DATA SHEET
Eupen 75 Ω CATV cables

Kabelwerk | EUPEN AG
7128-HLFRC - Rev. 1 - 12.9.2017 | cable

Cable type: 7128-HLFRC flame-retardant C_{ca}
Size: 1/2"

Cable with UV resistant, halogen free, low smoke, flame retardant jacket according to IEC 60754, IEC 60332-1, IEC 60332-3 cat. C, IEC 61034 and EN 50399 C_{ca}-s1,d2,a1. Compliant to EN 50575.

		Units	Nominal	
Construction				
INNER CONDUCTOR				
Material and construction		-	**copper wire**	
Diameter		*mm*	**3.06**	
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			**flame retardant polyolefin**	
Thickness		*mm*	**1.1**	
Overall diameter		*mm*	**16.0**	< 16.3
Mechanical characteristics				
Minimum bending radius				
	1 x	*cm*	**12**	
	10 x	*cm*	**20**	
Maximum pulling strength (without messenger)		*daN*	**85**	
Weight		*kg/km*	**261**	
Recommended temperature range				
			-70 to +85 °C	
			-40 to +60 °C	
			-55 to +85 °C	
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*	**2.3**	
DC-resistance of outer conductor at 20°C		*Ω/km*	**1.95**	
Current rating (50 - 60) Hz		*A*	**20**	
Dielectric voltage strength		*kV*	**3.0**	
Longitudinal attenuation at 20°C			$\alpha(f_{[MHz]}) = a.\sqrt{f_{[MHz]}} + b.f_{[MHz]}$	
	a =	-	0.197	
	b =	-	0.0007	
	5 MHz	*dB/100m*	**0.44**	< 0.47
	10 MHz	*dB/100m*	**0.63**	< 0.66
	30 MHz	*dB/100m*	**1.10**	< 1.16
	50 MHz	*dB/100m*	**1.43**	< 1.50
	100 MHz	*dB/100m*	**2.04**	< 2.14
	200 MHz	*dB/100m*	**2.93**	< 3.07
	300 MHz	*dB/100m*	**3.62**	< 3.80
	400 MHz	*dB/100m*	**4.22**	< 4.43
	470 MHz	*dB/100m*	**4.60**	< 4.83
	600 MHz	*dB/100m*	**5.25**	< 5.51
	800 MHz	*dB/100m*	**6.13**	< 6.44
	860 MHz	*dB/100m*	**6.38**	< 6.70
	1000 MHz	*dB/100m*	**6.93**	< 7.28
	1200 MHz	*dB/100m*	**7.66**	< 8.05
Return loss (3 peak values up to 4 dB lower are permissible)				
	5 - 470 MHz	*dB*	**> 26**	
	470 - 862 MHz	*dB*	**> 22**	
	862 - 1200 MHz	*dB*	**> 22**	
Screening attenuation (30 - 1000 MHz)		*dB*	**>> 120**	

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