



# THHN/THWN-2

PVC, Low-Voltage Power  
600 V, Type THHN/THWN-2, Single Conductor, Copper

**Product Construction:**

**Conductor:**

- 14 AWG thru 750 kcmil bare annealed stranded copper per ASTM B3 and ASTM B8
- 14 AWG thru 10 AWG solid plain copper per ASTM B3

**Insulation:**

- Color-coded premium-grade flame-retardant, heat- and moisture-resistant Polyvinyl Chloride (PVC)

**Jacket:**

- Tough Polyamide (Nylon)

**Print:**

**For 14 AWG solid thru 10 AWG solid:**

- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) THHN/THWN (SIZE) AWG (SIZE mm<sup>2</sup>) GAS AND OIL RES II 600V VW-1 (UL) E66903 C(UL) T90 NYLON/TWN75 FT1 (-25°C)

**For 14 AWG strand thru 10 AWG strand:**

- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) THHN/THWN (SIZE) AWG (SIZE mm<sup>2</sup>) GAS AND OIL RES II 600V VW-1 OR AWM (UL) E66903 C(UL) T90 NYLON/TWN75 FT1 (-25°C)

**For 8 AWG thru 1 AWG:**

- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) LOW FRICTION THHN/THWN-2 (SIZE) AWG (SIZE mm<sup>2</sup>) GAS AND OIL RES II 600V VW-1 OR AWM (UL) E66903 C(UL) T90 NYLON/TWN75 FT1 (-25°C)

**For 1/0 and larger, black only:**

- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) LOW FRICTION THHN/THWN-2 (SIZE) AWG (SIZE mm<sup>2</sup>) GAS AND OIL RES II OR SUN RES FOR CT USE 600V OR AWM (UL) E66903 C(UL) T90 NYLON/TWN75 FT1 (-25°C)



**Print (cont'd.):**

**For 1/0 and larger, all colors:**

- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) LOW FRICTION THHN/THWN-2 (SIZE) AWG (SIZE mm<sup>2</sup>) CU GAS AND OIL RES II FOR CT USE 600V OR AWM (UL) E66903 C(UL) T90 NYLON/TWN75 FT1 (-25°C)

**Applications:**

- General purpose building wire for services, feeders and branch circuits
- Conduit and raceways
- 1/0 and larger for cable tray use

**Features:**

- Low Friction Nylon jacket provides easy pulling for 8 AWG and larger
- 1/0 AWG and larger are rated for cable tray use
- Rated Gasoline and Oil-Resistant II
- Resistant to abrasion, acids, alkalines, ozone, and water
- For THHN applications, the conductor is appropriate for use in dry locations not to exceed 90°C
- For THWN-2 applications, the conductor is appropriate for wet or dry locations not to exceed 90°C

**Features (cont'd.):**

- For MTW applications, the conductor is appropriate for use in dry locations at 90°C or not to exceed 60°C in wet locations or where exposed to oil or coolants (with ampacity limited to that for 75°C conductor temperature) as outlined in NFPA79 Electrical Standards for Industrial Machinery
- Sequential foot markings every 2 feet on 8 AWG and larger for easy measuring
- Sunlight-resistant for 1/0 and larger, for black only
- Meets cold bend and cold impact tests at -25°C

**Compliances:**

**Industry Compliances:**

- ASTM B3 and B8
- UL Standard 83 – THHN/THWN-2
- UL Standard 1063 for machine tool wire (MTW)
- ICEA S-95-658/NEMA WC70
- NEC® Article 310
- RoHS Compliant
- c(UL) – T90 Nylon

**Flame Test Compliances:**

- UL 2556 VW-1 rated through 1 AWG
- UL 2556 CT USE 1/0 and larger

**Packaging:**

- Cut-to-length services available for 8 AWG and larger

**COLOR CODE CHART**

COLOR CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	B	Pink
6	Brown		

**PACKAGING CODE CHART**

PACKAGING CODE	PACKAGE
10	2x500'
20	4x500'
32	500' Reel
33	1000' Reel
54	2000' Reel
34	2500' Reel
55	5000' Reel
00	Cut to order
XX	Master Reel



