

**ALPHA WIRE COMPANY**  
**CUSTOMER PRODUCT SPECIFICATION**

**Part Number: 58421**  
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**Issue: 6**  
**Issue Date: 1/30/2009**  
**Effective Date: 2/6/2009**

**A. Construction**

**Diameters (In)**

- |    |                |                                     |       |
|----|----------------|-------------------------------------|-------|
| 1) | Component 1    | 2 X 1 COND                          |       |
|    | a) Conductor   | 20 (7/.0121) AWG BC                 |       |
|    | b) Insulation  | 0.008" Wall, Nom. PVC, Plenum Rated | 0.052 |
|    | (1) Color Code | Alpha Wire Company Color Code D2    |       |

Cond	Color	Cond	Color	Cond	Color
1	BLACK	2	WHITE		

- |    |                   |  |                    |
|----|-------------------|--|--------------------|
| 2) | Cable Assembly    | 2 Components Cabled  |                    |
|    | a) Twists:        | 6.0 Twists/foot (min)  |                    |
| 3) | Shield:           | Alum/Mylar Tape, 25% Overlap, Min.   |                    |
|    | a) Foil Direction | Foil Facing Out  |                    |
|    | b) Drain Wire     | 22 (7/30) AWG TC   |                    |
| 4) | Jacket            | 0.015" Wall, Nom., PVC, Plenum Rated   | 0.138 (0.145 Max.) |
|    | a) Color(s)       | SLATE  |                    |
|    | b) Print          | ALPHA WIRE-* P/N 58421 2C 20 AWG<br>SHIELDED 75C CMP(UL) C(UL) OR 75C (UL) CL2P ROHS |                    |
|    |                   | * = Factory Code   |                    |

**B. Industry Approvals**

- |    |                                |  |  |
|----|--------------------------------|--|--|
| 1) | UL                             | CMP 75°C<br>CL2P 75°C  |  |
| 2) | CSA International              | FT6<br>C(UL) TYPE CMP 75°C   |  |
| 3) | Other                          | REACH Regulation (EC 1907/2006)  |  |
| 4) | EU Directive 2002/95/EC(RoHS): | All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture. |  |

**C. Physical & Mechanical Properties**

- |    |                   |                    |
|----|-------------------|--------------------|
| 1) | Temperature Range | -20 to 75°C        |
| 2) | Bend Radius       | 10X Cable Diameter |
| 3) | Pull Tension      | 21.6 Lbs, Maximum  |

**D. Electrical Properties**

- |                                 |                          |   |
|---------------------------------|--------------------------|---|
| (For Engineering purposes only) |                          |   |
| 1)                              | Voltage Rating           | 300 V <sub>RMS</sub>                            |
| 2)                              | Capacitance              | 63 pf/ft @1 kHz, Nominal Conductor to Conductor |
| 3)                              | Ground Capacitance       | 113 pf/ft @1 kHz, Nominal                       |
| 4)                              | Characteristic Impedance | 35 Ω  |
| 5)                              | Inductance               | 0.16 μH/ft, Nominal                             |
| 6)                              | Conductor DCR            | 10.4 Ω/1000ft @20°C, Nominal                    |
| 7)                              | OA Shield DCR            | 13.6 Ω/1000ft @20°C, Nominal                    |

**E. Other**

- |    |            |
|----|------------|
| 1) | Packaging  |
|    | a) 1000 FT |
|    | b) 500 FT  |

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