

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; 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



Listed 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

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

Ground Conductor

Insulated green ground

Assembly

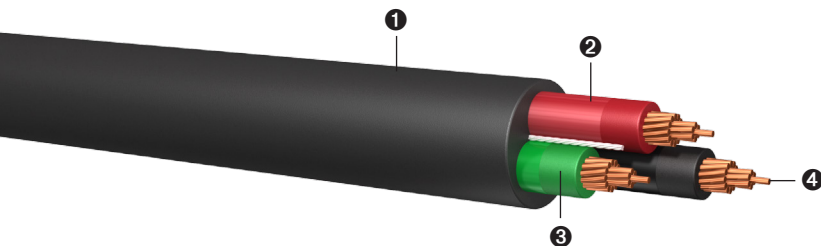
The insulated conductors are cabled together with a green insulated ground, and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

Color Coding

Color-coded insulation with ICEA Method 1

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 rating. Approved for Class I Division II Hazardous Locations.



- 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 CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

TYPE TC - CONTROL CABLE - W/ INSULATED GROUND

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; 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

Bare, soft-annealed stranded 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.

Ground Conductor

Soft, uncoated copper per ASTM-B787; insulated green ground

Assembly

The insulated conductors are cabled together with or without a 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

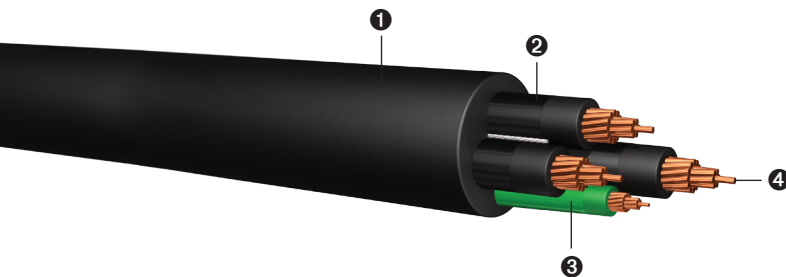
Black insulation with ICEA Method 4 printed number

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.

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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



- ❶ PVC Jacket
- ❷ PVC Insulation w/ Nylon Jacket
- ❸ Green Insulated Grounding Conductor
- ❹ THHN/THWN-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors		Size of Ground Wire (AWG)	Outside Jacket Thickness PVC (in)		Outside Diameter (in)		Allowable Ampacity (Amps) ¹			Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
				3	4	3	4	60°C	75°C	90°C	3	4	
8	3	4	10 AWG Green Insulated	0.060	0.060	0.624	0.674	40	50	55	312.03	380.01	1000' 5000' Reels
6	3	4	8 AWG Green Insulated	0.060	0.060	0.714	0.789	55	65	75	447.85	559.40	1000' 4000' Reels
4	3	4	8 AWG Green Insulated	0.080	0.080	0.904	1.009	70	85	95	689.94	875.65	1000' 3000' Reels
3	3	4	6 AWG Green Insulated	0.080	0.080	0.946	1.035	85	100	115	820.81	1,021.87	1000' 3000' Reels
2	3	4	6 AWG Green Insulated	0.080	0.080	1.015	1.112	95	115	130	977.42	1224.41	1000' 2000' Reels
1	3	4	6 AWG Green Insulated	0.080	0.080	1.137	1.250	110	130	145	1218.33	1535.61	1000' 2000' Reels
1/0	3	4	6 AWG Green Insulated	0.080	0.080	1.201	1.314	125	150	170	1438.73	1814.15	1000' 2000' Reels
2/0	3	4	6 AWG Green Insulated	0.080	0.080	1.276	1.410	145	175	195	1720.21	2195.81	500' 1000' 2000' Reels
3/0	3	4	4 AWG Green Insulated	0.080	0.080	1.428	1.571	165	200	225	2179.36	2767.05	1000' 2000' Reels
4/0	3	4	4 AWG Green Insulated	0.080	0.110	1.525	1.726	195	230	260	2603.99	3386.86	1000' 1500' Reels

¹ Ampacity of conductors are based on the National Electrical Code (NFPA 70) 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.

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

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

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; 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



Listed E-179429



CONSTRUCTION

Conductors

Bare, soft-annealed stranded 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.

