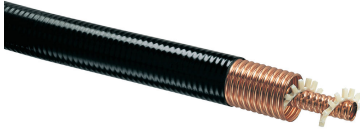


HJ11-50

HJ11-50, HELIAX® Standard Air Dielectric Coaxial Cable, corrugated copper, 4 in, black PE jacket



Product Classification

Product Type	Air coaxial cable
Product Brand	HELIAX®
Product Series	HJ11-50

General Specifications

Flexibility	Standard
Jacket Color	Black

Dimensions

Diameter Over Jacket	101.6 mm 4 in
Inner Conductor OD	39.37 mm 1.55 in
Outer Conductor OD	97.536 mm 3.84 in
Nominal Size	4 in
Cable Volume	6,493.92 L/km 69.9 ft³/kft

Electrical Specifications

Cable Impedance	50 ohm \pm 0.5 ohm
Capacitance	72.178 pF/m 22 pF/ft
dc Resistance, Inner Conductor	0.361 ohms/km 0.11 ohms/kft
dc Resistance, Outer Conductor	0.131 ohms/km 0.04 ohms/kft
dc Test Voltage	21000 V
Inductance	1.87 μ H/m 0.57 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V

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Operating Frequency Band	1 – 1000 MHz
Peak Power	1100 kW
Power Attenuation	7.398
Velocity	92 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.034	0.01	704.93
1.5	0.042	0.013	574.27
2.0	0.049	0.015	496.39
10.0	0.111	0.034	218.18
20.0	0.159	0.049	152.31
30.0	0.197	0.06	123.16
50.0	0.258	0.079	93.96
85.0	0.344	0.105	70.62
88.0	0.35	0.107	69.31
100.0	0.375	0.114	64.64
108.0	0.392	0.119	61.98
150.0	0.469	0.143	51.71
174.0	0.51	0.155	47.61
200.0	0.551	0.168	44.03
204.0	0.557	0.17	43.54
300.0	0.694	0.212	34.96
400.0	0.82	0.25	29.59
450.0	0.879	0.268	27.62
460.0	0.89	0.271	27.26
500.0	0.935	0.285	25.95
512.0	0.948	0.289	25.59
600.0	1.043	0.318	23.28
700.0	1.144	0.349	21.21
800.0	1.241	0.378	19.56
824.0	1.264	0.385	19.21
894.0	1.329	0.405	18.27
960.0	1.388	0.423	17.48
1000.0	1.424	0.434	17.04

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Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	1016 mm 40 in
Number of Bends, minimum	15
Number of Bends, typical	30
Tensile Strength	408 kg 899.485 lb
Bending Moment	191 ft lb 258.961 N-m
Flat Plate Crush Strength	5 kg/mm 280 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	-40 °C to +85 °C (-40 °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	250 °F 121.111 °C

Packaging and Weights

Cable weight	3.72 kg/m 2.5 lb/ft
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Regulatory Compliance/Certifications

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

