

## Coaxial Cable SUCOFEED\_7/8\_LA

### Description

Corrugated coaxial cable - low attenuation



### Technical Data

#### Construction

|                  | Material                         | Detail        | Diameter        |
|------------------|----------------------------------|---------------|-----------------|
| Centre conductor | Copper                           | Tube          | typ. 9.5 mm     |
| Dielectric       | SPE (Foamed Polyethylene)        |               | typ. 22.7 mm    |
| Outer conductor  | Copper                           | Tube (c)100%  | typ. 25.4 mm    |
| Jacket           | PE-LD (Low-density polyethylene) | RAL 9005 - bk | 27.9 mm +/- 0.4 |

Print: HUBER+SUHNER\_SUCOFEED\_7/8\_LA\_#batch-number#\_#metric-length#

#### Electrical Data

|                                |                           |
|--------------------------------|---------------------------|
| Impedance                      | 50 Ω +/- 1                |
| Operating Frequency            | ≤ 5 GHz                   |
| Capacitance                    | typ. 73.8 pF/m            |
| Inductance                     | typ. 0.2 μH/m             |
| Velocity of signal propagation | typ. 90.3 %               |
| Signal delay                   | typ. 3.7 ns/m             |
| Insulation resistance          | ≥ 3 x 10 <sup>6</sup> MΩm |
| Screening effectiveness        | ≥ 120 dB                  |
| Operating voltage              | ≤ 3 kVrms (at sea level)  |
| Test voltage                   | 6 kVrms (50 Hz/1 min)     |
| Outer conductor resistance DC  | ≤ 1.12 Ω/km               |
| Inner conductor resistance DC  | ≤ 1.35 Ω/km               |

#### Mechanical Data

|                      |                              |               |
|----------------------|------------------------------|---------------|
| Weight               |                              | ≤ 48 kg/100 m |
| Bending Radius       | static                       | ≥ 120 mm      |
| Bending Radius       | repeated (for ≤ 15 bendings) | ≥ 250 mm      |
| Tensile strength     |                              | ≤ 1500 N      |
| Bending force moment |                              | ≤ 19 Nm       |

#### Environmental Data

|                          |                  |
|--------------------------|------------------|
| Temperature range        | -55 °C... +85 °C |
| Installation temperature | -40 °C... +60 °C |
| Halogen test             | IEC 60754-1      |
| 2011/65/EU (RoHS)        | compliant        |

### Additional Information

#### Remarks

(For details contact your nearest HUBER+SUHNER partner)

#### Suitable Connectors

Cable group M25 23 mm / 50 Ohm

#### Suitable Tools

Cable tool 74\_Z-0-23-17

#### Suitable Grounding Kit

Cable grounding kit 9076.99.N078 9076.99.P078

## Coaxial Cable SUCOFEED\_7/8\_LA

**Matrix** typical Attenuation [ formula:  $(a \cdot f^{0.5} + b \cdot f)$  ] and maximum Power CW [ formula:  $(p/f^{0.5})$  ]

Coefficients:

a = 0.03376 typ.

b = 0.0037 typ.

$f_{max.} = 5$

P ≤ at 1GHz = 2440

| Frequency<br>(GHz) | Nom. attenuation<br>(dB / 100 m)<br>sea level 20° C<br>ambient<br>temperature | Nom. attenuation<br>(dB / 100 ft)<br>sea level 20° C<br>ambient<br>temperature | Max. CW power<br>(watt)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---|--|--|
| 0.100              | 1.10  | 0.34   | 7716   |
| 0.150              | 1.36  | 0.42   | 6300   |
| 0.200              | 1.58  | 0.48   | 5456   |
| 0.400              | 2.28  | 0.70   | 3858   |
| 0.450              | 2.43  | 0.74   | 3637   |
| 0.500              | 2.57  | 0.78   | 3451   |
| 0.700              | 3.08  | 0.94   | 2916   |
| 0.800              | 3.32  | 1.01   | 2728   |
| 0.900              | 3.54  | 1.08   | 2572   |
| 1.000              | 3.75  | 1.14   | 2440   |
| 1.500              | 4.69  | 1.43   | 1992   |
| 1.700              | 5.03  | 1.53   | 1871   |
| 1.800              | 5.20  | 1.58   | 1819   |
| 2.000              | 5.51  | 1.68   | 1725   |
| 2.200              | 5.82  | 1.77   | 1645   |
| 2.500              | 6.26  | 1.91   | 1543   |
| 3.000              | 6.96  | 2.12   | 1409   |

**Matrix** typical Return Loss

| Frequency Range<br>(MHz) | Frequency Range<br>(MHz) | Frequency Range<br>(MHz) | Frequency Range<br>(MHz) |
|--------------------------|--------------------------|--------------------------|--------------------------|
| 380 to 470               | 806 to 960               | 1710 to 2200             | 5 to 3000                |
| typ. 28.5 dB             | typ. 26.9 dB             | typ. 25.6 dB             | typ. 20 dB               |