### PRODUCT HIGHLIGHTS
Southwire’s 15KV HVTECK Solonon® low smoke zero halogen jacketed cable is a CSA armoured cable for industrial and commercial medium voltage applications. Rated FT4-ST1, -25°C, Hazardous Locations (HL) and 105°C for use in harsh Canadian environments. For installation in cable trays, duct banks, direct burial, troughs, continuous rigid cable supports and concrete encasable.

### CONSTRUCTION
**Conductor**
- Class B - compact stranded -8000 Series Aluminum -ACM

**Options**
- Class B compact stranded copper
- Class B compressed stranded copper

**Insulation**
- Extruded semi-conducting thermosetting polymeric layer
- Non-lead EPR (Ethylene Propylene Rubber)
- Thickness: 0.175 inches (4.45mm) - nominal
- Insulation level: 100% - grounded system
- 105°C rated

**Insulation Shield**
- Extruded Semi-conducting thermosetting polymeric layer
- CSA 68 10 - Shield Removal/termination requirements are printed on the surface
- Phase identification as per ICEA Method 3, using printed circuit numbers
- Meets requirement of ICEA but built to CSA standards

**Copper Tape Shield**
- Helically wrapped 5 mil copper tape with 25% overlap

**Bonding Conductor**
- Class B compressed stranded bare copper
  - in accordance with ASTM B3 and B8

**Fillers**
- Non-wicking, non-hygrosopic

**Inner Jacket**
- Black PVC
- Thickness: No.2 AWG to 350 kcmil = 0.11 inches (2.79mm)
  - 500 kcmil to 750 kcmil = 0.14 inches (3.58mm)

**Armour**
- Aluminum Interlocked Armour (AIA)
- Optional Galvanized Steel Interlocked Armour (GSIA)

**Overall Jacket**
- Black - Low Smoke Zero Halogen XLPE Solonon jacket
- Nominal Thickness:
  - No.2 AWG to No.1 AWG = 0.06 inches (1.52mm)
  - No.1/0 AWG to 350 kcmil = 0.075 inches (1.91mm)
  - 500 kcmil to 750 kcmil = 0.085 inches (2.16mm)

**Typical Print Legend**
- [CSA] SOUTHWIRE (NESC) #F# 3/3 [AWG or #kcmil] CPT AL 175 EPR AIA 15KV 100% INS LEVEL 25% TS SUN RES 105° FT4-ST1 LSZH SOLONON HL (-25°C) LTD RoHS YEAR [SEQUENTIAL METER MARKS]

### TABLE 1 - WEIGHTS & MEASUREMENTS

<table>
<thead>
<tr>
<th>HVTECK Product Code</th>
<th>Cond. Size</th>
<th>AWG or kcmil</th>
<th>Conductor Diameter</th>
<th>Diameter Over Insulation</th>
<th>Diameter Over Insulation Shield</th>
<th>Bonding Cond. Size</th>
<th>Diameter Over Inner Jacket</th>
<th>Diameter Over Armour</th>
<th>Approx. Overall Diameter</th>
<th>Minimum Bend Radius</th>
<th>Approx. Weight of Cable</th>
<th>Max. Reel Weight (reel and cable)**</th>
<th>Max. Real Diameter / Width **</th>
<th>Max. Real Length of Cable on Reel **</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL175T42-002</td>
<td>2/19</td>
<td>0.268</td>
<td>6.8</td>
<td>0.648</td>
<td>16.5</td>
<td>0.728</td>
<td>18.5</td>
<td>8</td>
<td>1.836</td>
<td>46.6</td>
<td>2.166</td>
<td>55.0</td>
<td>2.286</td>
<td>58.1</td>
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<tr>
<td>AL175T42-001</td>
<td>1/19</td>
<td>0.299</td>
<td>7.6</td>
<td>0.679</td>
<td>17.2</td>
<td>0.759</td>
<td>19.3</td>
<td>6</td>
<td>1.903</td>
<td>48.3</td>
<td>2.233</td>
<td>56.7</td>
<td>2.353</td>
<td>59.8</td>
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<tr>
<td>AL175T42-010</td>
<td>1/0/19</td>
<td>0.336</td>
<td>8.5</td>
<td>0.716</td>
<td>18.2</td>
<td>0.796</td>
<td>20.2</td>
<td>6</td>
<td>1.983</td>
<td>50.4</td>
<td>2.313</td>
<td>58.7</td>
<td>2.463</td>
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<td>0.376</td>
<td>9.6</td>
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<td>0.836</td>
<td>21.2</td>
<td>6</td>
<td>2.069</td>
<td>52.6</td>
<td>2.399</td>
<td>60.9</td>
<td>2.549</td>
<td>64.7</td>
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<tr>
<td>AL175T42-030</td>
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<td>0.423</td>
<td>10.7</td>
<td>0.803</td>
<td>20.4</td>
<td>0.883</td>
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<td>6</td>
<td>2.170</td>
<td>55.1</td>
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<tr>
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<td>0.475</td>
<td>12.1</td>
<td>0.850</td>
<td>21.7</td>
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<td>6</td>
<td>2.283</td>
<td>58.8</td>
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<td>2.763</td>
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<tr>
<td>AL175T42-050</td>
<td>5/0/19</td>
<td>0.520</td>
<td>13.2</td>
<td>0.910</td>
<td>23.1</td>
<td>0.990</td>
<td>25.1</td>
<td>6</td>
<td>2.402</td>
<td>61.0</td>
<td>2.732</td>
<td>69.4</td>
<td>2.882</td>
<td>73.2</td>
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<tr>
<td>AL175T42-060</td>
<td>6/0/19</td>
<td>0.565</td>
<td>14.3</td>
<td>0.970</td>
<td>24.6</td>
<td>1.068</td>
<td>27.8</td>
<td>6</td>
<td>2.529</td>
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<td>2.899</td>
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<tr>
<td>AL175T42-070</td>
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<td>0.616</td>
<td>15.6</td>
<td>1.006</td>
<td>25.6</td>
<td>1.098</td>
<td>29.8</td>
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<td>2.669</td>
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<td>3.289</td>
<td>90.3</td>
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<td>AL175T42-080</td>
<td>8/0/19</td>
<td>0.667</td>
<td>16.9</td>
<td>1.044</td>
<td>26.6</td>
<td>1.138</td>
<td>31.8</td>
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<td>2.818</td>
<td>69.7</td>
<td>3.299</td>
<td>93.3</td>
<td>3.519</td>
<td>96.5</td>
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</tbody>
</table>

