

Customer Specification

PART NO. M33412

Construction

						Diameters (In)		
1) Component 1						12 X 1 COND		
a) Conductor						20 (7/28) AWG Tinned Copper		0.038
b) Insulation						0.016" Wall, Nom. PVC		0.070
(1) Color Code						Alpha Wire Color Code D		
Cond	Color	Cond	Color	Cond	Color			
1	BLACK	5	ORANGE	9	VIOLET			
2	RED	6	BLUE	10	SLATE			
3	WHITE	7	BROWN	11	PINK			
4	GREEN	8	YELLOW	12	TAN			
2) Cable Assembly						12 Components Cabled		
a) Twists:						2.8 Twists/foot (min)		
b) Orientation:						Components to be arranged from INSIDE LAYER to OUTSIDE LAYER		
3) Jacket						0.020" Wall, Nom.,PVC		0.331 (0.347 Max.)
a) Color(s)						SLATE		
b) Print						ALPHA WIRE-* P/N M33412 12C 20 AWG EXXXXXX 75C CMG (UL) C(UL) OR AWM STYLE 2509 CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>		

Applicable Specifications

1) UL	AWM/STYLE 2509	80°C / 300 V _{RMS}
	CMG	75°C
2) CSA International	C(UL) TYPE CMG	75°C
	FT4	
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.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	105 Lbs, Maximum
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Capacitance	31 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.19 μH/ft, Nominal
4) Conductor DCR	10.2 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 14.25 x 8 Continuous length
b) 500 FT	12 x 10.5 x 5 Continuous length
c) 100 FT	10.5 x 5 x 3.5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M33412

M33412, RoHS-Compliant Commencing With 01/07/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Union (RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This document also certifies that the listed part number is in compliance with the list of restricted substances to 10 items (commonly known as RoHS 3). The reader is referred to these Directives for the specific definitions and restrictions. **Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control" requirements.

Substance

Lead
Mercury
Cadmium
Hexavalent Chromium
Polybrominated Biphenyls (PBB)
Polybrominated Diphenyl Ethers (PBDE),
Including Deca-BDE
Bis(2-ethylhexyl) phthalate (DEHP)
Butyl benzyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

Maximum Control Value

0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.01% by weight (100 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
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Dave Watson, Director of Engineering & QA 31/03/2025

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