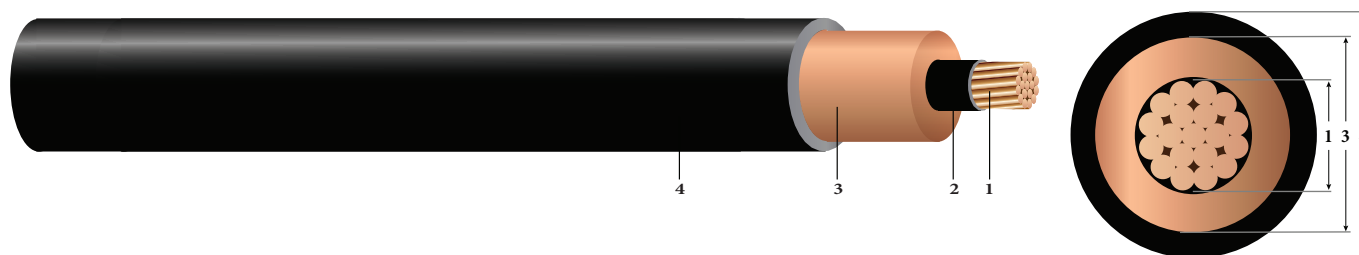


# 1/C CU 2.4KV EPR SIMpull® PVC MV-90 CT RATED

Type MV-90 Single Conductor Copper, Ethylene Propylene Rubber (EPR) SIMpull® Polyvinyl Chloride (PVC) Jacket CT Rated 1/0 and Larger



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:** Ethylene Propylene Rubber (EPR)
4. **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, tray, direct burial, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation, 130°C for emergency overload, and 250°C for short circuit conditions. Rated at -35°C for cold bend. Rated for cable tray use 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-96-659 (NEMA WC 7) 2001-5000 V Nonshielded Cables
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test (1/0 and Larger)
- UL 1685/FT4 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)

## SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] #P# (UL) 1/C [#AWG or #kcmil] CU EPR 2.4KV MV-90 SUN. RES. YEAR (NESC) FOR CT USE [SEQUENTIAL FEET MARKS]



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**Southwire®**

**Table 1 – Weights & Measurements**

Stock Code	Cond. Size AWG	Diameter over			Insul. Thick-ness mils	Jacket Thick-ness <sup>1</sup> mils	Approx. OD (4) inches	Approx. Weight lbs./MFT	Max Pull Tension lbs.	Min Bending Radius inches	Conduit Size* inches
		Cond. (1) inches	Insul. (3) inches	Insul. Shield inches							
607457	2	0.283	0.563	-	125	80	0.723	401	531	5.8	2
607465	1	0.322	0.602	-	125	80	0.762	466	670	6.1	2.5
607226	1/0	0.362	0.642	-	125	80	0.802	550	845	6.4	2.5
607234	2/0	0.405	0.685	-	125	80	0.845	651	1065	6.8	2.5
607242	3/0	0.456	0.736	-	125	95	0.926	804	1342	7.4	3
607259	4/0	0.512	0.792	-	125	95	0.982	963	1693	7.9	3
607267	250	0.558	0.878	-	140	110	1.098	1161	2000	8.8	3.5
607283	350	0.661	0.981	-	140	110	1.201	1519	2800	9.6	3.5
607309	500	0.789	1.109	-	140	110	1.329	2042	4000	10.6	4
607119	750	0.968	1.318	-	155	125	1.568	2973	6000	12.5	5
607325	1000	1.117	1.467	-	155	125	1.717	3821	8000	13.7	5

All dimensions are nominal and subject to normal manufacturing tolerances

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

**Table 2 – Electrical and Engineering Data**

Stock Code	Cond. Size AWG	Resistance		Reactance		Shield Short Circuit Current 6 Cycles Amps	Allowable Ampacities 90° C	
		DC @ 25°C	AC @ 90°C	X <sub>c</sub> @ 60Hz	X <sub>L</sub> @ 60Hz		In Duct †	In Air ‡
		Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT		Amps	Amps
607457	2	0.162	0.203	-	0.043	15089	145	190
607465	1	0.129	0.161	-	0.042	19029	170	225
607226	1/0	0.102	0.128	-	0.040	24011	195	260
607234	2/0	0.081	0.101	-	0.039	30264	220	300
607242	3/0	0.064	0.081	-	0.038	38154	250	345
607259	4/0	0.051	0.064	-	0.037	48114	290	400
607267	250	0.043	0.054	-	0.037	56845	320	445
607283	350	0.031	0.039	-	0.035	79583	385	550
607309	500	0.022	0.028	-	0.034	113690	470	695
607119	750	0.014	0.020	-	0.033	170535	585	900
607325	1000	0.011	0.016	-	0.032	227380	670	1075

† 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)

