FC50R-12-PE-01 HLCAY-50-12

SYMAIR

Radiating cable, slotted and corrugated copper tube for outer conductor and copper-clad aluminum wire for inner conductor, foam PE dielectric, 1/2 in, black PE jacket

General Specifications

Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation guaranteed within the tolerance ±10%
Structure Note	Dimension guaranteed within the tolerance ±5%
Nominal Size	1/2 in

Material Specifications

Inner Conductor	Copper-clad Aluminum Wire
Dielectric	Foam PE
Outer Conductor	Slotted and Corrugated Copper Tube
Jacket	Black PE
Diameter of Inner Conductor	4.80 mm
Diameter of Dielectric	12.20 mm
Diameter of Outer Conductor	13.80 mm
Diameter of Jacket	15.90 mm

Electrical Specifications

Impedance	50 ohms±1 ohm
Maximum Available Frequence	50-2500 MHz
Velocity Ratio	88%
Peak Power	40 kW
Insulation Resistance	100,000 MΩ·km
DC Breakdown Voltage	8000 V
Nominal Capacitance	70 pF/m
Nominal Inductance	0.19 µH/m

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Attenuations

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss, 2m (dB, 50%)
150	3.1	0.94	73/84
450	6.1	1.86	73/83
900	8.8	2.68	76/86
1800	12.1	3.69	73/79
2400	14.5	4.42	72/80

Return Loss / VSWR

Frequency Band	VSWR	Return Loss (dB)	Tolerance
50-2500MHz	1.30	17.7	5%

Mechanical Specifications

Bending Radius (Single)	≥120 mm
Bending Radius (Repeated)	≥250 mm
Number of Bending (Typical)	≤15
Tensile Strength	800N

Environmental Specifications

Installation Temperature	-20 °C to +55 °C
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +85 °C

Regulatory Compliances

ISO 9001:2015	Compliant
ROHS	Compliant
China RoHS	Compliant
UK RoHS	Compliant
REACH	Compliant
EU/CE	Compliant

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