



# POLAR WIRE PRODUCTS, INC.

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## Arctic Ultraflex Blue® Class K Copper Stranded Wire Construction Specifications

Size	Class K Copper Stranding	Strand Style	Conductor Outside Diameter	Insulation Thickness	Finished Outside Diameter	Ampacity* 30°C (86°F)	Ampacity* 40°C (104°F)
18 AWG	(16/30)	Tinned Copper	.045"	.030"	.105"	n/a	n/a
16 AWG	(26/30)	Tinned Copper	.057"	.030"	.118"	26	24
14 AWG	(41/30)	Tinned Copper	.070"	.030"	.130"	38	36
12 AWG	(65/30)	Tinned Copper	.090"	.030"	.150"	44	41
10 AWG	(105/30)	Tinned Copper	.120"	.030"	.180"	60	56
8 AWG	(168/30)	Bare Copper	.150"	.045"	.240"	85	81
6 AWG	(266/30)	Bare Copper	.190"	.060"	.310"	115	106
4 AWG	(420/30)	Bare Copper	.240"	.060"	.360"	150	142
2 AWG	(665/30)	Bare Copper	.310"	.060"	.430"	205	193
1 AWG	(836/30)	Bare Copper	.335"	.080"	.495"	240	223
1/0 AWG	(1064/30)	Bare Copper	.390"	.080"	.550"	285	264
2/0 AWG	(1330/30)	Bare Copper	.435"	.080"	.600"	325	304
3/0 AWG	(1672/30)	Bare Copper	.490"	.080"	.650"	380	355
4/0 AWG	(2109/30)	Bare Copper	.530"	.085"	.710"	440	411
250 MCM	(2527/30)	Bare Copper	.685"	.095"	.875"	495	461
350 MCM	(3458/30)	Bare Copper	.820"	.095"	1.010"	620	512
500 MCM	(5054/30)	Bare Copper	.995"	.110"	1.220"	760	710

\*Ampacities of 600V and 1000V 105°C AWM wires in air

**Note:** Ampacities based on single conductor in free air, 30°C (86°F) or 40°C (104°F) ambient temperature as specified, 105°C (221°F) conductor temperature, per table 310-17 of the NEC (adjusted for 105°C). Free air ratings assume a one-cable diameter spacing between adjacent conductors.

## Minimum Bending Radii

The following are the minimum values for the radii to which insulated cables may be bent for permanent training during installation. These limits do not apply to conduit bends, sheaves or other curved surfaces around which the cable may be pulled under tension while being installed. Larger radii bends may be required for such conditions to limit sidewall pressure. In all cases the minimum radii specified refers to the inner surface of the cable and not the axis of the cable.

The minimum bending radii for both single and multiple-conductor cable rated 600 volts or less, and without lead sheath, shielding or armor is follow

### POWER AND CONTROL CABLES WITHOUT METALLIC SHIELDING OR ARMOR Conductor Insulation Thickness of 169 Mils and Less

Overall Diameter of Cable in Inches	Minimum Bending Radius As a Multiple of Cable Diameter
1.000 and Less	4
1.001 to 2.000	5
2.001 and Over	6