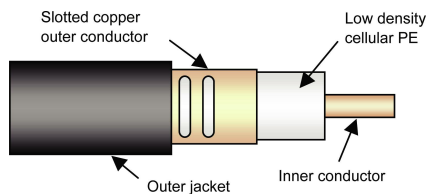


RMC 58

PRODUCT DESCRIPTION

RMC 58-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

- Broadband from 30 MHz to 1.9 GHz
- Robust Cable, with low bending radius
- Main Applications: Tunnel - GSM, GSM-R, DCS-1800

TECHNICAL FEATURES

| | | |
|---------------------------------|---|---|
| • Size | | 5/8" |
| • Previous Model Number | | 517RC8RM-HLFR |
| • Frequency Range | MHz | 30 - 1900 |
| • Recommended for Frequency | MHz | 900 and 1800 |
| • 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 | 76 |
| • Inner Conductor dc Resistance | $\Omega/1000\text{ m } (\Omega/1000\text{ ft})$ | 1.9 (0.58) |
| • Outer Conductor dc Resistance | $\Omega/1000\text{ m } (\Omega/1000\text{ ft})$ | 2.04 (0.62) |
| • Inner Conductor Material | | Smooth copper tube |
| • Dielectric Material | | Cellular polyethylene |
| • Outer Conductor Material | | Overlapping copper foil, with slot groups, bonded to the jacket |



TECHNICAL DATA SHEET

Radiating Cables

Kabelwerk

EUPEN AG

Rev.: 09/2010-10-07

cable

2/2

RMC 58

TECHNICAL FEATURES (continued)

| | | | | |
|--|--------------|---|---------------|-----------|
| • Diameter Inner Conductor | mm (in) | 6.8 (0.27) | | |
| • Diameter Dielectric | mm (in) | 17.6 (0.69) | | |
| • Diameter over Jacket | mm (in) | 21.0 (0.83) | | |
| • Minimum Bending Radius, Single Bend | mm (in) | 300 (11.8) | | |
| • Cable Weight | kg/m (lb/ft) | 0.380 (0.25) | | |
| • Tensile Strength | daN (lb) | 90 (198) | | |
| • 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 | 1.36 (0.41) | 60 | 70 |
| | 150 MHz | 1.99 (0.61) | 57 | 61 |
| | 225 MHz | 2.48 (0.76) | 64 | 68 |
| | 450 MHz | 3.58 (1.09) | 66 | 71 |
| | 900 MHz | 5.26 (1.60) | 62 | 65 |
| | 1800 MHz | 9.09 (2.77) | 58 | 62 |
| | 1900 MHz | 9.55 (2.91) | 58 | 62 |
| | 2200 MHz | | | |
| | 2400 MHz | | | |
| • Resonant Frequencies | MHz | 119, 358, 597, 835, 1074, 1313, 1551, 1790 ±5 | | |
| • 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