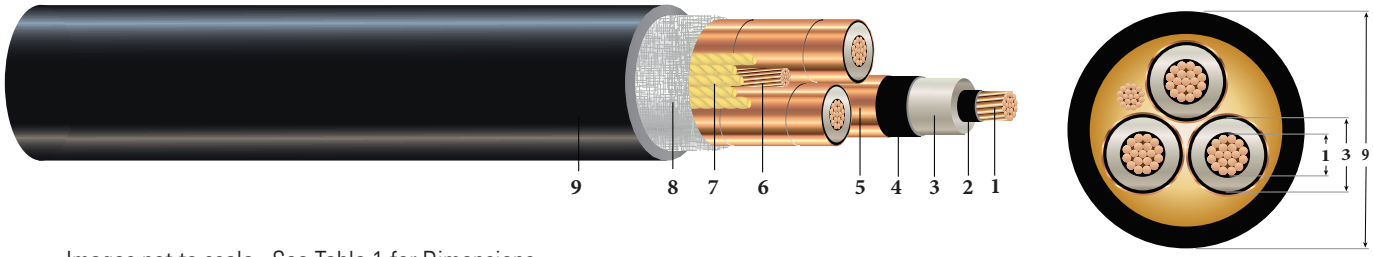
3/C CU 25KV 260 NL-EPR 100% TS PVC MV-105

Type MV-105 Three Conductor Copper, 260 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation Level, Tape Shield, 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. **Grounding Conductor**: 1 Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8
7. **Filler**: Wax paper filler
8. **Binder**: Poly glass tape
9. **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. 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
- ASTM B8 Concentric-lay-standard copper
- 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
- 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
- CSA C22.2 No. 2556 / UL 2556 - Cable Test Methods

SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] #P# (UL/CSA) 3/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) FOR DIRECT BURIAL FT4 YEAR (NESC) [SEQUENTIAL FEET MARKS]

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Table 1 – Weights & Measurements

Stock Code	Cond. Size	Diameter over Cond. (1)	Diameter over Insul. (3)	Diameter over Insul. Shield	Ground	Jacket Thickness[1]	Approx. OD (9)	Approx. Weight	Max Pull Tension	Min Bending Radius
	AWG	inches	inches	inches	No. x AWG	mils	inches	lbs./MFT	lbs.	inches
TBA	1	0.322	0.879	0.939	1 x 4	110	2.319	2815	2009	16.2
TBA	1/0	0.362	0.919	0.979	1 x 4	110	2.406	3131	2534	16.8
TBA	2/0	0.405	0.962	1.022	1 x 4	110	2.499	3510	3194	17.5
TBA	3/0	0.456	1.013	1.073	1 x 3	110	2.609	4015	4027	18.3
TBA	4/0	0.512	1.069	1.129	1 x 3	110	2.730	4587	5078	19.1
TBA	250	0.558	1.124	1.184	1 x 3	110	2.849	5105	6000	19.9
TBA	350	0.661	1.227	1.287	1 x 2	135	3.121	6534	8400	21.8
TBA	500	0.789	1.355	1.415	1 x 1	135	3.398	8391	12000	23.8
TBA	750	0.968	1.543	1.603	1 x 0	135	3.804	11406	18000	26.6

All dimensions are nominal and subject to normal manufacturing tolerances
[1] Comply with ICEA S-93-639 Appendix C for jacket thickness determination

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size	Resistance DC @ 25°C	Resistance AC @ 90°C	Reactance X_C @ 60Hz	Reactance X_L @ 60Hz	Positive Sequence Impedance*	Zero Sequence Impedance*	Shield Short Circuit Current 6 Cycles	Allowable Ampacities 90°C/105°C In Duct †	Allowable Ampacities 90°C/105°C In Air ‡
	AWG	Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT	Ω/MFT	Ω/MFT	Amps	Amps	Amps
TBA	1	0.129	0.161	0.054	0.047	0.162 + j0.047	0.531 + j0.372	3087	170 / 185	185 / 210
TBA	1/0	0.102	0.128	0.050	0.045	0.128 + j0.045	0.494 + j0.356	3218	195 / 210	215 / 240
TBA	2/0	0.081	0.101	0.047	0.043	0.102 + j0.043	0.465 + j0.340	3357	220 / 235	245 / 275
TBA	3/0	0.064	0.081	0.043	0.042	0.081 + j0.042	0.440 + j0.322	3523	250 / 270	285 / 315
TBA	4/0	0.051	0.064	0.040	0.040	0.065 + j0.040	0.419 + j0.304	3706	285 / 305	325 / 360
TBA	250	0.043	0.054	0.038	0.039	0.055 + j0.039	0.404 + j0.289	3884	310 / 335	360 / 400
TBA	350	0.031	0.039	0.033	0.037	0.040 + j0.037	0.378 + j0.261	4220	375 / 400	435 / 490
TBA	500	0.022	0.028	0.029	0.035	0.028 + j0.035	0.354 + j0.232	4636	450 / 485	535 / 600
TBA	750	0.014	0.019	0.025	0.034	0.020 + j0.034	0.327 + j0.198	5248	545 / 585	670 / 745

* Calculations are based on 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)(79) 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)(71) of the 2014 National Electrical Code (40°C Ambient Air Temperature)