

## P3 500 Series Cables Product Descriptions

CommScope's P3® product line is the industry standard by which all coaxial trunk and distribution cables are measured. P3 has been proven robust and reliable by years of successful installations.

P3 500 is optimized for use in broadband feeder plants. Its small size, low attenuation and inherent strength has made it an industry standard.

### **Standard P3 Construction**

A solid aluminum tube is precision swagged onto a high compression, micro-cellular foam dielectric core. The core contains a fully bonded copper clad center conductor.

| <b>Aerial Installation</b>       |  |                            |                            |                        |
|----------------------------------|--|----------------------------|----------------------------|------------------------|
| <b>Part #</b>                    | <b>Description</b>   | <b>Cable Weight</b>        | <b>Shipping Wteight</b>    | <b>Standard Length</b> |
| <b>P3 500 CA</b>                 | Offers all of P3's standard construction features(w/out Jacket)  | 72 lbs/kft<br>(107 kg/km)  | 97 lbs/kft<br>(141 kg/km)  | 2400 ft<br>(732m)      |
| <b>P3 500 JCA</b>                | Offers all of QR's standard construction features  | 95 lbs/kft<br>(141 kg/km)  | 120 lbs/kft<br>(174 kg/km) | 2400 ft<br>(732m)      |
| <b>P3 500 JCAM 109</b>           | Has an integrated figure 8 galvanized solid steel messenger for self-supporting applications                                 | 134 lbs/kft<br>(199 kg/km) | 176 lbs/kft<br>(262 kg/km) | 2400 ft<br>(732m)      |
| <b>Underground Installation</b>  |  |                            |                            |                        |
| <b>Part #</b>                    | <b>Description</b>   | <b>Cable Weight</b>        | <b>Shipping Wteight</b>    | <b>Standard Length</b> |
| <b>P3 500 JCASS</b>              | Features CommScope's Migra-Heal floodant that seals jacket damage to inhibit corrosion                                       | 98 lbs/kft<br>(146 kg/km)  | 123 lbs/kft<br>(183 kg/km) | 2400 ft<br>(732m)      |
| <b>P3 500 CableGuard</b>         | offers an outer jacket with compartmentalized cells, providing excellent cut-through and crush resistance                    | 137 lbs/kft<br>(204 kg/km) | 181 lbs/kft<br>(269 kg/km) | 2400 ft<br>(732m)      |
| <b>P3 500 JACASS</b>             | Features CommScope's Migra-Heal floodant, a bonded, chrome-plated armor and twin polyethylene jackets for ultimate toughness | 210 lbs/kft<br>(313 kg/km) | 254 lbs/kft<br>(378 kg/km) | 2400 ft<br>(732m)      |
| <b>Indoor/Riser Installation</b> |  |                            |                            |                        |
| <b>Part #</b>                    | <b>Description</b>   | <b>Cable Weight</b>        | <b>Shipping Wteight</b>    | <b>Standard Length</b> |
| <b>P3 500 JCAR</b>               | Features CommScope's Migra-Heal floodant that seals jacket damage to inhibit corrosion                                       | 114 lbs/kft<br>(170 kg/km) | 138 lbs/kft<br>(205 kg/km) | 2400 ft<br>(732m)      |

## P3 500 Series Cables Product Specifications

| <b>Physical Dimensions</b>               |        |       |
|--|--------|-------|
| Component                                | Inches | mm    |
| Nominal Center Conductor Diameter        | 0.109  | 277   |
| Nominal Diameter Over Dielectric         | 0.450  | 11.43 |
| Nominal Diameter Over Outer Conductor    | 0.500  | 12.70 |
| Nominal Outer Conductor Thickness        | 0.024  | 0.61  |
| <i>Jacketed Version</i>                  |        |       |
| Nominal Diameter Over jacket             | 0.560  | 14.22 |
| Nominal Jacket Wall Thickness            | 0.030  | 0.76  |
| Nominal Dia. Over Flooded Jacket (JCASS) | 0.570  | 14.48 |
| Nominal Dia. Over CableGuard Jacket      | 0.750  | 19.07 |
| <i>Messenger Version</i>                 |        |       |
| Diameter of Steel Messenger              | 0.109  | 2.77  |
| <i>Armored Version</i>                   |        |       |
| Nominal Diameter Over Corrugated Armor   | 0.640  | 16.26 |
| Nominal Armor Thickness                  | 0.008  | 0.20  |
| Nominal Diameter Over Outer Jacket       | 0.720  | 18.29 |
| Nominal Diameter of Outer Jacket         | 0.040  | 1.02  |

