



Cable type
Size: 2.1/8.9

Standard:

7098G

Cable with PE outer jacket.

Compliant to EN 50575 (reaction to fire: F_{ca})

	Units	Nominal
Construction		
INNER CONDUCTOR		
Material and construction	-	copper wire
Diameter	mm	2.1
DIELECTRIC		
Material	-	gas-injected cellular PE
Diameter	mm	8.9
OUTER CONDUCTOR		
Material and construction	-	smooth copper tube
Diameter over outer conductor	mm	9.35
OUTER SHEATH		
Material	-	black polyethylene
Thickness	mm	1.5
Overall diameter	mm	12.4 < 12.8

Mechanical characteristics

Minimum bending radius	1 x	cm	15
	10 x	cm	20
Maximum pulling strength (without messenger)		daN	50
Weight		kg/km	155

Electrical characteristics

Characteristic impedance	Ω	75	+/- 2
Capacity	pF/m	50	
Relative propagation velocity (velocity ratio)	%	88	
DC-resistance of inner conductor at 20°C	Ω/km	4.9	
DC-resistance of outer conductor at 20°C	Ω/km	2.8	
Current rating (50 - 60) Hz	A	12	
Dielectric voltage strength	kV	2	
Longitudinal attenuation at 20°C	$\alpha(f_{[MHz]}) = a \cdot \sqrt{f_{[MHz]}} + b \cdot f_{[MHz]}$		
	a =	-	0.28
	b =	-	0.0008
	5 MHz	dB/100m	0.63 < 0.66
	10 MHz	dB/100m	0.89 < 0.94
	30 MHz	dB/100m	1.56 < 1.64
	50 MHz	dB/100m	2.02 < 2.12
	100 MHz	dB/100m	2.88 < 3.02
	200 MHz	dB/100m	4.12 < 4.33
	300 MHz	dB/100m	5.09 < 5.34
	400 MHz	dB/100m	5.92 < 6.22
	470 MHz	dB/100m	6.45 < 6.77
	600 MHz	dB/100m	7.34 < 7.71
	800 MHz	dB/100m	8.56 < 8.99
	860 MHz	dB/100m	8.90 < 9.34
	1000 MHz	dB/100m	9.65 < 10.1
	1200 MHz	dB/100m	10.7 < 11.2
	1500 MHz	dB/100m	12.0 < 12.7
	1700 MHz	dB/100m	12.9 < 13.6
	2000 MHz	dB/100m	14.1 < 14.8
	3000 MHz	dB/100m	17.7 < 18.6
Return loss (3 peak values up to 4 dB lower are permissible)			
	5 - 470 MHz	dB	> 26
	470 - 1000 MHz	dB	> 23
	1000 - 1500 MHz	dB	> 21
	1500 - 1700 MHz	dB	*
Screening attenuation (30 - 3000 MHz)		dB	> 120

*) values to be defined