



Alpha Wire | 1320 City Center Drive, Suite 100, Carmel, IN 46032
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

Customer Specification

PART NO. M8748200

Construction

| | | Diameters (In) | |
|-----------------------|--|----------------|--------------------|
| 1) Component 1 | 20 X 1 PAIR | | |
| a) Conductor | 18 (7/.0152) AWG Bare Copper | | 0.046 |
| b) Insulation | 0.016" Wall, Nom. PVC/ 0.005" Wall NYLON | | 0.088 |
| (1) Print | ALPHA NUMERIC NUMBERS - WHITE CONDUCTOR ONLY (ONE-1) ALTERNATE INVERTED 2"SPACING(CTR. TO CTR.) | | |
| (2) Color Code | Alpha Wire Color Code BW | | |
| Pair | Color | Pair | Color |
| 1 | BLACK-WHITE#1 | 8 | BLACK-WHITE#8 |
| 2 | BLACK-WHITE#2 | 9 | BLACK-WHITE#9 |
| 3 | BLACK-WHITE#3 | 10 | BLACK-WHITE#10 |
| 4 | BLACK-WHITE#4 | 11 | BLACK-WHITE#11 |
| 5 | BLACK-WHITE#5 | 12 | BLACK-WHITE#12 |
| 6 | BLACK-WHITE#6 | 13 | BLACK-WHITE#13 |
| 7 | BLACK-WHITE#7 | 14 | BLACK-WHITE#14 |
| c) Pair | 2/Cond Cabled Together | | |
| (1) Twists: | 4.8 Twists/foot (min) | | |
| Individually Applied: | | | |
| d) Shield: | Foil Free Alum/Mylar Tape, 25% Overlap, Min. | | |
| (1) Foil Direction | Foil Facing In | | |
| (2) Drain Wire | 20 (7/28) AWG Tinned Copper | | |
| 2) Cable Assembly | 20 Components Cabled | | |
| a) Twists: | 1.0 Twists/foot (min) | | |
| b) Orientation: | Components to be arranged from INSIDE LAYER to OUTSIDE LAYER | | |
| c) Core Wrap | Clear Mylar Tape, 25% Overlap, Min. | | |
| 3) Shield: | Alum/Mylar Tape, 25% Overlap, Min. | | |
| a) Foil Direction | Foil Facing In | | |
| b) Drain Wire | 20 (7/28) AWG Tinned Copper | | |
| 4) Jacket | 0.085" Wall, Nom.,PVC | | 1.009 (1.059 Max.) |
| a) Color(s) | BLACK | | |
| b) Ripcord | 1 End 810 Denier Nylon | | |
| c) Print | ALPHA WIRE-* P/N M8748200 20PR 18 AWG EXXXXXX (UL) TYPE TC-ER 600V 90C DRY 75C WET SUN. RES. DIR. BUR. CE ROHS * = Factory Code | | |

Applicable Specifications

| | | |
|--------|-------------------------------------|-----------------------------|
| 1) UL | TC | 90°C / 600 V _{RMS} |
| | SUN RES | |
| | DIRECT BURIAL | |
| | EXPOSED RUN | |
| 2) 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 | -25 to 90°C |
| 2) Bend Radius | 10X Cable Diameter |
| 3) Pull Tension | 692 Lbs, Maximum |
| 4) Sunlight Resistance | Yes |
| 5) Direct Burial | Yes |
| Electrical Properties | |
| (For Engineering purposes only) | |
| 1) Voltage Rating | 600 V _{RMS} |
| 2) Mutual Capacitance | 44 pF/ft @1 kHz, Nominal |
| 3) Ground Capacitance | 79 pF/ft @1 kHz, Nominal |
| 4) Characteristic Impedance | 49 Ω |
| 5) Inductance | 0.19 μH/ft, Nominal |
| 6) Conductor DCR | 6.7 Ω/1000ft @20°C, Nominal |
| 7) Component Shield DCR | 8.3 Ω/1000ft @20°C, Nominal |
| 8) OA Shield DCR | 5.5 Ω/1000ft @20°C, Nominal |
| | |

Other

| Packaging | Flange x Traverse x Barrel (inches) |
|---|-------------------------------------|
| a) 1000 FT | 48 x 26 x 18 Continuous length |
| b) 500 FT | 36 x 14 x 12 Continuous length |
| c) 100 FT | 24 x 14 x 12 Continuous length |
| d) Bulk(Made-to-order) | |
| <i>[Spool dimensions may vary slightly]</i> | |
| | |

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M8748200

M8748200, RoHS-Compliant Commencing With 1/1/2006 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 Dire RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacti extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). Th these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this iter** compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product

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) |

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the d 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 specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legisl product.

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 4/8/2024

Alpha Wire
2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-908-925-8000