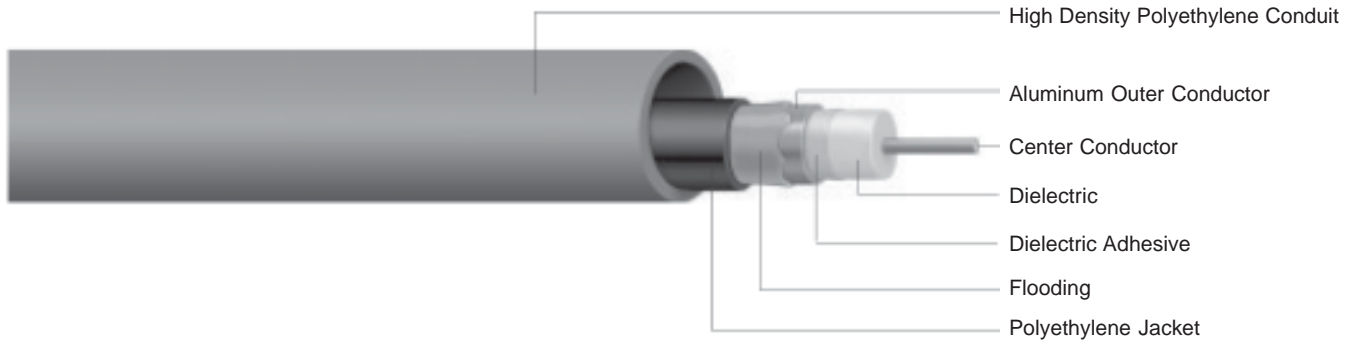
| <b>Mechanical Characteristics</b>            |                  |                  |
|--|------------------|------------------|
| Minimum Bending Radius                       | Standard         | Bonded           |
| (No Jacket)                                  | 6.5 in / 16.5 cm | 4.0 in / 10.2 cm |
| (Jacketed)                                   | 6.0 in / 15.2 cm | 3.5 in / 8.9 cm  |
| (Armored)                                    | 8.5 in / 21.6 cm | 6.0 in / 15.2 cm |
| Maximum Pulling Tension                      | 300 lbs          | 136 kgf          |
| Minimum Breaking Strength of Messenger (109) | 1,800 lbs        | 816 kgf          |

| <b>Electrical Characteristics</b> |                 |               |
|-----------------------------------|-----------------|---------------|
| Capacitance                       | 15.3 ±1.0 pf/ft | 50 ±3.0 nf/ft |
| Impedance                         | 75 ± 2 ohms     |               |
| Velocity of Propagation           | 87%             |               |

| <b>Maximum D.C. Resistance @ 68°F (20°C)</b> |                   |              |
|--|-------------------|--------------|
| Inner Conductor                              | 1.35 ohms/1000ft  | 4.43 ohms/km |
| Outer Conductor                              | 0.37 ohms/1000ft. | 1.21 ohms/km |
| Loop   | 1.72 ohms/1000ft  | 5.64 ohms/km |

