



# RF LLF 7/8" SHF1

## Feeder cable

50Ω

SHF1

DNV

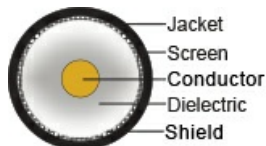
## Application

Low loss flexible feeder cable designed for broadband transmission from sources like radio antennas, radars, GPS devices, mobile phone antennas to distribution systems inside ships, tunnels, buildings and underground areas where RF signals normally cannot be received.



## Construction

|                |                                                                             |
|----------------|-----------------------------------------------------------------------------|
| Conductor      | Cu-tube 9.45 ± 0.10 [mm]                                                    |
| Dielectricum   | Cellular PE 23.20 ± 0.30 [mm]                                               |
| Screen         | Corrugated Cu tube 25.40 ± 0.30 [mm]                                        |
| Jacket         | Black or grey SHF1 UV-resistant                                             |
| O.D.           | 28.5 ± 0.40 [mm]                                                            |
| Weight         | 450 [kg/km]                                                                 |
| Jacket marking | NEK Kabel – RF LLF 7/8" 50 SHF1 – DNV –<br>DD/MM/YYYY – <batch no.> – ****m |



## Specifications

|                                    |               |
|------------------------------------|---------------|
| Operating temperature normal       | 40 – +70 [°C] |
| Temperature @ installation         | -5 – +50 [°C] |
| Recommended clamp spacing          | 1 [m]         |
| Peak RF voltage                    | 3.3 [kV]      |
| Peak power rating                  | 92.0 [kW]     |
| Characteristic impedance           | 50 ± 2 [Ω]    |
| Frequency                          | Max 5000 MHz  |
| Tensile strength                   | 1440 [N]      |
| Capacitance                        | 74.2 [pF/m]   |
| Velocity factor                    | 88 [%]        |
| Min. bending radius                | 150 [mm]      |
| Min. bending radius @ installation | 275 [mm]      |



## Norms

|                                                    |                                    |
|----------------------------------------------------|------------------------------------|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1 & IEC 60754-2          |
| Material properties, insulation and sheath         | IEC 60092-360 (359)                |
| Design and testing standards                       | IEC 60096-0-1 Ed 3 IEC 61196-1-100 |
| Flame resistance                                   | IEC 60332-3-24 Cat.C               |
| Flame retardant                                    | IEC 60332-1-2                      |
| Smoke emission                                     | IEC 61034-1                        |
| UV-resistant                                       | ASTM G 154                         |
| Certification                                      | DNV                                |

|          |                                 |
|----------|---------------------------------|
| Part No. | Black: 1028851<br>Grey: 1028858 |
|----------|---------------------------------|



NEK offers connectors for RF LLF 7/8":  
Male part no. 65467 and Female part no. 65427



## Attenuation nominal, max 105%

| Frequency MHz | Attenuation dB/100m |
|---------------|---------------------|
| 150           | ≤ 1.45              |
| 450           | ≤ 2.60              |
| 700           | ≤ 3.3               |
| 800           | ≤ 3.57              |
| 900           | ≤ 3.81              |
| 1800          | ≤ 5.65              |
| 2000          | ≤ 6.00              |
| 2200          | ≤ 6.34              |
| 2400          | ≤ 6.67              |
| 2500          | ≤ 6.84              |
| 2700          | ≤ 7.15              |
| 3000          | ≤ 7.61              |
| 5800          | -                   |



## VSWR

| Frequency [MHz] | -           |
|-----------------|-------------|
| 320 – 480       | $\leq 1.20$ |
| 820 – 960       | $\leq 1.20$ |
| 1700 – 1880     | $\leq 1.20$ |
| 1880 – 2180     | $\leq 1.20$ |
| 2300 – 2500     | $\leq 1.20$ |
| 2500 – 2700     | $\leq 1.20$ |

## Updated

| Date       | Rev . | Description                           |
|------------|-------|---------------------------------------|
| 13.04.2016 | 1     | Attenuation values                    |
| 14.10.2016 | 2     | Minor changes physical data (BS)      |
| 25.11.2016 | 3     | Fire class.                           |
| 13.09.2017 | 4     | Update outer diam.                    |
| 10.10.2017 | 5     | Update screen resistance              |
| 27.11.2017 | 6     | Update norms                          |
| 27.09.2019 | 7     | Corr. approvals                       |
| 01.07.2022 | 8     | corr. prod.no from 1092496 to 1028851 |
| 23.04.2024 | 9     | Attenuation                           |