

# Customer Specification

## PART NO. 77109

### Construction

		Diameters (In)			
1) Component 1		2 X 1 COND			
a) Conductor		22 (7/30) AWG TC		0.030	
b) Insulation		0.010" Wall, Nom. MPPE		0.050	
(1) Color Code		Alpha Wire Color Code E			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	2	BROWN		
2) Cable Assembly		2 Components Cabled			
a) Twists:		12.0 Twists/foot (min)			
b) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing In			
b) Drain Wire		22 (7/30) AWG TC			
4) Jacket		0.032" Wall, Nom.,MPPE		0.172 (0.182 Max.)	
a) Color(s)		SLATE			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N 77109 2C 22 AWG ECOCABLE(TM) RU AWM 21510 105C 600V VW-1 C(RU) AWM I/II A/B FT1 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 21510	105°C / 600 V <sub>RMS</sub>
	VW-1	
2) CSA International	C(RU) AWM I/II A/B FT1	105°C / 600 V <sub>RMS</sub>
3) CE:	EU Low Voltage Directive 2006/95/EC	

### Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. 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.
3) California Proposition 65:	
	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-50 to 105°C
2) Bend Radius	6X Cable Diameter
3) Pull Tension	16.5 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) Characteristic Impedance	58
5) Inductance	0.18 μH/ft, Nominal
6) Conductor DCR	16.4 /1000ft @20°C, Nominal
7) OA Shield DCR	13.7 /1000ft @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	12 x 6 x 3.5 Continuous length
b) 100 FT	6.5 x 2 x 1.9 Continuous length
	<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: 77109

77109 , RoHS-Compliant Commencing With 10/12/2012 Production

This document certifies that the Alpha part number cited above are manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

<b>Substance</b>	<b>Maximum Control Value</b>
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)

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 Company:

Dave Watson, Director of Engineering & QA

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