

5302203 | P3® 500 JCASS

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



Product Classification

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

General Specifications

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|--------------------------|-----------------------|
| Cable Type | 500 Series |
| Construction Type | Swaged |
| Jacket Color | Black |
| Short Description | P3 500 JCASS SM PR997 |

Dimensions

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

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

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

Mechanical Specifications

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

Environmental Specifications

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|-----------------------------|------------|
| Corrosion Protection | Migraheal® |
| Environmental Space | Buried |

Packaging and Weights

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

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| CHINA-ROHS | Below maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |

