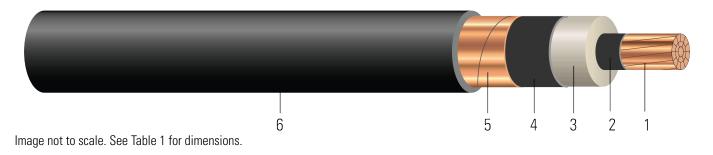
**SPEC 46321** Stock #: TBA

# CU Compact 15kV NLEPR Insulation 100% IL Black SIM-PVC Jacket. MV 105 - Tray Rated - Sunlight Resistant - For Direct Burial Type MV-105 Single Conductor Compact Copper, 175 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation

Level, Tape Shield, SIMpull® Polyvinyl Chloride (PVC) Jacket, Dual Rated UL/CSA



### **CONSTRUCTION:**

- 1. Conductor: Class B compact stranded per ASTM B496
- 2. **Conductor Shield:** Semi-conducting cross-linked copolymer
- 3. **Insulation**: 175 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation Level,
- 4. **Insulation Shield:** Strippable semi-conducting cross-linked copolymer
- 5. **Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
- 6. **Overall Jacket:** Polyvinyl Chloride (PVC)

### **APPLICATIONS AND FEATURES:**

Southwire's 15KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial when installed with a grounding conductor in close proximity that conforms to NEC section 311.36 and 250.4(A)(5), and where su-perior 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 when UL listed. Rated at -25°C for cold bend and cold impact and marked with "LTDD" when CSA listed or dual UL/CSA listed. PVC jacket is made with SIM technology and has a coefficient of friction COF of 0.2. Cable can be installed in conduit without the aid of lubrication. Rated for 1000 lbs./FT maximum sidewall pressure.

### SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B496 Compact Round Concentric-lay-standard copper
- UL 1072 Medium-Voltage Power Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- CSA C22.2 No.230 Tray Cables Rated TC-ER (1/0 AWG and Larger)
- CSA C22.2 No. 2556 / UL 2556 Cable Test Methods
- CSA C68.10 Shielded Power Cables for Commercial and Industrial Applications 5 to 46 KV
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test (1/0 and Larger)
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV (Qualification Test Requirements)











**SPEC 46321** Stock #: TBA

• Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

### **SAMPLE PRINT LEGEND:**

{SQFTG DUAL} SOUTHWIRE SIMpull® POWER CABLE {UL} XXX KCMIL CPT CU 175 MILS NL-EPR 15KV 100% INS LEVEL 25%TS MV-105 SUN. RES. {NESC} PAT www.patentSW.com

## **Table 1 – Weights and Measurements**

Cond. Size	Strand Count	Diameter Over Conductor	Diameter Over Insulation	Diameter Over Insulation Shield	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Max Pull Tension	Min Bending Radius	Conduit Size*
AWG/ Kcmil	No. of Strands	inch	inch	inch	mil	inch	lb/1000ft	lb/1000ft	lb	inch	inch
1	19	0.298	0.686	0.746	80	0.926	273	596	669	11.1	3.0

All dimensions are nominal and subject to normal manufacturing tolerances

# **Table 2 – Electrical and Engineering Data**

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Zero Sequence Impedance	Positive Sequence Impedance	Shield Short Circuit Current 6 Cycles	Allowable Ampacity In Duct 90/105°C	Allowable Ampacity In Air 90/105°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
1	0.128	0.162	0.043	0.048	0.533 + j0.447	0.162 + j0.046	2342	175/185	225/250

<sup>\*</sup> Ampacities are based on:











<sup>♦</sup> Cable marked with this symbol is a standard stock item

<sup>\*</sup> Strand count meets minimum number per ASTM

<sup>\*</sup> For Duct: Table 310.60(C)(77) Detail 1.

<sup>\*</sup> For Free Air: Table 310.60(C)(69).

<sup>\*</sup> Inductive impedance is based on non-ferrous conduit with one diameter spacing.

<sup>\*</sup> Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.

<sup>\*</sup> Capacitive Reactance is between Phase-to-Shield.