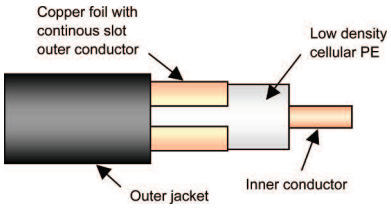
CMC 12

PRODUCT DESCRIPTION

CMC 12-HLFR

Reference suffix [1] : -HLFR



Fire behaviour

Halogen free and flame retardant outer sheath
Low corrosive gas emission acc. to IEC 60754-2
Flame retardant acc. to IEC 60332-1 and IEC 60332-3 cat. C
Low smoke emission acc. to IEC 61034
Reaction to fire according to EN60332-1-2 Eca
Compliant to EN50575

The Slot in the copper outer conductor allows a controlled portion of the internal RF energy to be radiated into the surrounding environment. Conversely, a signal transmitted near the cable will couple into the slots and be carried along the cable length.

FEATURES and BENEFITS

- Broadband from 30 MHz to 2.5 GHz
- Robust Cable, with low bending radius
- No Resonant Frequencies
- No Cable Orientation Required
- Main Applications: Inhouse, Short Length, FM, TETRA, GSM, DCS-1800, WLAN

TECHNICAL FEATURES

• Size		1/2"
• Previous Model Number		512RC8RI-HLFR
• Frequency Range	MHz	30 - 2500
• Recommended for Frequency	MHz	N.A.
• Cable Type		CMC (Coupled Mode Cable)
• Jacket		HLFR (Halogen Free Low Smoke Flame Retardant)
• Slot Design		Continous slot
• Impedance	Ω	50 +/- 2
• Velocity Ratio	%	88
• Capacitance	pF/m	76
• Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.48 (0.45)
• Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	3.3 (1.01)
• Inner Conductor Material		Copper clad aluminium wire
• Dielectric Material		Cellular polyethylene
• Outer Conductor Material		Copper foil, with continous slot, bonded to the jacket

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TECHNICAL FEATURES (continued)

• Diameter Inner Conductor	mm (in)	4.8 (0.19)
• Diameter Dielectric	mm (in)	12.4 (0.49)
• Diameter over Jacket	mm (in)	15.5 (0.61)
• Minimum Bending Radius	mm (in)	150 (5.9)
• Cable Weight	kg/m (lb/ft)	0.227 (0.15) HLFR
• Tensile Strength	daN (lb)	110 (242)
• Indication of Slot Alignment		N.A.
• Storage Temperature	°C (°F)	-70 to +85 (-94 to +185)
• Installation Temperature	°C (°F)	-25 to +60 (-13 to +140)
• Operation Temperature	°C (°F)	-40 to +85 (-40 to +185)
• Longitudinal Loss and Coupling Loss [2]		

Frequency	Longitudinal Loss	Coupling Loss	
	dB/100 m (dB/100 ft)	C50% [dB]	C95% [dB]
75 MHz	2.06 (0.63)	61	72
150 MHz	3.10 (0.94)	68	80
225 MHz	3.95 (1.20)	69	81
450 MHz	5.90 (1.80)	83	94
900 MHz	8.63 (2.63)	82	94
1800 MHz	12.75 (3.89)	80	93
1900 MHz	13.19 (4.02)	80	93
2200 MHz	14.47 (4.41)	82	97
2400 MHz	15.25 (4.65)	82	97

• Resonant Frequencies	MHz	None
• Clamp Spacing Recommended / Maximum	m (ft)	0.5 (1.64) / 1.20 (3.90)
• Distance to Wall Recommended / Minimum	mm (in)	80 - 180 (3.15 - 7.00) / 50 (1.96)

[1] Must be specified in case of order - standard PE jacket available on request.
[2] Measured in tunnel according to **IEC 61196-4 - Ground Level Method**.
Distance = 2m. C50 & (C95) are the average coupling losses with 50% (95%) probability calculated in accordance with the standard.

The above stated values are nominal values and subject to manufacturing tolerances.

As with any radiating cable, the performance in building or tunnel may deviate from figures measured according to the IEC 61196-4 standard.

Coupling loss measurements taken in accordance with IEC 61196-4 - Free Space Method are available on request

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