**TYPE TC - POWER CABLE - WITH GROUND - 600V**

**XHHW-2 CONDUCTORS (6 AWG - 4/0 AWG)**

### ENGINEERING SPECIFICATIONS

**Standards**
Underwriters Laboratories® Standard UL-44, UL-1277, UL-1581, UL-1685, UL-2556; Compact Stranded Aluminum Alloy 8000 Series per ASTM B800, ASTM B801, ASTM B836; NFPA 70 (NEC®) Article 336; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC70/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**
Compact Stranded Conductors, Aluminum Alloy 8000 Series per ASTM B800, ASTM B801 and ASTM B836

**Insulation**
High-dielectric strength, heat, and moisture-resistant, Cross-linked polyethylene (XLPE) rated at 90°C dry or wet to meet UL-44 requirements for Type XHHW-2 wire

**Ground Conductor**
Compact Stranded Conductors, Aluminum Alloy 8000 Series per ASTM B800, ASTM B801 and ASTM B836. Insulated green ground.

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

**Assembly**
The insulated conductors are cabled together, with an insulated or bare ground and fillers as required, to form a round compact core. Nylon rip-cord is supplied for easy stripping; overall black PVC jacket.

**Color Coding**
Black insulation with ICEA Method 4 printed number

### APPLICATIONS

Primarily used for connect power devices in a commercial and industrial environment. Suitable for installation in electrical 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 constructed and listed for applications requiring type TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Table: Conductor Specifications

<table>
<thead>
<tr>
<th>Size (AWG)</th>
<th>No. of Conductors</th>
<th>No. of Strands</th>
<th>No. of Green Ground Wire (AWG)</th>
<th>Size of Green Ground Wire (AWG)</th>
<th>No. of Strands</th>
<th>Size of Outer Jacket Thickness PVC (in)</th>
<th>Outside Diameter (in)</th>
<th>Approximate Net Weight (lbs/1000 ft)</th>
<th>Allowable Ampacity (Amps)</th>
<th>Standard Packaging (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>6 AWG Insulated Green</td>
<td>7</td>
<td>0.060</td>
<td>0.080</td>
<td>0.090</td>
<td>75°C, 90°C</td>
<td>1000' - 4000' Reels</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>6 AWG Insulated Green</td>
<td>7</td>
<td>0.060</td>
<td>0.080</td>
<td>0.090</td>
<td>75°C, 90°C</td>
<td>1000' - 3000' Reels</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>6 AWG Insulated Green</td>
<td>7</td>
<td>0.060</td>
<td>0.080</td>
<td>0.090</td>
<td>75°C, 90°C</td>
<td>1000' - 2000' Reels</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>6 AWG Insulated Green</td>
<td>7</td>
<td>0.060</td>
<td>0.080</td>
<td>0.090</td>
<td>75°C, 90°C</td>
<td>1000' - 2000' Reels</td>
</tr>
<tr>
<td>1/0</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>6 AWG Insulated Green</td>
<td>7</td>
<td>0.060</td>
<td>0.080</td>
<td>1.121</td>
<td>75°C, 90°C</td>
<td>1000' - 2000' Reels</td>
</tr>
<tr>
<td>2/0</td>
<td>3</td>
<td>4</td>
<td>12</td>
<td>4 AWG Insulated Green</td>
<td>7</td>
<td>0.080</td>
<td>0.080</td>
<td>1.207</td>
<td>75°C, 90°C</td>
<td>500' - 1000' Reels</td>
</tr>
<tr>
<td>3/0</td>
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<td>4</td>
<td>15</td>
<td>4 AWG Insulated Green</td>
<td>7</td>
<td>0.080</td>
<td>0.080</td>
<td>1.309</td>
<td>75°C, 90°C</td>
<td>1000' - 2000' Reels</td>
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<tr>
<td>4/0</td>
<td>3</td>
<td>4</td>
<td>19</td>
<td>2 AWG Insulated Green</td>
<td>7</td>
<td>0.080</td>
<td>0.080</td>
<td>1.421</td>
<td>75°C, 90°C</td>
<td>1000' - 1500' Reels</td>
</tr>
</tbody>
</table>

1 For ampacities see NEC Table 310.15(B)(16) for insulated conductors; not more than three current-carrying conductors in a raceway, cable, or earth (directly buried), based on ambient temperature of 30°C (86°F), NEC Article 310.15(B)(2)(a) for ambient temperature correction factors for temperatures other than 30°C (86°F), NEC Table 310.15(B)(3)(a) for ampacity adjustment factors, as applicable, for more than three current-carrying conductors.

