



POWER CABLE

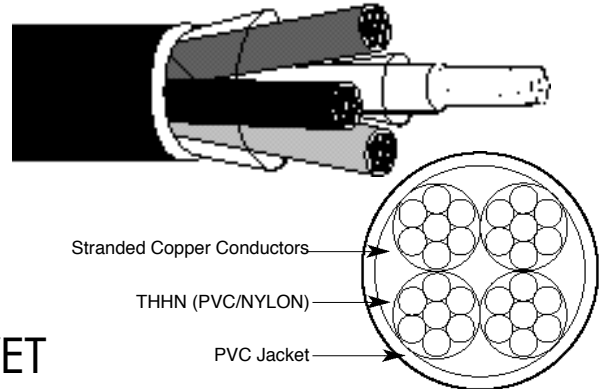
INSULATION: HIGH DIELECTRIC PVC

JACKET: PVC

SIZES: 8 - 500 MCM

UL LISTED TYPE TC 600 VOLTS

VW-1 RATED, 90°C DRY, 75°C WET



1.0 SCOPE:

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 500 MCM
Conductors are assembled round with fillers as needed. A tape binder is applied over the assembly.

2.5 Overall Jacket:
Polyvinyl chloride UL-62 part 22 class 12
Thickness specified herein

2.6 Color Code:
Black insulation with ICEA method 4 printed color code (See color code table on back.)

2.7 Markings:
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)"

2.8 Construction Options:
Consult factory for cable specifications with ground wire.

3.0 COLOR CODE:
Black insulation
with ICEA
Method 4 printed
color code.

COND. NUMBER	BASE COLOR	PRINTING
1	Black	1
2	Black	2
3	Black	3
4	Black	4

4.0 CONDUCTOR DATA:

SIZE (AWG OR MCM)	STRANDS NO /O.D. (INCHES)	PVC INSUL. (INCHES)	NYLON ARMOR (INCHES)	APPROX. O.D. (INCHES)
8	7/.0295	.030	.005	.224
6	7/.0372	.030	.006	.262
4	7/.0469	.040	.006	.335
2	7/.0591	.040	.006	.395
1	19/.0664	.050	.007	.460
1/0	19/.0745	.050	.007	.500
2/0	19/.0837	.050	.007	.545

SIZE (AWG OR MCM)	STRANDS NO /O.D. (INCHES)	PVC INSUL. (INCHES)	NYLON ARMOR (INCHES)	APPROX. O.D. (INCHES)
3/0	19/.0940	.050	.007	.600
4/0	19/.1055	.050	.007	.655
250	37/.0822	.060	.008	.730
300	37/.0900	.060	.008	.785
350	37/.0973	.060	.008	.835
400	37/.1040	.060	.008	.880
500	37/.1162	.060	.008	.965

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	NO. OF COND.	APPROX. OUTSIDE DIAMETER (INCHES)	OVERALL JACKET THICKNESS (MILS)	APPROX. WEIGHT 1000 FT. (POUNDS)
8 AWG	2 FL	.590 x .360	60	180
	2 RD	.590	60	216
	3	.620	60	283
	4	.680	60	352
6 AWG	2 FL	.660 x .400	60	255
	2 RD	.660	60	299
	3	.700	60	400
	4	.770	60	506
4 AWG	2 FL	.800 x .470	60	419
	2 RD	.800	60	434
	3	.900	80	653
	4	.990	80	828
2 AWG	2 FL	.970 x .57	80	587
	2 RD	.970	80	676
	3	1.030	80	948
	4	1.130	80	1206

SIZE	NO. OF COND.	APPROX. OUTSIDE DIAMETER (INCHES)	OVERALL JACKET THICKNESS (MILS)	APPROX. WEIGHT 1000 FT. (POUNDS)
1 AWG	2 FL	1.10 x .64	80	789
	2 RD	1.100	80	833
	3	1.100	80	1122
	4	1.170	80	1562
1/0 AWG	2 FL	1.18 x .68	80	957
	2 RD	1.180	80	1099
	3	1.250	80	1436
	4	1.380	80	1850
2/0 AWG	2 FL	1.27 x .72	80	1141
	2 RD	1.270	80	1328
	3	1.350	80	1750
	4	1.380	80	2345
3/0 AWG	2 FL	1.37 x .78	80	1384
	2 RD	1.370	80	1619
	3	1.460	80	2120
	4	1.520	80	2750

SIZE	NO. OF COND.	APPROX. OUTSIDE DIAMETER (INCHES)	OVERALL JACKET THICKNESS (MILS)	APPROX. WEIGHT 1000 FT. (POUNDS)
4/0 AWG	2 FL	1.49 x .83	80	1691
	2 RD	1.490	80	1962
	3	1.590	80	2610
	4	1.820	110	3480
250 MCM	2	1.459	110	2896
	3	1.556	110	3190
	4	1.784	110	4119
300 MCM	2	1.595	110	2609
	3	1.762	110	3919
	4	1.948	110	5012

SIZE	NO. OF COND.	APPROX. OUTSIDE DIAMETER (INCHES)	OVERALL JACKET THICKNESS (MILS)	APPROX. WEIGHT 1000 FT. (POUNDS)
350 MCM	2	1.910	110	3200
	3	2.030	110	4150
	4	2.250	110	5530
400 MCM	2	2.000	110	3308
	3	2.130	110	4780
	4	2.360	110	6278
500 MCM	2	2.170	110	4029
	3	2.320	110	5980
	4	2.570	110	7668

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