**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**
- No-lead EPR (Ethylene Propylene Rubber)
- Thickness: 0.345 inches (8.76mm) - nominal
- Insulation level: 100% - grounded system
- 105°C rated

**Insulation Shield**
- Extruded Semi-conducting thermosetting polymeric layer

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

**Fillers**
- Non-wicking, non-hygroscopic

**Overall Jacket**
- Black - Low Smoke Zero Halogen XLPE Solonon jacket
- Nominal Thickness:
  - No 1/0 AWG = 0.11 inches (2.79mm)
  - No 2/0 AWG to 350 kcmil = 0.14 inches (3.56mm)

**Typical Print Legend**
- (CSA) SOUTHWIRE (NESC) #P# 3/C [AWG or #kcmil] CPT AL 345 EPR 35KV 100% INS LEVEL 25% TS SUN RES TC-ER 105° FT4-ST1 LSZH SOLONON (-25°C) LTDD RoHS YEAR [SEQUENTIAL METER MARKS]

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**TABLE 1 - WEIGHTS & MEASUREMENTS**

<table>
<thead>
<tr>
<th>HVTC Product Code</th>
<th>AWG or #kcmil</th>
<th>Conductor Diameter</th>
<th>Diameter Over Insulation</th>
<th>Diameter Over Insulation Shield</th>
<th>Bonding Cond. Dia</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. Reel Diameter / Width **</th>
<th>Max. Length of Cable on Reel **</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL345M91-010</td>
<td>1/0(19)</td>
<td>0.336</td>
<td>8.5</td>
<td>1.058</td>
<td>26.8</td>
<td>1.136</td>
<td>28.9</td>
<td>6</td>
<td>2.717</td>
<td>69.0</td>
<td>19.0</td>
</tr>
<tr>
<td>AL345M91-020</td>
<td>2/0(19)</td>
<td>0.376</td>
<td>9.6</td>
<td>1.098</td>
<td>27.8</td>
<td>1.176</td>
<td>29.9</td>
<td>6</td>
<td>2.863</td>
<td>72.7</td>
<td>20.0</td>
</tr>
<tr>
<td>AL345M91-030</td>
<td>3/0(19)</td>
<td>0.423</td>
<td>10.7</td>
<td>1.143</td>
<td>29.0</td>
<td>1.223</td>
<td>31.1</td>
<td>6</td>
<td>2.965</td>
<td>75.3</td>
<td>20.8</td>
</tr>
<tr>
<td>AL345M91-040</td>
<td>4/0(19)</td>
<td>0.475</td>
<td>12.1</td>
<td>1.195</td>
<td>30.4</td>
<td>1.275</td>
<td>32.4</td>
<td>4</td>
<td>3.077</td>
<td>78.2</td>
<td>21.5</td>
</tr>
<tr>
<td>AL345M91-250</td>
<td>250(37)</td>
<td>0.520</td>
<td>13.2</td>
<td>1.250</td>
<td>31.8</td>
<td>1.330</td>
<td>33.8</td>
<td>4</td>
<td>3.196</td>
<td>81.2</td>
<td>22.4</td>
</tr>
<tr>
<td>AL345M91-350</td>
<td>350(37)</td>
<td>0.616</td>
<td>15.6</td>
<td>1.346</td>
<td>34.2</td>
<td>1.426</td>
<td>36.2</td>
<td>4</td>
<td>3.403</td>
<td>86.4</td>
<td>23.8</td>
</tr>
</tbody>
</table>

**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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### TABLE 2 - ENGINEERING SPECIFICATIONS

