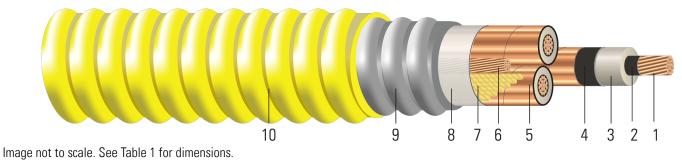


CU Compressed 8kV NLEPR Insulation 133% IL AIA PVC Jacket. MV 105 - Tray Rated - Sunlight Resistant - For Direct Burial

Type MV-105 Three Conductor Copper, 140 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 133% Insulation Level, Tape Shield, Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket. Silicone Free



CONSTRUCTION:

- 1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
- 2. Conductor Shield: Semi-conducting cross-linked copolymer
- 3. Insulation: 140 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 133% 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. **Grounding Conductor:** Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
- 7. Filler: Wax paper filler
- 8. Binder: Polypropylene tape
- 9. Armor: Aluminum Interlocked Armor (AIA)
- 10. Overall Jacket: Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 8KV 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 when UL listed. Rated at -40°C for cold bend and cold impact and marked with "LTGG" when CSA listed or dual UL/CSA listed. 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.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 1072 Medium-Voltage Power Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- ICEA S-97-682 Standard for Shielded Utility Cable Rated for 5 46kV



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- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV (Qualification Test Requirements)
- 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® POWER CABLE {UL} 3/C XX AWG CU 140 MILS NL-EPR 8KV 133% INS LEVEL 25%TS GW 3 X XX AWG CU MV-105 FOR CT USE SUN. RES. FOR DIRECT BURIAL {NESC}

Diameter Diameter Diameter Min Stock Cond. Strand Over Copper Diameter Jacket Approx. Approx. Max Pull Bending Over **Over** Ground Over armor Thickness Number Insulation Size Count 0D Weight Weight Tension Conductor Insulation Radius Shield No. of AWG/ No. x lb/ lb/ inch inch inch inch mil inch inch AWG Strands 1000ft 1000ft Kcmil TBA 2 7 0.282 0.600 0.660 1.790 740 1777 1592 1x6 60 1.910 13.3 TBA 1 0.322 0.640 0.700 1.877 60 2008 13.9 19 1x4 1.997 953 2160 TBA 0.739 2534 1/0 19 0.361 0.679 1x4 1.961 60 2.081 1159 2446 14.5 TBA 2/0 19 0.405 0.723 0.783 1x4 2.056 60 2.176 1419 2799 3194 15.2 0.774 0.834 TBA 3/0 19 0.456 1x3 2.166 60 2.286 1781 3268 4027 16.0 677742 4/0 19 0.512 0.816 0.876 3x4 2.263 75 2.413 2590 4101 5078 16.8 TBA 250 37 0.558 0.884 0.944 1x3 2.404 75 2.554 2555 4365 6000 17.8 TBA 350 37 0.661 0.987 1.047 1x2 2.626 75 2.776 3539 5585 8400 19.4 TBA 500 37 0.789 1.175 75 12000 1.115 1x1 2.903 3.053 5001 7345 21.3 TBA 0.968 1.304 10345 18000 750 61 1.364 1x1/0 3.311 90 3.491 7418 24.4

Table 1 – Weights and Measurements

All dimensions are nominal and subject to normal manufacturing tolerances

 \Diamond Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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
2	0.162	0.204	0.039	0.042	0.421 + j0.380	0.056 + j0.040	2075	150/160	165/185
1	0.128	0.162	0.035	0.040	0.422 + j0.289	0.082 + j0.051	2199	170/185	185/210
1/0	0.102	0.128	0.032	0.039	0.422 + j0.289	0.082 + j0.051	2320	195/210	215/240
2/0	0.081	0.102	0.030	0.037	0.422 + j0.289	0.082 + j0.051	2456	220/235	245/275
3/0	0.064	0.081	0.027	0.036	0.422 + j0.289	0.082 + j0.051	2614	250/270	285/315
4/0	0.051	0.065	0.025	0.035	0.527 + j0.360	0.168 + j0.051	2788	285/305	325/360
250	0.043	0.056	0.024	0.034	0.422 + j0.394	0.056 + j0.041	2955	310/335	360/400
350	0.031	0.041	0.020	0.033	0.422 + j0.403	0.056 + j0.038	3274	375/400	435/490
500	0.022	0.030	0.018	0.031	0.422 + j0.403	0.056 + j0.038	3671	450/485	535/600
750	0.014	0.023	0.015	0.030	0.423 + j0.336	0.066 + j0.040	4257	545/585	670/745



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- * NEC ampacities are based on:
- * For Duct: Table 310.60(C)(13) Detail 1.
- * For Free Air: Table 310.60(C)(5).
- * Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.
- * Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.
- * Capacitive Reactance is between Phase-to-Shield.