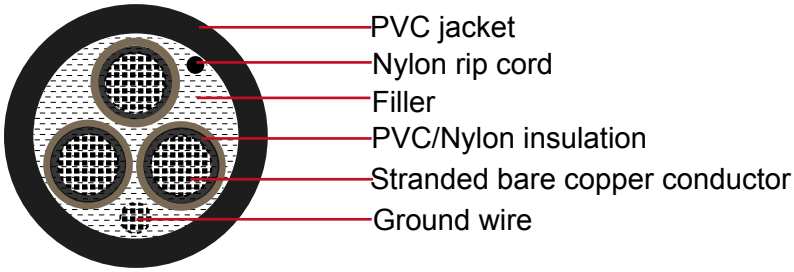
THHN/THWN, 600V, Type TC control Cable

Applications:

Type TC Control Cable is for use in industrial power or control circuits where small diameter, flame retardant cables are desired. Primary installations include cable trays, raceways, and outdoor locations where supported by a messenger wire. Type TC is also listed for direct burial and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10. Conductors may be used at temperatures not to exceed 75°C in wet locations or 90°C in dry locations. 130°C for emergency overload ratings, and 250°C for short circuit ratings. Not recommended in D.C. operation in wet locations.

Construction:



Conductor:

Soft annealed bare copper, Class B stranding per ASTM B8

Insulation:

Polyvinyl chloride (PVC) insulation over with a nylon (polyamide) jacket applied

Assembly:

Three or more conductors will be cabled round with fillers and a nylon rip cord is put under the jacket for ease of stripping

Jacket:

Heat retardant, moisture and sunlight resistant PVC

Color:

upon request, black is preferable

American Standard UL

Compliances:

- NFPA 70 (NEC)
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- ICEA S-58-679 - Control Cable Conductor Identification Method 1, Table 2
- UL 1685 - UL Flame Exposure Test (70,000 Btu/hr)

Parameters:

Insulation thickness : 16-12AWG PVC 15mils(0.38mm) Nylon 4mils(0.10mm)
10AWG PVC 20mils(0.50mm) Nylon 4mils(0.10mm)

AWG 16 (26 strands) - Type TC-TFFN* Conductors

Number of Conductors	Nominal jacket thickness Inch/mm		Nominal Overall Diameter Inch/mm		Cable weight Lbs/kft	kg/km
2	0.045	1.14	0.288	7.32	43	64
3	0.045	1.14	0.303	7.70	53	79
4	0.045	1.14	0.329	8.36	66	98
5	0.045	1.14	0.357	9.07	81	120
7	0.045	1.14	0.386	9.80	103	153
9	0.045	1.14	0.447	11.35	134	199
12	0.045	1.14	0.501	12.73	165	245
15	0.060	1.52	0.585	14.86	218	324
19	0.060	1.52	0.614	15.60	263	391
25	0.060	1.52	0.713	18.11	339	504
30	0.080	2.03	0.753	19.13	396	589
37	0.080	2.03	0.812	20.62	477	709

AWG 14 (7 strands) - Type TC-THHN or THWN Conductors

Number of Conductors	Nominal jacket thickness Inch/mm		Nominal Overall Diameter Inch/mm		Cable weight Lbs/kft	kg/km
2	0.045	1.14	0.305	7.8	56	83
3	0.045	1.14	0.322	8.2	74	110
4	0.045	1.14	0.350	8.9	93	139
5	0.045	1.14	0.381	9.7	109	162
6	0.045	1.14	0.413	10.5	129	192
7	0.045	1.14	0.413	10.5	145	215
8	0.045	1.14	0.446	11.3	164	243
9	0.045	1.14	0.478	12.2	182	271
10	0.060	1.52	0.550	14.0	217	322
12	0.060	1.52	0.568	14.4	251	373
15	0.060	1.52	0.627	15.9	305	454
19	0.060	1.52	0.658	16.7	373	555
20	0.060	1.52	0.691	17.6	393	584
25	0.060	1.52	0.766	19.4	483	719
30	0.060	1.52	0.810	20.6	568	845
37	0.080	2.03	0.913	23.2	720	1072

AWG 12 (7 strands) - Type TC-THHN or THWN Conductors

Number of Conductors	Nominal jacket thickness Inch/mm		Nominal Overall Diameter Inch/mm		Cable weight Lbs/kft	kg/km
2	0.045	1.14	0.340	8.6	75	112
3	0.045	1.14	0.360	9.2	105	156
4	0.045	1.14	0.392	10.0	128	190
5	0.045	1.14	0.428	10.9	154	229
6	0.045	1.14	0.466	11.8	183	272
7	0.045	1.14	0.466	11.8	207	308
8	0.045	1.14	0.504	12.8	234	349
9	0.060	1.52	0.572	14.5	277	412
10	0.060	1.52	0.621	15.8	307	457
12	0.060	1.52	0.641	16.3	358	532
15	0.060	1.52	0.710	18.0	438	652
19	0.060	1.52	0.746	18.9	539	802
20	0.060	1.52	0.785	19.9	568	845
25	0.080	2.03	0.911	23.1	734	1092
30	0.080	2.03	0.963	24.4	863	1284
37	0.080	2.03	1.036	26.3	1044	1553

AWG 10 (7 strands) Type TC-THHN or THWN Conductors

Number of Conductors	Nominal jacket thickness Inch/mm		Nominal Overall Diameter Inch/mm		Cable weight Lbs/kft	kg/km
2	0.045	1.14	0.407	10.3	111	166
3	0.045	1.14	0.433	11.0	155	230
4	0.045	1.14	0.473	12.0	198	294
5	0.060	1.52	0.549	13.9	250	371
6	0.060	1.52	0.596	15.1	294	437
7	0.060	1.52	0.596	15.1	333	495
8	0.060	1.52	0.645	16.4	377	561
9	0.060	1.52	0.693	17.6	421	626
10	0.060	1.52	0.755	19.2	467	694
12	0.060	1.52	0.780	19.8	547	814
15	0.080	2.03	0.908	23.1	706	1050
19	0.080	2.03	0.954	24.2	867	1291
20	0.080	2.03	1.003	25.5	913	1359
25	0.080	2.03	1.112	28.2	1125	1675
30	0.080	2.03	1.177	29.9	1329	1977
37	0.080	2.03	1.271	32.3	1614	2402