Ground Conductor

Soft, uncoated copper per ASTM-B787; insulated green ground

Assembly

The insulated conductors are cabled together with or without a 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

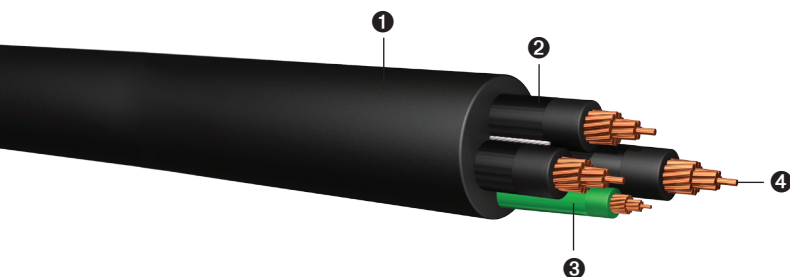
Black insulation with ICEA Method 4 printed number

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.

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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



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

Size (AWG)	No. of Conductors		Size of Ground Wire (AWG)	Outside Jacket Thickness PVC (in)		Outside Diameter (in)		Allowable Ampacity (Amps) ¹			Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
				3	4	3	4	60°C	75°C	90°C	3	4	
250	3	4	4 AWG Green Insulated	0.080	0.110	1.621	1.857	215	255	290	3039.72	3994.90	1000' 1500' Reels
300	3	4	3 AWG Green Insulated	0.110	0.110	1.793	2.026	240	285	320	3686.20	4796.60	1000' 1500' Reels
350	3	4	3 AWG Green Insulated	0.110	0.110	1.894	2.140	260	310	350	4220.67	5499.26	1000' 1500' Reels
400	3	4	3 AWG Green Insulated	0.110	0.110	1.989	2.208	280	335	380	4748.05	6121.09	1000' 1500' Reels
500	3	4	2 AWG Green Insulated	0.110	0.110	2.164	2.402	320	380	430	5768.74	7441.04	1000' 1500' Reels
600	3	4	2 AWG Green Insulated	0.110	0.110	2.429	2.694	350	420	475	6950.15	8960.92	1000' 1500' Reels
750	3	4	1 AWG Green Insulated	0.110	0.140	2.647	2.998	400	475	535	8626.37	11286.42	1000' 1500' Reels

¹ Ampacity of conductors are based on the National Electrical Code (NFPA 70) 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.

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

TYPE TC - POWER & CONTROL CABLE - NO GROUND - 14 AWG

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; 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



Listed 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

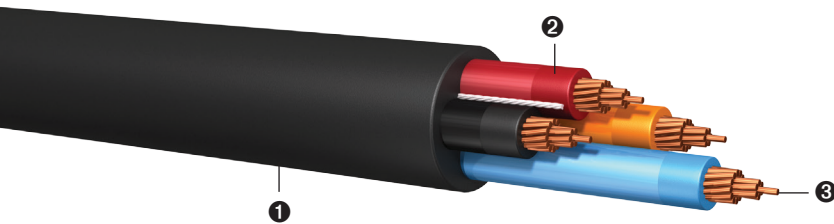
Color-coded insulation with ICEA Method 1 with printed number

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.

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 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) ¹		Standard Packaging (ft)
					75°C	90°C	
14 AWG	2 ²	0.045	0.230 x 0.340	58	20	25	1000' 5000' Reels
	3	0.045	0.350	79	20	25	1000' 5000' Reels
	4	0.045	0.380	99	20	25	1000' 5000' Reels
	5	0.045	0.410	118	20	25	1000' 5000' Reels
	6	0.045	0.450	139	20	25	1000' 5000' Reels
	7	0.045	0.460	148	20	25	1000' 5000' Reels
	8	0.045	0.490	178	20	25	1000' 5000' Reels
	9	0.045	0.525	199	20	25	1000' 5000' Reels
	10	0.045	0.600	238	20	25	1000' 5000' Reels
	11	0.045	0.615	257	20	25	1000' 5000' Reels
	12	0.045	0.620	275	20	25	1000' 5000' Reels

¹ 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.

² Type TC only

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

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; 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



Listed 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

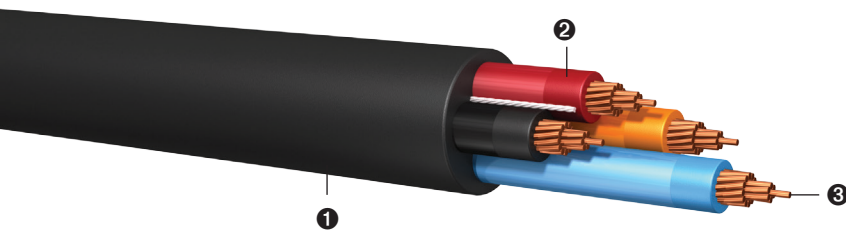
Color-coded insulation with ICEA Method 1 with printed number

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.

