

Customer Specification

PART NO. MP10107LW

Construction

						Diameters (In)		
1) Component 1						7 X 1 COND		
a) Conductor						10 (105/30) AWG Bare Copper		0.118
b) Insulation						0.022" Wall, Nom. PVC/ 0.005" Wall NYLON		0.172
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED		
(2) Color Code						Alpha Wire Color Code LX		
Cond	Color	Cond	Color	Cond	Color			
1	GREEN/YEL	4	DK. BLUE#3	7	DK. BLUE#6			
2	DK. BLUE#1	5	DK. BLUE#4					
3	DK. BLUE#2	6	DK. BLUE#5					
2) Cable Assembly						7 Components Cabled		
a) Twists:						1.7 Twists/foot (min)		
b) Orientation:						Components to be arranged from OUTSIDE LAYER to INSIDE LAYER		
c) Core Wrap						REMA Y Tape, 25% Overlap, Min.		
3) Jacket						0.065" Wall, Nom.,TPE		0.664+/- 0.031
a) Color(s)						Yellow, Orange, Black		
b) Print						ALPHA WIRE-* P/N MP10107LW 7C 10 AWG (5.32mm2) THWN-2 SERIES P (UL) TYPE TC-ER 90C WET/DRY 600V OIL RES I/II SUN RES OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS FT4 10 AWG OR CRU AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]		

Applicable Specifications

1) UL		
a) Component 1	MTW	90°C Dry / 60°C Wet / 600 V _{RMS}
	THWN-2	90°C Dry / 90°C Wet / 600 V _{RMS}
b) Overall	TC	90°C Dry / 90°C Wet / 600 V _{RMS}
	EXPOSED RUN	
	SUN RES	
	OIL RES I/II	
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V _{RMS}
	FT4	
	C(UL) CIC CONTROL	90°C / 600V V _{RMS}
	C(UL) TC	90°C / 600V V _{RMS}
3) Other	Conductors ASTM Class K	
	Conductors IEC Class 5 on AWG size	
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	-30 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	8X Cable Diameter(static), 8X Cable Diameter(dynamic)
3) Pull Tension	577 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	600 V _{RMS}
2) Capacitance	33 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.16 µH/ft, Nominal
4) Conductor DCR	1.02 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
Notes:	
a) Suitable for intermittent or light duty flexing where cycle count will be less than 1,500,000 cycles.	

www.alphawire.com

Alpha Wire
2200 US Highway 27 South
Richmond, IN 47374

Tel: 1-800-52 ALPHA

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure there accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

SpecPDFFooterConfidential



EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: MP10107LW

MP10107LW, RoHS-Compliant Commencing With 01/08/2005 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 (2011/65/EU), 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	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 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 a warranty or any other form of assurance. Regulatory information is 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 26/08/2025

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