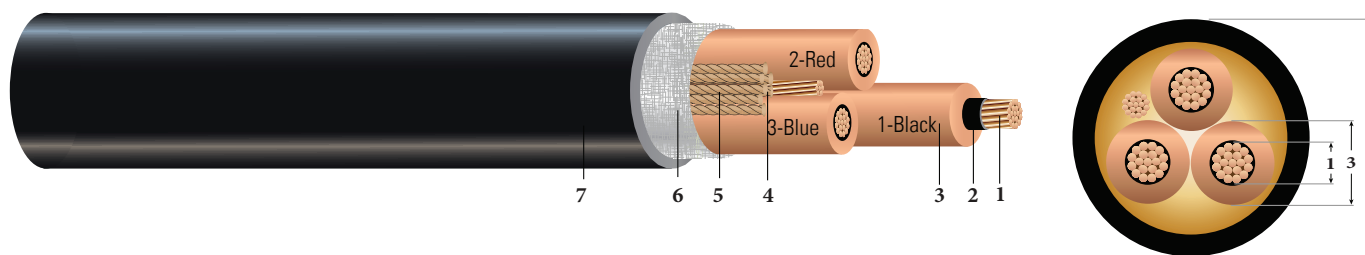


3/C CU 2.4KV 90 EPR PVC MV-105

Type MV-105 Three Conductor Copper, 90 Mils Ethylene Propylene Rubber (EPR) Polyvinyl Chloride (PVC) Jacket



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:** 90 Mils Ethylene Propylene Rubber (EPR)
4. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
5. **Filler:** Wax paper filler
6. **Binder:** Poly glass tape
7. **Overall Jacket:** Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 2.4KV 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, 130°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-96-659 (NEMA WC 7) 2001-5000 V Nonshielded Cables
- UL 1685/FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] ## (UL) 3/C [#AWG or #kcmil] CU 90 MILS EPR 2.4KV MV-105 FOR CT USE SUN. RES. FOR DIRECT BURIAL FT4 YEAR (NEC) [SEQUENTIAL FEET MARKS]



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Southwire[®]

Table 1 – Weights & Measurements

Stock Code	Cond. Size AWG	Diameter over			Ground No. x AWG	Jacket Thickness ¹ mils	Approx. OD (7) inches	Approx. Weight lbs./MFT	Max Pull Tension lbs.	Min Bending Radius inches
		Cond. (1) inches	Insul. (3) inches	Insul. Shield inches						
TBA	2	0.283	0.493	-	1 x 6	80	1.253	1182	1593	10.0
TBA	1	0.322	0.532	-	1 x 4	80	1.337	1431	2009	10.7
TBA	1/0	0.362	0.572	-	1 x 4	80	1.424	1685	2534	11.4
TBA	2/0	0.405	0.615	-	1 x 4	80	1.516	1997	3194	12.1
TBA	3/0	0.456	0.666	-	1 x 3	95	1.657	2470	4027	13.3
TBA	4/0	0.512	0.722	-	1 x 3	95	1.778	2958	5078	14.2
TBA	250	0.558	0.778	-	1 x 3	110	1.928	3450	6000	15.4
TBA	350	0.661	0.881	-	1 x 2	110	2.151	4589	8400	17.2
TBA	500	0.789	1.009	-	1 x 1	110	2.427	6252	12000	19.4
TBA	750	0.968	1.188	-	1 x 0	125	2.844	9022	18000	22.8
TBA	1000	1.117	1.337	-	1 x 0	125	3.166	11633	24000	25.3

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Resistance		Reactance		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
TBA	2	0.162	0.203	-	0.034	15089	135 / 145	140 / 154
TBA	1	0.129	0.161	-	0.033	19029	155 / 165	160 / 180
TBA	1/0	0.102	0.128	-	0.032	24011	175 / 190	185 / 205
TBA	2/0	0.081	0.102	-	0.031	30264	200 / 220	215 / 240
TBA	3/0	0.064	0.081	-	0.030	38154	230 / 250	250 / 280
TBA	4/0	0.051	0.064	-	0.030	48114	265 / 285	285 / 320
TBA	250	0.043	0.055	-	0.029	56845	290 / 315	320 / 355
TBA	350	0.031	0.039	-	0.028	79583	355 / 380	395 / 440
TBA	500	0.022	0.028	-	0.027	113690	430 / 460	485 / 545
TBA	750	0.014	0.020	-	0.026	170535	530 / 570	615 / 685
TBA	1000	0.011	0.016	-	0.026	227380	600 / 645	705 / 790

† 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)

