35kV Primary UD EPR Cable

Applications
Predominantly used for primary underground distribution in conduit systems; suitable for use in wet or dry locations, direct burial, underground duct, and where exposed to sunlight. To be used at 35,000 volts or less and at conductor temperatures not to exceed 105°C for normal operation.

Specifications
Southwire 35kV Primary UD EPR Cable meets or exceeds the following ASTM specifications:

- B3 Soft Annealed Copper Wire
- B8 Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
- B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- B231 Aluminum 1350 Conductors, Concentric-Lay-Stranded
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

Southwire 35kV Primary UD EPR Cable is manufactured to the latest edition of the following specifications, and in the order as listed:

- ANSI/ICEA S-94-649
- AEIC CS-8
- UL 1072, When Specified
- RUS 1728F-U1

Construction
The cable is composed of a solid or moisture blocked reverse lay, compressed stranded soft drawn copper, or a solid or moisture blocked reverse lay or unilay compressed stranded 1350-H16/26 aluminum phase conductor, covered by a semi-conducting cross-linked polyethylene strand shield, an ethylene propylene rubber primary insulation, and a semi-conducting cross-linked polyethylene insulation shield. Conductors are available with either 100% or 133% insulation levels. A concentric neutral of bare copper wires and a sunlight resistant, -40°C rated, insulating linear low density polyethylene jacket are applied over the insulation shield. The cable is identified by surface print on the jacket and with the lightning bolt symbol for supply cables indented in the jacket. Red extruded stripes available upon request. A semi-conducting polyethylene jacket is also available upon request.
# 35kV Primary UD EPR

<table>
<thead>
<tr>
<th>Phase Conductor</th>
<th>Neutral</th>
<th>Thickness Per Cond. (mils)</th>
<th>Nominal Diameter (mils)</th>
<th>Weight 1000 feet (lbs.)</th>
<th>Allowable Ampacities+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size (AWG or kcmil)</strong></td>
<td><strong>Stranding</strong></td>
<td><strong>No. of Wires</strong></td>
<td><strong>Size (AWG)</strong></td>
<td><strong>Nominal Insul.</strong></td>
<td><strong>Insul. Shield min. Point</strong></td>
</tr>
</tbody>
</table>

**ALUMINUM CONDUCTOR - 0.345” INSULATION - 100% INSULATION LEVEL**

| 1/0 Solid 25 14 | 345 40 50 | 325 1060 1160 1388 | 1293 262** 186* | 1/0 19 25 14 | 345 40 50 | 362 1095 1195 1423 | 1333 262* 186* | 2/0 19 20 12 | 345 40 50 | 405 1140 1240 1502 | 1569 300* 215* | 3/0 19 25 12 | 345 40 50 | 456 1190 1290 1552 | 1815 340* 238* | 4/0 19 20 10 | 345 40 50 | 512 1245 1345 1649 | 2172 389* 276* | 250 37 24 10 | 345 40 80 | 558 1300 1400 1758 | 2526 430* 305* | 350 37 18 12 | 345 40 80 | 661 1405 1505 1821 | 2506 485** 406** | 500 37 26 12 | 345 40 80 | 789 1530 1630 1946 | 3240 573** 480** | 750 61 25 10 | 345 55 80 | 968 1720 1850 2208 | 4567 675** 574** | 1000 61 26 9 | 345 55 80 | 1117 1868 1998 2380 | 5762 779** 642** | 1250 91 26 8 | 345 55 80 | 1250 2013 2143 2553 | 7002 769** 677** |

**COPPER CONDUCTOR - 0.345” INSULATION - 100% INSULATION LEVEL**

+ Ampacities shown assume use of 100% load factor, 60 Hz current, 36" burial depth, 20°C ambient temperature, 90°C conductor temperature, earth RHO 90, insulation and shield RHO 400

* Full neutral construction (Ampacities assume - single phase circuit, one cable)

** 1/3 neutral cable (Ampacities assume - three phase circuit, 3 cables triplexed, multi-point grounding per ICEA methods)