

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: G\_03272



### Description

PE-50 Ohm - single screen

### Technical Data

#### Construction

|                  | Material                             | Detail        | Diameter     |
|------------------|--------------------------------------|---------------|--------------|
| Centre conductor | Copper                               | Strand-07     | 0.95 mm      |
| Dielectric       | PE (Polyethylene)                    |               | 2.95 mm      |
| Outer conductor  | Copper                               | Braid, 95 %   | 3.6 mm       |
| Jacket           | PE (Polyethylene)                    | RAL 9005 - bk | 5 mm +/- 0.1 |
| Print            | HUBER+SUHNER G 03272 50 Ohm (PA no.) |               |              |

#### Electrical Data

|                                |                 |                                  |
|--------------------------------|-----------------|----------------------------------|
| Impedance                      | 50              | $\Omega$ +/- 2                   |
| Max. operating frequency       | 2               | GHz                              |
| Capacitance                    | 101             | pF/m                             |
| Velocity of signal propagation | 66              | %                                |
| Signal delay                   | 5.03            | ns/m                             |
| Insulation resistance          | $\geq 1 \times$ | $10^8 \text{ M}\Omega\text{m}$   |
| Min. screening effectiveness   | > 39            | dB (up to 2 GHz)                 |
| Max. operating voltage         | 2.5             | kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 5               | kV <sub>rms</sub> (50 Hz/1 min)  |

#### Mechanical Data

|                     |                                 |     |          |
|---------------------|---------------------------------|-----|----------|
| Weight              |                                 | 3.5 | kg/100 m |
| Min. bending radius | static                          | 30  | mm       |
|                     | repeated (for max. 50 bendings) | 50  | mm       |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -40 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C |
| Halogen free             | IEC 60754         |
| 2002/95/EC (RoHS)        | compliant         |

#### Ordering Information

Order as G\_03272

#### Additional Information

##### Remarks

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

**Cable group** U7 3 mm / 50 Ohm

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Rev.: J

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

Coefficients:

|    |                  |    |                                           |                    |                                           |                           |                                           |
|----|------------------|----|-------------------------------------------|--------------------|-------------------------------------------|---------------------------|-------------------------------------------|
| a= | 0.4027           | b= | 0.08                                      | f <sub>max</sub> = | 2                                         | p <sub>at</sub><br>1GHz = | 110                                       |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | <b>Frequency</b> |    | <b>Nom. attenuation</b>                   |                    | <b>Nom. attenuation</b>                   |                           | <b>Max. CW power</b>                      |
|    | <b>(GHz)</b>     |    | <b>(dB / m)</b>                           |                    | <b>(dB / ft)</b>                          |                           | <b>(watt)</b>                             |
|    |                  |    | sea level<br>25° C ambient<br>temperature |                    | sea level<br>25° C ambient<br>temperature |                           | sea level<br>40° C ambient<br>temperature |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | 0.1              |    | 0.14                                      |                    | 0.043                                     |                           | 348                                       |
|    | 0.2              |    | 0.20                                      |                    | 0.061                                     |                           | 246                                       |
|    | 0.3              |    | 0.24                                      |                    | 0.073                                     |                           | 201                                       |
|    | 0.4              |    | 0.29                                      |                    | 0.088                                     |                           | 174                                       |
|    | 0.5              |    | 0.32                                      |                    | 0.098                                     |                           | 156                                       |
|    | 0.6              |    | 0.36                                      |                    | 0.110                                     |                           | 142                                       |
|    | 0.7              |    | 0.39                                      |                    | 0.119                                     |                           | 131                                       |
|    | 0.8              |    | 0.42                                      |                    | 0.128                                     |                           | 123                                       |
|    | 0.9              |    | 0.45                                      |                    | 0.137                                     |                           | 116                                       |
|    | 1.0              |    | 0.48                                      |                    | 0.146                                     |                           | 110                                       |
|    | 1.1              |    | 0.51                                      |                    | 0.155                                     |                           | 105                                       |
|    | 1.2              |    | 0.54                                      |                    | 0.165                                     |                           | 100                                       |
|    | 1.3              |    | 0.56                                      |                    | 0.171                                     |                           | 96                                        |
|    | 1.4              |    | 0.59                                      |                    | 0.180                                     |                           | 93                                        |
|    | 1.5              |    | 0.61                                      |                    | 0.186                                     |                           | 90                                        |
|    | 1.6              |    | 0.64                                      |                    | 0.195                                     |                           | 87                                        |
|    | 1.7              |    | 0.66                                      |                    | 0.201                                     |                           | 84                                        |
|    | 1.8              |    | 0.68                                      |                    | 0.207                                     |                           | 82                                        |
|    | 1.9              |    | 0.71                                      |                    | 0.216                                     |                           | 80                                        |
|    | 2.0              |    | 0.73                                      |                    | 0.222                                     |                           | 78                                        |

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