

Radiating Cable

RFCX Series(Coupled Mode)



1/2"
RFCX 12D / RFCX-FR 12D



7/8"
RFCX 22D / RFCX-FR 22D



1-1/4"
RFCX 33D / RFCX-FR 33D



1-5/8"
RFCX 42D / RFCX-FR 42D

Construction

		RFCX 12D (1/2")	RFCX 22D (7/8")	RFCX 33D (1-1/4")	RFCX 42D (1-5/8")
Inner Conductor	Material / Construction	Copper-Clad Aluminum Wire	Smooth Copper Tube	Smooth Copper Tube	Helically Corrugated Copper Tube
	Diameter (mm)	4.8	9.0	13.1	17.2
Dielectric	Material / Construction	Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
	Diameter (mm)	12.0	22.1	32.5	42.5
Outer Conductor	Material / Construction	Annularly Corrugated Copper Tube with Milled Slots	Annularly Corrugated Copper Tube with Milled Slots	Annularly Corrugated Copper Tube with Milled Slots	Annularly Corrugated Copper Tube with Milled Slots
	Diameter (mm)	13.8	24.9	36.0	46.5
Jacket Diameter	Standard Jacket (mm)	16.0	27.9	39.0	50.0
	Halogen-Free / Flame-Retardant Jacket (mm)	16.0	27.9	39.0	50.0

Mechanical Characteristics

		RFCX 12D (1/2")	RFCX 22D (7/8")	RFCX 33D (1-1/4")	RFCX 42D (1-5/8")
Min. Bending Radius (mm)		125	250	380	500
Recommended Operating Temperature	Standard Jacket (°C)	-40 ~ +80	-40 ~ +80	-40 ~ +80	-40 ~ +80
	Halogen-Free / Flame-Retardant Jacket (°C)	-30 ~ +80	-30 ~ +80	-30 ~ +80	-30 ~ +80
Nominal Weight	Standard Jacket (kg/m)	0.22	0.48	0.87	1.12
	Halogen-Free / Flame-Retardant Jacket (kg/m)	0.24	0.52	0.93	1.22

Electrical Characteristics

		RFCX 12D (1/2")	RFCX 22D (7/8")	RFCX 33D (1-1/4")	RFCX 42D (1-5/8")
DC Resistance Ω / 1,000m (Ω / 1,000ft)	Inner Conductor	1.55 (0.47)	1.30 (0.43)	0.80 (0.24)	0.85 (0.26)
	Outer Conductor	3.00 (0.91)	1.90 (0.58)	0.90 (0.27)	0.90 (0.28)
Insulation Resistance (M Ω · km)		10,000	10,000	10,000	10,000
Dielectric Strength (for 1 Min.)		DC 4,000V	DC 6,000V	DC 9,000V	DC 11,000V
Velocity of Propagation (%)		88	88	88	87
Characteristic Impedance (Ω)		50	50	50	50

Attenuation (at 20°C) & Average Power Rating (at Ambient 40°C, Inner Conductor 100°C)

Frequency (MHz)		RFCX 12D (1/2")	RFCX 22D (7/8")	RFCX 33D (1-1/4")	RFCX 42D (1-5/8")
Attenuation (dB/100m)	75	2.2	1.2	1.0	0.75
	150	3.1	1.6	1.3	0.95
	450	5.5	2.9	2.4	1.9
	800	7.5	4.8	3.4	2.6
	900	7.9	4.9	3.6	2.8
	1,800	11.8	7.5	5.9	4.3
	2,200	13.1	8.8	7.1	5.5
	2,400	14.0	9.0	8.1	5.8
Coupling Loss (dB, 50% / 95%)	75	63 / 74	59 / 69	61 / 71	63 / 74
	150	67 / 77	66 / 77	70 / 77	72 / 81
	450	71 / 83	70 / 80	77 / 90	76 / 86
	800	75 / 86	70 / 82	77 / 89	76 / 87
	900	74 / 85	69 / 79	77 / 86	76 / 88
	1,800	71 / 82	67 / 81	74 / 85	73 / 81
	2,200	73 / 84	69 / 80	74 / 85	80 / 91
	2,400	71 / 83	69 / 82	76 / 87	79 / 90

* Attenuation is typical value

* Specifications Subject to change without notice