

RFA 7/8" COAXIAL CABLE

	Material code
RFA 7/8"-50	60016683
RFA 7/8"-50 BHF	60016669
RFA 7/8"-50 GHF	60016661
RFA 7/8"-50 BHF (UL) CATVR	

CONSTRUCTION


Inner conductor	Copper tube	Ø 9.4 mm	(0.37 in)
Dielectric	Cellular polyethylene	Ø 22.5 mm	(0.89 in)
Outer conductor	Corrugated copper tube	Ø 25.4 mm	(1.00 in)
Jacket	See Jacketing Options table below	Ø 28.0 mm	(1.10 in)
Marking	Draka, cable type, CPR class, manufacture week/year, batch number and meter mark		

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

Characteristic impedance	50 ± 1 Ω
Min. Return loss with delivery lengths	
790 – 960 MHz	20 dB
1710 – 1880 MHz	20 dB
1900 – 2170 MHz	20 dB
2490 – 2700 MHz	20 dB
3400 – 3800 MHz	20 dB
Other bands also available on request	
RL typically 24 dB for 100 m cable with NKC connectors	
Attenuation	See table
Velocity factor	0.90
Capacitance	74.2 pF/m (23 pF/ft)
Inductance	0.186 µH/m (0.945 µH/ft)
Maximum frequency	5100 MHz
Max power rating	See table
Peak RF voltage rating	3.1 kV
Peak power rating	92 kW
DC-resistance	
Inner conductor	1.85 Ω/km (0.56 Ω/1000 ft)
Outer conductor	1.53 Ω/km (0.47 Ω/1000 ft)

MECHANICAL CHARACTERISTICS

Weight (polyethylene jacket)	0.40 kg/m	(0.27 lb/ft)
Weight (BHF fire retardant jacket)	0.47 kg/m	(0.32 lb/ft)
Maximum pulling force	2000 N	(450 lb)
Minimum bending radius		
Single bending	120 mm	(5 in)
Repeated bending	240 mm	(9 in)
Operating temperature range	-55...+85°C	(-67...+185°F)
Crush resistance	1.45 kg/mm	(81 lb/in)
Bending moment	15 Nm	(11 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	UL Rated	UV retardancy	Min. installation temperature
RFA 7/8"-50	Black, halogen free polyethylene	yes	no	no	no	yes	-40°C (-40°F)
RFA 7/8"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	no	yes	-20°C (-4°F)
RFA 7/8"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	no	-20°C (-4°F)
RFA 7/8"-50 BHF (UL) CATVR	Black, halogen free fire retardant thermoplastic, UL Riser rated jacket	yes	yes	yes	yes	yes	-20°C (-4°F)

CONNECTOR CODES

NKC1078300 N male
 NKC1078400 N female
 NKC1078100 7/16 male
 NKC1078200 7/16 female
 NKC1078500 7/16 male Right angle
 NKC1078700 4.3/10 female
 NKC1078P00 4.3/10 male (screw)
 NKC1078290 7/16 Bulkhead female

ACCESSORIES & TOOLS & INSTALLATION

Knife and hacksaw can be used as connector installation tools.

Please contact your salesperson if any further questions.

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FREQUENCY MHz	ATTENUATION dB/100 m	POWER RATING kW	FREQUENCY MHz	ATTENUATION dB/100 m	POWER RATING kW
0.5	0.077	92	900	3.5	2.60
1.0	0.109	86	925	3.6	2.57
1.5	0.133	70	950	3.6	2.53
1.85	0.148	63	960	3.7	2.51
2.0	0.154	61	1000	3.7	2.46
3.7	0.209	45	1250	4.2	2.17
5.3	0.251	37.3	1400	4.5	2.04
7.1	0.291	32.2	1500	4.7	1.96
10	0.35	27.1	1575	4.8	1.91
14	0.41	22.9	1700	5.0	1.83
18	0.47	20.1	1800	5.2	1.77
20	0.49	19.1	1900	5.3	1.71
25	0.55	17.0	2000	5.5	1.66
28	0.58	16.1	2100	5.6	1.62
30	0.60	15.5	2200	5.8	1.58
50	0.78	12.0	2400	6.1	1.50
70	0.93	10.1	2500	6.2	1.47
75	0.96	9.7	2600	6.4	1.43
88	1.04	8.9	2700	6.5	1.40
100	1.12	8.4	2800	6.6	1.37
108	1.16	8.0	3000	6.9	1.32
144	1.35	6.9	3400	7.4	1.23
150	1.37	6.8	3500	7.5	1.21
174	1.48	6.3	3600	7.7	1.19
200	1.60	5.8	3700	7.8	1.17
220	1.68	5.6	3800	7.9	1.15
300	1.97	4.7	4000	8	1.12
380	2.23	4.1	4900	9	0.99
400	2.29	4.0	5000	9	0.97
432	2.39	3.9	5100	9	0.96
450	2.44	3.79			
500	2.58	3.58			
512	2.61	3.53			
600	2.84	3.25			
700	3.09	2.99			
750	3.21	2.88			
800	3.32	2.78			
824	3.37	2.73			
870	3.47	2.65			
890	3.52	2.62			
894	3.52	2.61			

Attenuation at imperial scale can be calculated: [dB / 100 m] * 0.3048 = [dB / 100 ft].

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).

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