

# **Customer Specification**

#### **PART NO. M3857**

#### **Construction**

Doctor   D						Diameters (In)
b) Insulation	1) Componen	it 1	15 X 1 COND			
Cond         Color         Cond         Color         Color           1         BLACK         6         BROWN         11         BROWN/BL           2         RED         7         RED/BLACK         12         BLACK/RED           3         BLUE         8         BLUE/BLACK         13         BLUE/RED           4         ORANGE         9         ORANGE/BLACK         14         ORANGE/RI           5         YELLOW         10         YELLOW/BLACK         15         YELLOW/RE           2) Cable Assembly         15 Components Cabled         15         YELLOW/RE           2) Cable Assembly         15 Twists/foot (min)         15         YELLOW/RE           b) Orientation:         Components to be arranged from OUTSIDE LAYER to INSIDE LAYER         COOR         COOR           c) Core Wrap         Clear Mylar Tape, 25% Overlap, Min.         0.657 (0.688 Max)           3) Jacket         0.063" Wall, Nom.,PVC         0.657 (0.688 Max)           a) Color(s)         BLACK    ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	a) Conductor		14 (7/.0242) AWG Bare Copper			0.073
Cond	b) Insulation		0.016" Wall, Nom.	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON		
1         BLACK         6         BROWN         11         BROWN/BL           2         RED         7         RED/BLACK         12         BLACK/RED           3         BLUE         8         BLUE/BLACK         13         BLUE/RED           4         ORANGE         9         ORANGE/BLACK         14         ORANGE/RI           5         YELLOW         10         YELLOW/BLACK         15         YELLOW/RE           2) Cable Assembly         15 Components Cabled         I.5 Twists/foot (min)         I.5 Twist	(1) Color Code		Alpha Wire Color Code J			
2 RED 7 RED/BLACK 12 BLACK/RED 3 BLUE 8 BLUE/BLACK 13 BLUE/RED 4 ORANGE 9 ORANGE/BLACK 14 ORANGE/RI 5 YELLOW 10 YELLOW/BLACK 15 YELLOW/RE 2) Cable Assembly 15 Components Cabled a) Twists: 1.5 Twists/foot (min) b) Orientation: Components to be arranged from OUTSIDE LAYER to INSIDE LAYER c) Core Wrap Clear Mylar Tape, 25% Overlap, Min. 3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max a) Color(s) BLACK ALPHA WIRE-* P/N M3857 15C 14 AWG EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	Cond	Color	Cond	Color	Cond	Color
3 BLUE 8 BLUE/BLACK 13 BLUE/RED 4 ORANGE 9 ORANGE/BLACK 14 ORANGE/RI 5 YELLOW 10 YELLOW/BLACK 15 YELLOW/RE 2) Cable Assembly 15 Components Cabled a) Twists: 1.5 Twists/foot (min) b) Orientation: Components to be arranged from OUTSIDE LAYER to INSIDE LAYER c) Core Wrap Clear Mylar Tape, 25% Overlap, Min. 3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max) a) Color(s) BLACK ALPHA WIRE-* P/N M3857 15C 14 AWG EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	1	BLACK	6	BROWN	11	BROWN/BLACK
4 ORANGE 9 ORANGE/BLACK 14 ORANGE/RI 5 YELLOW 10 YELLOW/BLACK 15 YELLOW/RE 2) Cable Assembly 15 Components Cabled a) Twists: 1.5 Twists/foot (min) b) Orientation: Components to be arranged from OUTSIDE LAYER to INSIDE LAYER c) Core Wrap Clear Mylar Tape, 25% Overlap, Min. 3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max a) Color(s) BLACK ALPHA WIRE-* P/N M3857 15C 14 AWG EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	2	RED	7	RED/BLACK	12	BLACK/RED
5 YELLOW 10 YELLOW/BLACK 15 YELLOW/RE 2) Cable Assembly 15 Components Cabled a) Twists: 1.5 Twists/foot (min) b) Orientation: Components to be arranged from OUTSIDE LAYER to INSIDE LAYER c) Core Wrap Clear Mylar Tape, 25% Overlap, Min. 3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max) a) Color(s) BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	3	BLUE	8	BLUE/BLACK	13	BLUE/RED
2) Cable Assembly a) Twists: 1.5 Twists/foot (min) b) Orientation: Components to be arranged from OUTSIDE LAYER to INSIDE LAYER c) Core Wrap Clear Mylar Tape, 25% Overlap, Min. 3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max a) Color(s)  BLACK ALPHA WIRE-* P/N M3857 15C 14 AWG EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	4	ORANGE	9	ORANGE/BLACK	14	ORANGE/RED
a) Twists:  1.5 Twists/foot (min)  b) Orientation:  Components to be arranged from OUTSIDE LAYER to INSIDE LAYER  c) Core Wrap  Clear Mylar Tape, 25% Overlap, Min.  3) Jacket  0.063" Wall, Nom.,PVC  0.657 (0.688 Max a) Color(s)  BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	5	YELLOW	10	YELLOW/BLACK	15	YELLOW/RED
b) Orientation:  Components to be arranged from OUTSIDE LAYER to INSIDE LAYER  c) Core Wrap  Clear Mylar Tape, 25% Overlap, Min.  3) Jacket  0.063" Wall, Nom.,PVC  0.657 (0.688 Maximum)  a) Color(s)  BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	2) Cable Assembly		15 Components Cabled			
c) Core Wrap  Clear Mylar Tape, 25% Overlap, Min.  3) Jacket  0.063" Wall, Nom.,PVC  0.657 (0.688 Max)  a) Color(s)  BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	a) Twists:		1.5 Twists/foot (min)			
3) Jacket 0.063" Wall, Nom.,PVC 0.657 (0.688 Max a) Color(s)  BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	b) Orientation:		Components to be arranged from OUTSIDE LAYER to INSIDE LAYER			
a) Color(s)  BLACK  ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	c) Core Wrap		Clear Mylar Tape, 25% Overlap, Min.			
ALPHA WIRE-* P/N M3857 15C 14 AWG  EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	3) Jacket		0.063" Wall, Nom.,PVC			0.657 (0.688 Max.)
b) Print EXXXXXX (UL) TYPE TC 600V 90C DRY 75C WET	a) Color(s)		BLACK			
INI Print	b) Print					
TOTAL DECIMENT FOR DATE						
			SUN RES DIR BUR CE ROHS  * = Factory Code			