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 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) ¹		Standard Packaging (ft)
					75°C	90°C	
12 AWG	2 ²	0.045	0.250 X 0.380	78	25	30	1000' 5000' Reels
	3	0.045	0.390	101	25	30	1000' 5000' Reels
	4	0.045	0.420	130	25	30	1000' 5000' Reels
	5	0.045	0.470	162	25	30	1000' 5000' Reels
	6	0.045	0.510	194	25	30	1000' 5000' Reels
	7	0.045	0.540	220	25	30	1000' 5000' Reels
	8	0.045	0.590	272	25	30	1000' 5000' Reels
	9	0.045	0.630	304	25	30	1000' 5000' Reels
	10	0.045	0.680	336	25	30	1000' 5000' Reels
	11	0.045	0.700	365	25	30	1000' 5000' Reels
	12	0.045	0.710	393	25	30	1000' 5000' Reels

¹ 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.

² Type TC only

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

TYPE TC - POWER & CONTROL CABLE - NO GROUND - 10 AWG

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; 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

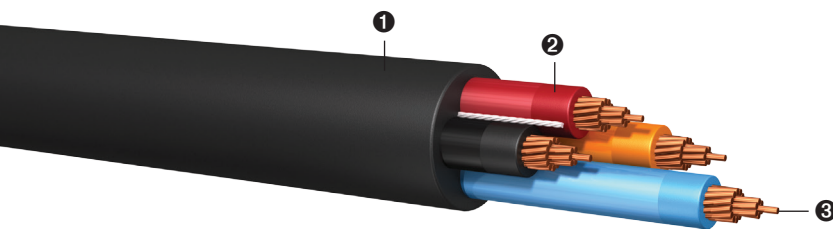
Color-coded insulation with ICEA Method 1 with printed number

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.

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 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) ¹		Standard Packaging (ft)
					75°C	90°C	
10 AWG	2 ²	0.045	0.260 x 0.430	115	35	40	1000' 5000' Reels
	3	0.045	0.460	152	35	40	1000' 5000' Reels
	4	0.045	0.500	207	35	40	1000' 5000' Reels
	5	0.045	0.585	260	35	40	1000' 5000' Reels
	6	0.045	0.650	320	35	40	1000' 5000' Reels
	7	0.045	0.655	362	35	40	1000' 5000' Reels
	8	0.045	0.705	412	35	40	1000' 5000' Reels
	9	0.045	0.755	459	35	40	1000' 5000' Reels
	10	0.045	0.820	512	35	40	1000' 5000' Reels
	11	0.045	0.850	558	35	40	1000' 5000' Reels
	12	0.045	0.855	572	35	40	1000' 5000' Reels

¹ 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.

² Type TC only

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

ENGINEERING SPECIFICATIONS

Standards

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Listed E-179429



CONSTRUCTION

Conductors

Bare, soft-annealed stranded 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.

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

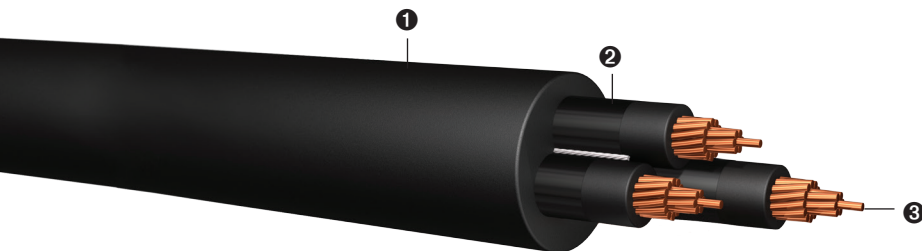
Black insulation with ICEA Method 4 printed number

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.

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 sunlight-resistant rating is required. Cables sizes 8 AWG - 6 AWG are listed with TC-ER 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)		Allowablw Ampacity (Amps) ¹		Standard Packaging (ft)
			3	4	3	4	3	4	75°C	90°C	
8 ²	3	4	0.060	0.060	0.610	0.655	282	351	50	55	1000' 5000' Reels
6 ²	3	4	0.060	0.060	0.685	0.750	400	504	65	75	1000' 4000' Reels
4 ³	3	4	0.080	0.080	0.875	0.961	652	826	85	95	1000' 3000' Reels
2 ³	3	4	0.080	0.080	1.004	1.105	947	1204	115	130	1000' 2000' Reels
1 ³	3	4	0.080	0.080	1.140	1.255	1121	1478	130	145	1000' 2000' 5000' Reels
1/0 ³	3	4	0.080	0.080	1.225	1.355	1436	1802	150	170	1000' 2000' Reels
2/0 ³	3	4	0.080	0.080	1.325	1.465	1750	2207	175	195	1000' 2000' Reels
3/0 ³	3	4	0.080	00.080	1.435	1.585	2120	2712	200	225	1000' 2000' 5000' Reels
4/0 ³	3	4	0.080	.080	1.555	1.785	2610	3426	230	260	1000' 1500' 5000' Reels

¹ 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.

