

5341603 | P3® 500 JCASST W

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



- *Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

Product Classification

Regional Availability	North America
Product Type	Coaxial hardline cable
Product Brand	P3®
Government Funding	Build America Buy America (BABA) compliant*
Warranty	One year

General Specifications

Cable Type	500 Series
Construction Type	Swaged
Jacket Color	Black with co-extruded white stripe
Short Description	P3 500 JCASST W SM PR2171

Dimensions

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

Electrical Specifications

Capacitance	15.3 pF/ft 50.197 pF/m
Capacitance Tolerance	±1.0 pF/ft

5341603 | P3® 500 JCASST W

Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm
dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)
dc Resistance, Inner Conductor, nominal	1.35 ohms/kft 4.429 ohms/km
dc Resistance, Loop, nominal	1.72 ohms/kft 5.643 ohms/km
dc Resistance, Outer Conductor, nominal	0.37 ohms/kft 1.214 ohms/km
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

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1800.0	11.91	3.63
2000.0	12.68	3.87
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	3.5 in 88.9 mm
Pulling Tension, maximum	300 lb 136.078 kg

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

Packaging and Weights

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

Regulatory Compliance/Certifications

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