

## **Customer Specification**

**PART NO. XM1642KCY**

### **Construction**

						Diameters (In)	
1) Component 1						42 X 1 COND	
a) Conductor						16 (65/34) AWG Bare Copper	0.059
b) Insulation						0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.101
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
(2) Color Code						Alpha Wire Color Code KW	
Cond	Color	Cond	Color	Cond	Color		
1	GREEN/YELI	15	BLACK#14	29	BLACK#28		
2	BLACK#1	16	BLACK#15	30	BLACK#29		
3	WHITE/BLA	17	BLACK#16	31	BLACK#30		
4	BLACK#3	18	BLACK#17	32	BLACK#31		
5	BLACK#4	19	BLACK#18	33	BLACK#32		
6	BLACK#5	20	BLACK#19	34	BLACK#33		
7	BLACK#6	21	BLACK#20	35	BLACK#34		
8	BLACK#7	22	BLACK#21	36	BLACK#35		
9	BLACK#8	23	BLACK#22	37	BLACK#36		
10	BLACK#9	24	BLACK#23	38	BLACK#37		
11	BLACK#10	25	BLACK#24	39	BLACK#38		
12	BLACK#11	26	BLACK#25	40	BLACK#39		
13	BLACK#12	27	BLACK#26	41	BLACK#40		
14	BLACK#13	28	BLACK#27	42	BLACK#41		
2) Cable Assembly						42 Components Cabled	
a) Twists:						1.5 Twists/foot (min)	
b) Orientation:						Components to be arranged from OUTSIDE LAYER to INSIDE LAYER	
c) Core Wrap						REMA Y Tape, 25% Overlap, Min.	
3) Shield						Tinned Copper BRAID Shield,85% Coverage, Min.	
4) Jacket						0.085" Wall, Nom.,PVC	1.007 +/- 0.047
a) Color(s)						BLACK	
b) Jacket Separator						Tissue Tape, 25% Overlap, Min.	
c) Print						ALPHA WIRE-* P/N XM1642KCY 42C 16 AWG (1.31mm2) SERIES XM (UL) WTTC 90C WET/DRY 1000V OR (UL) TC-ER 90C WET/DRY 600V SUN RES DIR BUR OIL RES I OR MTW 16 AWG OR CRU AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code	

## Applicable Specifications

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1) UL		
a) Component 1	Unlisted Conductor	90°C Dry / 90°C Wet / 600 V <sub>RMS</sub>
b) Overall	MTW	90°C Dry / 60°C Wet / 600 V <sub>RMS</sub>
	TC	90°C Dry / 90°C Wet / 600 V <sub>RMS</sub>
	EXPOSED RUN	
	SUN RES	
	OIL RES I	
	WTTC	90°C Dry / 90°C Wet / 1000 V <sub>RMS</sub>
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V <sub>RMS</sub>
	FT4	
3) Other	Conductors ASTM Class M	
	Conductors IEC Class 6 on AWG size	
4) 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

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<b>Physical &amp; Mechanical Properties</b>	
1) Temperature Range	-30 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	10X Cable Diameter(static), 10X Cable Diameter(dynamic)
3) Pull Tension	876 Lbs, Maximum
4) Sunlight Resistance	Yes
<b>Electrical Properties</b>	
(For Engineering purposes only)	
1) Voltage Rating	600/1000 V <sub>RMS</sub>
2) Capacitance	44 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	79 pF/ft @1 kHz, Nominal
4) Inductance	0.18 μH/ft, Nominal
5) Conductor DCR	4.3 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.2 Ω/1000ft @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
<b>Notes:</b>	
a) Suitable for constant flexing where cycle count will be less than 12,000,000 cycles.	

[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: XM1642KCY

XM1642KCY, RoHS-Compliant Commencing With 3/16/2010 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

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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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 3/31/2025

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