



Specification Sheet

BWC Part Number #: BWC-500-01AL-THHN

Aluminum THHN/THWN-2/T90 600V

Application

THHN / THWN-2 / T90 building wire is intended for general-purpose applications and is permitted for new construction and the rewiring of 600-volt applications. The conductors may be used in wet or dry locations at temperatures not exceeding 90°C. This cable should be installed without the application of pulling lubricant.

Construction

- **Conductor:** Compact bare AA-8000 series aluminum, with Class B stranding per ASTM.
- **Insulation:** Low coefficient of friction ("slick"), abrasion, heat, and moisture-resistant Polyvinyl Chloride (PVC).
- **Jacket:** A clear, abrasion, heat, and moisture-resistant nylon jacket with a low coefficient of friction. Standard stock colors include black, red, blue, white, brown, orange, yellow, gray, purple, and green.

Standards

- UL 83, UL 1685, CUL
- CSA C22.2 No. 75
- NEC & CEC
- NEMA WC-70/ICEA S-95-658
- ASTM B800, B801, B836
- Federal Specification AA-59544
- VW-1/FT1 Flame Test
- Sunlight resistant and Gas and Oil Resistant II
- Sizes 1/0 AWG & larger are rated for CT use

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Specification Sheet

Part Number	Cond.Size (AWG/ MCM)	COND. DIAMETER (INCHES)	INSULAATION THICKNESS (INCHES)	JACKET THICKNESS (INCHES)	OVERALL DIAMETER (INCHES)	NET WEIGHT (LBS/KFT)	AMPACITY ** AT 60C	AMPACITY ** AT 75C	AMPACITY ** AT 90C
BWC-08-01AL-THHN	8	.134	.030	.005	.204	27	35	40	45
BWC-06-01AL-THHN	6	.169	.030	.005	.239	38	40	50	55
BWC-04-01AL-THHN	4	.213	.040	.006	.305	62	55	65	75
BWC-02-01AL-THHN	2	.268	.040	.006	.360	91	75	90	100
BWC-01-01AL-THHN	1	.299	.050	.007	.413	117	85	100	115
BWC-1/0-01AL-THHN	1/0	.335	.050	.007	.450	141	100	120	135
BWC-2/0-01AL-THHN	2/0	.378	.050	.007	.490	172	115	135	150
BWC-3/0-01AL-THHN	3/0	.423	.050	.007	.537	210	130	155	175
BWC-4/0-01AL-THHN	4/0	.476	.050	.007	.589	257	150	180	205
BWC-250-01AL-THHN	250	.520	.060	.008	.656	311	170	205	230
BWC-300-01AL-THHN	300	.571	.060	.008	.706	365	190	230	260
BWC-350-01AL-THHN	350	.614	.060	.008	.752	418	210	250	280
BWC-400-01AL-THHN	400	.657	.060	.008	.795	471	225	270	305

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Specification Sheet

Part Number	Cond.Size (AWG/ MCM)	COND. DIAMETER (INCHES)	INSULAATION THICKNESS (INCHES)	JACKET THICKNESS (INCHES)	OVERALL DIAMETER (INCHES)	NET WEIGHT (LBS/KFT)	AMPACITY ** AT 60C	AMPACITY ** AT 75C	AMPACITY ** AT 90C
BWC-500-01AL-THHN	500	.736	.060	.008	.872	576	260	310	350
BWC-600-01AL-THHN	600	.816	.070	.009	.971	700	285	340	385
BWC-700-01AL-THHN	700	.877	.070	.009	1.035	804	315	375	425
BWC-750-01AL-THHN	750	.909	.070	.009	1.066	856	320	385	435
BWC-900-01AL-THHN	900	.999	.070	.009	1.139	1013	355	425	480
BWC-1000-01AL-THHN	1000	1.059	.070	.009	1.128	1117	375	445	500

Table data sourced from. All values are nominal and subject to correction.

**Ampacities are based on NEC 2017, Section 310.15 and 240.4(D). Per NEC 110.14(C), ampacities are limited based on equipment termination ratings:

- **60°C** for circuits rated 100A or less (14-1 AWG conductors).
- **75°C** for circuits rated over 100A or for conductors larger than 1 AWG.
- **90°C** for ampacity adjustment purposes only.

ALL SPECIFIED PARAMETERS WITHOUT A TOLERANCE ARE NOMINAL AND SUBJECT TO VERIFICATION. BEST WIRE IS NOT RESPONSIBLE FOR UNKNOWN PERFORMANCE ATTRIBUTES THAT WERE NOT MADE KNOWN TO BEST WIRE AT THE TIME OF DESIGN.

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