## **ALPHA WIRE CUSTOMER PRODUCT SPECIFICATION**

|     | struc<br>Comp<br>a) (  |  |  | Issue: 1<br>Issue Date: 9/10/2010<br>Effective Date: 11/5/2010  |   |  |  |  |
|-----|--|--|--|---|---|--|--|--|
| 1)  | . :  | a a maint 1  |  |   |   |  | Diameters (mm)   |  |
|     | a) (   |  | 3 X 1 PAIR   |   |   |  |  |  |
|     | '  | Conductor  | 22 (7/30) AWG TC   | 4   |   |  | 0.76   |  |
|     | '  | nsulation  | 0.25 Wall, Nom. PVC, Semi Rigid  | נ   |   |  | 1.27   |  |
|     | (  | 1) Color Code  | Alpha Wire Color Code B  |   |   |  |  |  |
|     | F  | Pair Color   | Pair Color   |   | Pair  | Color<br>WHITE   |  |  |
|     | L  | 1 WHITE-BLACK  | 2 WHITE-BROWN  | ·   | 3   | WHILE  | -KED   |  |
|     | c) F   | Pair   | 2/Cond Cabled Together   |   |   |  |  |  |
|     |  |  | 26.2 Twists/meter (min)  |   |   |  |  |  |
| 2)  |  |  |  |   |   |  |  |  |
|     | '  |  |  |   |   |  |  |  |
|     |  |  | Clear Mylar Tape, 25% Overlap, I   | Min.  |   |  |  |  |
| 3)  |  |  |  |   |   |  |  |  |
|     | ,  |  |  |   |   |  |  |  |
| •   |  |  |  |   |   |  |  |  |
| 4)  |  |  |  |   |   |  | 6.91 (7.26 Max.)   |  |
|     |  |  | -  |   |   |  |  |  |
|     |  |  | <u> </u>   |   |   |  |  |  |
|     | C) F   | - 1 11 1   |  | = CM 10   | 15C O   | R AW   | IM 2464  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  | ,,  |   |  | ((0))  |  |
| App | licab  | le Specifications  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
| ,   |  | Component 1  | AWM/STYLE 10002  | 105°C   | / 300   | V <sub>RMS</sub>   |  |  |
|     |  |  | AWM/STYLE 2464   |   |   |  |  |  |
|     |  |  | CM   | 105°C   |   |  |  |  |
|     |  |  | VW-1   |   |   |  |  |  |
| 2)  | IEC  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  | LVD 73/23/EEC Amendment 93/6   | 68/EEC  |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
| 1)  | EU D   | VIRECTIVE 2002/95/EC(RC  |  | stura of i  | thia na   | urt ara  | in compliance with EU  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   | quipin  | ont.   |  |  |
| 2)  | REA  | CH Regulation (EC 190  |  |   |   |  |  |  |
| ,   |  |  | This product does not contain any  | v of the  | subst   | ances  | listed on the European Unio  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  | on of 0.1   | % wei   | ght/w  | eight.   |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
| '   |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  | )   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
|     |  |  |  |   |   |  |  |  |
| -)  | maut   |  |  |   |   |  |  |  |
|     | <ul> <li>3)</li> <li>4)</li> <li><b>App</b></li> <li>1)</li> <li>2)</li> <li><b>Phy</b></li> <li>1)</li> <li>2)</li> <li><b>Phy</b></li> <li>1)</li> <li>2)</li> <li><b>Phy</b></li> <li>2)</li> <li><b>Phy</b></li> <li>3)</li> <li>4)</li> <li>5)</li> <li><sup>gh A</sup></li> <li><sup>gh A</sup></li> </ul> | (2) Cable<br>a) [<br>b) (0<br>3) Shiel<br>a) [<br>b) E<br>4) Jacke<br>a) (0<br>b) F<br>c) F<br>Applicab<br>1) UL<br>a) (0<br>b) (0<br>2) IEC<br>3) CE:<br>Environn<br>1) EU D<br>2) REA(<br>Physical<br>1) EU D<br>2) REA(<br>Physical<br>1) Temp<br>2) REA(<br>Physical<br>1) Temp<br>2) REA(<br>Physical<br>1) Volta<br>3) Pull 1<br>4) Sunli<br>Electrical<br>3) Pull 1<br>4) Sunli | <ul> <li>(1) Twists:</li> <li>2) Cable Assembly <ul> <li>a) Twists:</li> <li>b) Core Wrap</li> </ul> </li> <li>3) Shield: <ul> <li>a) Drain Wire</li> <li>b) Braid</li> </ul> </li> <li>4) Jacket <ul> <li>a) Color(s)</li> <li>b) Ripcord</li> <li>c) Print</li> </ul> </li> <li>Applicable Specifications <ul> <li>1) UL</li> <li>a) Component 1</li> <li>b) Overall</li> </ul> </li> <li>2) IEC <ul> <li>3) CE:</li> <li>Environmental Compliance</li> <li>1) EU Directive 2002/95/EC(Rold)</li> </ul> </li> <li>2) REACH Regulation (EC 190)</li> <li>Physical &amp; Mechanical Propertion <ul> <li>Temperature Range</li> <li>Bend Radius</li> <li>Pull Tension</li> <li>Sunlight Resistance</li> <li>Electrical Properties</li> <li>Voltage Rating</li> <li>Mutual Capacitance</li> <li>Characteristic Impedance</li> <li>Inductance</li> <li>Inductance</li> </ul> </li> <li>gh Alpha Wire Company ("Alpha") makes bed herein are subject to errors or omission are subject to errors or om</li></ul> | (1) Twists:26.2 Twists/meter (min)2) Cable Assembly3 Components Cableda) Twists:19.7 Twists/meter (min)b) Core WrapClear Mylar Tape, 25% Overlap, Min.a) Drain Wire22 (7/30) AWG TCb) BraidTC,70% Coverage, Min.4) Jacket0.81 Wall, Nom.,PVCa) Color(s)GREYb) Ripcord1 End 810 Denier Nylonc) PrintALPHA WIRE-* P/N B9640340.35MM2 (22AWG) (UL) TYPIVW-1CEa) Component 1AWM/STYLE 10002b) OverallAWM/STYLE 2464CMVW-1c) PrintAWM/STYLE 2464CMVW-12) IECEN 60332-1 Flame BehaviorB) CE:LVD 73/23/EEC Amendment 93/CE:LVD 73/23/EEC Amendment 93/Environmental ComplianceNul materials used in the manufactDirective 2002/95/EC(RoHS):All materials used in the manufact1) EU Directive 2002/95/EC(RoHS):All materials used in the manufactc) REACH Regulation (EC 1907/2006):This product does not contain an REACH Substance of Very High 2010, in excess of a concentraticPhysical & Mechanical Properties10X Cable Diameter3) Pull Tension42 Lbs, Maximum4) Sunlight ResistanceYesElectrical Properties(For Engineering purposes only)1) Voltage Rating300 V <sub>RMS</sub> 2) Mutual Capacitance88.56 pf/m @1 kHz, Nominal3) Ground Capacitance88.56 pf/m @1 kHz, Nominal3) Ground Capacitance160.72 pf/m @1 kHz, Nominal4) Ch | (1) Twists:26.2 Twists/meter (min)2) Cable Assembly3 Components Cableda) Twists:19.7 Twists/meter (min)b) Core WrapClear Mylar Tape, 25% Overlap, Min.a) Drain Wire22 (7/30) AWG TCb) BraidTC,70% Coverage, Min.4) Jacket0.81 Wall, Nom.,PVCa) Color(s)GREYb) Ripcord1 End 810 Denier Nylonc) PrintALPHA WIRE-* P/N B9640340.35MM2 (22AWG) (UL) TYPE CM 10WW-1CEwW-1CEa) Component 1AWM/STYLE 10002a) Component 1AWM/STYLE 10002b) OverallAWM/STYLE 2464a) Component 1AWM/STYLE 2464b) OverallAWM/STYLE 2464c) EtcEN 60332-1 Flame Behaviorb) OverallEV 07/223/EEC Amendment 93/68/EECEnvironmental ComplianceNu1) EU Directive 2002/95/EC(RoHS):1) EU Directive 2002/95/EC(RoHS):1) EU Directive 2002/95/EC(RoHS):1) Temperature Range-30 to 105°C2) REACH Regulation (EC 1907/2006):This product does not contain any of the REACH Substance of Very High Concer2010, in excess of a concentration of 0.1Physical & Mechanical Properties1) Temperature Range-30 to 105°C2) Bend Radius10X Cable Diameter3) Pull Tension42 Lbs, Maximum4) Sunlight ResistanceYesElectrical Properties(For Engineering purposes only)1) Voltage Rating300 V <sub>RMS</sub> 2) Mutual Capacitance | (1) Twists:26.2 Twists/meter (min)2) Cable Assembly3 