



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

Customer Specification

PART NO. V16116

Construction

| | | | | Diameters (In) | |
|-----------------------|-------------|---|-----------------------|----------------|-------|
| 1) Component 1 | | 4 X 1 COND | | | |
| a) Conductor | | 16 (26/30) AWG TC | | 0.059 | |
| b) Insulation | | 0.047" Wall, Nom. XLPE | | 0.156 | |
| (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) Component 2 | | 1 X 1 PAIR | | | |
| a) Conductor | | 14 (41/30) AWG TC | | 0.074 | |
| b) Insulation | | 0.032" Wall, Nom. XLPE | | 0.142 | |
| (1) Separator | | Paper Tape, 10% Overlap, Min. | | | |
| (2) Color(s) | | | | | |
| Pair | Color | Pair | Color | Pair | Color |
| 1 | BLACK-WHITE | | | | |
| c) Pair | | 2/Cond Cabled Together | | | |
| (1) Twists: | | 2.8 Twists/foot (min) | | | |
| Individually Applied: | | | | | |
| d) Shield: | | Alum/Mylar Tape, 25% Overlap, Min. | | | |
| (1) Foil Direction | | Foil Facing In | | | |
| (2) Drain Wire | | 14 (41/30) AWG TC | | | |
| 3) Cable Assembly | | 5 Components Cabled | | | |
| a) Twists: | | 1.7 Twists/foot (min) | | | |
| 4) Shield: | | A/P/A Tape, 25% Overlap, Min. | | | |
| a) Drain Wire | | 16 (26/30) AWG TC | | | |
| b) Braid | | TC,85% Coverage, Min. | | | |
| 5) Jacket | | 0.065" Wall, Nom.,PVC | | 0.717+/- 0.026 | |
| a) Color(s) | | BLACK | | | |
| b) Jacket Separator | | Tissue Tape, 25% Overlap, Min. | | | |
| c) Print | | ALPHA WIRE- E64067-L P/N V16116 4/C 16 AWG 1PR 14 AWG XHHW-2 SERIES V VFD CABLE W/ BRAKE PAIR 600V TYPE TC-ER (UL) XLPE/PVC 90C DRY/WET SUN RES DIR BUR 4/C 16 AWG 1PR 14 AWG--- LLXXXXXX CSA AWM I/II A/B 1000V 90C FT4 --- CE ROHS [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.] | | | |

Applicable Specifications

| | | |
|----------------------|-----------------------------------|------------------------------|
| 1) UL | | |
| a) Component 1 | RHW-2Wet/Dry | 90°C / 600 V _{RMS} |
| | XHHW-2Wet/Dry | 90°C / 600 V _{RMS} |
| b) Component 2 | XHHW-2Wet/Dry | 90°C / 600 V _{RMS} |
| c) Overall | TC | 90°C / 600 V _{RMS} |
| | EXPOSED RUN | |
| | DIRECT BURIAL | |
| | SUN RES | |
| 2) CSA International | | |
| a) Component 1 | AWM I A/B | 90°C / 1000 V _{RMS} |
| b) Component 2 | AWM I A/B | 90°C / 1000 V _{RMS} |
| c) Overall | AWM I/II A/B | 90°C / 1000 V _{RMS} |
| | FT4 | |
| 3) 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. |

Properties

| Physical & Mechanical Properties | |
|----------------------------------|--|
| 1) Temperature Range | -40 to 90°C |
| 2) Bend Radius | 10X Cable Diameter |
| 3) Pull Tension | 214 Lbs, Maximum |
| 4) Sunlight Resistance | Yes |
| 5) Direct Burial | Yes |
| Electrical Properties | |
| (For Engineering purposes only) | |
| 1) Voltage Rating | 1000 V _{RMS} |
| 2) Component 1 | |
| a) Characteristic Impedance | 90 Ω |
| b) Inductance | 0.23 μH/ft, Nominal |
| c) Mutual Capacitance | 21 pf/ft @1 kHz, Nominal |
| d) Ground Capacitance | 38 pf/ft @1 kHz, Nominal |
| e) Conductor DCR | 4.4 Ω/1000ft @20°C, Nominal |
| f) OA Shield DCR | 1.06 Ω/1000ft @20°C, Nominal |
| g) Current | 14.4 amps per conductor @30°C, Maximum |
| h) Insulation Resistance | 300 MΩ/MFt (Est.) |
| 3) Component 2 | |
| a) Inductance | 0.19 μH/ft, Nominal |
| b) Mutual Capacitance | 22 pf/ft @1 kHz, Nominal |
| c) Ground Capacitance | 40 pf/ft @1 kHz, Nominal |
| d) Conductor DCR | 2.6 Ω/1000ft @20°C, Nominal |
| e) Ind. Shield DC Resistance | 2.43 Ω/1000ft @20°C, Nominal |
| f) Current | 20 amps per conductor @30°C, Maximum |
| g) Insulation Resistance | 300 MΩ/MFt (Est.) |

Other

| Packaging | Flange x Traverse x Barrel (inches) |
|------------------------|-------------------------------------|
| a) Bulk(Made-to-order) | |

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: V16116

V16116 , RoHS-Compliant Commencing With 10/1/2005 Production

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, 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 this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. 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 11364-2006.

| 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) |

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Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering & QA

5/16/2013