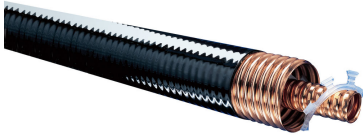


HJ9HP-50



HJ9-50, HELIAX® High Power Air Dielectric Coaxial Cable, corrugated copper, 5 in, black PE jacket

Product Classification

Product Type	Air coaxial cable
Product Brand	HELIAX®
Product Series	HJ9HP-50

General Specifications

Flexibility	Standard
Jacket Color	Black

Dimensions

Diameter Over Jacket	132.08 mm 5.2 in
Inner Conductor OD	51.308 mm 2.02 in
Outer Conductor OD	127 mm 5 in
Nominal Size	5 in
Cable Volume	10,869.651 L/km 117 ft³/kft

Electrical Specifications

Cable Impedance	50 ohm \pm 0.5 ohm
Capacitance	68.241 pF/m 20.8 pF/ft
dc Resistance, Inner Conductor	0.328 ohms/km 0.1 ohms/kft
dc Resistance, Outer Conductor	0.131 ohms/km 0.04 ohms/kft
dc Test Voltage	26000 V
Inductance	1.87 μ H/m 0.57 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	12000 V

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Operating Frequency Band	1 – 960 MHz
Peak Power	1690 kW
Power Attenuation	13.348
Velocity	96 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.021	0.006	1,690
1.5	0.026	0.008	1,690
2.0	0.03	0.009	1,464.06
10.0	0.069	0.021	634.45
20.0	0.1	0.03	438.44
30.0	0.124	0.038	351.85
50.0	0.165	0.05	265.34
85.0	0.223	0.068	196.5
88.0	0.227	0.069	192.63
100.0	0.245	0.075	178.93
108.0	0.256	0.078	171.11
150.0	0.31	0.095	141.08
174.0	0.339	0.103	129.13
200.0	0.369	0.112	118.74
204.0	0.373	0.114	117.33
300.0	0.473	0.144	92.58
400.0	0.567	0.173	77.25
450.0	0.611	0.186	71.64
460.0	0.62	0.189	70.64
500.0	0.654	0.199	66.93
512.0	0.664	0.203	65.91
600.0	0.737	0.225	59.42
700.0	0.816	0.249	53.66
800.0	0.893	0.272	49.07
824.0	0.91	0.278	48.1
894.0	0.962	0.293	45.52
960.0	1.01	0.308	43.36

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Material Specifications

Dielectric Material	PTFE
Jacket Material	PE
Inner Conductor Material	Copper tube
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	1270 mm 50 in
Number of Bends, minimum	15
Number of Bends, typical	30
Tensile Strength	454 kg 1,000.897 lb
Bending Moment	200 ft lb 271.164 N-m
Flat Plate Crush Strength	4.286 kg/mm 240 lb/in
Pressurization, maximum	0.207 N/mm ² 30 psi

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	302 °F 150 °C

Packaging and Weights

Cable weight	5.06 kg/m 3.4 lb/ft
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Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