| <b>Attenuation @ 68°F (20°C)</b> |             |      |            |      |
|----------------------------------|-------------|------|------------|------|
| Frequency (Mhz)                  | (dB/100 ft) |      | (dB/100 m) |      |
|                                  | Nom.        | Max. | Nom.       | Max. |
| 5                                | 0.16        | 0.16 | 0.52       | 0.52 |
| 30                               | 0.38        | 0.40 | 1.25       | 1.31 |
| 45                               | 0.47        | 0.49 | 1.54       | 1.61 |
| 50                               | 0.50        | 0.52 | 1.64       | 1.71 |
| 55                               | 0.52        | 0.54 | 1.71       | 1.77 |
| 83                               | 0.64        | 0.66 | 2.10       | 2.17 |
| 108                              | 0.73        | 0.75 | 2.39       | 2.46 |
| 150                              | 0.86        | 0.90 | 2.82       | 2.95 |
| 181                              | 0.98        | 1.00 | 3.22       | 3.28 |
| 193                              | 1.01        | 1.03 | 3.31       | 3.38 |
| 211                              | 1.06        | 1.09 | 3.48       | 3.58 |
| 220                              | 1.08        | 1.11 | 3.54       | 3.64 |
| 250                              | 1.15        | 1.20 | 3.77       | 3.94 |
| 270                              | 1.19        | 1.24 | 3.90       | 4.07 |
| 300                              | 1.26        | 1.31 | 4.13       | 4.30 |
| 325                              | 1.31        | 1.37 | 4.30       | 4.49 |
| 350                              | 1.36        | 1.43 | 4.46       | 4.69 |
| 375                              | 1.42        | 1.47 | 4.66       | 4.82 |
| 400                              | 1.47        | 1.53 | 4.82       | 5.02 |
| 425                              | 1.52        | 1.57 | 4.99       | 5.15 |
| 450                              | 1.56        | 1.63 | 5.12       | 5.35 |
| 500                              | 1.65        | 1.73 | 5.41       | 5.67 |
| 550                              | 1.75        | 1.82 | 5.74       | 5.97 |
| 600                              | 1.83        | 1.91 | 6.00       | 6.27 |
| 750                              | 2.04        | 2.16 | 6.69       | 7.09 |
| 865                              | 2.20        | 2.34 | 7.22       | 7.68 |
| 1000                             | 2.41        | 2.52 | 7.91       | 8.27 |

# P3 JCASS



CommScope's P3® product line is the industry standard by which all coaxial trunk and distribution cables are measured. P3 has been proven robust and reliable by years of successful installations. CommScope P3 offers low attenuation and inherent strength making it an industry standard. CommScope offers several different sizes of P3 Cable-In-Conduit (500, 565, 625, 700, 750, 875 and 1000), each optimized for a specific use.

| Size   | Wall Thickness | Wall Rating | P3 500 JCASS        |                     |               | P3 565 JCASS        |                     |               | P3 625 JCASS        |                     |               |
|--------|----------------|-------------|---------------------|---------------------|---------------|---------------------|---------------------|---------------|---------------------|---------------------|---------------|
|        |                |             | Nominal Length (ft) | Reel Size (FDT)(in) | Weight* lb/ft | Nominal Length (ft) | Reel Size (FDT)(in) | Weight* lb/ft | Nominal Length (ft) | Reel Size (FDT)(in) | Weight* lb/ft |
| 1"     | SDR 13.5       | Medium      | 2,400               | 54x30x40            | 266           | 2,400               | 54x30x40            | 285           | 2,400               | 54x30x40            | 314           |
|        | SDR 11         | Heavy       | 2,400               | 54x30x40            | 301           | 2,400               | 54x30x40            | 320           | 2,400               | 54x30x40            | 349           |
|        | SCH 40         | X - Heavy   | 2,400               | 54x30x40            | 316           | 2,400               | 54x30x40            | 335           | 2,400               | 54x30x40            | 364           |
| 1 1/4" | SDR 13.5       | Medium      | 2,400               | 63x30x40            | 362           | 2,400               | 63x30x40            | 381           | 2,400               | 63x30x40            | 410           |
|        | SCH 40         | Heavy       | 2,400               | 63x30x40            | 392           | 2,400               | 63x30x40            | 411           | 2,400               | 63x30x40            | 440           |
|        | SDR 11         | X - Heavy   | 2,400               | 63x30x40            | 417           | 2,400               | 63x30x40            | 436           | 2,400               | 63x30x40            | 465           |
| 1 1/2" | SDR 13.5       | Medium      | 2,400               | 80x40x38            | 441           | 2,400               | 80x40x38            | 460           | 2,400               | 80x40x38            | 489           |
|        | SCH 40         | Heavy       | 2,400               | 80x40x38            | 450           | 2,400               | 80x40x38            | 469           | 2,400               | 80x40x38            | 498           |
|        | SDR 11         | X - Heavy   | 2,400               | 80x40x38            | 513           | 2,400               | 80x40x38            | 532           | 2,400               | 80x40x38            | 561           |
| 2"     | SDR 13.5       | Medium      | 2,400               | 90x42x40            | 569           | 2,400               | 90x42x40            | 588           | 2,400               | 90x42x40            | 617           |
|        | SCH 40         | Heavy       | 2,400               | 90x42x40            | 629           | 2,400               | 90x42x40            | 648           | 2,400               | 90x42x40            | 677           |
|        | SDR 11         | X - Heavy   | 2,400               | 90x42x40            | 737           | 2,400               | 90x42x40            | 756           | 2,400               | 90x42x40            | 785           |
|        |                |             | P3 700 JCASS        |                     |               | P3 750 JCASS        |                     |               | P3 875 JCASS        |                     |               |
| 1 1/4" | SDR 13.5       | Medium      | 2,500               | 63x30x40            | 430           | 2,500               | 68x30x40            | 467           | NA                  | NA                  | NA            |
|        | SCH 40         | Heavy       | 2,500               | 63x30x40            | 460           | 2,500               | 68x30x40            | 497           | NA                  | NA                  | NA            |
|        | SDR 11         | X - Heavy   | 2,500               | 63x30x40            | 485           | 2,500               | 68x30x40            | 522           | NA                  | NA                  | NA            |
| 1 1/2" | SDR 13.5       | Medium      | 2,500               | 80x40x38            | 509           | 2,500               | 80x40x38            | 546           | 2,500               | 80x40x38            | 606           |
|        | SCH 40         | Heavy       | 2,500               | 80x40x38            | 518           | 2,500               | 80x40x38            | 555           | 2,500               | 80x40x38            | 615           |
|        | SDR 11         | X - Heavy   | 2,500               | 80x40x38            | 581           | 2,500               | 80x40x38            | 618           | 2,500               | 80x40x38            | 678           |
| 2"     | SDR 13.5       | Medium      | 2,500               | 90x42x40            | 637           | 2,500               | 90x42x40            | 674           | 2,500               | 90x42x40            | 734           |
|        | SCH 40         | Heavy       | 2,500               | 90x42x40            | 697           | 2,500               | 90x42x40            | 734           | 2,500               | 90x42x40            | 794           |
|        | SDR 11         | X - Heavy   | 2,500               | 90x42x40            | 805           | 2,500               | 90x42x40            | 842           | 2,500               | 90x42x40            | 902           |
|        |                |             | P3 1000 JCASS       |                     |               |                     |                     |               |                     |                     |               |
| 1 1/4" | SDR 13.5       | Medium      | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
|        | SCH 40         | Heavy       | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
|        | SDR 11         | X - Heavy   | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
| 1 1/2" | SDR 13.5       | Medium      | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
|        | SCH 40         | Heavy       | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
|        | SDR 11         | X - Heavy   | NA                  | NA                  | NA            |                     |                     |               |                     |                     |               |
| 2"     | SDR 13.5       | Medium      | 2,400               | 90x42x40            | 843           |                     |                     |               |                     |                     |               |
|        | SCH 40         | Heavy       | 2,400               | 90x42x40            | 903           |                     |                     |               |                     |                     |               |
|        | SDR 11         | X - Heavy   | 2,400               | 90x42x40            | 1,011         |                     |                     |               |                     |                     |               |

