



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

Customer Specification

PART NO. V16110

Construction

				Diameters (In)	
1) Component 1		4 X 1 COND			
a) Conductor		10 (105/30) AWG TC		0.120	
b) Insulation		0.047" Wall, Nom. XLPE		0.217	
(1) Separator		Paper Tape, 10% Overlap, Min.			
(2) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	BLACK#1	3	BLACK#3		
2	BLACK#2	4	GREEN OR GREEN/YELLOW		
2) Component 2		1 X 1 PAIR			
a) Conductor		14 (41/30) AWG TC		0.075	
b) Insulation		0.032" Wall, Nom. XLPE		0.142	
(1) Separator		Paper Tape, 10% Overlap, Min.			
(2) Color(s)					
Pair	Color	Pair	Color	Pair	Color
1	BLACK-WHITE				
c) Pair		2/Cond Cabled Together			
(1) Twists:		2.8 Twists/foot (min)			
Individually Applied:					
d) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
(1) Foil Direction		Foil Facing In			
(2) Drain Wire		14 (41/30) AWG TC			
3) Cable Assembly		5 Components Cabled			
a) Twists:		1.4 Twists/foot (min)			
4) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		10 (105/30) AWG TC			
b) Braid		TC,85% Coverage, Min.			
5) Jacket		0.085" Wall, Nom.,PVC		0.875+/- 0.028	
a) Color(s)		BLACK			
b) Jacket Separator		Tissue Tape, 25% Overlap, Min.			
c) Print		ALPHA WIRE- E64067-L P/N V16110 4/C 10 AWG RHW-2 1PR 14 AWG XHHW-2 SERIES V VFD CABLE W/ BRAKE PAIR 600V TYPE TC-ER (UL) XLPE/PVC 90C DRY/WET SUN RES DIR BUR 4/C 10 AWG 1PR 14 AWG--- LLXXXXXX CSA AWM I/II A/B 1000V 90C FT4 --- CE ROHS [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

Applicable Specifications

1) UL		
a) Component 1	RHW-2Wet/Dry	90°C / 600 V _{RMS}
	XHHW-2Wet/Dry	90°C / 600 V _{RMS}
b) Component 2	XHHW-2Wet/Dry	90°C / 600 V _{RMS}
c) Overall	TC	90°C / 600 V _{RMS}
	EXPOSED RUN	
	DIRECT BURIAL	
	SUN RES	
2) CSA International		
a) Component 1	AWM I A/B	90°C / 1000 V _{RMS}
b) Component 2	AWM I A/B	90°C / 1000 V _{RMS}
c) Overall	AWM I/II A/B	90°C / 1000 V _{RMS}
	FT4	
3) CE:	LVD 73/23/EEC Amendment 93/68/EEC	

Environmental

1) EU Directive 2002/95/EC(RoHS):	
	All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 90°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	534 Lbs, Maximum
4) Sunlight Resistance	Yes
5) Direct Burial	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	1000 V _{RMS}
2) Component 1	
a) Characteristic Impedance	63 Ω
b) Inductance	0.19 μH/ft, Nominal
c) Mutual Capacitance	29 pf/ft @1 kHz, Nominal
d) Ground Capacitance	53 pf/ft @1 kHz, Nominal
e) Conductor DCR	1.1 Ω/1000ft @20°C, Nominal
f) OA Shield DCR	0.49 Ω/1000ft @20°C, Nominal
g) Current	32 amps per conductor @30°C, Maximum
h) Insulation Resistance	300 MΩ/MFt (Est.)
3) Component 2	
a) Inductance	0.19 μH/ft, Nominal
b) Mutual Capacitance	22 pf/ft @1 kHz, Nominal
c) Ground Capacitance	40 pf/ft @1 kHz, Nominal
d) Conductor DCR	2.7 Ω/1000ft @20°C, Nominal
e) Ind. Shield DC Resistance	2.5 Ω/1000ft @20°C, Nominal
f) Current	20 amps per conductor @30°C, Maximum
g) Insulation Resistance	300 MΩ/MFt (Est.)

Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: V16110

V16110 , RoHS-Compliant Commencing With 10/1/2005 Production

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, 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 this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. 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 11364-2006.

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)

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Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering & QA

5/16/2013