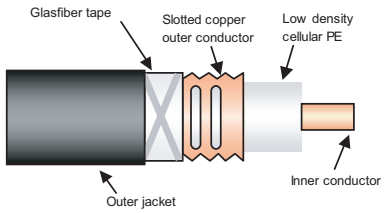
RMC 78-T "A" Series

PRODUCT DESCRIPTION

RMC 78-T-HLFR "A" Series

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

Slots in the copper outer conductor allow 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

- From 30 MHz to 1.0 GHz with resonant frequencies
- Robust Cable, with low bending radius
- Main Applications: Tunnel - FM, TETRA, GSM, GSM-R

TECHNICAL FEATURES

• Size		7/8"
• Frequency Range	MHz	30 - 1000
• Recommended for Frequency	MHz	450
• Cable Type		RMC (Radiated Mode Cable)
• Jacket		HLFR (Halogen Free Low Smoke Flame Retardant)
• Slot Design		Groups of Slots at short intervals
• Impedance	Ω	50 +/- 2
• Velocity Ratio	%	88
• Capacitance	pF/m	72
• Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.63 (0.49)
• Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.50 (0.76)
• Inner Conductor Material		Smooth copper tube
• Dielectric Material		Cellular polyethylene
• Outer Conductor Material		Overlapping corrugated copper foil with slot groups

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TECHNICAL FEATURES (continued)

• Diameter Inner Conductor	mm (in)	9.2 (0.36)
• Diameter Dielectric	mm (in)	23.5 (0.93)
• Diameter over Jacket	mm (in)	27.0 (1.06)
• Minimum Bending Radius, Single Bend	mm (in)	350 (13.8)
• Cable Weight	kg/m (lb/ft)	0.350 (0.29) HLFR
• Tensile Strength	daN (lb)	130 (287)
• Indication of Slot Alignment		embossed line 180° opposite
• 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	1.27 (0.39)	57	69
150 MHz	1.73 (0.53)	60	71
225 MHz	2.14 (0.65)	56	61
450 MHz	3.29 (1.00)	52	53
900 MHz	5.41 (1.65)	66	77

• Resonant Frequencies	MHz	37; 111; 184; 258; 332; 405 ±5; 479; 553; 627; 700; 774; 848; 922; 995
• 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 follows: Longitudinal Loss +/-5 % and Coupling Loss +/- 3dB.

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.