

TYPE VNTC TC-ER - CONTROL OR INSTRUMENTATION CABLE

PVC/Nylon 600 Volt 90°C Overall PVC Jacket

18 -10 AWG • 600 Volts • 90°C Dry and 75°C Wet

SCOPE:

This specification covers the construction requirements for multi-conductor cables having TFFN or 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
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors

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:

- Bare, soft annealed copper per ASTM B-3.
- Sizes 18 and 16 AWG (TFFN)**
- Fully annealed stranded bare copper per ASTM B3
 - Class B stranding per ASTM B8
- Sizes 14, 12 and 10 AWG (THHN/THWN)**
- Fully annealed stranded bare copper per ASTM B3
 - Class B stranding per ASTM B8

INSULATION:

- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1, Table E-2 plus alpha-numeric printed numbers (does not include white or green)

JACKET:

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

COMPLIANCES:

Industry compliances

- UL 83 NEC Type THHN/THWN conductors (14-10 AWG)
- UL 66 NEC Type TFN Conductors (18-16 AWG)
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

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

CONDUCTOR DATA

SIZE (AWG)	STRANDS NO./O.D. (INCHES)	PVC INSUL. THICK. (INCHES)	NYLON ARMOR (INCHES)	APPROX. O.D. (INCHES)
18	7	.020	.004	.088
16	7	.020	.004	.091
14	7	.020	.004	.112
12	7	.020	.004	.130
10	7	.020	.004	.164

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