DATA SHEET
Eupen 75 Ω CATV cables

Kabelwerk | EUPEN AG
7088-HLFRC - Rev. 1 - 12.9.2017 | cable

Cable type: 7088-HLFRC flame-retardant C_{ca}
Size: 2.0/8.3

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*	**2.02**	
DIELECTRIC				
Material		-	**gas-injected cellular PE**	
Diameter		*mm*	**8.6**	
OUTER CONDUCTOR				
Material and construction		-	**corrugated copper tube**	
Diameter over outer conductor		*mm*	**9.3**	
OUTER SHEATH				
Material			**flame retardant polyolefin**	
Thickness		*mm*	**1.0**	
Overall diameter		*mm*	**11.3**	< 11.7
Mechanical characteristics				
Minimum bending radius				
	1 x	*cm*	**8**	
	10 x	*cm*	**15**	
Maximum pulling strength (without messenger)		*daN*	**50**	
Weight		*kg/km*	**158**	
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*	**5.3**	
DC-resistance of outer conductor at 20°C		*Ω/km*	**2.6**	
Current rating (50 - 60) Hz		*A*	**11**	
Dielectric voltage strength		*kV*	**2.0**	
Longitudinal attenuation at 20°C			$\alpha(f_{[MHz]}) = a.\sqrt{f_{[MHz]}} + b.f_{[MHz]}$	
	a =	-	0.296	
	b =	-	0.00085	
	5 MHz	*dB/100m*	**0.67**	< 0.70
	10 MHz	*dB/100m*	**0.94**	< 0.99
	30 MHz	*dB/100m*	**1.65**	< 1.73
	50 MHz	*dB/100m*	**2.14**	< 2.24
	100 MHz	*dB/100m*	**3.05**	< 3.20
	200 MHz	*dB/100m*	**4.36**	< 4.57
	300 MHz	*dB/100m*	**5.38**	< 5.65
	400 MHz	*dB/100m*	**6.26**	< 6.57
	470 MHz	*dB/100m*	**6.82**	< 7.16
	600 MHz	*dB/100m*	**7.76**	< 8.15
	800 MHz	*dB/100m*	**9.05**	< 9.50
	860 MHz	*dB/100m*	**9.41**	< 9.88
	1000 MHz	*dB/100m*	**10.21**	< 10.72
	1200 MHz	*dB/100m*	**11.27**	< 11.84
Return loss (3 peak values up to 4 dB lower are permissible)				
	5 - 470 MHz	*dB*	**> 23**	
	470 - 862 MHz	*dB*	**> 20**	
	862 - 1200 MHz	*dB*	**> 18**	
Screening attenuation (30 - 1000 MHz)		*dB*	**>> 120**	

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