

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

**Part Number: B964114**  
**Page 1 of 2 Pages**

**Issue: 1**  
**Issue Date: 9/10/2010**  
**Effective Date: 11/5/2010**

**A. Construction**

**Diameters (mm)**

- |                |                                 |      |
|----------------|---------------------------------|------|
| 1) Component 1 | 11 X 1 PAIR                     |      |
| a) Conductor   | 22 (7/30) AWG TC                | 0.76 |
| b) Insulation  | 0.25 Wall, Nom. PVC, Semi Rigid | 1.27 |
| (1) Color Code | Alpha Wire Color Code B         |      |

| Pair | Color        | Pair | Color        | Pair | Color       |
|------|--------------|------|--------------|------|-------------|
| 1    | WHITE-BLACK  | 5    | WHITE-YELLOW | 9    | WHITE-SLATE |
| 2    | WHITE-BROWN  | 6    | WHITE-GREEN  | 10   | BLACK-BROWN |
| 3    | WHITE-RED    | 7    | WHITE-BLUE   | 11   | BLACK-RED   |
| 4    | WHITE-ORANGE | 8    | WHITE-VIOLET |      |             |

- |                   |   |                    |
|-------------------|---|--------------------|
| c) Pair           | 2/Cond Cabled Together                        |                    |
| (1) Twists:       | 26.2 Twists/meter (min)                       |                    |
| 2) Cable Assembly | 11 Components Cabled                          |                    |
| a) Twists:        | 10.5 Twists/meter (min)                       |                    |
| b) Core Wrap      | Clear Mylar Tape, 25% Overlap, Min.           |                    |
| 3) Shield:        | A/P/A Tape, 25% Overlap, Min.                 |                    |
| a) Drain Wire     | 22 (7/30) AWG TC                              |                    |
| b) Braid          | TC, 70% Coverage, Min.                        |                    |
| 4) Jacket         | 0.81 Wall, Nom., PVC                          | 10.74 (11.29 Max.) |
| a) Color(s)       | GREY  |                    |
| b) Ripcord        | 1 End 810 Denier Nylon                        |                    |
| c) Print          | ALPHA WIRE-* P/N B964114                      |                    |
|                   | 0.35MM2 (22AWG) (UL) TYPE CM 105C OR AWM 2464 |                    |
|                   | VW-1 CE ROHS (SEQ METERS)                     |                    |
|                   | * = Factory Code                              |                    |

**B. Applicable Specifications**

- |                |                                   |                              |
|----------------|-----------------------------------|------------------------------|
| 1) UL          |                                   |                              |
| a) Component 1 | AWM/STYLE 10002                   | 105°C / 300 V <sub>RMS</sub> |
| b) Overall     | AWM/STYLE 2464                    | 80°C / 300 V <sub>RMS</sub>  |
|                | CM                                | 105°C                        |
|                | VW-1                              |                              |
| 2) IEC         | EN 60332-1 Flame Behavior         |                              |
|                | EN 60332-2 Flame Behavior         |                              |
| 3) CE:         | LVD 73/23/EEC Amendment 93/68/EEC |                              |

**C. Environmental Compliance**

- 1) 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.
- 2) REACH Regulation (EC 1907/2006):  
This product does not contain any of the substances listed on the European Union REACH Substance of Very High Concern (SVHC) candidate list, dated 30 March 2010, in excess of a concentration of 0.1% weight/weight.

**D. Physical & Mechanical Properties**

- |                        |                    |
|------------------------|--------------------|
| 1) Temperature Range   | -30 to 105°C       |
| 2) Bend Radius         | 10X Cable Diameter |
| 3) Pull Tension        | 133 Lbs, Maximum   |
| 4) Sunlight Resistance | Yes                |

**E. Electrical Properties**

- |                                 |                             |
|---------------------------------|-----------------------------|
| (For Engineering purposes only) |                             |
| 1) Voltage Rating               | 300 V <sub>RMS</sub>        |
| 2) Mutual Capacitance           | 81.672 pf/m @1 kHz, Nominal |
| 3) Ground Capacitance           | 147.6 pf/m @1 kHz, Nominal  |

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- 4) Characteristic Impedance 77  $\Omega$
- 5) Inductance 0.5904  $\mu\text{H/m}$ , Nominal
- 6) Conductor DCR 54.776  $\Omega/\text{Km}$  @20°C, Nominal
- 7) OA Shield DCR 7.8392  $\Omega/\text{Km}$  @20°C, Nominal

**F. Other**

- 1) Packaging Flange x Traverse x Barrel (inches)
    - a) 3280 FT 36 x 14 x 12 Continuous length
    - b) 1640 FT 30 x 14 x 12 Continuous length
    - c) 328 FT 16 x 11 x 8 Continuous length
    - d) 164 FT 12 x 10 x 5 Continuous length
- [Spool dimensions may vary slightly]*

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