

## **Customer Specification**

PART NO. F18042KW

Construction

						Diameters (In)	
1) Component 1						42 X 1 COND	
a) Conductor						18 (41/34) AWG Bare Copper	0.047
b) Insulation						0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.089
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND	
(2) Col	or Code					Alpha Wire Color Code KW	
Cond	Color	Cond	Color	Cond	Color		
1	GREEN/YELI	15	BLACK#14	29	BLACK#28		
2	BLACK#1	16	BLACK#15	30	BLACK#29		
3	WHITE/BLA(	17	BLACK#16	31	BLACK#30		
4	BLACK#3	18	BLACK#17	32	BLACK#31		
5	BLACK#4	19	BLACK#18	33	BLACK#32		
6	BLACK#5	20	BLACK#19	34	BLACK#33		
7	BLACK#6	21	BLACK#20	35	BLACK#34		
8	BLACK#7	22	BLACK#21	36	BLACK#35		
9	BLACK#8	23	BLACK#22	37	BLACK#36		
10	BLACK#9	24	BLACK#23	38	BLACK#37		
11	BLACK#10	25	BLACK#24	39	BLACK#38		
12	BLACK#11	26	BLACK#25	40	BLACK#39		
13	BLACK#12	27	BLACK#26	41	BLACK#40		
14	BLACK#13	28	BLACK#27	42	BLACK#41		
2) Cab	le Assembly					42 Components Cabled	
a) Twis	ts:					1.8 Twists/foot (min)	
b) Orientation:						Components to be arranged from OUTSIDE LAYER to INSIDE LAYER	
c) Core Wrap						REMAY Tape, 25% Overlap, Min.	
3) Jacket						0.085" Wall, Nom.,TPE	0.874+/- 0.045
a) Color(s)						BLACK	
b) Print						ALPHA WIRE-* P/N F18042KW 42C 18 AWG (0.825mm2) SERIES F (UL) TYPE TC-ER 90C WET/DRY 600V OIL RES I/II -40C SUN RES OR TYPE PLTC 90C OR C(UL) CIC CONTROL/TC 18 AWG -40C 90C WET 90C DRY PVC/NYLON INS FT4 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 <sub>RMS</sub>	
b) Overall	-40C		
	ТС	90°C Dry / 90°C Wet / 600 V <sub>RMS</sub>	
	PLTC	90°C	
	EXPOSED RUN		
	SUN RES		
	OIL RES I/II		
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V <sub>RMS</sub>	
	FT4		
	C(UL) CIC CONTROL	90°C / 600V V <sub>RMS</sub>	
	C(UL) TC	90°C Dry / 90°C Wet / 600V V <sub>RMS</sub>	
	-40C		
3) Other	Conductors ASTM Class M		
	Conductors IEC Class 6 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	-40 to 90°C(static), -5 to 90°C (dynamic)				
2) Bend Radius	6X Cable Diameter(static), 8X Cable Diameter(dynamic)				
3) Pull Tension	537 Lbs, Maximum				
4) Sunlight Resistance	Yes				
Electrical Properties	(For Engineering purposes only)				
1) Voltage Rating	600 V <sub>RMS</sub>				
2) Capacitance	26 pF/ft @1 kHz, Nominal Conductor to Conductor				
3) Inductance	0.19 μH/ft, Nominal				
	6.7 Ω/1000ft @20°C, Nominal				

#### Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
Notes:	
a) Suitable for constant flexing where cycle count will be less than 20,000,000 cycles.	]

#### www.alphawire.com

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Alpha Wire DDDDF18042KW

F18042KWDDDRoHSDDDD 2005/8/1 DDDDDD

DDDDLeadMercuryCadmiumHexavalent ChromiumPolybrominated Biphenyls (PBB)Polybrominated Diphenyl Ethers (PBDE),Including Deca-BDEBis(2-ethylhexyl) phthalate (DEHP)Butyl benzyl phthalate (BBP)Dibutyl phthalate (DBP)Diisobutyl phthalate (DIBP)

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2025/8/15