



Cable type	underground:	7122
Size: 1/2" - HD	aerial:	A 7122
	Units	Nominal

Construction

INNER CONDUCTOR			
Material and construction	-	copper wire	
Diameter	mm	2.7	
DIELECTRIC			
Material	-	gas-injected cellular PE	
Diameter	mm	12.4	
OUTER CONDUCTOR			
Material and construction	-	corrugated copper tube	
Diameter over outer conductor	mm	13.7	
OUTER SHEATH			
Material	-	black polyethylene	
Thickness	mm	1.15	
Overall diameter	mm	16.0	< 16.3

Cable with messenger

MESSENGER			
Material	-	AMS	
Construction	.. X mm	7 x 1.7	
Diameter over messenger	mm	7.5	
OVERALL DIMENSIONS	mm	26/16	

Mechanical characteristics

Minimum bending radius			
	1 x	cm	8
	10 x	cm	15
Maximum pulling strength (without messenger)		daN	75
Weight		kg/km	240

Cable with messenger

Minimum breaking strength of messenger	daN	500
Modulus of elasticity	N/mm ²	62000
Thermal coefficient of linear expansion	1/°C	23 x 10 ⁻⁶
Weight	kg/km	310

Electrical characteristics

Characteristic impedance	Ω	75	+/- 2
Capacity	pF/m	54	
Relative propagation velocity (velocity ratio)	%	82	
DC-resistance of inner conductor at 20°C	Ω/km	2.96	
DC-resistance of outer conductor at 20°C	Ω/km	2.06	
Current rating (50 - 60) Hz	A	17	
Dielectric voltage strength	kV	3	
Longitudinal attenuation at 20°C	$\alpha(f_{[MHz]}) = a \cdot \sqrt{f_{[MHz]}} + b \cdot f_{[MHz]}$		
	a =	-	0.217
	b =	-	0.00095
	5 MHz	dB/100m	0.49 < 0.51
	10 MHz	dB/100m	0.70 < 0.73
	30 MHz	dB/100m	1.22 < 1.28
	50 MHz	dB/100m	1.58 < 1.66
	100 MHz	dB/100m	2.27 < 2.38
	200 MHz	dB/100m	3.26 < 3.42
	300 MHz	dB/100m	4.04 < 4.25
	400 MHz	dB/100m	4.72 < 4.96
	470 MHz	dB/100m	5.15 < 5.41
	600 MHz	dB/100m	5.89 < 6.18
	800 MHz	dB/100m	6.90 < 7.24
	860 MHz	dB/100m	7.18 < 7.54
	1000 MHz	dB/100m	7.81 < 8.20
Return loss (3 peak values up to 4 dB lower are permissible)			
	5 - 470 MHz	dB	> 23
	470 - 862 MHz	dB	> 20
Screening attenuation (30 - 1000 MHz)		dB	>> 120

