### 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, 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. Cable sizes 8 AWG - 6 AWG are listed with TC-ER-JP rating. Approved for Class I Division II Hazardous Locations.

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#### Table: Allowable Ampacities

<table>
<thead>
<tr>
<th>Size (AWG)</th>
<th>No. of Conductors</th>
<th>Outside Jacket Thickness PVC (in)</th>
<th>Allowable Ampacity (Amps)</th>
<th>Outside Diameter (in)</th>
<th>Approximate Net Weight (lbs/1000 ft)</th>
<th>Standard Packaging (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3, 4</td>
<td>0.060, 0.060</td>
<td>40, 50, 55</td>
<td>0.660, 0.705</td>
<td>285, 354</td>
<td>1000’, 5000’, Reels</td>
</tr>
<tr>
<td>6&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.060</td>
<td>50, 65, 75</td>
<td>0.735, 0.800</td>
<td>403, 507</td>
<td>1000’, 4000’, Reels</td>
</tr>
<tr>
<td>4&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>65, 85, 95</td>
<td>0.925, 1.001</td>
<td>655, 829</td>
<td>1000’, 3000’, Reels</td>
</tr>
<tr>
<td>2&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>85, 115, 130</td>
<td>1.054, 1.155</td>
<td>950, 1207</td>
<td>1000’, 2000’, Reels</td>
</tr>
<tr>
<td>1&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>115, 145, 150</td>
<td>1.375, 1.425</td>
<td>1439, 1829</td>
<td>1000’, 2000’, Reels</td>
</tr>
<tr>
<td>1/0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>145, 175, 195</td>
<td>1.545, 1.655</td>
<td>2123, 2723</td>
<td>1000’, 2000’, Reels</td>
</tr>
<tr>
<td>2/0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>175, 200, 225</td>
<td>1.605, 1.655</td>
<td>2613, 3443</td>
<td>1000’, 2000’, Reels</td>
</tr>
<tr>
<td>3/0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>0.080</td>
<td>200, 230, 260</td>
<td>1.655</td>
<td>2613, 3443</td>
<td>1000’, 1500’, Reels</td>
</tr>
</tbody>
</table>

<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 4C cables shall be reduced by a factor of 0.80 per NEC 310.15(B)(16).
The above data is approximate and subject to normal manufacturing tolerances.
8 AWG through 4/0 AWG are 19 STRANDS PER CONDUCTOR

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Printed legend: Encore Wire Corporation (w/t) TYPE TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

Type TC only

Printed legend: Encore Wire Corporation (w/t) TYPE TC CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

Type TC-ER-JP

Printed legend: Encore Wire Corporation (w/t) TYPE TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

1/0 Type TC-ER-JP

Printed legend: Encore Wire Corporation (w/t) TYPE 1/0 TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

2/0 Type TC-ER-JP

Printed legend: Encore Wire Corporation (w/t) TYPE 2/0 TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

3/0 Type TC-ER-JP

Printed legend: Encore Wire Corporation (w/t) TYPE 3/0 TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OPER/QC

4/0 Type TC-ER-JP

Printed legend: Encore Wire Corporation (w/t) TYPE 4/0 TC-ER-JP CABLE XHHW-2 CDRS SUN-RES 600V 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**
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**Insulation**
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**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, 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.

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**Print Legend:**
- PVC Jacket
- XLPE Insulation
- XHHW-2 Stranded Copper Conductors

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### Size (AWG) | No. of Conductors | Outside Jacket Thickness PVC (in) | Allowable Ampacity (Amps) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft)
--- | --- | --- | --- | --- | --- | ---
250 | 3 | 0.080 | 4 | 60° | 75° | 90° | 3.00 | 3.37 | 3865 | 3029 | 1000 | 1000
300 | 3 | 0.110 | 4 | 75° | 100° | 125° | 3.68 | 4.84 | 3865 | 4158 | 1000 | 1000
350 | 3 | 0.110 | 4 | 75° | 100° | 125° | 4.69 | 6.12 | 3865 | 4158 | 1000 | 1000
400 | 3 | 0.110 | 4 | 75° | 100° | 125° | 5.75 | 7.35 | 3865 | 4158 | 1000 | 1000
500 | 3 | 0.110 | 4 | 75° | 100° | 125° | 6.96 | 9.17 | 3865 | 4158 | 1000 | 1000
600 | 3 | 0.110 | 4 | 75° | 100° | 125° | 7.15 | 9.17 | 3865 | 4158 | 1000 | 1000
750 | 3 | 0.110 | 4 | 75° | 100° | 125° | 8.69 | 11.04 | 3865 | 4158 | 1000 | 1000

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.
2. 60° when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.
3. 75° when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.
4. 90° 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 XHHW-2 CDRS SUN-RES 600V DIR-BUR (UL) DATE/TIME/OP/RC