<table>
<thead>
<tr>
<th>HVTC Product Code</th>
<th>Maximum Pulling Tension</th>
<th>DC Resistance $R_{dc}$ @ 25°C</th>
<th>AC Resistance $R_{ac}$ (triplex formation)</th>
<th>Inductance L</th>
<th>Capacitance C</th>
<th>Inductive Reactance $X_L$ @ 60Hz (triplexed)</th>
<th>Capacitive Reactance $X_C$ @ 60Hz (triplexed)</th>
<th>Positive - Sequence Impedance</th>
<th>Zero - Sequence Impedance</th>
<th>Short Circuit Current (phase conductor) @ 60Hz</th>
<th>Allowable Ampacities in Ventilated Cable Tray 1</th>
<th>Allowable Ampacities Directly Buried in Earth 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL345M91-010</td>
<td>1901 lb (8655 Newtons)</td>
<td>0.168 Ω/km</td>
<td>0.211 Ω/km</td>
<td>0.124 mH</td>
<td>0.0429 μF</td>
<td>0.0448 Ω/km</td>
<td>0.0518 Ω/km</td>
<td>0.212 + j0.050 Ω</td>
<td>0.188 + j0.050 Ω</td>
<td>0.565 + j0.312 Ω</td>
<td>4.7 Amps</td>
<td>181 Amps</td>
</tr>
<tr>
<td>AL345M91-020</td>
<td>2396 lb (10,657 Newtons)</td>
<td>0.133 Ω/km</td>
<td>0.167 Ω/km</td>
<td>0.129 mH</td>
<td>0.0459 μF</td>
<td>0.0465 Ω/km</td>
<td>0.0517 Ω/km</td>
<td>0.168 + j0.048 Ω</td>
<td>0.176 + j0.048 Ω</td>
<td>0.517 + j0.300 Ω</td>
<td>5.9 Amps</td>
<td>208 Amps</td>
</tr>
<tr>
<td>AL345M91-030</td>
<td>3020 lb (13,435 Newtons)</td>
<td>0.105 Ω/km</td>
<td>0.137 Ω/km</td>
<td>0.133 mH</td>
<td>0.0494 μF</td>
<td>0.0478 Ω/km</td>
<td>0.0514 Ω/km</td>
<td>0.133 + j0.046 Ω</td>
<td>0.183 + j0.046 Ω</td>
<td>0.476 + j0.286 Ω</td>
<td>7.4 Amps</td>
<td>239 Amps</td>
</tr>
<tr>
<td>AL345M91-040</td>
<td>3809 lb (17,242 Newtons)</td>
<td>0.084 Ω/km</td>
<td>0.118 Ω/km</td>
<td>0.138 mH</td>
<td>0.0533 μF</td>
<td>0.0498 Ω/km</td>
<td>0.0512 Ω/km</td>
<td>0.106 + j0.045 Ω</td>
<td>0.152 + j0.045 Ω</td>
<td>0.446 + j0.271 Ω</td>
<td>9.4 Amps</td>
<td>273 Amps</td>
</tr>
<tr>
<td>AL345M91-050</td>
<td>4520 lb (20,017 Newtons)</td>
<td>0.071 Ω/km</td>
<td>0.090 Ω/km</td>
<td>0.140 mH</td>
<td>0.0560 μF</td>
<td>0.0473 Ω/km</td>
<td>0.0514 Ω/km</td>
<td>0.080 + j0.044 Ω</td>
<td>0.114 + j0.044 Ω</td>
<td>0.424 + j0.258 Ω</td>
<td>11.1 Amps</td>
<td>302 Amps</td>
</tr>
<tr>
<td>AL345M91-060</td>
<td>6300 lb (28,024 Newtons)</td>
<td>0.051 Ω/km</td>
<td>0.084 Ω/km</td>
<td>0.105 mH</td>
<td>0.0629 μF</td>
<td>0.0422 Ω/km</td>
<td>0.0507 Ω/km</td>
<td>0.064 + j0.041 Ω</td>
<td>0.130 + j0.041 Ω</td>
<td>0.389 + j0.236 Ω</td>
<td>15.5 Amps</td>
<td>368 Amps</td>
</tr>
</tbody>
</table>

* Calculations are based on 5 mil 25% over-lapping copper tape shield / Conductor temperature of 85°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

*** For use in cable trays, exposed run and hazardous locations as per the limitations in the Canadian Electrical Code Part I, particularly Table 19.