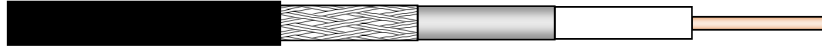


EC 200

Flexible 50 Ohms low loss coaxial cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper wire
Construction	-
Diameter (mm)	1.05
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	2.95
• Outer conductor	
Tape	aluminium tape, bonded to the dielectric
Diameter over tape (mm)	3.05
Braid	tinned copper braid
Diameter over braid (mm)	3.7
• Outer sheath	
Material	black polyethylene
Thickness (mm)	0.65
Diameter (mm)	5.0

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	2.5
b) 15 repeated bends (cm)	5
• Maximum pulling strength (daN)	
	11
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	32

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 2
• Nominal capacity (pF/m)	80.5
• Relative propagation velocity (%)	83
• Inductance (μH/m)	0.201
• DC-resistance at 20°C	
- inner conductor (Ω/km)	19.9
- outer conductor (Ω/km)	12.1
• RF peak voltage (kV)	0.4
• RF peak power (kW)	1.6
• Cut-off-frequency (GHz)	39
• 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	3.31	1.62	
20	4.69	1.14	
30	5.75	0.93	
80	9.44	0.57	
100	10.58	0.51	
150	13.00	0.41	
200	15.05	0.36	
300	18.52	0.29	
400	21.47	0.25	
450	22.81	0.23	
500	24.09	0.22	
600	26.47	0.20	
700	28.67	0.19	
800	30.73	0.17	
894	32.57	0.16	
960	33.80	0.16	
1000	34.53	0.15	
1500	42.73	0.13	
1700	45.65	0.12	
1800	47.05	0.11	
1880	48.15	0.11	
2000	49.76	0.11	
2170	51.97	0.10	
2200	52.35	0.10	
2300	53.61	0.10	
2400	54.84	0.10	
2500	56.06	0.10	
3000	61.82	0.09	

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

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

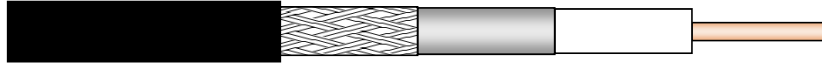
A = 1.0416
B = 0.00159

[2] Nominal values

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

EC 400 Plus

Flexible 50 Ohms low loss coaxial cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper clad aluminium 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)	
	30
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	90

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)	4.56
- 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] (dB/100m)	Mean power rating ^[3] (kW)
10	1.3	5.05
20	1.8	3.56
30	2.2	2.90
80	3.7	1.76
100	4.1	1.57
150	5.1	1.28
200	5.9	1.10
300	7.2	0.90
400	8.4	0.77
450	8.9	0.73
500	9.4	0.69
600	10.3	0.62
700	11.2	0.58
800	12.0	0.54
894	12.8	0.51
960	13.2	0.49
1000	13.5	0.48
1500	16.8	0.38
1700	18.0	0.36
1800	18.5	0.35
1880	19.0	0.34
2000	19.6	0.33
2170	20.5	0.31
2200	20.7	0.31
2300	21.2	0.31
2400	21.7	0.30
2500	22.2	0.29
3000	24.5	0.26

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

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

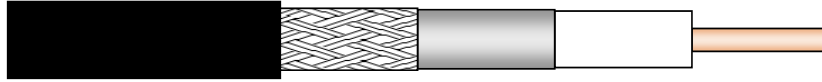
A = 0.402
B = 0.00082

[2] Nominal values

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

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 (dB)	> 90
• Attenuation^[1] and power rating	

Frequency (MHz)	Attenuation at 20°C ^[2]		Mean power rating ^[3] (kW)
	(dB/100m)	(dB/100m)	
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

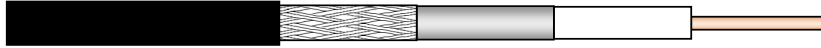
[2] Nominal values

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



58RT5(V)

