

HUBER+SUHNER® DATA SHEET

Coaxial Cable: SPUMA_400-FR-01



Description

PE Foam - 50 Ohm - double screened

Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|--|--------------------------|------------------|
| Centre conductor | Aluminium / Copper | Wire | 2.74 mm |
| Dielectric | SPE (Foamed Polyethylene) | | 7.24 mm |
| Outer conductor | Aluminum / PES | longitudinal Foil, 100 % | 7.4 mm |
| Outer conductor | Copper, Tin plated | Braid, 78 % | 8.15 mm |
| Jacket | LSFH (modified polyethylene) | RAL 9005 - bk | 10.25 mm +/- 0.1 |
| Print | HUBER+SUHNER SPUMA 400-FR-01 50 Ohm (PA no.) | | |

Electrical Data

| | | |
|--------------------------------|-----------------|----------------------------------|
| Impedance | 50 | Ω +/- 2 |
| Max. operating frequency | 6 | GHz |
| Capacitance | 78 | pF/m |
| Velocity of signal propagation | 85 | % |
| Signal delay | 3.9 | ns/m |
| Insulation resistance | $\geq 1 \times$ | 10^8 M Ω m |
| Min. screening effectiveness | >90 | dB (up to 6 GHz) |
| Max. operating voltage | 1.6 | kV _{rms} (at sea level) |
| Test voltage | 2.1 | kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | | | |
|---------------------|---------------------------------|------|----------|
| Weight | | 11.5 | kg/100 m |
| Min. bending radius | static | 25 | mm |
| | repeated (for max. 50 bendings) | 100 | mm |

Environmental Data

| | | |
|--------------------------|---|-------------------|
| Temperature range | | -40 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C | |
| Flammability | UL 1581 § 1100, UL 1581 § 1080 (VW-1), EN 60332-1-2, EN 50266-2-5 IEC 60332-3-25 | |
| Smoke density | EN 61034-2 | |
| Halogen free | IEC 60754 | |
| 2002/95/EC (RoHS) | compliant | |

Ordering Information

Order as SPUMA_400-FR-01

Additional Information

DIN 5510-2 and CEN/TS 45545 compliant

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Cable group

U30 7 mm / 50 Ohm

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

Coefficients:

| | | | | | | | |
|----|------------------|----|---|---------------------|---|---------------------------|---|
| a= | 0.1241 | b= | 0.008 | f _{max.} = | 6 | p _{at} 1GHz = | 410 |
| | | | | | | | |
| | Frequency | | Nom. attenuation | | Nom. attenuation | | Max. CW power |
| | (GHz) | | (dB / m) | | (dB / ft) | | (watt) |
| | | | sea level 25° C ambient temperature | | sea level 25° C ambient temperature | | sea level 40° C ambient temperature |
| | | | | | | | |
| | 0.3 | | 0.07 | | 0.021 | | 749 |
| | 0.6 | | 0.10 | | 0.030 | | 529 |
| | 0.9 | | 0.12 | | 0.037 | | 432 |
| | 1.2 | | 0.15 | | 0.046 | | 374 |
| | 1.5 | | 0.16 | | 0.049 | | 335 |
| | 1.8 | | 0.18 | | 0.055 | | 306 |
| | 2.1 | | 0.20 | | 0.061 | | 283 |
| | 2.4 | | 0.21 | | 0.064 | | 265 |
| | 2.7 | | 0.23 | | 0.070 | | 250 |
| | 3.0 | | 0.24 | | 0.073 | | 237 |
| | 3.3 | | 0.25 | | 0.076 | | 226 |
| | 3.6 | | 0.26 | | 0.079 | | 216 |
| | 3.9 | | 0.28 | | 0.085 | | 208 |
| | 4.2 | | 0.29 | | 0.088 | | 200 |
| | 4.5 | | 0.30 | | 0.091 | | 193 |
| | 4.8 | | 0.31 | | 0.094 | | 187 |
| | 5.1 | | 0.32 | | 0.098 | | 182 |
| | 5.4 | | 0.33 | | 0.101 | | 176 |
| | 5.7 | | 0.34 | | 0.104 | | 172 |
| | 6.0 | | 0.35 | | 0.107 | | 167 |

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



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