**PRINT LEGEND:** ENCORE WIRE CORP (SIZE) TYPE TC-ER CABLE XHHW-2 AA-8000 AL CDRS SUN-RES 600 VOLT DIR-BUR UL DATE/TIME/OPER/OC

### Diagram

- 1: PVC Jacket
- 2: Tape Separator
- 3: Non-Metallic Fillers (as required)
- 4: Green Insulated Compact Stranded Ground Conductor, AA-8000 Series (as required)
- 5: XLPE Insulation
- 6: Compact Stranded Conductor, AA-8000 Series
# Engineering Specifications

## Standards

Underwriters Laboratories® Standard UL-44, UL-1277, UL-1581, UL-1685, UL-2556; Compact Stranded Aluminum Alloy 8000 Series per ASTM B800, ASTM B801, ASTM B836; NFPA 70 (NEC®) Article 336; UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test; NEMA WC70/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

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### Insulation

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### Assembly

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Black insulation with ICEA Method 4 printed number

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<table>
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<tr>
<th>Size (AWG)</th>
<th>No. of Conductors</th>
<th>No. of Strands</th>
<th>Ground Thickness PVC (in)</th>
<th>Outside Diameter (in)</th>
<th>Approximate Net Weight (lbs/1000 ft)</th>
<th>Allowable Ampacity (Amps)</th>
<th>Standard Packaging (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>3</td>
<td>4</td>
<td>20/2 Insulated Green</td>
<td>0.080</td>
<td>1.561 / 1.789</td>
<td>1420 / 1855</td>
<td>205 / 230</td>
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<tr>
<td>300</td>
<td>3</td>
<td>4</td>
<td>20/2 Insulated Green</td>
<td>0.110</td>
<td>1.729 / 1.910</td>
<td>1735 / 2152</td>
<td>230 / 260</td>
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<tr>
<td>350</td>
<td>3</td>
<td>4</td>
<td>20/2 Insulated Green</td>
<td>0.110</td>
<td>1.828 / 2.021</td>
<td>1961 / 2443</td>
<td>250 / 280</td>
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<tr>
<td>400</td>
<td>3</td>
<td>4</td>
<td>1/0 AWG Insulated Green</td>
<td>0.110</td>
<td>1.920 / 2.125</td>
<td>2159 / 2692</td>
<td>270 / 305</td>
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<tr>
<td>500</td>
<td>3</td>
<td>4</td>
<td>1/0 AWG Insulated Green</td>
<td>0.110</td>
<td>2.086 / 2.311</td>
<td>2593 / 3243</td>
<td>310 / 350</td>
</tr>
<tr>
<td>600</td>
<td>3</td>
<td>4</td>
<td>1/0 AWG Insulated Green</td>
<td>0.110</td>
<td>2.318 / 2.564</td>
<td>3148 / 3943</td>
<td>340 / 385</td>
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<tr>
<td>700</td>
<td>3</td>
<td>4</td>
<td>1/0 AWG Insulated Green</td>
<td>0.140</td>
<td>2.455 / 2.783</td>
<td>3575 / 4588</td>
<td>375 / 425</td>
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<tr>
<td>750</td>
<td>3</td>
<td>4</td>
<td>1/0 AWG Insulated Green</td>
<td>0.140</td>
<td>2.522 / 2.858</td>
<td>3798 / 4905</td>
<td>385 / 435</td>
</tr>
</tbody>
</table>

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**Print Legend:** ENCORE WIRE CORP (SIZE) TYPE TC-ER CABLE XHHW-2 AA-8000 AL CDRS SUN-RES 600 VOLT DIR-BUR (UL) DATE/TIME/OPER/QC

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