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Customer Specification

PART NO. XM1412KCY

Construction

		Diameters (In)			
1) Component 1		12 X 1 COND			
a) Conductor		14 (105/34) AWG Bare Copper		0.074	
b) Insulation		0.016" Wall, Nom. PVC/ 0.005" Wall NYLON		0.116	
(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	5	BLACK#4	9	BLACK#8
2	BLACK#1	6	BLACK#5	10	BLACK#9
3	BLACK#2	7	BLACK#6	11	BLACK#10
4	BLACK#3	8	BLACK#7	12	BLACK#11
2) Cable Assembly		12 Components Cabled			
a) Twists:		2.5 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		0.065" Wall, Nom., PVC		0.661 +/- 0.029	
a) Color(s)		BLACK			
b) Jacket Separator		Tissue Tape, 25% Overlap, Min.			
c) Print		ALPHA WIRE-* P/N XM1412KCY 12C 14 AWG (2.11mm2) THWN-2 SERIES XM (UL) WTTTC 90C WET/DRY 1000V OR (UL) TC-ER 90C WET/DRY 600V SUN RES DIR BUR OIL RES I OR MTW 14 AWG OR CRU AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code			

Applicable Specifications

1) UL		
a) Component 1	THWN-2	90°C Dry / 90°C Wet / 600 V _{RMS}
b) Overall	MTW	90°C Dry / 60°C Wet / 600 V _{RMS}
	TC	90°C Dry / 90°C Wet / 600 V _{RMS}
	EXPOSED RUN	
	SUN RES	
	OIL RES I	
	WTTC	90°C Dry / 90°C Wet / 1000 V _{RMS}
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V _{RMS}
	FT4	
3) Other	Conductors ASTM Class M	
	Conductors IEC Class 6 on AWG size	
4) CE:	EU Low Voltage Directive 2014/35/EC	

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. Consult Alpha Wire's web site for RoHS C of C.
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. For up-to-date information, please see Alpha's REACH SVHC Declaration.

Properties

Physical & Mechanical Properties	
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	409 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	600/1000 V _{RMS}
2) Capacitance	55 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	99 pF/ft @1 kHz, Nominal
4) Inductance	0.17 μH/ft, Nominal
5) Conductor DCR	2.6 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.54 Ω/1000ft @20°C, Nominal

Other

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

www.alphawire.com

Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207

Tel: 1-800-52 ALPHA (25742)

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: XM1412KCY

XM1412KCY , RoHS-Compliant Commencing With 3/16/2010 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 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) 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.

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)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA

8/30/2019

Alpha Wire

711 Lidgerwood Ave.

Elizabeth, NJ 07207

Tel: 1-908-925-8000