² Type TC-ER only

³ Type TC only

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

PRINT LEGEND: ENCORE WIRE CORPORATION (size) TYPE TC -ER CABLE CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC 4AWG THROUGH 4/0 IS RATED AS TYPE TC ONLY

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

TYPE TC - POWER CABLE - NO GROUND

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; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; 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

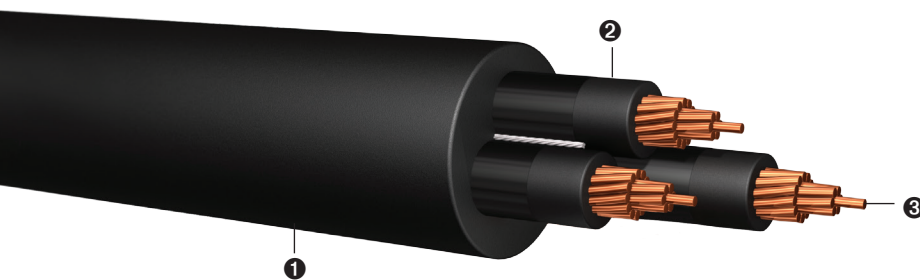
Black insulation with ICEA Method 4 printed number

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.

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 sunlight-resistant rating is required. 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)		Allowable Ampacity (Amps) ¹		Outside Diameter (in)		Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
			3	4	75°C	90°C	3	4	3	4	
250	3	4	0.080	0.080	255	290	1.792	1.981	3026	3865	1000' 1500' Reels
300	3	4	0.110	0.110	285	320	1.977	2.160	3640	4703	1000' 1500' Reels
350	3	4	0.110	0.110	310	350	2.091	2.308	4155	5400	1000' 1500' Reels
400	3	4	0.110	0.110	335	380	2.197	2.432	4699	6062	1000' 1500' Reels
500	3	4	0.110	0.110	380	430	2.392	2.650	5750	7382	1000' 1500' Reels
600	3	4	0.110	0.110	420	475	2.752	3.053	6992	9171	1000' 1500' Reels
750	3	4	0.110	0.110	475	535	3.009	3.336	8491	11216	1000' 1500' Reels

¹ 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.

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.

250 KCMIL through 750 KCMIL is rated as Type TC Only.

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

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; NFPA 70 (NEC®) Article 336, 392; 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



Listed E-179429



CONSTRUCTION

Conductors

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

Ground Conductor

XLPE Insulated Green Ground

Assembly

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

Color Coding

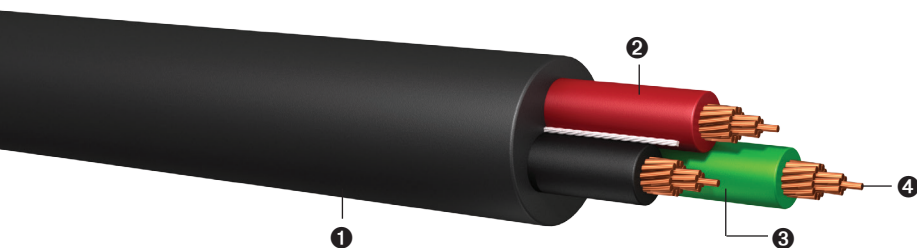
Colored insulation with ICEA Method 1 with printed number

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. Also available in chlorinated polyethylene jacket (CPE) 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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



- 1 PVC Jacket
- 2 XLPE Insulation
- 3 Green Insulated Grounding Conductor
- 4 XHHW-2 Stranded Copper Conductors

TYPE TC - Power Cable - Insulated Ground - XHHW-2 Inners

Size (AWG)	Size of Ground Wire (AWG)	Outside Jacket Thickness PVC (in)	Allowable Ampacity (Amps) ¹			Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
			60°C	75°C	90°C			
14/2	14 AWG Green Insulated	0.045	15	20	25	0.386	89	1000' 5000' Reels
14/3	14 AWG Green Insulated	0.045	15	20	25	0.422	110	1000' 5000' Reels
12/2	12 AWG Green Insulated	0.045	20	25	30	0.430	120	1000' 5000' Reels
12/3	12 AWG Green Insulated	0.045	20	25	30	0.471	153	1000' 5000' Reels
10/2	10 AWG Green Insulated	0.045	30	35	40	0.480	167	1000' 5000' Reels
10/3	10 AWG Green Insulated	0.045	30	35	40	0.525	220	1000' 5000' Reels

