



# Customer Specification

## PART NO. V16014

### Construction

|                     |         | Diameters (In)   |                       |                |       |
|---------------------|---------|--|-----------------------|----------------|-------|
| 1) Component 1      |         | 4 X 1 COND   |                       |                |       |
| a) Conductor        |         | 14 (41/30) AWG TC  |                       |                |       |
| b) Insulation       |         | 0.047" Wall, Nom. XLPE   |                       | 0.172          |       |
| (1) Separator       |         | Paper Tape, 10% Overlap, Min.  |                       |                |       |
| (2) Color(s)        |         |  |                       |                |       |
| Cond                | Color   | Cond   | Color                 | Cond           | Color |
| 1                   | BLACK#1 | 3  | BLACK#3               |                |       |
| 2                   | BLACK#2 | 4  | GREEN OR GREEN/YELLOW |                |       |
| 2) Cable Assembly   |         | 4 Components Cabled  |                       |                |       |
| a) Twists:          |         | 2.0 Twists/foot (min)  |                       |                |       |
| 3) Shield:          |         | A/P/A Tape, 25% Overlap, Min.  |                       |                |       |
| a) Drain Wire       |         | 14 (41/30) AWG TC  |                       |                |       |
| b) Braid            |         | TC,85% Coverage, Min.  |                       |                |       |
| 4) Jacket           |         | 0.065" Wall, Nom.,PVC  |                       | 0.584+/- 0.022 |       |
| a) Color(s)         |         | BLACK  |                       |                |       |
| b) Jacket Separator |         | Tissue Tape, 25% Overlap, Min.   |                       |                |       |
| c) Print            |         | ALPHA WIRE- EXXXXX SERIES V P/N V16014 VFD CABLE<br>4C14 SHIELDED 1000V FLEXIBLE MOTOR SUPPLY CABLE<br>600V TYPE TC-ER (UL) RHW-2 CDRS XLPE/PVC 90C DRY/<br>WET SUN RES DIR BUR --- LLXXXXXX CSA AWM I/II A/B<br>1000V 90C FT4 CE ROHS<br><i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i> |                       |                |       |

### Applicable Specifications

|                      |                                   |                              |
|----------------------|-----------------------------------|------------------------------|
| 1) UL                |                                   |                              |
| a) Component 1       | RHW-2Wet/Dry                      | 90°C / 600 V <sub>RMS</sub>  |
|                      | XHHW-2Wet/Dry                     | 90°C / 600 V <sub>RMS</sub>  |
| b) Overall           | TC                                | 90°C / 600 V <sub>RMS</sub>  |
|                      | EXPOSED RUN                       |                              |
|                      | DIRECT BURIAL                     |                              |
|                      | SUN RES                           |                              |
|                      | 1000V Flexible Motor Supply Cable |                              |
| 2) CSA International | AWM I/II A/B                      | 90°C / 1000 V <sub>RMS</sub> |
|                      | FT4                               |                              |
| 3) Other             | PMSHA Specification               |                              |
| 4) CE:               | LVD 73/23/EEC Amendment 93/68/EEC |                              |

## Environmental

|                                   |  |
|-----------------------------------|--|
| 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) California Proposition 65:     | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.   |

## Properties

|   |                                      |
|---|--------------------------------------|
| Physical & Mechanical Properties                      |                                      |
| 1) Temperature Range                                  | -40 to 90°C                          |
| 2) Bend Radius  | 10X Cable Diameter                   |
| 3) Pull Tension                                       | 175 Lbs, Maximum                     |
| 4) Sunlight Resistance                                | Yes                                  |
| 5) Direct Burial                                      | Yes                                  |
| 6) Copper Weight                                      | 97 Lbs/1000Ft                        |
| 7) Cable Weight                                       | 225 Lbs/1000Ft                       |
| Electrical Properties (For Engineering purposes only) |                                      |
| 1) Voltage Rating                                     | 600 V <sub>RMS</sub>                 |
| 2) Characteristic Impedance                           | 80                                   |
| 3) Inductance   | 0.213 μH/ft, Nominal                 |
| 4) Mutual Capacitance                                 | 23 pf/ft @ 1 kHz, Nominal            |
| 5) Ground Capacitance                                 | 42 pf/ft @ 1 kHz, Nominal            |
| 6) Conductor DCR                                      | 2.8 /1000ft @20°C, Nominal           |
| 7) OA Shield DCR                                      | 0.92 /1000ft @20°C, Nominal          |
| 8) Current  | 20 amps per conductor @30°C, Maximum |
| 9) Insulation Resistance                              | 300 M/MFt (Est.)                     |

## Other

|                        |  |
|------------------------|--|
| 1) Packaging           |  |
| a) Bulk(Made-to-order) |  |

www.alphawire.com

Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742)

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure the accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: V16014

V16014, RoHS-Compliant Commencing With 10/1/2005 Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

| Substance   | Maximum Control Value     |
|---|---------------------------|
| Lead  | 0.1% by weight (1000 ppm) |
| Mercury   | 0.1% by weight (1000 ppm) |
| Cadmium   | 0.1% 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)<br>Including Deca-BDE | 0.1% by weight (1000 ppm) |

*The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.*

Authorized Signatory for the Alpha Wire Company:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering & QA

1/20/2011