2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. SF61220CY

Construction

	Diameters (In)	
1) Component 1	4 X 1 COND	
a) Conductor	16 (26/30) AWG Tinned Copper	0.060
b) Insulation	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.102
(1) Print	ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
(2) Color Code	Alpha Wire Color Code KX	

Cond	Color	Cond	Color	Cond	Color
1	GREEN/YELLOW	3	BLACK#2		
2	BLACK#1	4	BLACK#3		

2) Component 2	2 X 1 PAIR	
a) Conductor	18 (19/30) AWG Tinned Copper	0.050
b) Insulation	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.092
(1) Color Code	Alpha Wire Color Code A	

Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED	2	BLACK-WHITE		

c) Pair	2/Cond Cabled Together	
(1) Twists:	6.0 Twists/foot (min)	
Individually Applied:		
d) Shield:	Flex Alum/Mylar Tape, 25% Overlap, Min.	
(1) Foil Direction	Foil Facing Out	
(2) Drain Wire	22 (7/30) AWG Tinned Copper	
(3) Braid	Tinned Copper,85% Coverage, Min.	
e) Jacket	0.016" Wall, Nom.,TPE	0.242 (0.253 Max.)
(1) Color(s)	NATURAL	
(2) Print	ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
3) Cable Assembly	6 Components Cabled	
a) Twists:	2.7 Twists/foot (min)	
b) Orientation:	Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap	Polyester Fabric Tape, 25% Overlap, Min.	
4) Shield:	A/P/A Tape, 25% Overlap, Min.	
a) Drain Wire	22 (7/30) AWG Tinned Copper	
b) Braid	Tinned Copper,85% Coverage, Min.	
5) Jacket	0.065" Wall, Nom.,TPE	0.647+/- 0.032
a) Color(s)	ORANGE	
b) Jacket Separator	Tissue Tape, 25% Overlap, Min.	
c) Print	ALPHA WIRE-* P/N SF61220CY 4C 16 AWG 2PR 18 AWG TFFN E324185 (UL) WTTC 90C 1000 VOLT OR (UL) TC-ER 90C 600V OIL RES I/II SUN RES OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS SHIELDED FT4 4C16 2PR18 OR C(RU) 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	TFFN	90°C / 600 V_{RMS}
b) Component 2	TFFN	90°C / 600 V_{RMS}
c) Overall	TC	90°C / 600 V_{RMS}
	EXPOSED RUN	
	OIL RES I/II	
	SUN RES	
	WTTC	90°C / 1000 V_{RMS}
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V_{RMS}
	FT4	
	C(UL) CIC CONTROL	90°C / 600 V_{RMS}
	C(UL) TC	90°C / 600 V_{RMS}
3) Other	Conductors NEMA Class K	
4) CE:	EU Low Voltage Directive 2014/35/EU	

Environmental

1) EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	All materials used in the manufacture of this part are in compliance with European Directive 2011/65/EU and the amending Directive 2015/863/EU of 4 June 2015 regarding the restriction of use of certain hazardous substances in electrical and electronic equipment.
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	10X Cable Diameter(static), 10X Cable Diameter(dynamic)
3) Pull Tension	179 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600 V_{RMS}
2) Component 1	
a) Capacitance	44 pF/ft @1 kHz, Nominal Conductor to Conductor
b) Ground Capacitance	79 pF/ft @1 kHz, Nominal
c) Inductance	0.18 µH/ft, Nominal
d) Conductor DCR	4.5 Ω/1000ft @20°C, Nominal
e) OA Shield DCR	1.22 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Mutual Capacitance	43 pF/ft @1 kHz, Nominal
b) Ground Capacitance	77 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	48 Ω
d) Inductance	0.19 µH/ft, Nominal
e) Conductor DCR	6.1 Ω/1000ft @20°C, Nominal
f) Component Shield DCR	2.9 Ω/1000ft @20°C, Nominal
g) OA Shield DCR	1.22 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	18 x 9 x 8 Continuous length
	[Spool dimensions may vary slightly]
Notes:	
a) Suitable for use in Industrial Machinery per the requirements of NFPA-79	
b) Suitable for intermittent or light duty flexing where cycle count will be less than 1,000,000 cycles.	

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: SF61220CY

SF61220CY, RoHS-Compliant Commencing With 09/02/2009 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
2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. T
the list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitio
Compliance on this item. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control c

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 d
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 c
Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and reg

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA 17/09/2025

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