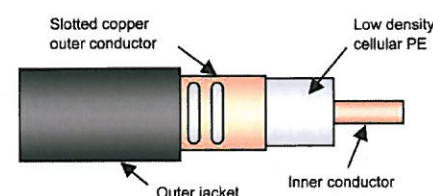


RMC 12

PRODUCT DESCRIPTION

RMC 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

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 2.5 GHz with resonant frequencies
- Robust Cable, with low bending radius
- Main Applications: Tunnel - GSM, GSM-R, DCS-1800, WLAN

TECHNICAL FEATURES

| | | |
|---------------------------------|----------------------|-----------------------------------------------------------------|
| • Size | | 1/2" |
| • Previous Model Number | | 512RC8RM-HLFR |
| • Frequency Range | MHz | 30 - 2500 |
| • Recommended for Frequency | MHz | 900 and above |
| • 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 +/- 3 |
| • Velocity Ratio | % | 88 |
| • Capacitance | pF/m | 76 |
| • Inner Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 1.48 (0.45) HLFR |
| • Outer Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 2.90 (0.88) |
| • Inner Conductor Material | | Copper clad aluminium (HLFR) |
| • Dielectric Material | | Cellular polyethylene |
| • Outer Conductor Material | | Overlapping copper foil, with slot groups, bonded to the jacket |

RMC 12

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, Single Bend | mm (in) | 200 (7.87) |
| • Cable Weight | kg/m (lb/ft) | 0.23 (0.16) HLFR |
| • Tensile Strength | daN (lb) | 110 (243) |
| • 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 | 2.35 (0.72) | 52 | 66 |
| 150 MHz | 3.25 (0.99) | 62 | 74 |
| 225 MHz | 3.70 (1.13) | 72 | 82 |
| 450 MHz | 5.00 (1.53) | 79 | 88 |
| 900 MHz | 7.70 (2.36) | 60 | 63 |
| 1800 MHz | 12.25 (3.76) | 60 | 70 |
| 1900 MHz | 12.70 (3.90) | 60 | 70 |
| 2200 MHz | 14.80 (4.54) | 61 | 70 |
| 2400 MHz | 16.50 (5.07) | 60 | 68 |

| | | |
|------------------------------------------|---------|------------------------------------|
| • Resonant Frequencies | MHz | 547, 1641, 2734 |
| • 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