

TYPE VNTC TC-ER - POWER CABLE

PVC/Nylon 600 Volt 90°C Overall PVC Jacket

CABLE DATA								
PART NUMBER	NUMBER OF CONDS.	COND. STRANDS	COND. SIZE (AWG OR KCMIL)	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS (INCHES)	MINIMUM AVG. JACKET THICKNESS (INCHES)	OUTSIDE DIAMETER (INCHES)	APPROX. WEIGHT (LBS./M FT.)
03-0100	3	7	14	14	0.020	0.045	0.345	100
03-0101	3	7	12	12	0.020	0.045	0.385	138
03-0102	3	7	10	10	0.020	0.045	0.450	209
03-0103	3	7	10	10	0.020	0.045	0.450	209
03-0104	3	7	8	10	0.036	0.060	0.600	308
03-0105	4	7	8	10	0.036	0.060	0.655	373
03-0106	3	7	6	8	0.036	0.060	0.690	434
03-0107	4	7	6	8	0.036	0.060	0.760	533
03-0108	3	7	4	8	0.048	0.080	0.875	650
03-0109	4	7	4	8	0.048	0.080	0.970	824
03-0110	3	7	2	6	0.048	0.080	1.000	964
03-0111	4	7	2	6	0.048	0.080	1.100	1227
03-0112	3	19	1/0	6	0.059	0.080	1.225	1447
03-0113	4	19	1/0	6	0.059	0.080	1.360	1830
03-0114	3	19	2/0	6	0.059	0.080	1.320	1754
03-0115	4	19	2/0	6	0.059	0.080	1.455	2252
03-0116	3	19	4/0	4	0.059	0.080	1.545	2630
03-0117	4	19	4/0	4	0.059	0.110	1.770	3502
03-0118	3	37	250	4	0.070	0.110	1.740	3177
03-0119	4	37	250	4	0.070	0.110	1.945	4107
03-0120	3	37	350	3	0.070	0.110	1.990	4263
03-0121	4	37	350	3	0.070	0.110	2.190	5585
03-0122	3	37	500	2	0.070	0.110	2.270	5890
03-0123	4	37	500	2	0.070	0.110	2.505	7694

SCOPE:

This specification covers the construction requirements for two, three or four conductor cables VW-1 THHN/THWN (PVC/Nylon) insulation with an overall gas/vapor tight and oil resistant Polyvinyl Chloride (PVC) jacket; Underwriters' Laboratories, Inc. listed as TC-ER per UL Standard 1277. These cables also conform to Article 392 "Cable Trays", and Article 336 "Power and Control Cable Type TC" of the 2008 National Electric Code. They meet the requirements of the ICEA T-30-520 flame test as well as the 70,000 BTU "Cable Propagation Test" per IEEE-383 and show reserve capabilities by also passing the ICEA T-29-520 210,000 BTU flame test. Rated 600 Volts, 90°C dry and 75°C wet. They also meet the CSA FT4 and the IEEE 1202 70,000 BTU flame tests.

APPLICATIONS:

- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

FEATURES:

- Rated at 90°C dry, 75° wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides outstanding sunlight, cold bend and cold impact resistance
- Offers the smallest cable O.D. available for suitable applications
- Provides long service life
- Provides good oil and chemical resistance
- Meets cold bend test at -25°C
- Meets the crush and impact requirements of Type MC cable

CONSTRUCTION:

CONDUCTORS:

- 14 AWG through 500 kcmil bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

INSULATION:

- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 4, individual conductors colored black with conductor number surface printed in contrasting ink

GROUND:

- Uninsulated bare annealed copper per ASTM B3

JACKET:

- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

COMPLIANCES:

Industry compliances

- NEC type THHN/THWN conductors
- UL 1277 Type TC-ER, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Flame Test Compliances

- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other compliances:

- EPS 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

»The data listed above is approximate and subject to change without notice.



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