

# TYPE TC - POWER & CONTROL CABLE - NO GROUND - 14 AWG - 600V

## THHN/THWN-2 INNERS

### 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 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

#### Assembly

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

#### Color Coding

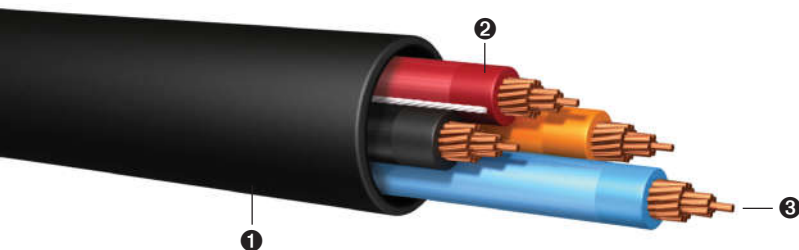
Color-coded insulation with ICEA Method 1

#### Overall Jacket

Flame retardant, sunlight-resistant, black PVC jacket. Sunlight-resistant overall jacket available in all colors by request.

### 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. Approved for Class I Division II Hazardous Locations.



- ① PVC Jacket
- ② PVC Insulation w/ Nylon Jacket
- ③ THHN/THWN-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors	Outside Jacket Thickness PVC (in)	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) <sup>1</sup>		Standard Packaging (ft)
					75°C	90°C	
14 AWG	2 <sup>3</sup>	0.045	0.230 x 0.340	58	20	25	1000' 5000' Reels
	3 <sup>3</sup>	0.045	0.350	79	20	25	1000' 5000' Reels
	4 <sup>3</sup>	0.045	0.380	99	20	25	1000' 5000' Reels
	5 <sup>3</sup>	0.045	0.410	118	20	25	1000' 5000' Reels
	6 <sup>3</sup>	0.045	0.450	139	20	25	1000' 5000' Reels
	7 <sup>3</sup>	0.045	0.460	148	20	25	1000' 5000' Reels
	8 <sup>3</sup>	0.045	0.490	178	20	25	1000' 5000' Reels
	9 <sup>3</sup>	0.045	0.525	199	20	25	1000' 5000' Reels
	10 <sup>3</sup>	0.045	0.600	238	20	25	1000' 5000' Reels
	11 <sup>3</sup>	0.045	0.615	257	20	25	1000' 5000' Reels
	12 <sup>3</sup>	0.045	0.620	275	20	25	1000' 5000' Reels

<sup>1</sup> Ampacity of conductors are based on NFPA 70 (NEC) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) 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.

<sup>2</sup> Type TC only **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC CABLE THHN OR THWN-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

<sup>3</sup> Type TC-ER-JP **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER-JP CABLE THHN OR THWN-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC - POWER & CONTROL CABLE - NO GROUND - 12 AWG - 600V THHN/THWN-2 INNERS

## 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; 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 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

### Assembly

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

### Color Coding

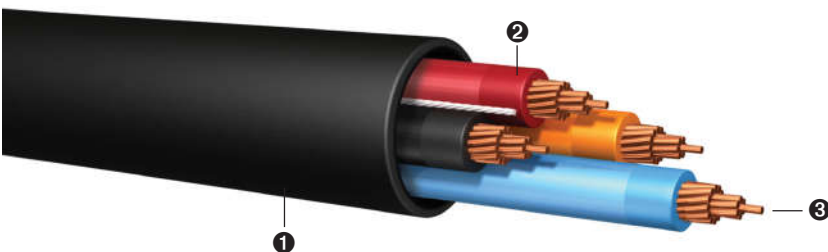
Color-coded insulation with ICEA Method 1

### Overall Jacket

Flame retardant, sunlight-resistant, black PVC jacket. Sunlight-resistant overall jacket available in all colors by request.

