

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

**Part Number: 78183**  
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**Issue: 1**  
**Issue Date: 7/12/2014**  
**Effective Date: 9/6/2014**

**A. Construction**

**Diameters (In)**

- |                |   |       |
|----------------|---|-------|
| 1) Component 1 | 3 X 1 PAIR  |       |
| a) Conductor   | 22 (19/34) AWG Tinned Copper                      | 0.032 |
| b) Insulation  | 0.007" Wall, Nom. Modified Polyphenylene Ether-PE | 0.046 |
| (1) Color Code | Alpha Wire Color Code B                           |       |

Pair	Color	Pair	Color	Pair	Color
1	WHITE-BLACK	2	WHITE-BROWN	3	WHITE-RED

- |                   |   |                    |
|-------------------|---|--------------------|
| c) Pair           | 2/Cond Cabled Together  |                    |
| (1) Twists:       | 9.6 Twists/foot (min)   |                    |
| 2) Cable Assembly | 3 Components Cabled   |                    |
| a) Twists:        | 5.3 Twists/foot (min)   |                    |
| b) Core Wrap      | Nonwoven Polyester Tape, 25% Overlap, Min.  |                    |
| 3) Shield:        | Alum/Mylar Tape, 25% Overlap, Min.  |                    |
| a) Foil Direction | Foil Facing In  |                    |
| b) Drain Wire     | 22 (7/30) AWG Tinned Copper   |                    |
| 4) Jacket         | 0.015" Wall, Nom., Modified Polyphenylene Ether-PE  | 0.201 (0.212 Max.) |
| a) Color(s)       | SLATE   |                    |
| b) Ripcord        | 1 End 810 Denier Nylon  |                    |
| c) Print          | ALPHA WIRE-* P/N 78183 3PR 22 AWG<br>ECOCABLE(R) MINI RU AWM 21460 80C 300V VW-1<br>C(RU) AWM I A/B FT1 80C 300V<br>CE ROHS (SEQ FOOTAGE)<br>* = Factory Code |                    |

**B. Applicable Specifications**

- |                      |                                     |                             |
|----------------------|-------------------------------------|-----------------------------|
| 1) UL                | AWM/STYLE 21460                     | 80°C / 300 V <sub>RMS</sub> |
|                      | VW-1                                |                             |
| 2) CSA International | C(RU) AWM I A/B FT1                 | 80°C / 300 V <sub>RMS</sub> |
| 3) Other             | Halogen-Free                        |                             |
| 4) CE:               | EU Low Voltage Directive 2006/95/EC |                             |

**C. Environmental Compliance**

- 1) CE: EU Directive 2011/65/EU(RoHS2):  
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 [RoHS C of C](#).
- 2) REACH Regulation (EC 1907/2006):  
This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see [Alpha's REACH SVHC Declaration](#).

**D. Physical & Mechanical Properties**

- |                      |                    |
|----------------------|--------------------|
| 1) Temperature Range | -40 to 80°C        |
| 2) Bend Radius       | 10X Cable Diameter |
| 3) Pull Tension      | 41 Lbs, Maximum    |

**E. Electrical Properties**

- (For Engineering purposes only)
- |                             |                              |
|-----------------------------|------------------------------|
| 1) Voltage Rating           | 300 V <sub>RMS</sub>         |
| 2) Mutual Capacitance       | 23.8 pf/ft @1 kHz, Nominal   |
| 3) Ground Capacitance       | 43 pf/ft @1 kHz, Nominal     |
| 4) Characteristic Impedance | 69 Ω                         |
| 5) Inductance               | 0.16 μH/ft, Nominal          |
| 6) Conductor DCR            | 15.5 Ω/1000ft @20°C, Nominal |
| 7) OA Shield DCR            | 11.8 Ω/1000ft @20°C, Nominal |

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**F. Other**

- |                        |                                     |
|------------------------|-------------------------------------|
| 1) Packaging           | Flange x Traverse x Barrel (inches) |
| a) 1000 FT             | 12 x 10 x 5 Continuous length       |
| b) 100 FT              | 6.5 x 4 x 2.5 Continuous length     |
| c) Bulk(Made-to-order) |                                     |
- [Spool dimensions may vary slightly]*

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