



HJ9HP-50

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

Construction Materials

Jacket Material	PE
Dielectric Material	PTFE
Flexibility	Standard
Inner Conductor Material	Copper tube
Jacket Color	Black
Outer Conductor Material	Corrugated copper

Dimensions

Nominal Size	5 in
Cable Volume	117.0 ft ³ /kft 10869.3 L/km
Cable Weight	5.06 kg/m 3.40 lb/ft
Diameter Over Jacket	132.080 mm 5.200 in
Inner Conductor OD	52.5780 mm 2.0700 in
Outer Conductor OD	127.000 mm 5.000 in

Electrical Specifications

Cable Impedance	50 ohm $\pm$ 0.5 ohm
Capacitance	20.8 pF/ft 68.2 pF/m
dc Resistance, Inner Conductor	0.328 ohms/km 0.100 ohms/kft
dc Resistance, Outer Conductor	0.131 ohms/km 0.040 ohms/kft
dc Test Voltage	26000 V
Inductance	1.870 μ H/m 0.570 μ H/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	12000 V
Operating Frequency Band	1 – 960 MHz
Peak Power	1690.0 kW
Power Attenuation	13.348
Velocity	96%

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)

General Specifications

Brand	HELIAX®
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Mechanical Specifications

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Bending Moment	271.2 N-m 200.0 ft lb
Flat Plate Crush Strength	240.0 lb/in 4.3 kg/mm
Minimum Bend Radius, Multiple Bends	1270.00 mm 50.00 in
Number of Bends, minimum	15
Number of Bends, typical	30
Pressurization, maximum	0 N/mm ² 30 psi
Tensile Strength	454 kg 1000 lb

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	150 °C 302 °F

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.015	0.004	1690.00
1	0.021	0.006	1690.00
1.5	0.026	0.008	1690.00
2	0.03	0.009	1464.04
10	0.069	0.021	634.44
20	0.1	0.03	438.43
30	0.124	0.038	351.85
50	0.165	0.05	265.33
88	0.227	0.069	192.62
100	0.245	0.075	178.93
108	0.256	0.078	171.11
150	0.31	0.095	141.08
174	0.339	0.103	129.13
200	0.369	0.112	118.74
300	0.473	0.144	92.58
400	0.567	0.173	77.25
450	0.611	0.186	71.64
500	0.654	0.199	66.93
512	0.664	0.203	65.91
600	0.737	0.225	59.42
700	0.816	0.249	53.66
800	0.893	0.272	49.07
824	0.91	0.278	48.10
894	0.962	0.293	45.52
960	1.01	0.308	43.36

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system