### **Applicable Specifications**

1) UL	TC	90°C Dry / 75°C Wet / 600 V <sub>RMS</sub>	
	SUN RES		
	DIRECT BURIAL		
2) CE:	EU Low Voltage Directive 2	EU Low Voltage Directive 2014/35/EU	

#### **Environmental**

	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 190	·
	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	483 Lbs, Maximum		
4) Sunlight Resistance	Yes		
5) Direct Burial	Yes		
Electrical Properties	(For Engineering purposes only)		
1) Voltage Rating	600 V <sub>RMS</sub>		
2) Capacitance	29 pF/ft @1 kHz, Nominal Conductor to Conductor		
3) Inductance	0.17 μH/ft, Nominal		
4) Conductor DCR	2.6 Ω/1000ft @20°C, Nominal		

#### Other

Packaging	Flange x Traverse x Barrel (inches)	
a) 1000 FT	30 x 14 x 12 Continuous length	
b) 500 FT	24 x 14 x 12 Continuous length	
c) 100 FT	18 x 9 x 8 Continuous length	
d) Bulk(Made-to-order)		
	[Spool dimensions may vary slightly]	

#### www.alphawire.com

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## **EU/UK/China ROHS CERTIFICATE OF COMPLIANCE**

To Whom It May Concern:

Alpha Wire Part Number: M3857

M3857, 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 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	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 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:

Dave Watson, Director of Engineering 5/2/2024

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