

RFA 1/4" COAXIAL CABLE

CODES	RFA 1/4"-50	NKRFA01400
	RFA 1/4"-50 BHF	NKRFA01402
	RFA 1/4"-50 BHF (UL) CATVR	NKRFA01404

CONSTRUCTION



Inner conductor	Copper-clad aluminium wire	Ø 2.4 mm	(0.09 in)
Dielectric	Cellular polyethylene	Ø 6.0 mm	(0.24 in)
Outer conductor	Corrugated copper tube	Ø 7.5 mm	(0.3 in)
Jacket	See Jacketing Options table below	Ø 10.0 mm	(0.39 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 for 100 m cable with NKC connectors	
- 380 - 500	MHz
- 790 - 960	"
- 1710 - 1880	"
- 1900 - 2170	"
- 2490 - 2700	"
Other bands also available on request	
Bands according to customer's specifications	
Attenuation	See table
Velocity factor	0.83
Capacitance	80 pF/m (24 pF/ft)
Maximum frequency	16 GHz
Max power rating	See table
Peak RF voltage rating	1.04 kV
Peak power rating	11.6 kW
DC resistance	
- Inner conductor	5.67 Ω/km (1.73 Ω/1000 ft)
- Outer conductor	4.23 Ω/km (1.29 Ω/1000 ft)

MECHANICAL CHARACTERISTICS

Weight	0.10 kg/m (0.07 lb/ft)
Maximum pulling force	790 N (177 lb)
Minimum bending radius	
- Single bending	40 mm (1.6 in)
- Repeated bending	100 mm (3.9 in)
Operating temperature range	-55...+85°C (-67...+185 °F)
Crush resistance	1.9 kg/mm (106 lb/in)
Bending moment	1.8 Nm (1.3 lb-ft)
Recommended clamp spacing	0.6 m (2 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 1/4"-50	Black, halogen free polyethylene	yes	no	no	yes	no	-40°C (-40°F)
RFA 1/4"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	yes	no	-20°C (-4°F)
RFA 1/4"-50 BHF (UL) CATVR	Black, halogen free fire retardant UL Riser rated jacket	yes	yes	yes	yes	yes	-20°C (-4°F)

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FREQUENCY MHz	ATTENUATION dB/100 m	ATTENUATION dB/100 ft	POWER RATING kW
10	1.31	0.399	5.5
30	2.28	0.694	3.2
50	2.95	0.899	2.5
88	3.93	1.20	1.8
100	4.19	1.28	1.7
108	4.36	1.33	1.7
150	5.16	1.57	1.4
174	5.56	1.70	1.3
200	5.98	1.82	1.2
300	7.36	2.24	1.0
400	8.54	2.60	0.85
450	9.08	2.77	0.80
500	9.59	2.92	0.75
512	9.71	2.96	0.74
600	10.5	3.21	0.69
700	11.4	3.48	0.63
800	12.3	3.74	0.59
850	12.7	3.86	0.57
890	13.0	3.95	0.56
900	13.0	3.98	0.55
950	13.4	4.09	0.54
960	13.5	4.11	0.54
1000	13.8	4.20	0.52
1200	15.2	4.63	0.48
1400	16.5	5.02	0.44
1600	17.7	5.39	0.41
1800	18.8	5.75	0.38
1900	19.4	5.91	0.37
2000	19.9	6.08	0.36
2200	21.0	6.40	0.34
2400	22.0	6.71	0.33
2600	23.0	7.01	0.32
2800	23.9	7.30	0.30
3000	24.9	7.58	0.29
3400	26.6	8.11	0.27
6000	36.5	11.1	0.20
8000	43.0	13.1	0.17
10000	48.9	14.9	0.15
12000	54.3	16.6	0.14
16000	64.4	19.6	0.11

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	CODE
N male	NKC1014300
N female	NKC1014400
7-16 male	NKC1014100
N male Right angle	NKC1014600