



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

Customer Specification

PART NO. V16112

Construction

				Diameters (In)	
1) Component 1		4 X 1 COND			
a) Conductor		12 (65/30) AWG TC		0.093	
b) Insulation		0.047" Wall, Nom. XLPE		0.190	
(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:		1.5 Twists/foot (min)			
4) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		12 (65/30) AWG TC			
b) Braid		TC,85% Coverage, Min.			
5) Jacket		0.065" Wall, Nom.,PVC		0.785+/- 0.027	
a) Color(s)		BLACK			
b) Jacket Separator		Tissue Tape, 25% Overlap, Min.			
c) Print		ALPHA WIRE- E64067-L P/N V16112 4/C 12 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 12 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	368 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	71
b) Inductance	0.2 µH/ft, Nominal
c) Mutual Capacitance	26 pF/ft @ 1 kHz, Nominal
d) Ground Capacitance	47 pF/ft @ 1 kHz, Nominal
e) Conductor DCR	1.8 /1000ft @20°C, Nominal
f) OA Shield DCR	0.83 /1000ft @20°C, Nominal
g) Current	24 amps per conductor @30°C, Maximum
h) Insulation Resistance	300 M/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	2.6 /1000ft @20°C, Nominal
e) Ind. Shield DC Resistance	2.5 /1000ft @20°C, Nominal
f) Current	20 amps per conductor @30°C, Maximum
g) Insulation Resistance	300 M/MFt (Est.)

Other

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

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RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:V16112

V16112 , RoHS-Compliant Commencing With10/1/2005Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, 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.***

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.1% 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)	0.1% by weight (1000 ppm)
Including Deca-BDE	0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire Company:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering &QA

1/20/2011