¹ 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 over 100 amperes or marked for conductors 14 AWG to 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked 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) TYPE TC CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

TYPE TC - POWER CABLE - NO GROUND

XHHW-2 INNERS

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-2556; Federal Specification A-A-59544; ASTM Stranding Class B3, B8 and B787; NEMA WC-70/ICEA S-95-658; NFPA 70 (NEC®) Article 336, 392; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA 5-73-532; 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

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

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

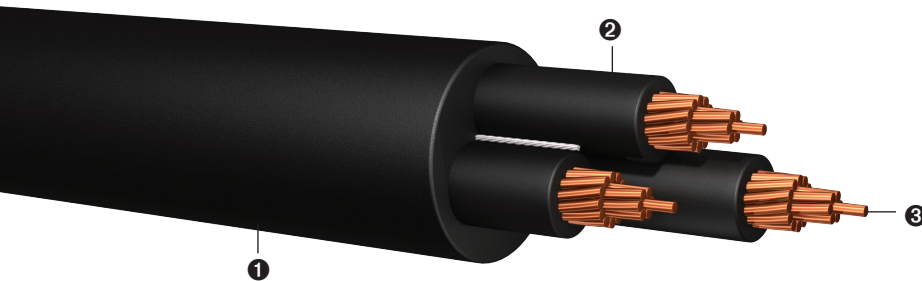
Black insulation with ICEA Method 4 printed number

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. Also available in chlorinated polyethylene jacket (CPE) by request.

APPLICATIONS

Primarily used for connecting power devices in commercial and industrial environments. Suitable for installation in channels, ducts, raceways, cable trays, and raceways. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Approved for Class I Division II Hazardous Locations.



- ❶ PVC Jacket
- ❷ XLPE Insulation
- ❸ XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors		Outside Jacket Thickness PVC (in)		Allowable Ampacity (Amps) ¹			Outside Diameter (in)		Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
			3	4	60°C	75°C	90°C	3	4	3	4	
8 ²	3	4	0.060	0.060	40	50	55	0.660	0.705	285	354	1000' 5000' Reels
6 ²	3	4	0.060	0.060	55	65	75	0.735	0.800	403	507	1000' 4000' Reels
4 ³	3	4	0.080	0.080	70	85	95	0.925	1.001	655	829	1000' 3000' Reels
2 ³	3	4	0.080	0.080	95	115	130	1.054	1.155	950	1207	1000' 2000' Reels
1 ³	3	4	0.080	0.080	110	130	145	1.182	1.252	1124	1435	1000' 2000' Reels
1/0 ³	3	4	0.080	0.080	125	150	170	1.272	1.322	1439	1829	1000' 2000' Reels
2/0 ³	3	4	0.080	0.080	145	175	195	1.375	1.425	1753	2236	500' 1000' 2000' Reels
3/0 ³	3	4	0.080	0.080	165	200	225	1.485	1.535	2123	2723	1000' 2000' Reels
4/0 ³	3	4	0.080	0.080	195	230	260	1.605	1.655	2613	3443	1000' 1500' Reels

¹ 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°215C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C w240hen 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.

² Type TC-ER only

³ Type TC only

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

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

PRINT LEGEND: ENCORE WIRE CORPORATION (size) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-2556; Federal Specification A-A-59544; ASTM Stranding Class B3, B8 and B787; NEMA WC-70/ICEA S-95-658; NFPA 70 (NEC®) Article 336, 392; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA 5-73-532; 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

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

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

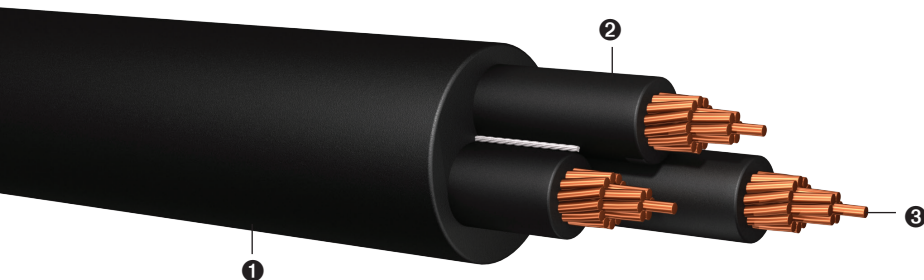
Black insulation with ICEA Method 4 printed number

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. Also available in chlorinated polyethylene jacket (CPE) by request.

APPLICATIONS

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, raceways, cable trays, and raceways. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Approved for Class I Division II Hazardous Locations.



