



**SUBMERSIBLE POWER CABLE
 WITH GROUND
 600 VOLT, TYPE TC-ER
 2, 3 AND 4 CONDUCTOR
 INSULATION: HIGH DIELECTRIC PVC
 JACKET: PVC POLYVINYL CHLORIDE
 SIZES: 12 - 750 MCM, 2, 3 & 4
 90°C DRY, 75°C WET**



1.0 APPLICATIONS:

1.1 Two, three or four conductors having TFFN or VW-1 THHN/THWN (PVC/Nylon) conductors with PVC jacket conforming to Article 318 "Cable Trays" and Article 340 "Power and Control Cable Type TC". Direct Burial, Passes 210,000 BTU flame test and suitable for use as submersible cable.

2.0 CONSTRUCTION:

2.1 Conductors:
 Bare, soft annealed copper per ASTM B3.
Sizes 8 - 2 AWG: Concentric, compressed or compact stranding, Class B (7 strands) per ASTM B-8 and UL Table 13.1 or 19 wire combination stranding per ASTM B-787.
Sizes 1 - 4/0 AWG: Concentric, compressed or compact stranding, Class B (19 strands) per ASTM B-8 and UL Table 13.1 or 19 wire combination stranding per ASTM B-787.
Sizes 250 - 500 MCM: Concentric, compressed or compact stranding, Class B (37 strands) per ASTM B-8 and UL Table 13.1.
Sizes 750 MCM: Concentric, compressed or compact stranding, Class B (61 strands) per ASTM B-8 and UL Table 13.1.

2.2 Insulation:
 High dielectric strength polyvinyl chloride, UL-1581 Table 50.145 (THWN 75°C), UL-1581 Table 50.155 (THHN 90°C).
Thickness: UL-83 Table 15.8.

2.3 Conductor Jacket:

Nylon (UL-83 par. 14.1).
Thickness: UL-83 table 15.8.

2.4 Cable Assembly:

The applicable number of conductors and grounding wire are cabled together with fillers and optional binder tape.

2.5 Color Code:

Black insulation with ICEA Method 4 printed numbers.

2.6 Overall Jacket:

A black, gas/vapor tight, flame resistant, VW-1 rated Polyvinyl Chloride (PVC) jacket is applied over the assembly. The surface profile of the jacket shall approximate that of the underlying assembly. A high strength nylon rip cord shall be placed under the jacket to facilitate stripping of the jacket.

2.7 Identification:

"Sizes (AWG) or MCM/No. of CDRS w/ ground Type TC -ER THHN or THWN CDRs. Sun resistant and oil resistant, 600V. (UL) Direct Burial Ft4/IEEE 1202 (Sequential Footage)".

3.0 GROUND WIRE DATA:

SIZE AWG OR MCM	STRANDS NO.
12	7
10	7
8	7
6	7
4	7
3	7
2	7
1	19

4.0 CONDUCTOR DATA:

SIZE AWG OR MCM	STRANDS NO.	PVC INSUL. THICK. (INCHES)	NYLON ARMOR (INCHES)	APPROX. O. D. (INCHES)
12	7	.030	.005	.218
10	7	.030	.005	.251
8	7	.040	.006	.323
6	7	.040	.006	.380
4	7	.050	.007	.437
2	7	.050	.007	.437
1	19	.050	.007	.437
1/0	19	.050	.007	.478
2/0	19	.050	.007	.521

SIZE AWG OR MCM	STRANDS NO.	PVC INSUL. THICK. (INCHES)	NYLON ARMOR (INCHES)	APPROX. O. D. (INCHES)
3/0	19	.050	.007	.568
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 MCM	NO. OF CONDS.	OVERALL JACKET THICK. (MILS)	APPROX. O. D. (INCHES)	APPROX. WEIGHT LBS./ M FT.
12/3 w/12 AWG Ground	3	45	.395	145
10/3 w/12 AWG Ground	3	45	.470	212
8 w/10 AWG Ground	2 3 4	60 60 60	.560 .595 .650	248 315 384
6 w/8 AWG Ground	2 3 4	60 60 60	.626 .665 .730	350 451 557
4 w/8 AWG Ground	3 4	80 80	.820 .945	704 879
1 w/6 AWG Ground	2 3 4	80 80 80	.925 .985 1.085	757 1029 1287
1/0 w/6 AWG Ground	3 4	80 80	1.195 1.320	1517 1931
2/0 w/6 AWG Ground	3 4	80 80	1.290 1.420	1831 2426

SIZE AWG OR MCM	NO. OF CONDS.	OVERALL JACKET THICK. (MILS)	APPROX. O. D. (INCHES)	APPROX. WEIGHT LBS./ M FT.
3/0 w/4 AWG Ground	3 4	80 80	1.385 1.535	2739 3609
4/0 w/4 AWG Ground	3 4	80 110	1.515 1.735	2739 3609
250 w/4 AWG Ground	3 4	80 110	1.630 1.865	3319 4248
350 w/3 AWG Ground	3 4	110 110	1.910 2.100	4315 5695
500 w/2 AWG Ground	3 4	110 110	2.170 2.410	6185 7873
750 w/1 AWG Ground	3 4	110 140	2.620 2.970	8044 11774

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