



Feeder cable RFA 2 1/4"-50

Specifications

COAXIAL CABLE	
Type	Code
RFA 2 1/4"-50	NKRFA21400
RFA 2 1/4"-50 GHF	NKRFA21401
RFA 2 1/4"-50 BHF	NKRFA21402

CONSTRUCTION			
Inner conductor	Corrugated copper tube	Ø 21.2 mm	(0.83 in)
Dielectric	Cellular polyethylene	Ø 52.0 mm	(2.05 in)
Outer conductor	Corrugated copper tube	Ø 55.9 mm	(2.20 in)
Jacket	See Jacketing Options table below	Ø 60.0 mm	(2.36 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	2300 MHz
Max power rating	See table
Peak RF voltage rating	6.6 kV
Peak power rating	449.4 kW
DC-resistance	
• Inner conductor	0.55 Ω/km (0.17 Ω /1000 ft)
• Outer conductor	0.25 Ω/km (0.08 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 2 1/4"-50	Black, halogen free polyethylene	yes	no	no	yes	-20°C (-4°F)
RFA 2 1/4"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	-5°C (23°F)
RFA 2 1/4"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	yes	-5°C (23°F)

ATTENUATION			
Frequency	Attenuation dB/100 m	Attenuation dB/100 ft	Power rating kW
10	0.167	(0.051)	72
30	0.294	(0.090)	41
50	0.385	(0.117)	31
88	0.521	(0.159)	23
100	0.558	(0.170)	21
108	0.582	(0.177)	21
174	0.755	(0.230)	16
200	0.816	(0.249)	15
300	1.02	(0.312)	12
400	1.21	(0.368)	9.9
450	1.29	(0.394)	9.2
500	1.37	(0.419)	8.7
512	1.39	(0.425)	8.5
600	1.53	(0.466)	7.8
700	1.68	(0.511)	7.1
800	1.82	(0.553)	6.6
850	1.88	(0.574)	6.3
890	1.94	(0.590)	6.2
900	1.95	(0.594)	6.1
950	2.01	(0.614)	5.9
960	2.03	(0.618)	5.9
1000	2.08	(0.633)	5.7
1200	2.32	(0.708)	5.1
1400	2.56	(0.779)	4.7
1600	2.78	(0.848)	4.3
1800	3.00	(0.913)	4.0
1900	3.10	(0.945)	3.8
2000	3.21	(0.977)	3.7
2200	3.41	(1.04)	3.5

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	1.93 kg/m	(1.30 lb/ft)
Maximum pulling force	6950 N	(1550 lb)
Minimum bending radius		
• Single bending	240 mm	(9.4 in)
• Repeated bending	500 mm	(19.7 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Crush resistance	3.5 kg/mm	(196 lb/in)
Bending moment	94.5 Nm	(70 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 2 1/4"	P21Q	300 (984)	214 (84)	118 (46)	205 (452)	867 (1912)	5.40 (190.70)

CODES FOR NKC CONNECTORS	
Connector type	Code
7-16 male	NKC1214100
7-16 female	NKC1214200
N male	NKC1214300
N female	NKC1214400