- ❶ PVC Jacket
- ❷ XLPE Insulation
- ❸ XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors		Outside Jacket Thickness PVC (in)		Allowable Ampacity (Amps) ¹			Outside Diameter (in)		Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
			3	4	60°C	75°C	90°C	3	4	3	4	
250	3	4	0.080	0.080	215	255	290	1.777	1.969	3029	3865	1000' 1500' Reels
300	3	4	0.110	0.110	240	285	320	1.963	2.151	3681	4684	1000' 1500' Reels
350	3	4	0.110	0.110	260	310	350	2.076	2.292	4158	5403	1000' 1500' Reels
400	3	4	0.110	0.110	280	335	380	2.182	2.411	4695	6126	1000' 1500' Reels
500	3	4	0.110	0.110	320	380	430	2.378	2.629	5753	7385	1000' 1500' Reels
600	3	4	0.110	0.110	350	420	475	2.692	2.980	7153	9173	1000' 1500' Reels
750	3	4	0.110	0.110	400	475	535	3.010	3.337	8694	11049	1000' 1500' Reels

¹ 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.
 250 KCMIL through 750 KCMIL is rated as Type TC Only.

PRINT LEGEND: ENCORE WIRE CORPORATION (size) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

TYPE TC - POWER & CONTROL CABLE - NO GROUND - 14 AWG XHHW-2 INNERS

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44 , UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; NFPA 70 (NEC®) Article 336, 392, 725; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; NEMA WC 70/ICEA S-95-658; 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

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

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

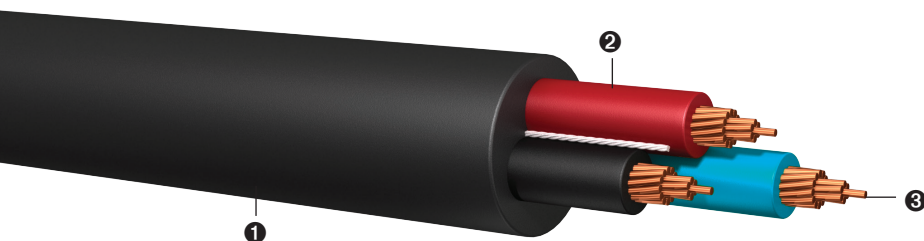
Colored insulation with ICEA Method 1 with printed number

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. Also available in chlorinated polyethylene jacket (CPE) 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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



- 1 PVC Jacket
- 2 XLPE Insulation
- 3 XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors	Outside Jacket Thickness PVC (in)	Allowable Ampacity (Amps) ¹			Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
			60°C	75°C	90°C			
14 AWG	2 ²	0.045	15	20	25	0.262 x 0.370	61	1000' 5000' Reels
	3	0.045	15	20	25	0.373	86	1000' 5000' Reels
	4	0.045	15	20	25	0.413	104	1000' 5000' Reels
	5	0.045	15	20	25	0.432	124	1000' 5000' Reels
	6	0.045	15	20	25	0.472	145	1000' 5000' Reels
	7	0.045	15	20	25	0.472	166	1000' 5000' Reels
	8	0.045	15	20	25	0.550	199	1000' 5000' Reels
	9	0.045	15	20	25	0.590	222	1000' 5000' Reels
	10	0.045	15	20	25	0.639	245	1000' 5000' Reels
	11	0.045	15	20	25	0.645	268	1000' 5000' Reels
	12	0.045	15	20	25	0.660	284	1000' 5000' Reels

¹ 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.

² Type TC only

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

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44 , UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; NFPA 70 (NEC®) Article 336, 392; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; NEMA WC 70/ICEA S-95-658; 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



Listed E-179429



CONSTRUCTION

Conductors

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

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

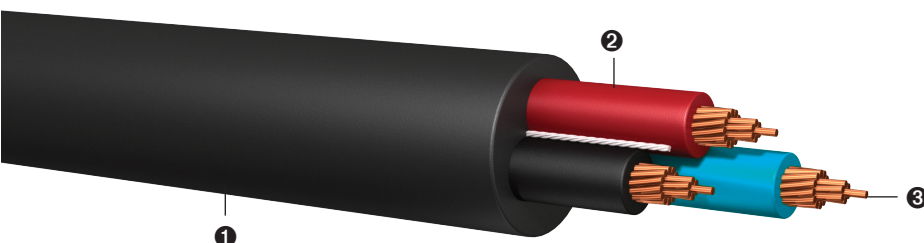
Colored insulation with ICEA Method 1 with printed number

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. Also available in chlorinated polyethylene jacket (CPE) 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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