## 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. Approved for Class I Division II Hazardous Locations.



- ❶ PVC Jacket
- ❷ PVC Insulation w/ Nylon Jacket
- ❸ THHN/THWN-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors	Outside Jacket Thickness PVC (in)	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) <sup>1</sup>		Standard Packaging (ft)
					75°C	90°C	
12 AWG	2 <sup>2</sup>	0.045	0.250 X 0.380	78	25	30	1000' 5000' Reels
	3 <sup>3</sup>	0.045	0.390	101	25	30	1000' 5000' Reels
	4 <sup>3</sup>	0.045	0.420	130	25	30	1000' 5000' Reels
	5 <sup>3</sup>	0.045	0.470	162	25	30	1000' 5000' Reels
	6 <sup>3</sup>	0.045	0.510	194	25	30	1000' 5000' Reels
	7 <sup>3</sup>	0.045	0.540	220	25	30	1000' 5000' Reels
	8 <sup>3</sup>	0.045	0.590	272	25	30	1000' 5000' Reels
	9 <sup>3</sup>	0.045	0.630	304	25	30	1000' 5000' Reels
	10 <sup>3</sup>	0.045	0.680	336	25	30	1000' 5000' Reels
	11 <sup>3</sup>	0.045	0.700	365	25	30	1000' 5000' Reels
	12 <sup>3</sup>	0.045	0.710	393	25	30	1000' 5000' Reels

<sup>1</sup> Ampacity of conductors are based on NFPA 70 (NEC) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) 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.

<sup>2</sup> Type TC only **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC CABLE THHN OR THWN-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

<sup>3</sup> Type TC-ER-JP **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER-JP CABLE THHN OR THWN-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC - POWER & CONTROL CABLE - NO GROUND - 10 AWG - 600V

## THHN/THWN-2 INNERS

### ENGINEERING SPECIFICATIONS

#### Standards

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### 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 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

#### Assembly

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

#### Color Coding

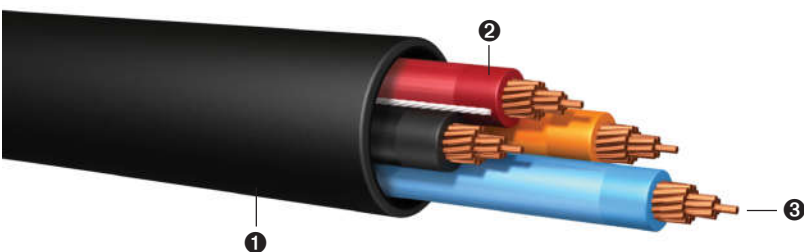
Color-coded insulation with ICEA Method 1

#### Overall Jacket

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### APPLICATIONS

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- ③ THHN/THWN-2 Stranded Copper Conductors

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					75°C	90°C	
10 AWG	2 <sup>3</sup>	0.045	0.260 x 0.430	115	35	40	1000' 5000' Reels
	3 <sup>3</sup>	0.045	0.460	152	35	40	1000' 5000' Reels
	4 <sup>3</sup>	0.045	0.500	207	35	40	1000' 5000' Reels
	5 <sup>3</sup>	0.045	0.585	260	35	40	1000' 5000' Reels
	6 <sup>3</sup>	0.045	0.650	320	35	40	1000' 5000' Reels
	7 <sup>3</sup>	0.045	0.655	362	35	40	1000' 5000' Reels
	8 <sup>3</sup>	0.045	0.705	412	35	40	1000' 5000' Reels
	9 <sup>3</sup>	0.045	0.755	459	35	40	1000' 5000' Reels
	10 <sup>3</sup>	0.045	0.820	512	35	40	1000' 5000' Reels
	11 <sup>3</sup>	0.045	0.850	558	35	40	1000' 5000' Reels
	12 <sup>3</sup>	0.045	0.855	572	35	40	1000' 5000' Reels

<sup>1</sup> Ampacity of conductors are based on NFPA 70 (NEC) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) 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.

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