

PRODUCT DESCRIPTION

HFSC Series cables are super flexible lightweight coaxial cables featuring a copper clad aluminum conductor, foamed polyethylene dielectric and corrugated copper metallic shield. This helically corrugated cable has the highest number of corrugations per inch and the lowest minimum bending radius, making it well-suited for jumper cable and installations where bending and tight spaces require a more flexible cable.

FEATURES

- Light weight and flexible
- Low passive intermodulation
- Easy connectorization
- Factory tested and inspected
- Rugged and durable
- Flame retardant zero halogen

BENEFITS

- Easy to transport and install
- Outperforms the industry requirements for low passive intermodulation
- Full line of high-quality low intermodulation DIN and N connectors and cable preparation tools minimize installation time and expense
- 100% of all RF cables are inspected and tested to meet or exceed industry specifications including passive intermodulation
- High-quality materials result in rugged cables that are able to withstand extreme environments without corrosion
- Standard ¼ inch cable meets IEC 754-1, 332, 383 and ASTM E 662



SPECIFICATIONS

Inner Conductor	Copper-clad aluminum wire
Dielectric	Foamed polyethylene
Outer Conductor	Helically corrugated copper tube
Jacket	HFSC-6DFR: Flame Retardant, Low Smoke Zero Halogen (LSZH) HFSC-12D: Black polyethylene
Recommended Operating Temperature °F (°C)	HFSC-6DFR: -22 to +176 (-30 to +80) HFSC-12D: -40 to +185 (-40 to +80)

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Cable Size in (mm)	Nominal Diameter in (mm)				Minimum Bend Radius in (mm)	Approx. Weight lbs/kft (kg/km)	Flat Plate Crush Resistance lbs/in (kg/mm)	Maximum Pulling Force lbs (kg)
		Inner Conductor	Dielectric	Outer Conductor	Jacket				
HFSC-6DFR	¼ (6)	0.07 (1.9)	0.19 (4.7)	0.25 (6.4)	0.31 (8.0)	0.98 (25)	54 (80)	161.44 (1.86)	150 (68)
HFSC-12D	½ (12)	0.14 (3.6)	0.35 (8.9)	0.48 (12.2)	0.54 (13.6)	1.26 (32)	135 (201)	147.60 (1.7)	143 (65)

ELECTRICAL SPECIFICATIONS

Part Number	Cable Size in (mm)	Conductor DC Resistance Ohms/kft (Ohms/km)		Insulation Resistance mΩ km	Dielectric Strength for 1 minute DC Potential - Volts	Velocity of Propagation %	Peak Power Rating kW	Maximum Operating Frequency GHz	Characteristic Impedance Ohms	Typical Return Loss dB
		Inner	Outer							
HFSC-6DFR	¼ (6)	2.99 (9.80)	1.98 (6.50)	10,000	1,600	81	6.4	20.4	50	28
HFSC-12D	½ (12)	0.87 (2.85)	0.99 (3.25)	10,000	2,500	81	15.6	10.0	50	28

Frequency MHz	Attenuation at 20°C dB/100 ft (dB/100 m)		Average Power Rating at Ambient 40°C Inner Conductor 100°C kW	
	HFSC-6DFR	HFSC-12D	HFSC-6DFR	HFSC-12D
	30	0.96 (3.15)	0.55 (1.80)	2.08
100	1.77 (5.82)	1.01 (3.33)	1.13	2.62
150	2.19 (7.17)	1.25 (4.10)	0.92	2.12
450	3.87 (12.70)	2.22 (7.29)	0.52	1.19
824	5.36 (17.60)	3.08 (10.10)	0.38	0.85
894	5.61 (18.40)	3.20 (10.50)	0.36	0.82
960	5.82 (19.10)	3.35 (11.00)	0.35	0.79
1,000	5.94 (19.50)	3.41 (11.20)	0.34	0.77
1,700	7.96 (26.10)	4.57 (15.00)	0.26	0.57
1,800	8.20 (26.90)	4.72 (15.50)	0.25	0.55
2,000	8.69 (28.50)	5.00 (16.40)	0.24	0.52
2,400	9.63 (31.60)	5.55 (18.20)	0.22	0.47
3,000	10.91 (35.80)	6.31 (20.70)	0.19	0.41
4,000	12.86 (42.20)	7.44 (24.40)	0.16	0.35
6,000	16.28 (53.40)	9.45 (31.00)	0.13	0.27
10,000	22.13 (72.60)	12.89 (42.30)	0.10	0.20

Frequency MHz	VSWR	
	HFSC-6DFR	HFSC-12D
800-960	1.15	1.15
1,700-2,200	1.15	1.15

Standard Conditions: VSWR 1.0, Ambient Temperature 20°C/Attenuation is typical value.