- 1 PVC Jacket
- 2 XLPE Insulation
- 3 XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors	Outside Jacket Thickness PVC (in)	Allowable Ampacity (Amps) ¹			Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
			60°C	75°C	90°C			
12 AWG	2 ²	0.045	20	25	30	0.282 x 0.410	84	1000' 5000' Reels
	3	0.045	20	25	30	0.411	116	1000' 5000' Reels
	4	0.045	20	25	30	0.447	148	1000' 5000' Reels
	5	0.045	20	25	30	0.492	169	1000' 5000' Reels
	6	0.045	20	25	30	0.568	216	1000' 5000' Reels
	7	0.045	20	25	30	0.568	245	1000' 5000' Reels
	8	0.045	20	25	30	0.612	275	1000' 5000' Reels
	9	0.045	20	25	30	0.653	305	1000' 5000' Reels
	10	0.045	20	25	30	0.715	339	1000' 5000' Reels
	11	0.045	20	25	30	0.726	371	1000' 5000' Reels
	12	0.045	20	25	30	0.738	395	1000' 5000' Reels

¹ 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.

² Type TC only

PRINT LEGEND: ENCORE WIRE CORPORATION (size) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

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

TYPE TC - POWER & CONTROL CABLE - NO GROUND - 10 AWG

XHHW-2 INNERS

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44 , UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; NFPA 70 (NEC®) Article 336, 392, 725; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; NEMA WC 70/ICEA S-95-658; 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
 Note: See 240.4(D) for Overcurrent Protective Device Limitations



CONSTRUCTION

Conductors

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

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

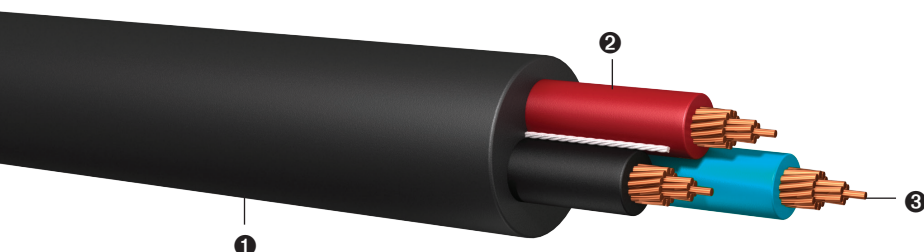
Colored insulation with ICEA Method 1 with printed number

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. Also available in chlorinated polyethylene jacket (CPE) 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 sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.



- 1 PVC Jacket
- 2 XLPE Insulation
- 3 XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors	Outside Jacket Thickness PVC (in)	Allowable Ampacity (Amps) ¹			Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
			60°C	75°C	90°C			
10 AWG	2 ²	0.045	30	35	40	0.292 x 0.460	114	1000' 5000' Reels
	3	0.045	30	35	40	0.464	161	1000' 5000' Reels
	4	0.045	30	35	40	0.506	208	1000' 5000' Reels
	5	0.045	30	35	40	0.578	262	1000' 5000' Reels
	6	0.045	30	35	40	0.630	306	1000' 5000' Reels
	7	0.045	30	35	40	0.630	348	1000' 5000' Reels
	8	0.045	30	35	40	0.684	395	1000' 5000' Reels
	9	0.045	30	35	40	0.738	440	1000' 5000' Reels
	10	0.045	30	35	40	0.810	486	1000' 5000' Reels
	11	0.045	30	35	40	0.851	536	1000' 5000' Reels
	12	0.045	30	35	40	0.877	597	1000' 5000' Reels

¹ 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.

² Type TC only

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC
PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658; NFPA 70 (NEC®) Article 336, 392; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; 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

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

Ground Conductor

XLPE insulated green ground

Assembly

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

Color Coding

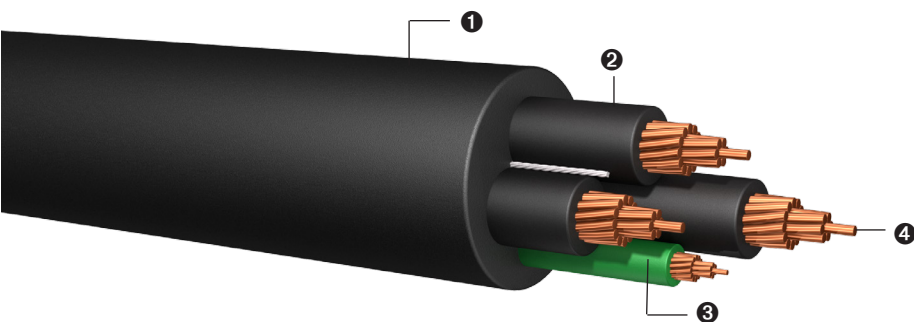
Black insulation with ICEA Method 4 printed number

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. Also available in chlorinated polyethylene jacket (CPE) by request.

