

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

**Part Number: 45106**  
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**Issue: 15**  
**Issue Date: 1/19/2015**  
**Effective Date: 1/31/2015**

**A. Construction**

**Diameters (In)**

- |    |                |                             |       |
|----|----------------|-----------------------------|-------|
| 1) | Component 1    | 6 X 1 COND                  |       |
|    | a) Conductor   | 22 (7/30) AWG Tinned Copper | 0.030 |
|    | b) Insulation  | 0.016" Wall, Nom. TPE       | 0.062 |
|    | (1) Color Code | Alpha Wire Color Code E     |       |

Cond	Color	Cond	Color	Cond	Color
1	BLACK	3	RED	5	YELLOW
2	BROWN	4	ORANGE	6	GREEN

- |    |                |                                                                                                                                                                                                                          |                    |
|----|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 2) | Cable Assembly | 6 Components Cabled                                                                                                                                                                                                      |                    |
|    | a) Twists:     | 6.0 Twists/foot (min)                                                                                                                                                                                                    |                    |
|    | b) Core Wrap   | Nonwoven Polyester Tape, 25% Overlap, Min.                                                                                                                                                                               |                    |
| 3) | Shield:        | A/P/A Tape, 25% Overlap, Min.                                                                                                                                                                                            |                    |
|    | a) Drain Wire  | 22 (7/30) AWG Tinned Copper                                                                                                                                                                                              |                    |
|    | b) Braid       | Tinned Copper, 70% Coverage, Min.                                                                                                                                                                                        |                    |
| 4) | Jacket         | 0.045" Wall, Nom., TPE                                                                                                                                                                                                   | 0.309 (0.322 Max.) |
|    | a) Color(s)    | Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White                                                                                                                                                        |                    |
|    | b) Ripcord     | 1 End 810 Denier Nylon                                                                                                                                                                                                   |                    |
|    | c) Print       | ALPHA WIRE-* P/N 45106 6C 22 AWG<br>XTRAGUARD(R) 4 (UL) TYPE PLTC 105C SUN RES OR AWM<br>20237/21918 125C 300 V OR<br>CRU AWM I/II A/B 125C 300 V FT1<br>P-07-KA140023-MSHA CE ROHS<br>(SEQ FOOTAGE)<br>* = Factory Code |                    |

**B. Applicable Specifications**

- |    |                   |                                                       |                                                                       |
|----|-------------------|-------------------------------------------------------|-----------------------------------------------------------------------|
| 1) | UL                | AWM/STYLE 20237<br>PLTC<br>AWM/STYLE 21918<br>SUN RES | 125°C / 300 V <sub>RMS</sub><br>105°C<br>125°C / 300 V <sub>RMS</sub> |
| 2) | CSA International | C(RU) AWM I/II A/B FT1<br>SUN RES (Black only)        | 125°C / 300 V <sub>RMS</sub>                                          |
| 3) | Other             | PENNSYLVANIA BUREAU OF MINE SAFETY APPROVED           |                                                                       |
| 4) | CE:               | EU Low Voltage Directive 2006/95/EC                   |                                                                       |

**C. Environmental Compliance**

- |    |                            |                                                                                                                                                                                                                                                                                                          |
|----|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) | CE:                        | EU Directive 2011/65/EU (RoHS2):<br>This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for <a href="#">RoHS C of C</a> . |
| 2) | California Proposition 65: | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.                                                                                                                                                                                     |

**D. Physical & Mechanical Properties**

- |    |                     |                    |
|----|---------------------|--------------------|
| 1) | Temperature Range   | -50 to 125°C       |
| 2) | Bend Radius         | 10X Cable Diameter |
| 3) | Pull Tension        | 43 Lbs, Maximum    |
| 4) | Sunlight Resistance | Yes                |

**E. Electrical Properties**

- |                                 |                    |                                                   |
|---------------------------------|--------------------|---------------------------------------------------|
| (For Engineering purposes only) |                    |                                                   |
| 1)                              | Voltage Rating     | 300 V <sub>RMS</sub>                              |
| 2)                              | Capacitance        | 20.2 pf/ft @1 kHz, Nominal Conductor to Conductor |
| 3)                              | Ground Capacitance | 36 pf/ft @1 kHz, Nominal                          |
| 4)                              | Inductance         | 0.2 µH/ft, Nominal                                |
| 5)                              | Conductor DCR      | 16.5 Ω/1000ft @20°C, Nominal                      |
| 6)                              | OA Shield DCR      | 2.9 Ω/1000ft @20°C, Nominal                       |

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**F. Other**

- 1) Packaging                                  Flange x Traverse x Barrel (inches)
  - a) Bulk(Made-to-order)
- 2) Notes:
  - a) Print legend will contain CSA SUN RES on black cables only.

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