NOTE: These are minimum average dimensions as per CSA Standards.

* Other conductor sizes and outer jacket colours are available upon request. (#s 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.

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**PRODUCT HIGHLIGHTS**

Southwire’s 28KV HVTECK is a CSA armoured cable for industrial and commercial medium voltage applications. Rated FT4, -40°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 encaseable.

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**CONSTRUCTION**

**Conductor**
- Class B - compact stranded - 8000 Series Aluminum - ACM
- Options:
  - Class B compact stranded copper
  - Class B compressed stranded copper
  - Strand blocking technology
  - Tinning on copper conductors

**Conductor Shield**
- Extruded semi-conducting thermosetting polymeric layer

**Insulation**
- TR-XLPE - (Free Retardent Cross Linked Polyethylene)
- Thickness: 0.28 inches (7.11mm) - 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
- Meets requirement of ISEA but built to CSA standards

**Copper Tape Shield**
- Helically wrapped 5 mil copper tape with 25% overlap
- Not designed to carry ground fault current
- A separate bonding/grounding conductor may be required

**Inner Jacket**
- Black PVC
- Thickness: No.1 AWG to 500 kcmil = 0.08 inches (2.03mm)
  750 kcmil = 0.11 inches (2.79mm)

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

**Overall Jacket**
- Black PVC (optional colours available)
- Nominal Thickness:
  - No.1 AWG = 0.05 inches (1.27mm)
  - No.1/0 AWG to 750 kcmil = 0.06 inches (1.52mm)

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**HVTECK SPECIFICATIONS**

**CONSTRUCTION**

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

**Options**
- Class B compact stranded copper
- Class B compressed stranded copper
- Strand blocking technology
- Tinning on copper conductors

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  - No.1 AWG = 0.05 inches (1.27mm)
  - No.1/0 AWG to 750 kcmil = 0.06 inches (1.52mm)

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**TYPICAL PRINT LEGEND**

- (CSA) SOUTHWIRE (NEC) K#K (#AWG or #kcmil) CPT AL 280 TRXLPE AIA 28KV 100% INS LEVEL 25% TS SUN RES 105° FT4 HL (-40°C) LTGG RoHS YEAR [SEQUENTIAL METER MARKS]
### TABLE 2 - ENGINEERING SPECIFICATIONS

<table>
<thead>
<tr>
<th>HVTECK Product Code</th>
<th>Maximum Pulling Tension</th>
<th>DC Resistance @ 25°C (Ω/km)</th>
<th>AC Resistance @ 60°C Triplex (Ω/km)</th>
<th>Inductance L (µH/100 ft)</th>
<th>Capacitance C (µF/1000 ft)</th>
<th>Inductive Reactance @ 60 Hz (Ω/1000 ft)</th>
<th>Capacitive Reactance @ 60 Hz (Ω/1000 ft)</th>
<th>Positive-Sequence Impedance*</th>
<th>Zero-Sequence Impedance*</th>
<th>Short Circuit Current (each phase conductor) @ 60 Hz</th>
<th>Allowable Ampacities in Ventilated Cable Tray †</th>
<th>Allowable Ampacities Directly Buried in Earth ‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL280Y66-001</td>
<td>502</td>
<td>0.211</td>
<td>0.692</td>
<td>0.295</td>
<td>0.670</td>
<td>0.1240</td>
<td>0.4069</td>
<td>0.0358</td>
<td>0.1174</td>
<td>0.0467</td>
<td>0.0226</td>
<td>0.266 + j0.060</td>
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<tr>
<td>AL280Y66-010</td>
<td>634</td>
<td>0.168</td>
<td>0.551</td>
<td>0.211</td>
<td>0.613</td>
<td>0.1194</td>
<td>0.3517</td>
<td>0.0364</td>
<td>0.1262</td>
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<td>0.0210</td>
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</tr>
<tr>
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<td>0.3667</td>
<td>0.0404</td>
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<tr>
<td>AL280Y66-030</td>
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<td>0.345</td>
<td>0.132</td>
<td>0.433</td>
<td>0.1168</td>
<td>0.3646</td>
<td>0.0446</td>
<td>0.1468</td>
<td>0.0431</td>
<td>0.0317</td>
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<tr>
<td>AL280Y66-040</td>
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<td>0.084</td>
<td>0.274</td>
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<td>0.345</td>
<td>0.1088</td>
<td>0.3404</td>
<td>0.0483</td>
<td>0.1321</td>
<td>0.0403</td>
<td>0.0317</td>
<td>0.133 + j0.054</td>
</tr>
<tr>
<td>AL280Y66-050</td>
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<td>0.232</td>
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<td>0.292</td>
<td>0.1043</td>
<td>0.3424</td>
<td>0.0508</td>
<td>0.1291</td>
<td>0.0393</td>
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<td>0.106 + j0.050</td>
</tr>
<tr>
<td>AL280Y66-060</td>
<td>2100</td>
<td>0.051</td>
<td>0.166</td>
<td>0.064</td>
<td>0.209</td>
<td>0.0890</td>
<td>0.3249</td>
<td>0.0573</td>
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<td>0.0373</td>
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<tr>
<td>AL280Y66-070</td>
<td>3000</td>
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<td>0.116</td>
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<td>0.147</td>
<td>0.0939</td>
<td>0.2981</td>
<td>0.0654</td>
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<td>0.0335</td>
<td>0.0107</td>
<td>0.032 + j0.043</td>
</tr>
</tbody>
</table>

* Calculations are based on three cables triplexed / 5 mil 25% overlapping copper tape shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 10 ohm-meter

† Ampacities are based on Table D17M of the 2015 Canadian Electrical Code Part I (40°C Ambient Air Temperature, indoor installation)

‡ Ampacities are based on Table D17A of the 2015 Canadian Electrical Code Part I