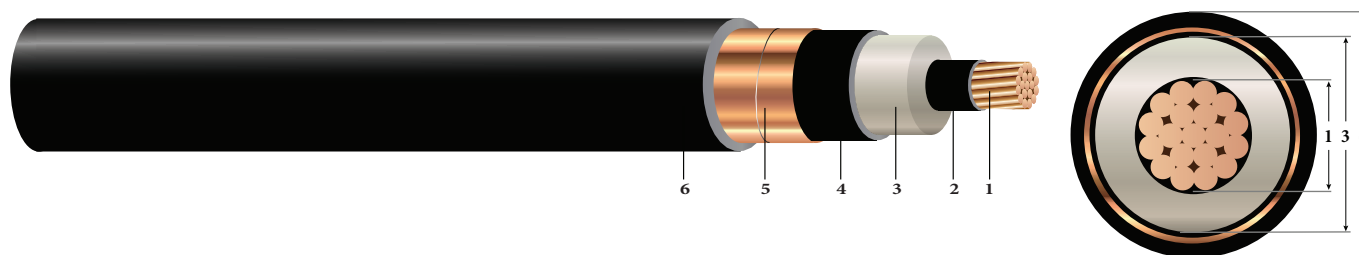


1/C CU 25KV 260 NL-EPR 100% TS SIMpull® PVC MV-105

Type MV-105 Single Conductor Copper, 260 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation Level, Tape Shield, SIMpull® Polyvinyl Chloride (PVC) Jacket, Dual Rated UL/CSA



Images not to scale. See Table 1 for Dimensions

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** 260 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% 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. **Overall Jacket:** Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 25KV 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. ST1 (low smoke) Rated for sizes 1/0 and larger. 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
- ASTM B8 Concentric-lay-standard copper
- UL 1072 - Medium Voltage Power Cables
- ICEA S-97-682 5-46 KV Utility & ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- UL 1685/FT4-ST1 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 AWG and Larger)
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test (1/0 AWG and Larger)
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV
- CSA C68.10 - Shielded Power Cables for Commercial and Industrial Applications - 5 to 46 KV
- 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

SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTNING BOLT] #P# (UL/CSA) 1/C [#AWG or #kcmil] CU 260 MILS NL-EPR 25KV 100% INS LEVEL 25% TS MV-105 For CT USE SUN. RES. TC-ER(CSA 1/0 LARGER) FOR DIRECT BURIAL FT4 -ST1 YEAR (NESC) [SEQUENTIAL FEET MARKS]



Southwire®

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Table 1 – Weights & Measurements

Stock Code	Cond. Size AWG	Diameter over			Jacket Thickness ¹ mils	Approx. OD (6) inches	Approx. Weight lbs./MFT	Max Pull Tension lbs.	Min Bending Radius inches	Conduit Size* inches
		Cond. (1)	Insul. (3)	Insul. Shield						
		inches	inches	inches						
957258	1	0.322	0.879	0.939	80	1.119	789	670	13.4	3.5
554733	1/0	0.362	0.919	0.979	80	1.159	885	845	13.9	3.5
582006	2/0	0.405	0.962	1.022	80	1.202	1001	1065	14.4	3.5
554287	3/0	0.456	1.013	1.073	80	1.253	1145	1342	15.0	3.5
957266	4/0	0.512	1.069	1.129	80	1.309	1321	1693	15.7	4
554279	250	0.558	1.124	1.184	80	1.364	1479	2000	16.4	4
552935	350	0.661	1.227	1.287	80	1.467	1863	2800	17.6	5
554519	500	0.789	1.355	1.415	80	1.595	2418	4000	19.1	5
555748	750	0.968	1.543	1.603	110	1.843	3425	6000	22.1	6
609008	1000	1.117	1.692	1.752	110	1.992	4312	8000	23.9	6

All dimensions are nominal and subject to normal manufacturing tolerances

* Conduit size based on 3 phase 40% fill-factor without ground

¹ Comply with ICEA S-93-639 Appendix C for jacket thickness determination

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Resistance		Reactance		Positive Sequence Impedance*	Zero Sequence Impedance*	Shield Short Circuit Current 6 Cycles Amps	Allowable Ampacities 90°C/105°C	
		DC @ 25°C	AC @ 90°C	X _C @ 60Hz	X _L @ 60Hz				In Duct †	In Air ‡
		Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT				Amps	Amps
957258	1	0.129	0.161	0.054	0.050	0.162 + j0.050	0.527 + j0.372	3087	175 / 185	225 / 250
554733	1/0	0.102	0.128	0.050	0.048	0.128 + j0.048	0.491 + j0.356	3218	200 / 215	260 / 290
582006	2/0	0.081	0.101	0.047	0.047	0.102 + j0.047	0.462 + j0.340	3357	230 / 245	300 / 330
554287	3/0	0.064	0.080	0.043	0.045	0.081 + j0.045	0.437 + j0.322	3523	260 / 275	345 / 380
957266	4/0	0.051	0.064	0.040	0.043	0.065 + j0.043	0.416 + j0.305	3706	295 / 315	395 / 445
554279	250	0.043	0.054	0.038	0.042	0.055 + j0.042	0.402 + j0.289	3884	325 / 345	440 / 490
552935	350	0.031	0.039	0.033	0.040	0.040 + j0.040	0.377 + j0.262	4220	390 / 415	545 / 605
554519	500	0.022	0.028	0.029	0.038	0.029 + j0.038	0.353 + j0.232	4636	465 / 500	680 / 755
555748	750	0.014	0.019	0.025	0.037	0.020 + j0.036	0.325 + j0.198	5248	565 / 610	870 / 970
609008	1000	0.011	0.015	0.022	0.035	0.016 + j0.035	0.307 + j0.176	5732	640 / 690	1040 / 1160

* Calculations are based on three cables triplexed / 5 mil 25 % over lapping 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)(77) Detail 1. of the 2014 National Electrical Code (20°C Ambient Earth Temperature, Thermal Resistance ROH of 90)

‡ Ampacities are based on TABLE 310.60(C)(69) of the 2014 National Electrical Code (40°C Ambient Air Temperature)