Flexible 50 Ohms low loss coaxial cable



CHARACTERISTICS

Construction

• Inner conductor	
Material	copper wire
Construction	-
Diameter (mm)	1.05
• Dielectric	
Material	gas-injected cellular polyethylene
Diameter (mm)	2.95
• Outer conductor	
Tape	aluminium tape
Diameter over tape (mm)	3.05
Braid	tinned copper braid
Diameter over braid (mm)	3.7
• Outer sheath	
Material	Black PE / PVC
Thickness (mm)	0.7
Diameter (mm)	5.0

Mechanical characteristics

• Minimum bending radius	
a) single bending (cm)	2.5
b) 15 repeated bends (cm)	5
• Maximum pulling strength (daN)	
	7
• Recommended temperature range	
- Storage	-70 to +85 °C
- Installation	-40 to +60 °C
- Operation	-55 to +85 °C
• Weight (kg/km)	
	25 (PE) / 30 (PVC)

Electrical characteristics

• Characteristic impedance (Ω)	50 ± 2
• Nominal capacity (pF/m)	82
• Relative propagation velocity (%)	82
• Inductance (μH/m)	0.203
• DC-resistance at 20°C	
- inner conductor (Ω/km)	19.9
- outer conductor (Ω/km)	28.5
• RF peak voltage (kV)	0.4
• RF peak power (kW)	1.6
• Cut-off-frequency (GHz)	39
• Insulation resistance (MΩ.km)	>> 5000
• Screening attenuation (dB)	> 75
• Attenuation^[1] and power rating	

Frequency (MHz)	Attenuation at 20°C ^[2]		Mean power rating ^[3] (kW)
	(dB/100m)		
10	4.20	1.92	
20	5.39	1.35	
30	6.31	1.09	
80	9.61	0.65	
100	10.64	0.58	
150	12.89	0.47	
200	14.83	0.40	
300	18.19	0.32	
400	21.11	0.27	
450	22.47	0.25	
500	23.77	0.24	
600	26.23	0.22	
700	28.54	0.20	
800	30.74	0.18	
894	32.71	0.17	
960	34.06	0.16	
1000	34.86	0.16	
1500	44.09	0.13	
1700	47.49	0.12	
1800	49.14	0.11	
1880	50.44	0.11	
2000	52.37	0.10	
2170	55.03	0.10	
2200	55.49	0.10	
2300	57.02	0.10	
2400	58.53	0.09	
2500	60.03	0.09	
3000	67.25	0.08	

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

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

A = 0.86
B = 0.006244
C = 1.417

[2] Nominal values

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





DATA SHEET

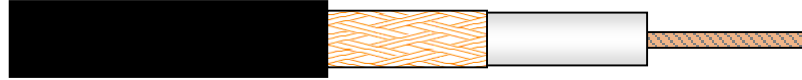
RG coaxial cable

Kabelwerk | **EUPEN** AG

RG 213/U - Rev. 1 - 20.03.07

cable

RG 213/U



	Units	Nominal
INNER CONDUCTOR		
Material	-	copper wire
Construction	-	7 x 0.75 mm
Diameter	mm	2.25
DIELECTRIC		
Material	-	solid polyethylene
Diameter	mm	7.25
OUTER CONDUCTOR		
Material	-	copper wires
Construction	-	single braid
Diameter over outer conductor	mm	8.0
OUTER SHEATH		
Material	-	black PVC
Overall diameter	mm	10.3

ELECTRICAL CHARACTERISTICS		
Characteristic impedance	Ω	50 +/- 2
Capacity	pF/m	100
Relative propagation velocity (velocity ratio)	%	66
DC-resistance of inner conductor	Ω/km	6
DC-resistance of outer conductor	Ω/km	4.5
Longitudinal attenuation at 20°C		
a =	-	0.616
b =	-	0.00492
5 MHz	dB/100m	1.40
25 MHz	dB/100m	3.20
50 MHz	dB/100m	4.60
145 MHz	dB/100m	8.13
200 MHz	dB/100m	9.70
300 MHz	dB/100m	12.15
435 MHz	dB/100m	14.99
900 MHz	dB/100m	22.91
1250 MHz	dB/100m	27.93
1500 MHz	dB/100m	31.24
1700 MHz	dB/100m	33.76
1800 MHz	dB/100m	34.99
2200 MHz	dB/100m	39.72
2400 MHz	dB/100m	41.99
2500 MHz	dB/100m	43.10

