

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-83, UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; NFPA 70 (NEC®) Article 336, 392, 725; NEMA WC 57/ICEA S-73-532; NEMA WC 70/ICEA S-95-658; 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; RoHS Compliant; MasterSpec Division 26 Sections 260519, 260523; UL Listing #E-179429



CONSTRUCTION

Conductors

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

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.

Overall Jacket

Flame retardant, sunlight-resistant, black PVC jacket.

Ground Conductor

Insulated green ground

Assembly

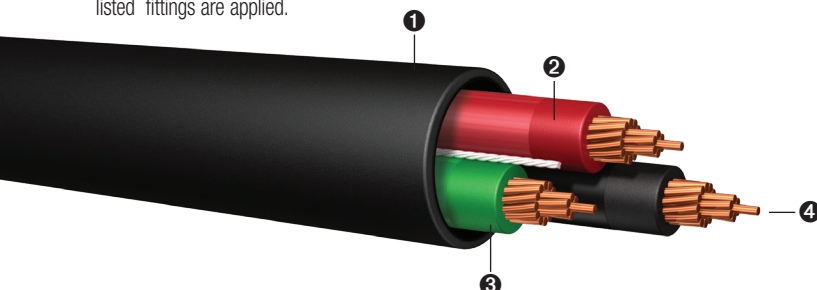
The insulated conductors are cabled together with a green insulated ground. Nylon rip-cord is supplied for easy stripping.

Color Coding

Color-coded insulation with ICEA Method 1

APPLICATIONS

Primarily used for connecting power devices in commercial and industrial environments. Suitable for installation in channels, ducts, wireways, cable trays and raceways. 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-JP rating. Encore Wire's Type TC-ER is acceptable for use in Class 1, Division 2 and Class 2, Division 2 locations where utilized with listed fittings rated for the classified location and condition of exposure to which the listed fittings are applied.



- 1 PVC Jacket
- 2 PVC Insulation w/ Nylon Jacket
- 3 Green Insulated Grounding Conductor
- 4 THHN/THWN-2 Stranded Copper Conductors

Size (AWG)	Size of Ground Wire (AWG)	Outer Jacket Thickness PVC (in)	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ¹			Standard Packaging (ft)
					60°C	75°C	90°C	
14/2	14 AWG Green Insulated	0.045	0.350	79	15	20	25	1000' 5000' Reels
14/3	14 AWG Green Insulated	0.045	0.380	99	15	20	25	1000' 5000' Reels
14/4	14 AWG Green Insulated	0.045	0.413	118	15	20	25	1000' 5000' Reels
12/2	12 AWG Green Insulated	0.045	0.390	101	20	25	30	1000' 5000' Reels
12/3	12 AWG Green Insulated	0.045	0.420	130	20	25	30	1000' 5000' Reels
10/2	10 AWG Green Insulated	0.045	0.460	152	30	35	40	1000' 5000' Reels
10/3	10 AWG Green Insulated	0.045	0.500	207	30	35	40	1000' 5000' Reels

¹ Ampacity of conductors are based on NFPA 70 (NEC) Section 402.5. See 310.15(B)(16), 110.14(C) and 240.4(D) for other limitations where applicable.

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.

When the neutral is considered current-carrying conductor, the ampacity of 4/C cables shall be reduced by a factor of 0.80 per NEC 310.15(B)(3)(a).

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

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) W/G TYPE TC-ER-JP CABLE THHN OR THWN-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC