



## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code , NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant

### CONSTRUCTION:

#### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

#### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

#### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where a sunlight-resistant rating is required. Cable constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

#### Assembly:

The insulated conductors are cabled together with or without an insulated bare ground, and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

#### Color Coding:

Color-coded insulation with ICEA Method 1 with printed number

#### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

### Type TC - Power & Control Cable With Insulated Ground - THHN/THWN-2 Inners 600V

Size (AWG)	Size of Ground Wire (AWG)	Outer Jacket Thickness PVC (in)	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
14/2	14 AWG Green Insulated	0.045	0.350	79	1000' 5000' Reels
14/3	14 AWG Green Insulated	0.045	0.380	99	1000' 5000' Reels
14/4	14 AWG Green Insulated	0.045	0.413	118	1000' 5000' Reels
12/2	12 AWG Green Insulated	0.045	0.390	101	1000' 5000' Reels
12/3	12 AWG Green Insulated	0.045	0.420	130	1000' 5000' Reels
10/2	10 AWG Green Insulated	0.045	0.460	152	1000' 5000' Reels
10/3	10 AWG Green Insulated	0.045	0.500	207	1000' 5000' Reels

### Type TC - Power & Control Cable With Bare Ground - THHN/THWN-2 Inners 600V

Size (AWG)	Size of Ground Wire (AWG)	Outer Jacket Thickness PVC (in)	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
14/2	14 AWG Bare	0.045	0.330	76	1000' 5000' Reels
14/3	14 AWG Bare	0.045	0.350	96	1000' 5000' Reels
12/2	12 AWG Bare	0.045	0.360	98	1000' 5000' Reels
12/3	12 AWG Bare	0.045	0.390	127	1000' 5000' Reels
10/2	10 AWG Bare	0.045	0.430	149	1000' 5000' Reels
10/3	10 AWG Bare	0.045	0.470	204	1000' 5000' Reels
10/4	10 AWG Bare	0.060	0.569	252	1000' 5000' Reels

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

**PRINT LEGEND:** ENCORE WIRE CORPORATION (size) W/6 TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC