



Feeder cable RFA 1 1/4"-50

Specifications

COAXIAL CABLE

Type	Code
RFA 1 1/4"-50	NKRFA11400
RFA 1 1/4"-50 GHF	NKRFA11401
RFA 1 1/4"-50 BHF	NKRFA11402

CONSTRUCTION

Inner conductor	Copper tube	Ø 13.0 mm	(0.51 in)
Dielectric	Cellular polyethylene	Ø 32.2 mm	(1.27 in)
Outer conductor	Corrugated copper tube	Ø 35.8 mm	(1.41 in)
Jacket	See Jacketing Options table below	Ø 39.0 mm	(1.54 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 (330 ft) cable with NKC connectors for following frequency bands:		
• 380–500	MHz	
• 806–960	MHz	
• 1710–1880	MHz	
• 1900–2170	MHz	
Other bands also available on request		
Bands according to customer's specifications		
Attenuation	See attenuation table	
Velocity factor	0.88	
Capacitance	75 pF/m	(23 pF/ft)
Maximum frequency	3500 MHz	
Max power rating	See table	
Peak RF voltage rating	4.6 kV	
Peak power rating	211.2 kW	
DC-resistance		
• Inner conductor	0.74 Ω/km	(0.22 Ω/1000 ft)
• Outer conductor	0.65 Ω/km	(0.22 Ω/1000 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	Min. installation temperature
RFA 1 1/4"-50	Black, halogen free polyethylene (LPDE with HDPE skin)	yes	no	no	yes	-40°C (-40°F)
RFA 1 1/4"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	-5°C (23°F)
RFA 1 1/4"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	yes	-5°C (23°F)

ATTENUATION

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Power rating kW
10	0.250	(0.076)	41
30	0.439	(0.134)	23
50	0.571	(0.174)	18
88	0.766	(0.234)	13
100	0.819	(0.250)	12
108	0.853	(0.260)	12
174	1.10	(0.335)	9.2
200	1.18	(0.360)	8.6
300	1.47	(0.448)	6.8
400	1.72	(0.524)	5.8
450	1.83	(0.559)	5.5
500	1.94	(0.593)	5.2
512	1.97	(0.600)	5.1
600	2.15	(0.656)	4.7
700	2.34	(0.714)	4.3
800	2.53	(0.770)	3.9
850	2.62	(0.797)	3.8
890	2.68	(0.818)	3.7
900	2.70	(0.823)	3.7
950	2.79	(0.849)	3.6
960	2.80	(0.854)	3.6
1000	2.87	(0.874)	3.5
1200	3.18	(0.970)	3.1
1400	3.48	(1.06)	2.9
1600	3.76	(1.15)	2.6
1800	4.03	(1.23)	2.5
1900	4.17	(1.27)	2.4
2000	4.29	(1.31)	2.3
2200	4.54	(1.39)	2.2
2400	4.79	(1.46)	2.1
2600	5.03	(1.53)	1.9
2800	5.26	(1.60)	1.9
3000	5.48	(1.67)	1.8
3300	5.81	(1.77)	1.7

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	0.89 kg/m	(0.60 lb/ft)
Maximum pulling force	6050 N	(1340 lb)
Minimum bending radius		
• Single bending	200 mm	(8 in)
• Repeated bending	350 mm	(14 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Crush resistance	2.6 kg/mm	(146 lb/in)
Bending moment	48.7 Nm	(35.9 lb-ft)
Recommended clamp spacing	1.5 m	(5 ft)

STANDARD DRUM

Cable type	Drum	Standard length	Outer diam. (D)	Outer width (W)	Drum weight (empty)	Total weight	Drum freight volume
		m (ft)	cm (in)	cm (in)	kg (lb)	kg (lb)	m ³ (cu.ft)
RFA 1 1/4"	P20G	600 (1968)	204 (80)	74 (29)	157 (346)	735 (1621)	3.08 (108.77)

CODES FOR NKC CONNECTORS

Connector type	Code
7-16 male	NKC1114100
7-16 female	NKC1114200
7-16 Bulkhead female	NKC1114290
N male	NKC1114300
N female	NKC1114400