak power (kW)	10
• Cut-off-frequency (GHz)	16
• Insulation resistance (MΩ.km)	>> 5000
• Screening attenuation (dB)	> 90
• Attenuation^[1] and power rating	

Frequency (MHz)	Attenuation at 20°C ^[2]		Mean power rating ^[3] (kW)
	(dB/100m)		
10	1.31	4.94	
20	1.86	3.48	
30	2.28	2.83	
80	3.76	1.72	
100	4.21	1.53	
150	5.19	1.25	
200	6.02	1.07	
300	7.43	0.87	
400	8.64	0.75	
450	9.19	0.70	
500	9.72	0.66	
600	10.70	0.60	
700	11.62	0.56	
800	12.48	0.52	
894	13.24	0.49	
960	13.76	0.47	
1000	14.07	0.46	
1500	17.53	0.37	
1700	18.77	0.34	
1800	19.37	0.33	
1880	19.85	0.33	
2000	20.54	0.31	
2170	21.49	0.30	
2200	21.65	0.30	
2300	22.19	0.29	
2400	22.73	0.28	
2500	23.25	0.28	
3000	25.76	0.25	

[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 = 0.41
B = 0.0011

[2] Nominal values

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

