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# Customer Specification

## PART NO. 74008

### Construction

|                |                       | Diameters (In)  |                     |                    |       |
|----------------|-----------------------|---|---------------------|--------------------|-------|
| 1) Component 1 |                       | 1 X 4 PAIR  |                     |                    |       |
| a) Conductor   |                       | 24 (SOLID) AWG Bare Copper  |                     | 0.020              |       |
| b) Insulation  |                       | 0.009" Wall, Nom. Polyolefin  |                     | 0.035              |       |
| (1) Color(s)   |                       |   |                     |                    |       |
| Pair           | Color                 | Pair  | Color               | Pair               | Color |
| 1              | BLUE - WHITE/BLUE     | 3   | GREEN - WHITE/GREEN |                    |       |
| 2              | ORANGE - WHITE/ORANGE | 4   | BROWN - WHITE/BROWN |                    |       |
| c) Pair        |                       | 2/Cond Cabled Together  |                     |                    |       |
| (1) Twists:    |                       | Staggered Lays  |                     |                    |       |
| d) Cabling     |                       | 4 PAIR Cabled   |                     |                    |       |
| (1) Twists:    |                       | 4.8 Twists/foot (min)   |                     |                    |       |
| e) Jacket      |                       | 0.018" Wall, Nom.,PVC   |                     | 0.202              |       |
| (1) Color(s)   |                       | BLACK   |                     |                    |       |
| 2) Jacket      |                       | 0.035" Wall, Nom.,PVC   |                     | 0.285 (0.299 Max.) |       |
| a) Color(s)    |                       | BLACK   |                     |                    |       |
| b) Ripcord     |                       | 1 End 810 Denier Nylon  |                     |                    |       |
| c) Print       |                       | ALPHA WIRE-* P/N 74008 4PR24 AWG VERIFIED (UL)<br>CAT 5E CMR OR C(UL) CMR --- ISO/IEC 11801 CAT 5E<br>SUN RES OIL RES II --- US PATENT 6273977, 5821467<br>CE ROHS (2 FT, 7 DIGIT SEQUENTIAL NUMBER) FT<br><i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i><br>* = Factory Code |                     |                    |       |

### Applicable Specifications

|                      |  |      |
|----------------------|--|------|
| 1) UL                | CMR  | 75°C |
|                      | OIL RES I/II                               |      |
| 2) CSA International | C(UL) TYPE CMR                             | 75°C |
|                      | FT4  |      |
| 3) Other             | ISO/IEC 11801 Category 5e Horizontal Cable |      |
|                      | TIA-568-C.2 Cat5e                          |      |
|                      | NEMA WC-63.1 Category 5e                   |      |
| 4) CE:               | EU Low Voltage Directive 2014/35/EC        |      |

## Environmental

|  |  |
|--|--|
| 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 and the amending Directive 2015/863/EU of 4 June 2015 . 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.  |
| 3) California Proposition 65:          |  |
|  | Exempt from warning labels based on the Consent Judgment. Please see Alpha's CA Prop 65 Statement for more information.  |

## Properties

|                                  |                              |
|----------------------------------|------------------------------|
| Physical & Mechanical Properties |                              |
| 1) Temperature Range             | -10 to 75°C                  |
| 2) Bend Radius                   | 4X Cable Diameter            |
| 3) Pull Tension                  | 25 Lbs, Maximum              |
| 4)Sunlight Resistance            | Yes                          |
| 5)Cable Weight                   | 30 Lbs/1000Ft                |
| Electrical Properties            |                              |
| (For Engineering purposes only)  |                              |
| 1) Voltage Rating                | 300 V <sub>RMS</sub>         |
| 2) Characteristic Impedance      | 100 Ω +/- 15                 |
| 3) Mutual Capacitance            | 15 pF/ft @1 kHz, Nominal     |
| 4)Velocity of Propagation        | 70 %                         |
| 5) Conductor DCR                 | 27.4 Ω/1000ft @20°C, Nominal |

| Frequency (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) |
|-----------------|-----------------------------|----------------|------------------|---------------|-----------------|
| 1               | 2                           | 65.3           | 65.3             | 63.3          | 63.3            |
| 4               | 4                           | 56.3           | 56.3             | 52.3          | 52.3            |
| 8               | 5.7                         | 51.8           | 51.8             | 46.1          | 46.1            |
| 10              | 6.4                         | 50.3           | 50.3             | 43.9          | 43.9            |
| 16              | 8.1                         | 47.3           | 47.3             | 39.1          | 39.1            |
| 20              | 9.2                         | 45.8           | 45.8             | 35.2          | 35.2            |
| 25              | 10.3                        | 44.3           | 44.3             | 34.1          | 34.1            |
| 31.25           | 11.6                        | 42.9           | 42.9             | 31.3          | 31.3            |
| 62.5            | 16.8                        | 38.4           | 38.4             | 21.6          | 21.6            |
| 100             | 21.7                        | 35.3           | 35.3             | 17.1          | 17.1            |

  

| Frequency (MHz) | Input (unfitted) Imp. (Ohms) | Fitted Imp. (Ohms) | Min. ELFEXT (dB) | Min. PSELFEXT (dB) | Min. RL (dB) |
|-----------------|------------------------------|--------------------|------------------|--------------------|--------------|
| 1               | 100±12                       | 100±10             | 63.8             | 60.8               | 20           |
| 4               | 100±12                       | 100±10             | 51.7             | 48.7               | 23           |
| 8               | 100±12                       | 100±10             | 45.7             | 42.7               | 24.5         |
| 10              | 100±12                       | 100±10             | 43.8             | 40.8               | 25           |
| 16              | 100±12                       | 100±10             | 39.7             | 36.7               | 25           |
| 20              | 100±12                       | 100±10             | 37.7             | 34.7               | 25           |
| 25              | 100±15                       | 100±10             | 35.8             | 32.8               | 24.3         |
| 31.25           | 100±15                       | 100±10             | 33.9             | 30.9               | 23.6         |
| 62.5            | 100±15                       | 100±10             | 27.8             | 24.8               | 21.5         |
| 100             | 100±15                       | 100±10             | 23.8             | 20.8               | 20.1         |

## Other

|                  |   |
|------------------|---|
| <b>Packaging</b> | Flange x Traverse x Barrel (inches)         |
| a) 500 FT        | 12 x 10 x 5 Continuous length               |
|                  | <i>[Spool dimensions may vary slightly]</i> |

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 74008

74008 , RoHS-Compliant Commencing With 9/30/2013 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014.

| Substance                               | Maximum Control Value      |
|---|----------------------------|
| Lead                                    | 0.1% by weight (1000 ppm)  |
| Mercury                                 | 0.1% by weight (1000 ppm)  |
| Cadmium                                 | 0.01% by weight (100 ppm)  |
| Hexavalent Chromium                     | 0.1% by weight (1000 ppm ) |
| Polybrominated Biphenyls (PBB)          | 0.1% by weight (1000 ppm)  |
| Polybrominated Diphenyl Ethers (PBDE) , |                            |
| Including Deca-BDE                      | 0.1% by weight (1000 ppm)  |
| Bis(2-ethylhexyl) phthalate (DEHP)      | 0.1% by weight (1000 ppm)  |
| Butyl benzyl phthalate (BBP)            | 0.1% by weight (1000 ppm)  |
| Dibutyl phthalate (DBP)                 | 0.1% by weight (1000 ppm)  |
| Diisobutyl phthalate (DIBP)             | 0.1% by weight (1000 ppm)  |

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA

10/6/2017

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