2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. XM1642RCY

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 RW	

Cond	Color	Cond	Color	Cond	Color
1	GREEN/YELLOW	15	RED#14	29	RED#28
2	RED#1	16	RED#15	30	RED#29
3	WHITE/RED	17	RED#16	31	RED#30
4	RED#3	18	RED#17	32	RED#31
5	RED#4	19	RED#18	33	RED#32
6	RED#5	20	RED#19	34	RED#33
7	RED#6	21	RED#20	35	RED#34
8	RED#7	22	RED#21	36	RED#35
9	RED#8	23	RED#22	37	RED#36
10	RED#9	24	RED#23	38	RED#37
11	RED#10	25	RED#24	39	RED#38
12	RED#11	26	RED#25	40	RED#39
13	RED#12	27	RED#26	41	RED#40
14	RED#13	28	RED#27	42	RED#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	REMAY 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 XM1642RCY 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

1) UL		
a) Component 1	Unlisted Conductor	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/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	-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
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600/1000 V_{RMS}
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

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.	

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: XM1642RCY

XM1642RCY, 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	**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 8/15/2024

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