



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

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

General Specifications

|                   |                      |
|-------------------|----------------------|
| Cable Type        | 500 Series           |
| Construction Type | Swaged               |
| Jacket Color      | Black                |
| Short Description | P3 500 JCA SM PR2171 |

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           | 14.224 mm   0.56 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                                                        |
| dc Resistance Note                 | Nominal values based on a standard condition of 20 °C (68 °F) |

# 5354403 | P3 500 JCA SM MT PC7634

|                                         |                                                                       |
|-----------------------------------------|-----------------------------------------------------------------------|
| 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 |

## Electrical Performance

| Frequency  | Attenuation (dB/100 m) | Attenuation (dB/100 ft) |
|------------|------------------------|-------------------------|
| 5.0 MHz    | 0.52                   | 0.16                    |
| 55.0 MHz   | 1.77                   | 0.54                    |
| 85.0 MHz   | 2.23                   | 0.68                    |
| 204.0 MHz  | 3.51                   | 1.07                    |
| 211.0 MHz  | 3.58                   | 1.09                    |
| 250.0 MHz  | 3.94                   | 1.2                     |
| 300.0 MHz  | 4.3                    | 1.31                    |
| 350.0 MHz  | 4.69                   | 1.43                    |
| 400.0 MHz  | 5.02                   | 1.53                    |
| 450.0 MHz  | 5.35                   | 1.63                    |
| 500.0 MHz  | 5.67                   | 1.73                    |
| 550.0 MHz  | 5.97                   | 1.82                    |
| 600.0 MHz  | 6.3                    | 1.92                    |
| 750.0 MHz  | 7.09                   | 2.16                    |
| 865.0 MHz  | 7.68                   | 2.34                    |
| 1002.0 MHz | 8.32                   | 2.54                    |
| 1218.0 MHz | 9.28                   | 2.83                    |
| 1500.0 MHz | 10.68                  | 3.26                    |
| 1794.0 MHz | 11.88                  | 3.62                    |
| 1800.0 MHz | 11.91                  | 3.63                    |
| 2000.0 MHz | 12.68                  | 3.87                    |
| 2200.0 MHz | 13.44                  | 4.1                     |
| 2500.0 MHz | 14.52                  | 4.43                    |
| 2700.0 MHz | 15.22                  | 4.64                    |
| 3000.0 MHz | 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

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

Packaging and Weights

|                |                           |
|----------------|---------------------------|
| Packaging Type | Reel                      |
| Weight, gross  | 178.58 kg/km   120 lb/kft |

Regulatory Compliance/Certifications

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