Components Cableda) Twists:19.7 Twists/meter (min)b) Core WrapClear Mylar Tape, 25% Overlap, Min.a) Drain Wire22 (7/30) AWG TCb) BraidTC,70% Coverage, Min.4) Jacket0.81 Wall, Nom.,PVCa) Color(s)GREYb) Ripcord1 End 810 Denier Nylonc) PrintALPHA WIRE-* P/N B9640340.35MM2 (22AWG) (UL) TYPE CM 105C OW-1CEROPIcable Specifications1) ULa) Component 1AWM/STYLE 10002105°C / 300 Vb) Ripcord1 EN 60332-1 Flame Behaviorc) PrintEN 60332-1 Flame Behaviorc) Environmental Compliance1) EU Directive 2002/95/EC(RoHS):1) EU Directive 2002/95/EC(RoHS):All materials used in the manufacture of this pa<br>Directive 2002/95/EU regarding the restriction<br>substances in electrical and electronic equipme<br>for compliance Date of Manufacture.2) REACH Regulation (EC 1907/2006):This product does not contain any of the subst<br>REACH Substance of Very High Concern (SVF<br>2010, in excess of a concentration of 0.1% wei<br>2010, in excess | (1) Twists:26.2 Twists/meter (min)2) Cable Assembly3 Components Cableda) Twists:19.7 Twists/meter (min)b) Core WrapClear Mylar Tape, 25% Overlap, Min.a) Drain Wire22 (7/30) AWG TCb) BraidTC,70% Coverage, Min.4) Jacket0.81 Wall, Nom.,PVCa) Color(s)GREYb) Ripcord1 End 810 Denier Nylonc) PrintALPHA WIRE-* P/N B9640340.3 ShM/2 (22AWG) (UL) TYPE CM 105C OR AWVW-1CERopplicable Specifications1) ULa) Component 1AWM/STYLE 10002105°C / 300 V <sub>RMS</sub> b) OverallAWM/STYLE 2464cM105°CVW-12) IECEN 60332-1 Flame BehaviorEnvironmental Compliance1) EU Directive 2002/95/EC(RoHS):1) EU Directive 2002/95/EC(RoHS):All materials used in the manufacture of this part are<br>Directive 2002/95/EU regarding the restriction of use<br>substances in electrical and electronic equipment.<br>for compliance Date of Manufacture.2) REACH Regulation (EC 1907/2006):<br>This product does not contain any of the substances<br>REACH Substance of Very High Concern (SVHC) c<br>2010, in excess of a concentration of 0.1% weight/wPhysical & Mechanical Properties1) Temperature Range-30 to 105°C2) Bend Radius10X Cable Diameter3) Pull Tension42 Lbs, Maximum4) Sunlight ResistanceYes2) Mutual Capacitance85.6 f/m @1 kHz, Nominal3) Ground Capacitance160.72 p/fm @1 kHz, Nominal3) Ground Capacitan |  |

described nerein are subject to errors of offissions and to charges whold horce, and the issung of such mornation and specifications described nerein 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 has 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 CUSTOMER PRODUCT SPECIFICATION

| Part Number: B964034<br>Page 2 of 2 Pages  | Issue: 1<br>Issue Date: 9/10/2010<br>Effective Date: 11/5/2010  |
|--|---|
| <ul> <li>6) Conductor DCR</li> <li>7) OA Shield DCR</li> <li>F. Other</li> <li>1) Packaging <ul> <li>a) 3280 FT</li> <li>b) 4640 FT</li> </ul> </li> </ul> | 54.776 $\Omega$ /Km @20°C, Nominal<br>11.152 $\Omega$ /Km @20°C, Nominal<br>Flange x Traverse x Barrel (inches)<br>24 x 14 x 12 Continuous length |
| b) 1640 FT<br>c) 328 FT<br>d) 164 FT   | 18 x 12 x 8 Continuous length<br>12 x 4.5 x 3.5 Continuous length<br>10 x 4 x 3.5 Continuous length<br>[Spool dimensions may vary slightly]       |

Although Alpha Wire Company ("Alpha") makes every reasonable effort to ensure their 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 has 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.