

COAXIAL CABLE RFA 1/2"

NK CODES

RFA 1/2"-50
RFA 1/2"-50 BHF
RFA 1/2"-50 BHF (UL) CATVR

NKRFA01200
NKRFA01202
NKRFA01204

CONSTRUCTION



| | | | |
|-----------------|--|-----------|-----------|
| Inner conductor | Copper-clad aluminium wire | Ø 4.8 mm | (0.19 in) |
| Dielectric | Cellular polyethylene | Ø 12.1 mm | (0.48 in) |
| Outer conductor | Corrugated copper tube | Ø 13.9 mm | (0.55 in) |
| Jacket | See Jacketing Options table below | Ø 16.0 mm | (0.63 in) |
| Marking | Draka, cable type, manufacture week, year, batch number and meter mark | | |

ELECTRICAL CHARACTERISTICS at +20°C (+68°F)

| | |
|---|----------------------------|
| Characteristic impedance | 50 ± 1 Ω |
| Return loss 24 dB (VSWR 1,13) for 100 m cable with NKC connectors | |
| - 380 - 500 | MHz |
| - 790 - 960 | " |
| - 1710 - 1880 | " |
| - 1900 - 2170 | " |
| - 2490 - 2700 | " |
| - 3400 - 3600 | " |
| Other bands also available on request | |
| Bands according to customer's specifications | |
| Attenuation | See table |
| Velocity factor | 0.88 |
| Capacitance | 76.1 pF/m (23.2 pF/ft) |
| Inductance | 0.19 µH/m (0.058 µH/ft) |
| Maximum frequency | 9500 MHz |
| Max power rating | See table |
| Peak RF voltage rating | 1.80 kV |
| Peak power rating | 31.8 kW |
| DC resistance | |
| - Inner conductor | 1.44 Ω/km (0.44 Ω/1000 ft) |
| - Outer conductor | 2.28 Ω/km (0.69 Ω/1000 ft) |

MECHANICAL CHARACTERISTICS

| | | |
|-----------------------------|-------------|-----------------|
| Weight | 0.22 kg/m | (0.15 lb/ft) |
| Maximum pulling force | 2000 N | (449 lb) |
| Minimum bending radius | | |
| - Single bending | 70 mm | (2.8 in) |
| - Repeated bending | 120 mm | (4.7 in) |
| Operating temperature range | -55...+85°C | (-67...+185 °F) |
| Crush resistance | 1.8 kg/mm | (100 lb/in) |
| Bending moment | 3.8 Nm | (2.8 lb-ft) |
| Recommended clamp spacing | 1.0 m | (3.3 ft) |

JACKETING OPTIONS

| TYPE | JACKET | IEC 60754 - 1/-2 Halogen free, non corrosive | IEC 61034 low smoke emission | IEC 60332- 3-24 fire retardant | UV retardancy | UL Rated | Min. installation temperature |
|----------------------------|--|---|---------------------------------------|---|------------------|-------------|-------------------------------------|
| RFA 1/2"-50 | Black, halogen free polyethylene | yes | no | no | yes | no | -40°C (-40°F) |
| RFA 1/2"-50 BHF | Black, halogen free fire retardant thermoplastic | yes | yes | yes | yes | no | -20°C (-4°F) |
| RFA 1/2"-50 BHF (UL) CATVR | Black, halogen free fire retardant UL Riser rated jacket | yes | yes | yes | yes | yes | -20°C (-4°F) |

| FREQUENCY MHz | ATTENUATION dB/100 m | ATTENUATION dB/100 ft | POWER RATING kW |
|------------------|-------------------------|--------------------------|--------------------|
| 10 | 0.664 | 0.202 | 12 |
| 30 | 1.16 | 0.353 | 6.9 |
| 50 | 1.50 | 0.458 | 5.3 |
| 88 | 2.00 | 0.611 | 4.0 |
| 100 | 2.14 | 0.652 | 3.7 |
| 108 | 2.23 | 0.679 | 3.6 |
| 174 | 2.85 | 0.868 | 2.8 |
| 200 | 3.06 | 0.933 | 2.6 |
| 300 | 3.78 | 1.15 | 2.1 |
| 400 | 4.40 | 1.34 | 1.8 |
| 450 | 4.68 | 1.43 | 1.7 |
| 500 | 4.95 | 1.51 | 1.6 |
| 512 | 5.01 | 1.53 | 1.6 |
| 600 | 5.45 | 1.66 | 1.5 |
| 700 | 5.92 | 1.81 | 1.3 |
| 800 | 6.36 | 1.94 | 1.2 |
| 850 | 6.57 | 2.00 | 1.2 |
| 890 | 6.74 | 2.05 | 1.2 |
| 900 | 6.78 | 2.07 | 1.2 |
| 950 | 6.98 | 2.13 | 1.1 |
| 960 | 7.02 | 2.14 | 1.1 |
| 1000 | 7.18 | 2.19 | 1.1 |
| 1200 | 7.92 | 2.41 | 0.98 |
| 1400 | 8.62 | 2.63 | 0.91 |
| 1600 | 9.28 | 2.83 | 0.85 |
| 1800 | 9.90 | 3.02 | 0.79 |
| 1900 | 10.2 | 3.11 | 0.77 |
| 2000 | 10.5 | 3.20 | 0.75 |
| 2200 | 11.1 | 3.37 | 0.71 |
| 2400 | 11.6 | 3.54 | 0.68 |
| 2600 | 12.2 | 3.71 | 0.65 |
| 2800 | 12.7 | 3.86 | 0.62 |
| 3000 | 13.2 | 4.02 | 0.59 |
| 3400 | 14.2 | 4.31 | 0.55 |
| 6000 | 19.7 | 6.00 | 0.40 |
| 8800 | 23.4 | 7.12 | 0.33 |

Attenuation values are typical at ambient temperature +20°C (+68°F).

Power rating ambient temperature +40°C (+104°F), inner conductor +100°C (+212°F).

CODES FOR NKC CONNECTORS

| CONNECTOR TYPE | NK CODE |
|-----------------------|------------|
| N male | NKC1012300 |
| N female | NKC1012400 |
| 7-16 male | NKC1012100 |
| 7-16 female | NKC1012200 |
| N male Right angle | NKC1012600 |
| 7-16 male Right angle | NKC1012500 |

[PRODUCT CODE TABLE]

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