3/C AL 15KV 220 NL-EPR 133% TS AIA PVC MV-105
Type MV-105 Three Conductor Aluminum, 220 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 133% Insulation Level, Tape Shield, 50% Ground Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket. Silicone Free.

CONSTRUCTION:
1. Conductor: Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
2. Conductor Shield: Semi-conducting cross-linked copolymer; A conductor separator is used for cable size larger than or equal to 500 Kcmil
3. Insulation: 220 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 133% Insulation Level,
4. Insulation Shield: Stripable semi-conducting cross-linked copolymer
5. Copper Tape Shield: Helically wrapped 5 mil copper tape with 25% overlap
6. Grounding Conductor: Three separate ground wires with a combined circular mil of 50% of the equivalent copper-phase conductor ampacity. Class B compressed stranded bare copper per ASTM B3 and ASTM B8.
7. Filler: Wax paper filler
8. Binder: Polypropylene tape
9. Armor: Aluminum Interlocked Armor (AIA)
10. Overall Jacket: Polyvinyl Chloride (PVC) black jacket

APPLICATIONS AND FEATURES:
Southwire's 15KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 105°C for normal operation, 140°C for emergency overload, and 250°C for short circuit conditions. Rated at -35°C for cold bend. For uses in Class I and II, Division 2 hazardous locations per NEC Article 501 and 502. Rated for 1000 lbs./FT maximum sidewall pressure. The ground is sized to equal 50% of the equivalent copper phase conductor ampacity. Silicone free cable.

SPECIFICATIONS:
- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 1072 - Medium Voltage Power Cables
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable & ICEA S-97-682 5-46 KV Utility
- UL 1685/FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV
### Table 2 – Electrical and Engineering Data

<table>
<thead>
<tr>
<th>Stock Code</th>
<th>Cond. Size</th>
<th>DC Resistance @ 25°C</th>
<th>AC Resistance @ 90°C</th>
<th>Reactance X₀ @ 60Hz</th>
<th>Reactance X₆ @ 60Hz</th>
<th>Positive Sequence Impedance*</th>
<th>Zero Sequence Impedance*</th>
<th>Shield Short Circuit Current 6 Cycles</th>
<th>Allowable Ampacities 90°C/105°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AWG</td>
<td>Ω/MFT</td>
<td>Ω/MFT</td>
<td>Ω/MFT</td>
<td>Ω/MFT</td>
<td>Ω/MFT</td>
<td>Ω/MFT</td>
<td>Amps</td>
<td>Directly Buried †</td>
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<td>TBA</td>
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<td>0.168</td>
<td>0.211</td>
<td>0.048</td>
<td>0.044</td>
<td>0.212 + j0.044</td>
<td>0.584 + j0.394</td>
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<td>0.167</td>
<td>0.044</td>
<td>0.043</td>
<td>0.168 + j0.043</td>
<td>0.538 + j0.377</td>
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<td>210 / 225</td>
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<td>0.105</td>
<td>0.132</td>
<td>0.041</td>
<td>0.041</td>
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<tr>
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<td>0.084</td>
<td>0.105</td>
<td>0.038</td>
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<td>0.106 + j0.039</td>
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<td>0.089</td>
<td>0.036</td>
<td>0.039</td>
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<td>TBA</td>
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<tr>
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<td>0.030</td>
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<td>0.350 + j0.217</td>
<td>4864</td>
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* Calculations are based on 5 mil 25% overlapping copper tape shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 100 ohms-meter
† Ampacities are based on TABLE 310.60(C)(84) of the 2014 National Electrical Code (20°C Ambient Earth Temperature, Thermal Resistance ROH of 90)
‡ Ampacities are based on TABLE 310.60(C)(72) of the 2014 National Electrical Code (40°C Ambient Air Temperature)