

5202503 | P3® 500 JCASST B

75 Ohm P3® Trunk and Distribution Cable, black PE jacket with co-extruded blue stripes, flooded for underground



Product Classification

Product Type	Coaxial hardline cable
Product Brand	P3®
Warranty	One year

General Specifications

Cable Type	500 Series
Construction Type	Swaged
Jacket Color	Black with co-extruded blue stripe
Short Description	P3 500 JCASST B SM PR997

Dimensions

Cable Length	731.52 m 2400 ft
Diameter Over Center Conductor, nominal	2.769 mm 0.109 in
Diameter Over Dielectric, nominal	11.481 mm 0.452 in
Diameter Over Jacket, nominal	14.478 mm 0.57 in
Diameter Over Outer Conductor, nominal	12.7 mm 0.5 in
Jacket Thickness, nominal	0.762 mm 0.03 in
Outer Conductor Thickness, nominal	0.61 mm 0.024 in

Electrical Specifications

Capacitance	50.197 pF/m 15.3 pF/ft
Capacitance Tolerance	±1.0 pF/ft
Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm

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dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)
dc Resistance, Inner Conductor, nominal	4.429 ohms/km 1.35 ohms/kft
dc Resistance, Loop, nominal	5.643 ohms/km 1.72 ohms/kft
dc Resistance, Outer Conductor, nominal	1.214 ohms/km 0.37 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	87 %
Operating Frequency Band	5–3000 MHz
Structural Return Loss	24 dB @ 1003–1218 MHz 24 dB @ 1219–1794 MHz 30 dB @ 5–1002 MHz
Structural Return Loss, Grade N	≥24 dB @ 1003–1218 MHz ≥24 dB @ 1219–1794 MHz ≥30 dB @ 5–1002 MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.52	0.16
55.0	1.77	0.54
85.0	2.23	0.68
204.0	3.51	1.07
211.0	3.58	1.09
250.0	3.94	1.2
300.0	4.3	1.31
350.0	4.69	1.43
400.0	5.02	1.53
450.0	5.35	1.63
500.0	5.67	1.73
550.0	5.97	1.82
600.0	6.3	1.92
750.0	7.09	2.16
865.0	7.68	2.34
1002.0	8.32	2.54
1218.0	9.28	2.83
1500.0	10.68	3.26
1794.0	11.88	3.62
1800.0	11.91	3.63
2000.0	12.68	3.87

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2200.0	13.44	4.1
2500.0	14.52	4.43
2700.0	15.22	4.64
3000.0	16.25	4.95

Material Specifications

Center Conductor Material	Copper-clad aluminum
Dielectric Material	Foam PE
Jacket Material	PE
Outer Conductor Material	Aluminum

Mechanical Specifications

Minimum Bend Radius, bonded	88.9 mm 3.5 in
Pulling Tension, maximum	136.078 kg 300 lb

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

Packaging and Weights

Packaging Type	Reel
Weight, gross	183.044 kg/km 123 lb/kft

Regulatory Compliance/Certifications

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

