

# COPPER TRAY CABLE

# SPEC

## P7267D - AG



**INSULATION:** HIGH DIELECTRIC PVC

**JACKET:** PVC

**SIZES:** 8 - 750 MCM

2, 3 & 4 CONDUCTOR WITH  
OR WITHOUT GROUND

UL LISTED TYPE TC 600 VOLTS  
VW-1 RATED, 90°C DRY, 75°C WET



## 1.0 APPLICATIONS

- 1.1** This specification covers two, three and four conductor cables having VW-1 THHN/ THWN (PVC/Nylon) conductors with an overall polyvinyl chloride (PVC) jacket, conforming to Article 318 "Cable Trays" and Article 340 "Power and Control Cable Type TC" of the 1981 National Electrical Code, and Subject 1277 of Underwriters Laboratories, inc. Meets the requirements of the 70,000 BTU "Cable Tray Propagation Test" per IEEE-383 and shows reserve capabilities by also passing the 210,000 BTU flame test. Rated 600 volts, 90°C dry and 75°C wet.
- 1.2 USE:**  
UL listed and OSHA acceptable. Recognized for use in Class 1, Division 2 hazardous locations and for installation in trays, wireways, troughs, channels, ducts, and conduit. Specifically approved for direct burial, wet or dry locations and outdoors in cable trays where a sunlight resistant rating is required. Designed to supply power to motors, or for connection to other power devices. Deep well submersible pump.

## 2.0 CONSTRUCTION

- 2.1 CONDUCTORS:**  
Bare, soft annealed copper per ASTM B-3 SIZES 8 THROUGH 2 AWG  
Concentric stranded, class B (7 strands)  
ASTM B-8 and UL-83 table 4.1  
SIZES 250 THROUGH 500MCM  
Concentric stranded, class B (37 strands)  
ASTM B-8 and UL-83 table 4.1
- 2.2 INSULATION:**  
HIGH DIELECTRIC POLYVINYL CHLORIDE  
UL-83 table 13.1 (THWN 75°C)  
UL-83 table 14.1 (THHN 90°C)  
THICKNESS UL-83 table 21.5
- 2.3 INSULATION ARMOR:**  
NYLON UL-83 paragraph 35.1  
THICKNESS UL-83 table 21.5
- 2.4 CABLE ASSEMBLY:**  
SIZES 8 THROUGH 4/0 AWG  
Three or more conductors are assembled round with fillers as needed. A tape binder is applied over the assembly. Two conductors are assembled flat parallel (round, with fillers as needed, is available upon request.) SIZES 250 THROUGH 750 MCM  
Conductors are assembled round with fillers as needed. A tape binder is applied over the assembly.
- 2.5 GROUND:**  
1 bare copper ground for 2 & 3 conductor.  
2 bare copper grounds for 4 conductor.
- 2.6 OVERALL JACKET:**  
Polyvinyl chloride UL-62 part 22 class 12  
Thickness specified herein.
- 2.7 COLOR CODE:**  
Black insulation with ICEA method 4 printed color code (See color code table on back.)
- 2.8 SURFACE PRINT:**  
Ink print on jacket "(size) AWG Type TC THHN or THWN cdrs. Sunlight Resistant 600V (UL) Direct Burial". Indent print on other side of jacket "(number of conductors)"
- 2.9 CONSTRUCTION OPTIONS:**  
Consult factory for cable specifications with ground wire.

### 3.0 GROUND WIRE DATA

Size	Strands
AWG OR KCMIL	NO.
10	7
8	7
6	7
4	7
3	7
2	7
1	19

### 4.0 CONDUCTOR DATA

Size	Strands	Pvc Insul. Thick.	Nylon Armor	Approx. O. D.
AWG OR KCMIL	NO.	INCHES	INCHES	INCHES
8	7	.030	.005	.218
6	7	.030	.005	.251
4	7	.040	.006	.323
2	7	.040	.006	.380
1	19	.050	.007	.437
1/0	19	.050	.007	.478
2/0	19	.050	.007	.521
3/0	19	.050	.007	.568

Size	Strands	Pvc Insul. Thick.	Nylon Armor	Approx. O. D.
AWG OR KCMIL	NO.	INCHES	INCHES	INCHES
4/0	19	.050	.007	.626
250	37	.060	.008	.679
300	37	.060	.008	.732
350	37	.060	.008	.777
400	37	.060	.008	.823
500	37	.060	.008	.903
750	61	.070	.009	1.111

#### 4.1 PART NUMBER:

TO SPECIFY A SPECIFIC PART NUMBER ADD AWG SIZE, PLUS THE NUMBER OF CONDUCTORS TO THE PART NUMBER. FOR EXAMPLE: 3 CONDUCTORS, 8 AWG IS (P7267D)-8/3.

### 5.0 CABLE DATA:

Size Awg or	No. of Conds.	Overall Jacket Thick.	Approx. O. D.	Approx. Weight
KCMIL		MILS	INCHES	LBS./M FT
8	2	60	.560	248
w/10 AWG	3	60	.595	315
Ground	4	60	.650	384
6	2	60	.626	350
w/8 AWG	3	60	.665	451
Ground	4	60	.730	557
4	2	60	.770	485
w/8 AWG	3	80	.820	704
Ground	4	80	.945	879
2	2	80	.970	434
w/6 AWG	3	80	1.030	653
Ground	4	80	1.130	828
1	2	80	.925	757
w/6 AWG	3	80	.985	1029
Ground	4	80	1.085	1287
1/0	2	80	1.040	914
w/6 AWG	3	80	1.110	1203
Ground	4	80	1.220	1643
2/0	2	80	1.125	1180
w/6 AWG	3	80	1.195	1517
Ground	4	80	1.320	1931
2/0	2	80	1.210	1409
w/6 AWG	3	80	1.290	1831
Ground	4	80	1.420	2426
3/0	2	80	1.300	1748
w/4 AWG	3	80	1.385	2249
Ground	4	80	1.535	2879

Size Awg or	No. of Conds.	Overall Jacket Thick.	Approx. O. D.	Approx. Weight
KCMIL		MILS	INCHES	LBS./M FT
4/0	2	80	1.420	2091
w/4 AWG	3	80	1.515	2739
Ground	4	110	1.735	3609
250	2	80	1.525	3025
w/4 AWG	3	80	1.630	3319
Ground	4	110	1.865	4248
300	2	80	1.650	2774
w/3 AWG	3	80	1.825	4084
Ground	4	110	2.010	5177
350	2	110	1.790	3365
w/3 AWG	3	110	1.910	4315
Ground	4	110	2.100	5695
400	2	110	1.900	3473
w/3 AWG	3	110	2.010	4945
Ground	4	110	2.250	6443
500	2	110	2.035	4234
w/2 AWG	3	110	2.170	6185
Ground	4	110	2.410	7873
750	3	110	2.620	8044
w/1 AWG	4	140	2.970	11774

The data listed above is approximate and subject to normal manufacturing tolerances. Specifications are subject to change without notice.