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CATALOG NUMBER	SIZE		NO. OF WIRES	INS. THKN.		JACKET THKN.		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT		AMPACITY (1)			PACKAGING PUT-UP CODE
	AWG OR kcmil	mm <sup>2</sup>		INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	60°C	75°C	90°C	

**TYPE THHN 90°C DRY LOCATIONS/THWN 75°C WET LOCATIONS**

23014	14	2.08	1	0.015	0.38	0.004	0.10	0.101	2.57	12	18	15	22	15	15	15	20, 34
23012	12	3.31	1	0.015	0.38	0.004	0.10	0.120	3.05	20	29	23	34	20	20	20	20, 34
23010	10	5.26	1	0.020	0.51	0.004	0.10	0.149	3.78	31	47	37	55	20	20	30	10, 34
24014	14	2.08	19	0.015	0.38	0.004	0.10	0.109	2.77	13	19	16	25	15	15	15	20, 34
24012	12	3.31	19	0.015	0.38	0.004	0.10	0.127	3.23	20	30	23	36	20	20	20	20, 34
24010	10	5.26	19	0.020	0.51	0.004	0.10	0.160	4.07	32	48	38	57	30	30	30	10, 34

**TYPE THHN/THWN-2 90°C WET OR DRY LOCATIONS**

25008	8	8.37	19	0.030	0.76	0.005	0.13	0.212	5.39	51	76	62	94	40	50	55	32, 33, XX, 00
25006	6	13.3	19	0.030	0.76	0.005	0.13	0.248	6.30	81	121	94	141	55	65	75	32, 33, XX, 00
25004	4	21.2	19	0.040	1.02	0.006	0.15	0.317	8.06	129	192	153	228	70	85	95	32, 55, XX, 00
25003	3	26.7	19	0.040	1.02	0.006	0.15	0.344	8.74	163	242	189	281	85	100	115	32, 55, XX, 00
25002	2	33.6	19	0.040	1.02	0.006	0.15	0.375	9.53	205	305	233	348	95	115	130	55, XX, 00
25001	1	42.4	19	0.050	1.27	0.007	0.18	0.435	11.05	258	385	298	445	110	130	145	55, XX, 00
26110	1/0	53.5	19	0.050	1.27	0.007	0.18	0.474	12.04	326	485	372	554	125	150	170	55, XX, 00
26210	2/0	67.4	19	0.050	1.27	0.007	0.18	0.518	13.16	411	611	462	687	145	175	195	55, XX, 00
26310	3/0	85	19	0.050	1.27	0.007	0.18	0.568	14.43	518	771	572	851	165	200	225	55, XX, 00
26410	4/0	107	19	0.050	1.27	0.007	0.18	0.624	15.85	653	972	712	1059	195	230	260	55, XX, 00
27250	250	124	37	0.060	1.52	0.008	0.20	0.678	17.23	772	1149	849	1266	215	255	290	55, XX, 00
27300	300	152	37	0.060	1.52	0.008	0.20	0.730	18.54	926	1378	1010	1503	240	285	320	34, XX, 00
27350	350	177	37	0.060	1.52	0.008	0.20	0.777	19.74	1081	1609	1170	1741	260	320	350	34, XX, 00
27400	400	203	37	0.060	1.52	0.008	0.20	0.821	20.85	1235	1838	1330	1979	280	335	380	34, XX, 00
27500	500	253	37	0.060	1.52	0.008	0.20	0.902	22.91	1544	2298	1650	2455	320	380	430	34, XX, 00
27600	600	304	61	0.070	1.78	0.009	0.23	1.051	26.70	1853	2758	2019	3004	350	420	475	54, XX, 00
27750	750	380	61	0.070	1.78	0.009	0.23	1.156	29.36	2316	3447	2466	3670	400	475	535	54, XX, 00

Dimensions and weights are nominal; subject to industry tolerances.

(1) Temperature, size and ampacity per National Electric Code, 2011 NEC sections 110.14(c)(1) (a) & (b).

60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors.

75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C - Wet or dry locations. For ampacity derating purposes.

Dwelling - For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.



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