

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standard UL-44, UL-1277, UL-1581, UL-1685, 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 Method 1 (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; IEEE 1202 (FT4) optional. 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. Nylon rip-cord is supplied for easy stripping.

Color Coding

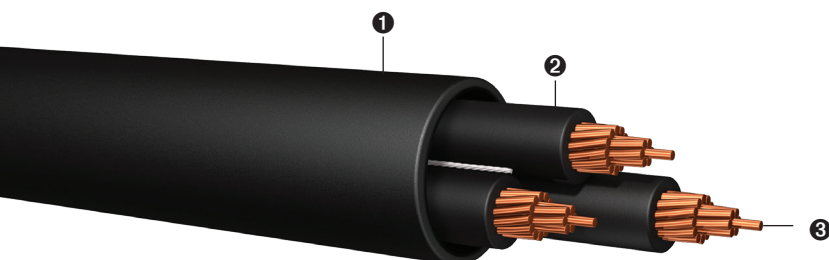
Black insulation with ICEA Method 4 printed number

Overall Jacket

Flame retardant, sunlight-resistant, black PVC jacket. 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. Type XHHW-2 conductors are permitted for 600-volt and 1000-volt applications and are approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cable sizes 8 AWG - 6 AWG are listed with 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 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)
			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°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-JP **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V/1000V DIR-BUR (UL) DATE/TIME/OPER/QC

³ Type TC only **PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600V/1000V DIR-BUR (UL) DATE/TIME/OPER/QC