

5709003 | P3® 875 JCA



75 Ohm P3® Trunk and Distribution Cable, black PE jacket

- *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 Requirements	Build America Buy America (BABA) compliant*
Warranty	One year

General Specifications

Cable Type	875 Series
Construction Type	Swaged
Jacket Color	Black
Location of Manufacturing	Catawba, North Carolina
Short Description	P3 875 JCA SM PR2171

Dimensions

Cable Length	762 m 2500 ft
Diameter Over Center Conductor, nominal	4.928 mm 0.194 in
Diameter Over Dielectric, nominal	20.244 mm 0.797 in
Diameter Over Jacket, nominal	24.003 mm 0.945 in
Diameter Over Outer Conductor, nominal	22.225 mm 0.875 in
Jacket Thickness, nominal	0.889 mm 0.035 in
Outer Conductor Thickness, nominal	0.991 mm 0.039 in

Electrical Specifications

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

5709003 | P3® 875 JCA

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	1.378 ohms/km 0.42 ohms/kft
dc Resistance, Loop, nominal	1.804 ohms/km 0.55 ohms/kft
dc Resistance, Outer Conductor, nominal	0.427 ohms/km 0.13 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	0.3	0.09
55.0	1.08	0.33
85.0	1.31	0.4
204.0	2.07	0.63
211.0	2.17	0.66
250.0	2.36	0.72
300.0	2.56	0.78
350.0	2.76	0.84
400.0	2.99	0.91
450.0	3.18	0.97
500.0	3.38	1.03
550.0	3.54	1.08
600.0	3.74	1.14
750.0	4.23	1.29
865.0	4.63	1.41
1002.0	5.02	1.53
1218.0	5.57	1.7
1500.0	6.39	1.95
1794.0	7.13	2.17

5709003 | P3® 875 JCA

1800.0	7.14	2.18
2000.0	7.62	2.32
2200.0	8.09	2.46
2500.0	8.76	2.67
2700.0	9.19	2.8
3000.0	9.83	3

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	177.8 mm 7 in
Pulling Tension, maximum	396.893 kg 875 lb

Environmental Specifications

Environmental Space	Aerial
----------------------------	--------

Packaging and Weights

Packaging Type	Reel
Weight, gross	500.023 kg/km 336 lb/kft

Regulatory Compliance/Certifications

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