

# Customer Specification PART NO. 77211

### Construction

				Diameters (In)		
1) Component 1		12 X 1 COND	12 X 1 COND			
a) Conductor		20 (7/28) AWG Ti	20 (7/28) AWG Tinned Copper		0.038	
b) Insulation		0.010" Wall, Nom.	0.010" Wall, Nom. MPPE		0.058	
(1) Color Code		Alpha Wire Color	Alpha Wire Color Code E			
Cond	Color	Cond	Color	Cond	Color	
1	BLACK	5	YELLOW	9	SLATE	
2	BROWN	6	GREEN	10	WHITE	
3	RED	7	BLUE	11	WHITE/BLACK	
4	ORANGE	8	VIOLET	12	WHITE/BROWN	
2) Cable Assembly		12 Components C	12 Components Cabled			
a) Twists:		4.4 Twists/foot (m	4.4 Twists/foot (min)			
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER				
c) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.				
3) Shield:		A/P/A Tape, 25% Overlap, Min.				
a) Drain Wire		20 (7/28) AWG Tinned Copper				
b) Braid		Tinned Copper,70% Coverage, Min.				
4) Jacket		0.032" Wall, Nom.,MPPE		0.337 (0.353 Max.)		
a) Color(s)		SLATE				
b) Ripcord		1 End 810 Denier Nylon				
c) Print		ALPHA WIRE-* P/N 77211 12C 20 AWG ECOCABLE(R) RU AWM 21915 105C 600V C(RU) AWM I/II A/B FT2 600V 105C CE ROHS (SEQ FOOTAGE) * = Factory Code				

# **Applicable Specifications**

1) UL		
a) Component 1	AWM/STYLE 11231	105°C / 600 V <sub>RMS</sub>
b) Overall	AWM/STYLE 21915	105°C / 600 V <sub>RMS</sub>
	Horizontal Flame	
2) CSA International	C(RU) AWM I/II A/B FT2	105°C / 600 V <sub>RMS</sub>
3) Other	Halogen-Free	
	NFPA 79 - 2015 Compliant	
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	-50 to 105°C	
2) Bend Radius	6X Cable Diameter	
3) Pull Tension	119 Lbs, Maximum	
Electrical Properties	(For Engineering purposes only)	
1) Voltage Rating	600 V <sub>RMS</sub>	
2) Capacitance	27 pF/ft @1 kHz, Nominal Conductor to Conductor	

3) Ground Capacitance	49 pF/ft @1 kHz, Nominal
4) Inductance	0.17 μH/ft, Nominal
5) Conductor DCR	10.3 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	2.6 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) 100 FT	12 x 5.94 x 5 Continuous length
	[Spool dimensions may vary slightly]

#### www.alphawire.com

Alpha Wire | 1320 City Center Drive, Suite 100, Carmel, IN 46032

Tel: 1-800-52 ALPHA (25742)

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

To Whom It May Concern:

Alpha Wire Part Number: 77211

77211, RoHS-Compliant Commencing With 10/12/2012 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). 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

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Alpha Wire

2200 US Highway 27 South

Richmond, IN 47374

Tel: 1-908-925-8000