**NOTE:** These are minimum average dimensions as per CSA Standards.
* Other conductor sizes and outer jacket colours are available upon request. (## in brackets represent # of strands / conductor)
** Longer maximum lengths may be possible. Standard sizes and lengths may be supplied. Reel sizes are not guaranteed. The factory reserves the right to make changes as necessary to optimize manufacturing requirements.
**HVTECK SPECIFICATIONS**

**HVTECK AL 3/C 175EPR TS LSZH AIA LSZH SOLONON® 15KV 100% CSA**

**DESIGN**

**Qualification Standards**
- CSA C68.10 - Shielded Power Cables for Commercial and Industrial Applications - 5 to 46 kV
- CSA C68.3 - Shielded & Concentric Neutral Power Cable - 5 to 46 kV
- CSA C22.2 No. 174 - Cables in Hazardous Locations
- ICEA S-93-639 (NEMA WC 74) 5 to 46 kV - Shielded Power Cable
- AEIC CS-8 - Qualification Testing Requirements

**Flame Test Ratings**
- FT1 - Flame Test - (1,706 BTU/Hr. nominal - Vertical Wire Flame Test)
- FT4, Flame Test - (70,000 BTU/Hr. - Vertical Tray Flame Test)
- IEEE 1202 - Flame Test - (70,000 BTU/Hr. - Vertical Tray Test)
- IEEE 383 - Flame Test - (70,000 BTU/Hr.)
- IEEE T-29-520 - Vertical Cable Tray Flame Test - (210,000 BTU/Hr.)
- CSA ST1 Smoke Test  - marked FT4-ST1

**Operating Temperatures**
- -25°C - CSA Cold Bend and Impact Temperature
- -10°C - Min. Installation Temperature
- 105°C - Max. Continuous Operating Temperature
- 250°C for Short Circuit Temperature

**Product Ratings**
- CSA C22.2 No. 2568 & No. 0.3 - Wire and Cable Test Methods
- CSA LTDD - [25°C] as per C68.10 - for Cold Bend and Impact rating
- CSA HL - for Hazardous Locations rating
- CSA FT4 - for Flame Retardancy rating
- CSA SUN RES - for Sunlight Resistant rating

**Ampacities**

<table>
<thead>
<tr>
<th>HVTECK Product Code</th>
<th>Ampacities in Ventilated Cable Tray</th>
<th>Allowable Ampacities Directly Buried in Earth</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL17542-002</td>
<td>2.9 kAmps</td>
<td>296 Amps</td>
</tr>
<tr>
<td>AL17542-001</td>
<td>135 kAmps</td>
<td>323 Amps</td>
</tr>
<tr>
<td>AL17542-010</td>
<td>1000 ft.</td>
<td>157 Amps</td>
</tr>
<tr>
<td>AL17542-020</td>
<td>1506 ft.</td>
<td>178 Amps</td>
</tr>
<tr>
<td>AL17542-030</td>
<td>1901 ft.</td>
<td>202 Amps</td>
</tr>
<tr>
<td>AL17542-040</td>
<td>2396 ft.</td>
<td>229 Amps</td>
</tr>
<tr>
<td>AL17542-050</td>
<td>3020 ft.</td>
<td>204 Amps</td>
</tr>
<tr>
<td>AL17542-060</td>
<td>3609 ft.</td>
<td>234 Amps</td>
</tr>
<tr>
<td>AL17542-070</td>
<td>4300 ft.</td>
<td>260 Amps</td>
</tr>
<tr>
<td>AL17542-080</td>
<td>5000 ft.</td>
<td>268 Amps</td>
</tr>
<tr>
<td>AL17542-090</td>
<td>6300 ft.</td>
<td>294 Amps</td>
</tr>
<tr>
<td>AL17542-100</td>
<td>8000 ft.</td>
<td>308 Amps</td>
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</tbody>
</table>

* Calculations are based on 5 mil 25% over lapping copper tape shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 100 ohms-meter

1 Ampacities are based on Table D17N of the 2015 Canadian Electrical Code Part I (40°C Ambient Air Temperature, indoor installation)

2 Ampacities are based on Table D17E of the 2015 Canadian Electrical Code Part I