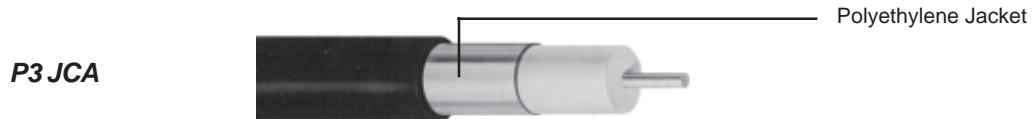
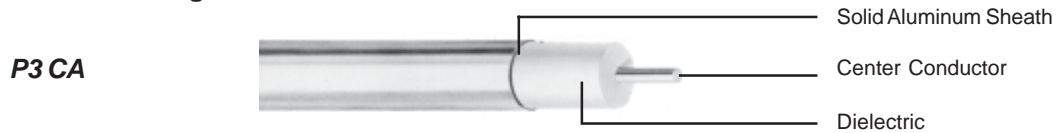
## Trunk & Distribution Cable Catalog Numbering Key

**P3 625 J CA M - 188**

P3  
 625  
 J  
 CA  
 M  
 - 188  
 Messenger Dia.  
 Messenger  
 Copper Aluminum  
 PE Jacket  
 Size  
 (diameter over shield)  
 - 412 - 750  
 - 500 - 840  
 - 565 - 875  
 - 625  
 - 700

**Suffix**  
 - J - Jacketed  
 - CA - Copper Aluminum  
 - SS - Miagra-Heal Flooding Compound  
 - T - Trader  
 - M - Messenger  
 - EHS - Extra High Strength

### P3 Aerial Construction Configurations



### P3 Underground Construction Configurations

