

## Customer Specification

### PART NO. 87104CY

### Construction

|                     |              |      |         |      |       | Diameters (In)  |  |                    |
|---------------------|--------------|------|---------|------|-------|---|--|--------------------|
| 1) Component 1      |              |      |         |      |       | 4 X 1 COND  |  |                    |
| a) Conductor        |              |      |         |      |       | 22 (19/34) AWG Bare Copper  |  | 0.031              |
| b) Insulation       |              |      |         |      |       | 0.016" Wall, Nom. TPES  |  | 0.063              |
| (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:          |              |      |         |      |       | 3.2 Twists/foot (min)   |  |                    |
| b) Orientation:     |              |      |         |      |       | Components to be arranged from INSIDE LAYER to OUTSIDE LAYER  |  |                    |
| c) Core Wrap        |              |      |         |      |       | PTFE(skived) Tape, 25% Overlap, Min.  |  |                    |
| 3) Shield           |              |      |         |      |       | Tinned Copper SPIRAL Shield,90% Coverage, Min.  |  |                    |
| 4) Jacket           |              |      |         |      |       | 0.050" Wall, Nom.,Polyurethane (TPU)  |  | 0.278 (0.292 Max.) |
| a) Color(s)         |              |      |         |      |       | BLACK   |  |                    |
| b) Jacket Separator |              |      |         |      |       | PTFE(skived) Tape, 25% Overlap, Min.  |  |                    |
| c) Print            |              |      |         |      |       | ALPHA WIRE-* P/N 87104CY<br>XTRAGUARD(R) FLEXIBLE TORSION CABLE - RU AWM<br>20234 VW-1 OR CRU AWM I/II A/B 80C<br>600 VOLTS FT2 CE ROHS (SEQ FOOTAGE)<br>* = Factory Code |  |                    |

### Applicable Specifications

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|                      |                                     |                             |
|----------------------|-------------------------------------|-----------------------------|
| 1) UL                |                                     |                             |
| a) Component 1       | AWM/STYLE 10162                     | 80°C / 600 V <sub>RMS</sub> |
| b) Overall           | AWM/STYLE 20234                     | 80°C / 600 V <sub>RMS</sub> |
|                      | VW-1                                |                             |
| 2) CSA International | C(RU) AWM I/II A/B FT2              | 80°C / 600 V <sub>RMS</sub> |
| 3) CE:               | EU Low Voltage Directive 2014/35/EU |                             |

## Environmental

|  |   |
|--|---|
| 1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3): |   |
|  | 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. |
| 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.  |
| 3) California Proposition 65:  |   |
|  | This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on the Consent Judgement. See the Alpha Wire website for more information.                                     |

## Properties

| Physical & Mechanical Properties |   |
|----------------------------------|---|
| 1) Temperature Range             | -30 to 80°C(static), -10 to 80°C (dynamic)              |
| 2) Bend Radius                   | 10X Cable Diameter(static), 15X Cable Diameter(dynamic) |
| 3) Pull Tension                  | 28 Lbs, Maximum   |
| Electrical Properties            |   |
| (For Engineering purposes only)  |   |
| 1) Voltage Rating                | 600 V <sub>RMS</sub>                                    |
| 2) Inductance                    | 0.2 μH/ft, Nominal                                      |
| 3) Conductor DCR                 | 14 Ω/1000ft @20°C, Nominal                              |
| 4) OA Shield DCR                 | 5.2 Ω/1000ft @20°C, Nominal                             |

## Other

|                        |                                     |
|------------------------|-------------------------------------|
| <b>Packaging</b>       | Flange x Traverse x Barrel (inches) |
| a) Bulk(Made-to-order) |                                     |

[www.alphawire.com](http://www.alphawire.com)

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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 87104CY

87104CY, RoHS-Compliant Commencing With 11/1/2004 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, 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). This product also complies with UK - RoHS. 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. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

## Substance

| 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) ,<br>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 11/28/2024

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