

## Customer Specification

# PART NO. 78453

## Construction

						Diameters (In)	
1) Component 1						25 X 1 COND	
a) Conductor						24 (19/36) AWG Tinned Copper	0.025
b) Insulation						0.007" Wall, Nom. Modified Polyphenylene Ether-PE	0.039
(1) Color Code						Alpha Wire Color Code E	
Cond	Color	Cond	Color	Cond	Color		
1	BLACK	10	WHITE	19	WHITE/SLATE		
2	BROWN	11	WHITE/BLACK	20	WHITE/BLACK		
3	RED	12	WHITE/BROWN	21	WHITE/BLACK		
4	ORANGE	13	WHITE/RED	22	WHITE/BLACK		
5	YELLOW	14	WHITE/ORANGE	23	WHITE/BLACK		
6	GREEN	15	WHITE/YELLOW	24	WHITE/BLACK		
7	BLUE	16	WHITE/GREEN	25	WHITE/BLACK		
8	VIOLET	17	WHITE/BLUE				
9	SLATE	18	WHITE/VIOLET				
2) Cable Assembly						25 Components Cabled	
a) Twists:						3.4 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						24 (7/32) AWG Tinned Copper	
b) Braid						Tinned Copper, 70% Coverage, Min.	
4) Jacket						0.015" Wall, Nom., Modified Polyphenylene Ether-PE	0.299 (0.316 Max.)
a) Color(s)						SLATE	
b) Ripcord						1 End 810 Denier Nylon	
c) Jacket Separator						Nonwoven Polyester Tape, 25% Overlap, Min.	
d) Print						ALPHA WIRE-* P/N 78453 25C 24 AWG ECOCABLE(R) MINI RU AWM 21460 80C 300V VW-1 C(RU) AWM I A/B FT1 80C 300V CE ROHS (SEQ FOOTAGE) * = Factory Code	

## Applicable Specifications

1) UL	AWM/STYLE 21460	80°C / 300 V <sub>RMS</sub>
	VW-1	
2) CSA International	C(RU) AWM I A/B FT1	80°C / 300 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.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	102 Lbs, Maximum
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	30 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	54 pF/ft @1 kHz, Nominal
4) Inductance	0.17 µH/ft, Nominal
5) Conductor DCR	24.3 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	3 Ω/1000ft @20°C, Nominal

## Other

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Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 9 x 8 Continuous length
b) 100 FT	10.5 x 5 x 3.5 Continuous length
c) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

[www.alphawire.com](http://www.alphawire.com)

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 78453

78453, RoHS-Compliant Commencing With 22/07/2014 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 Union (RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. 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 **Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

### 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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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 issuance. This document is intended to provide guidance 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 provide regulatory information for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Authorized Signatory for the Alpha Wire:

A handwritten signature in blue ink, appearing to read 'QBW', with a long horizontal line extending to the right.

Dave Watson, Director of Engineering & QA 13/09/2025

Alpha Wire  
711 Lidgerwood Ave.  
Elizabeth, NJ 07207  
Tel: 1-908-925-8000