



Feeder cable

RFA 1/2''-50

Specifications

COAXIAL CABLE	
Type	Code
RFA 1/2''-50	NKRFA01200
RFA 1/2''-50 GHF	NKRFA01201
RFA 1/2''-50 BHF	NKRFA01202
RFA 1/2''-50 BHF (UL) CATVR	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 for 100 m (330ft) cable with NKC connectors for following frequency bands:	
• 380-500 MHz	
• 806-960 MHz	
• 1710-1880 MHz	
• 1900-2170 MHz	
• 3400-3600 MHz	
Other bands also available on request	
Bands according to customer's specifications	
Attenuation	See attenuation table
Velocity factor	0.88
Capacitance	76 pF/m (23pF/ft)
Maximum frequency	9800 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 /1000ft)
• Outer conductor	2.24 Ω/km (0.68 Ω /1000ft)

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 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	no	-20°C (-4°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)

ATTENUATION			
Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Power rating kW
10	0.665	(0.203)	12
30	1.16	(0.354)	6.9
50	1.51	(0.459)	5.3
88	2.01	(0.613)	4.0
100	2.15	(0.655)	3.7
108	2.24	(0.682)	3.6
174	2.86	(0.873)	2.8
200	3.08	(0.938)	2.6
300	3.81	(1.16)	2.1
400	4.43	(1.35)	1.8
450	4.72	(1.44)	1.7
500	4.99	(1.52)	1.6
512	5.06	(1.54)	1.6
600	5.50	(1.68)	1.4
700	5.98	(1.82)	1.3
800	6.43	(1.96)	1.2
850	6.64	(2.03)	1.2
890	6.81	(2.08)	1.2
900	6.85	(2.09)	1.2
950	7.06	(2.15)	1.1
960	7.10	(2.16)	1.1
1000	7.26	(2.21)	1.1
1200	8.02	(2.45)	0.98
1400	8.74	(2.66)	0.90
1600	9.41	(2.87)	0.83
1800	10.0	(3.06)	0.78
1900	10.4	(3.16)	0.76
2000	10.7	(3.25)	0.74
2200	11.3	(3.43)	0.70
2400	11.8	(3.60)	0.66
2600	12.4	(3.77)	0.63
2800	12.9	(3.94)	0.61
3000	13.4	(4.09)	0.58
3400	14.4	(4.40)	0.54
6000	20.2	(6.15)	0.39
8800	25.5	(7.77)	0.31

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).

MECHANICAL CHARACTERISTICS

Weight	0.23 kg/m	(0.15 lb/ft)
Maximum pulling force	2550 N	(562 lb)
Minimum bending radius		
• Single bending	70 mm	(2.8 in)
• Repeated bending	120 mm	(4.7 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Crush resistance	2.0 kg/mm	(110 lb/in)
Bending moment	3.8 Nm	(2.8 lb-ft)
Recommended clamp spacing	1.0 m	(3.3 ft)

STANDARD DRUM

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m ³ (cu.ft)
		m	(ft)	cm	(in)	cm	(in)			
RFA 1/2"	P11D	500	(1640)	114	(45)	51	(20)	45 (99)	176 (379)	0.66 (23.31)

CODES FOR NKC CONNECTORS

Connector type	Code
7-16 male	NKC1012100
7-16 female	NKC1012200
N male	NKC1012300
N female	NKC1012400
7-16 male Right angle	NKC1012500
N male Right angle	NKC1012600