MECHANICAL CHARACTERISTICS		
Bending radius	- Minimum (1 x)	cm 5



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DATA SHEET

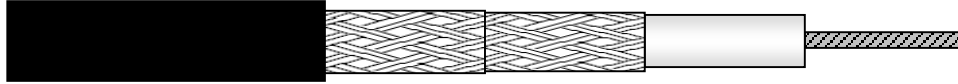
RG coaxial cable

Kabelwerk | **EUPEN** AG

RG 214/U - Rev. 1 - 20.03.07

cable

RG 214/U



	Units	Nominal
INNER CONDUCTOR		
Material	-	silver-covered copper wire
Construction	-	7 x 0,75 mm
Diameter	mm	2.25
DIELECTRIC		
Material	-	solid polyethylene
Diameter	mm	7.25
OUTER CONDUCTOR		
Material	-	silver-covered copper wire
Construction	-	double braid
Diameter over outer conductor	mm	8.6
OUTER SHEATH		
Material	-	black PVC
Overall diameter	mm	10.8

ELECTRICAL CHARACTERISTICS		
Characteristic impedance	Ω	50 +/- 2
Capacity	pF/m	100
Relative propagation velocity (velocity ratio)	%	66
DC-resistance of inner conductor	Ω/km	6
DC-resistance of outer conductor	Ω/km	3.1
Longitudinal attenuation at 20°C		
a =	-	0.639
b =	-	0.00604
5 MHz	dB/100m	1.46
25 MHz	dB/100m	3.35
50 MHz	dB/100m	4.82
145 MHz	dB/100m	8.57
200 MHz	dB/100m	10.24
300 MHz	dB/100m	12.88
435 MHz	dB/100m	15.95
900 MHz	dB/100m	24.61
1250 MHz	dB/100m	30.14
1500 MHz	dB/100m	33.81
1700 MHz	dB/100m	36.61
1800 MHz	dB/100m	37.98
2200 MHz	dB/100m	43.26
2400 MHz	dB/100m	45.80
2500 MHz	dB/100m	47.05

MECHANICAL CHARACTERISTICS		
Bending radius	- Minimum (1 x)	cm 5

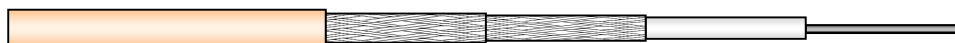


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RG 223/U



	Units	Nominal
INNER CONDUCTOR		
Material	-	silver-covered copper wire
Construction	-	1 x
Diameter	mm	0.89
DIELECTRIC		
Material	-	solid polyethylene
Diameter	mm	2.95
OUTER CONDUCTOR		
Material	-	silver-covered copper wire
Construction	-	double braid
Diameter over outer conductor	mm	4.0
OUTER SHEATH		
Material	-	brown PVC
Thickness	mm	0.5
Minimum thickness at any point	mm	0.41
Overall diameter	mm	5

ELECTRICAL CHARACTERISTICS		
Characteristic impedance	Ω	50 +/- 2
Capacity	pF/m	101
Relative propagation velocity (velocity ratio)	%	66
DC-resistance of inner conductor	Ω /km	28
DC-resistance of outer conductor	Ω /km	7
Longitudinal attenuation at 20°C		
a =	-	1.249
b =	-	0.00722
5 MHz	dB/100m	2.83
25 MHz	dB/100m	6.43
50 MHz	dB/100m	9.19
145 MHz	dB/100m	16.09
200 MHz	dB/100m	19.11
300 MHz	dB/100m	23.80
435 MHz	dB/100m	29.19
900 MHz	dB/100m	43.97
1250 MHz	dB/100m	53.18
1500 MHz	dB/100m	59.20
1700 MHz	dB/100m	63.77
1800 MHz	dB/100m	65.99
2200 MHz	dB/100m	74.47
2400 MHz	dB/100m	78.52
2500 MHz	dB/100m	80.50

MECHANICAL CHARACTERISTICS		
Bending radius	- Minimum (1 x)	cm 2

