

THHN / THWN-2 / MTW

600 Volts • Oxygen Free Copper Conductor • Dead Soft Annealed • Thermoplastic Insulation • Nylon Sheath
Heat, Moisture, Gasoline, and Oil Resistant • Sizes 8 AWG and Larger Rated THWN-2
All Stranded Sizes Rated MTW and THWN • Sizes 14 through 6 AWG Rated AWM (105°C)
Sizes 14 through 1 AWG Rated VW-1 • Sizes 1/0 AWG and Larger Listed for CT
Sizes 2 AWG and Larger Listed Sunlight-Resistant



Applications

- Pro-Line Type THHN or THWN-2* conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the National Electrical Code².
- When used as Type THHN, conductor is suitable for use in dry locations at temperatures not to exceed 90°C.
- When used as Type THWN-2*, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C when exposed to oil or coolant.
- When used as Type MTW, conductor is suitable for use in wet locations or when exposed to oil or coolant at temperatures not to exceed 60°C or dry locations at temperatures not to exceed 90°C (with ampacity limited to that for 75°C conductor temperature per NFPA 79).
- Conductor temperatures not to exceed 105°C in dry locations when rated AWM and used as appliance wiring material. Voltage for all applications is 600 volts.

Standards and References

Pro-Line Type THHN or THWN-2* or MTW (also AWM) meets or exceeds all applicable ASTM specifications, UL Standard 83, UL Standard 1063 (MTW), Federal Specification A-A-59544, and requirements of the National Electrical Code.

Construction

- Pro-Line Type THHN or THWN-2* or MTW copper conductors are annealed (soft) copper, insulated with a tough heat and moisture resistant polyvinyl chloride (PVC), over which a nylon (polyamide) or UL-listed equal jacket is applied.
- Available in black, white, red, blue, green, yellow, brown, orange, and gray; some colors standard, some subject to economic order quantity.
- Conductor sizes 2 AWG and larger listed and marked sunlight-resistant in black only.

Specifications

MTW or THHN or THWN-2

Conductors shall be UL-listed Type MTW or THHN or THWN-2* gasoline and oil resistant II, suitable for operations at 600 volts as specified in the National Electrical Code. Sizes 14 through 1 AWG shall be rated VW-1, larger sizes shall be listed for CT use. Sizes 2 AWG and larger listed and marked sunlight-resistant in black only. Conductors shall be annealed copper, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or listed equivalent. THHN shall be **PRO-LINE WIRE & CABLE** or approved equal.

AWM

Conductors shall be UL-listed Type THHN or THWN-2* or MTW or AWM, suitable for operation at 600 volts at conductor temperatures not to exceed 105°C.

WEIGHTS, MEASUREMENTS AND PACKAGING

CONDUCTOR		INSULATION THICKNESS (mils)	JACKET THICKNESS (mils)	NOMINAL O.D. (mils)		APPROX. NET WEIGHT PER 1000 FT. (lbs)		ALLOWABLE AMPACITIES†			STANDARD PACKAGING
SIZE (AWG or kcmil)	NUMBER OF STRANDS			SOL	STR	SOL	STR	60°C	75°C	90°C	
14	1 or 19	15	4	102	109	16	17	15	15	15	
12	1 or 19	15	4	119	128	24	26	20	20	20	
10	1 or 19	20	4	150	161	38	40	30	30	30	
8	19	30	5	--	213	--	66	40	50	55	
6	19	30	5	--	249	--	100	55	65	75	
4	19	40	6	--	318	--	159	70	85	95	
3	19	40	6	--	346	--	191	85	100	110	
2	19	40	6	--	378	--	241	95	115	130	
1	19	50	7	--	435	--	305	110	130	150	
1/0	19	50	7	--	474	--	377	125	150	170	
2/0	19	50	7	--	518	--	468	145	175	195	
3/0	19	50	7	--	568	--	581	165	200	225	
4/0	19	50	7	--	624	--	722	195	230	260	
250	37	60	8	--	694	--	860	215	255	290	
300	37	60	8	--	747	--	1018	240	285	320	
350	37	60	8	--	797	--	1180	260	310	350	
400	37	60	8	--	842	--	1342	280	335	380	
500	37	60	8	--	926	--	1661	320	380	430	
600	61	70	9	--	1024	--	2007	355	420	475	
750	61	70	9	--	1126	--	2497	400	475	535	
1000	61	70	9	--	1275	--	3264	455	545	615	

PART NUMBER DESIGNATION: SIZE (AWG)

14-1 AWG	12-1 AWG	10-1 AWG	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG	3 AWG	2 AWG	1 AWG
70601	70602	70603	70606	70607	70608	70609	70610	70611	70612	70613	70614
1/0 AWG	2/0 AWG	3/0 AWG	4/0 AWG	250 kcmil	300 kcmil	350 kcmil	400 kcmil	500 kcmil	600 kcmil	750 kcmil	1000 kcmil
70615	70616	70617	70618	70619	70620	70621	70622	70623	70624	70625	70626

PART NUMBER DESIGNATION: COLOR CODE

BLACK	BLUE	BROWN	GRAY	GREEN	ORANGE	PINK	PURPLE	RED	TAN	WHITE	YELLOW
01	02	03	04	05	06	07	08	09	10	11	12

PART NUMBER DESIGNATION: PACKAGE CODE

500' REEL	1000' REEL	2500' REEL	5000' REEL	
11	14	20	25	

