

# ALPHA WIRE

## CUSTOMER PRODUCT SPECIFICATION

**Part Number: SF61108CY**  
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**Issue: 4**  
**Issue Date: 10/13/2011**  
**Effective Date: 11/4/2011**

### A. Construction

#### Diameters (In)

- |                |   |       |
|----------------|---|-------|
| 1) Component 1 | 4 X 1 COND  |       |
| a) Conductor   | 8 (168(7x24)/30) AWG TC                               | 0.168 |
| b) Insulation  | 0.032" Wall, Nom. PVC/ 0.006" Wall NYLON              | 0.244 |
| (1) Print      | ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED |       |
| (2) Color Code | Alpha Wire Color Code KX                              |       |

Cond	Color	Cond	Color	Cond	Color
1	GREEN/YELLOW	3	BLACK#2		
2	BLACK#1	4	BLACK#3		

- |                     |  |                |
|---------------------|--|----------------|
| 2) Cable Assembly   | 4 Components Cabled  |                |
| a) Twists:          | 2.1 Twists/foot (min)  |                |
| b) Core Wrap        | REMAI Tape, 25% Overlap, Min.  |                |
| 3) Shield:          | A/P/A Tape, 25% Overlap, Min.  |                |
| a) Drain Wire       | 20 (19/32) AWG TC  |                |
| b) Braid            | TC,85% Coverage, Min.  |                |
| 4) Jacket           | 0.065" Wall, Nom.,TPE  | 0.787+/- 0.028 |
| a) Color(s)         | ORANGE   |                |
| b) Jacket Separator | Tissue Tape, 25% Overlap, Min.   |                |
| c) Print            | ALPHA WIRE-* P/N SF61108CY 4C 8 AWG<br>THHN E324185 (UL) WTTC 90C 1000 VOLT OR (UL)<br>TC-ER 90C 600V OIL RES I/II SUN RES OR C(UL) CIC<br>CONTROL/TC 90C PVC/NYLON INS FT4 8 AWG<br>--- LLXXXXXX CSA AWM I/II A/B 90C 600V FT4<br>CE ROHS (DATE CODE) (SEQ FOOTAGE)<br>* = Factory Code |                |

*[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]*

### B. Applicable Specifications

- |                      |                                   |                              |
|----------------------|-----------------------------------|------------------------------|
| 1) UL                |                                   |                              |
| a) Component 1       | THHN                              | 90°C / 600 V <sub>RMS</sub>  |
| b) Overall           | TC                                | 90°C / 600 V <sub>RMS</sub>  |
|                      | EXPOSED RUN                       |                              |
|                      | OIL RES I/II                      |                              |
|                      | SUN RES                           |                              |
|                      | WTTC                              | 90°C / 1000 V <sub>RMS</sub> |
| 2) CSA International | AWM I/II A/B                      | 90°C / 600 V <sub>RMS</sub>  |
|                      | FT4                               |                              |
|                      | C(UL) CIC CONTROL                 | 90°C / 600 V <sub>RMS</sub>  |
|                      | C(UL) TC                          | 90°C / 600 V <sub>RMS</sub>  |
| 3) CE:               | LVD 73/23/EEC Amendment 93/68/EEC |                              |

### C. Environmental Compliance

- 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.
- 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

- Temperature Range: -25 to 90°C(static), -5 to 90°C (dynamic)
- Bend Radius: 10X Cable Diameter
- Pull Tension: 563 Lbs, Maximum
- Sunlight Resistance: Yes

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- E. Electrical Properties** (For Engineering purposes only)
- 1) Voltage Rating 600 V<sub>RMS</sub>
  - 2) Capacitance 57 pf/ft @1 kHz, Nominal Conductor to Conductor
  - 3) Ground Capacitance 103 pf/ft @1 kHz, Nominal
  - 4) Inductance 0.16  $\mu$ H/ft, Nominal
  - 5) Conductor DCR 0.7  $\Omega$ /1000ft @20°C, Nominal
  - 6) OA Shield DCR 0.77  $\Omega$ /1000ft @20°C, Nominal
- F. Other**
- 1) Packaging Flange x Traverse x Barrel (inches)
    - a) 1000 FT 36 x 14 x 12 Continuous length
    - b) 500 FT 30 x 14 x 12 Continuous length
    - c) 100 FT 24 x 14 x 12 Continuous length*[Spool dimensions may vary slightly]*
  - 2) Notes:
    - a) Suitable for use in Industrial Machinery per the requirements of NFPA-79

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