Product Specifications





HI8-50B

HJ8-50B, HELIAX® Standard Air Dielectric Coaxial Cable, corrugated copper, 3 in, black PE jacket

Construction Materials

Jacket MaterialPEDielectric MaterialPP

Flexibility Standard
Inner Conductor Material Copper tube
Jacket Color Black

Outer Conductor Material Corrugated copper

Dimensions

Nominal Size 3 in

 Cable Volume
 36.7 ft³/kft | 3409.4 L/km

 Cable Weight
 2.65 kg/m | 1.78 lb/ft

 Diameter Over Jacket
 76.454 mm | 3.010 in

 Inner Conductor OD
 28.9560 mm | 1.1400 in

 Outer Conductor OD
 72.390 mm | 2.850 in

Electrical Specifications

Cable Impedance 50 ohm ± 0.5 ohm Capacitance 21.7 pF/ft | 71.2 pF/m

dc Resistance, Inner Conductor0.492 ohms/km0.150 ohms/kftdc Resistance, Outer Conductor0.229 ohms/km0.070 ohms/kft

dc Test Voltage 16000 V

Inductance 1.870 μ H/m | 0.570 μ H/ft

Insulation Resistance 100000 Mohms•km

Jacket Spark Test Voltage (rms)10000 VOperating Frequency Band1 - 1640 MHzPeak Power640.0 kWPower Attenuation5.997Velocity93%

Environmental Specifications

Installation Temperature $-40 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

Operating Temperature $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

Storage Temperature $-70 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ ($-94 \,^{\circ}\text{F}$ to $+185 \,^{\circ}\text{F}$)

General Specifications

Brand HELIAX®

Mechanical Specifications

Bending Moment 40.7 N-m | 30.0 ft lb

Product Specifications



HJ8-50B

Flat Plate Crush Strength 175.0 lb/in | 3.1 kg/mm Minimum Bend Radius, Multiple Bends 762.00 mm | 30.00 in

Number of Bends, minimum Number of Bends, typical

Pressurization, maximum 0 N/mm 2 | 30 psi Tensile Strength 340 kg | 750 lb

Note

Performance Note Values typical, unless otherwise stated

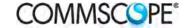
15

25

Standard Conditions

Attenuation, Ambient Temperature 20 °C | 68 °F Average Power, Ambient Temperature 40 °C | 104 °F Average Power, Inner Conductor Temperature 121 °C | 250 °F

Product Specifications



HJ8-50B

Attenuation

Frequency (MHz) 0.5	Attenuation (dB/100 m) 0.029	Attenuation (dB/100 ft) 0.009	Average Power (kW) 640.00
1	0.041	0.013	475.54
1.5	0.051	0.015	387.10
2	0.059	0.018	334.39
10	0.135	0.041	146.12
20	0.194	0.059	101.58
30	0.24	0.073	81.88
50	0.317	0.096	62.16
85	0.424	0.129	46.43
88	0.432	0.132	45.55
100	0.464	0.141	42.41
108	0.484	0.148	40.62
150	0.584	0.178	33.72
174	0.635	0.194	30.96
200	0.689	0.21	28.56
204	0.697	0.212	28.24
300	0.874	0.266	22.50
400	1.039	0.317	18.93
450	1.117	0.34	17.62
500	1.192	0.363	16.51
512	1.209	0.369	16.27
600	1.335	0.407	14.74
700	1.47	0.448	13.38
800	1.601	0.488	12.29
824	1.631	0.497	12.06
894	1.719	0.524	11.45
960	1.8	0.549	10.93
1000	1.849	0.563	10.64
1218	2.104	0.641	9.35
1250	2.14	0.652	9.19
1500	2.418	0.737	8.14

Regulatory Compliance/Certifications

Agency Classification

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