APPLICATIONS

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



- ① PVC Jacket
- ② XLPE Insulation
- ③ Green Insulated Grounding Conductor
- ④ XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors		Size of Ground Wire (AWG)	Outside Jacket Thickness PVC (in)		Allowable Ampacity (Amps) ¹			Outside Diameter (in)		Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
				3	4	60°C	75°C	90°C	3	4	3	4	
8	3	4	10 AWG Green Insulated	0.060	0.060	40	50	55	0.660	0.705	318	388	1000' 5000' Reels
6	3	4	8 AWG Green Insulated	0.060	0.060	55	65	75	0.740	0.810	455	561	1000' 4000' Reels
4	3	4	8 AWG Green Insulated	0.080	0.080	70	85	95	0.930	1.080	707	903	1000' 3000' Reels
2	3	4	6 AWG Green Insulated	0.080	0.080	85	115	130	1.058	1.165	1032	1290	1000' 2000' Reels
1	3	4	6 AWG Green Insulated	0.080	0.080	95	130	145	1.185	1.308	1206	1645	1000' 2000' Reels
1/0	3	4	6 AWG Green Insulated	0.080	0.080	110	150	170	1.275	1.405	1520	1934	1000' 2000' Reels
2/0	3	4	6 AWG Green Insulated	0.080	0.080	125	175	195	1.378	1.518	1834	2429	500' 1000' 2000' Reels
3/0	3	4	4 AWG Green Insulated	0.080	0.080	145	200	225	1.488	1.638	2252	2882	1000' 2000' Reels
4/0	3	4	4 AWG Green Insulated	0.080	0.080	165	230	260	1.608	1.758	2743	3552	1000' 1500' Reels

¹ 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/215°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.

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

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

TYPE TC - POWER CABLE - W/ INSULATED GROUND

XHHW-2 INNERS

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-2556; ASTM Stranding Class B3, B8, B787; Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658; NFPA 70 (NEC®) Article 336, 392; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC 57/ICEA S-73-532; 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

Bare, soft-annealed stranded copper conductors per ASTM-B3, ASTM-B8 and ASTM-B787

Insulation

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

Ground Conductor

XLPE insulated green ground

Assembly

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

Color Coding

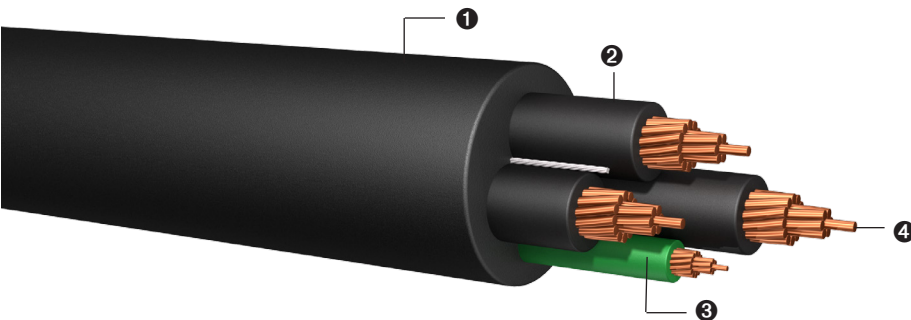
Black insulation with ICEA Method 4 printed number

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. Also available in chlorinated polyethylene jacket (CPE) by request.

APPLICATIONS

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



- ① PVC Jacket
- ② XLPE Insulation
- ③ Green Insulated Grounding Conductor
- ④ XHHW-2 Stranded Copper Conductors

Size (AWG)	No. of Conductors		Size of Ground Wire (AWG)	Outside Jacket Thickness PVC (in)		Allowable Ampacity (Amps) ¹			Outside Diameter (in)		Approximate Net Weight (lbs/1000 ft)		Standard Packaging (ft)
				3	4	60°C	75°C	90°C	3	4	3	4	
250	3	4	4	0.080	0.080	215	255	290	1.782	1.974	3158	3994	1000' 1500' Reels
300	3	4	3	0.110	0.110	240	285	320	1.968	2.156	3843	4846	1000' 1500' Reels
350	3	4	3	0.110	0.110	260	310	350	2.081	2.302	4320	5565	1000' 1500' Reels
400	3	4	3	0.110	0.110	280	335	380	2.187	2.421	4857	6288	1000' 1500' Reels
500	3	4	2	0.110	0.110	320	380	430	2.383	2.639	5958	7590	1000' 1500' Reels
600	3	4	2	0.110	0.110	350	420	475	2.697	2.990	7358	9378	1000' 1500' Reels
750	3	4	1	0.110	0.110	400	475	535	3.015	3.347	8752	11307	1000' 1500' Reels

¹ 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.

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