

# 1/C CU 2.4kV XLPE. Silicone Free

Type MV-90 Dry Single Conductor Copper, Non-Shielded Cross Linked Polyethylene (XLPE). Silicone Free

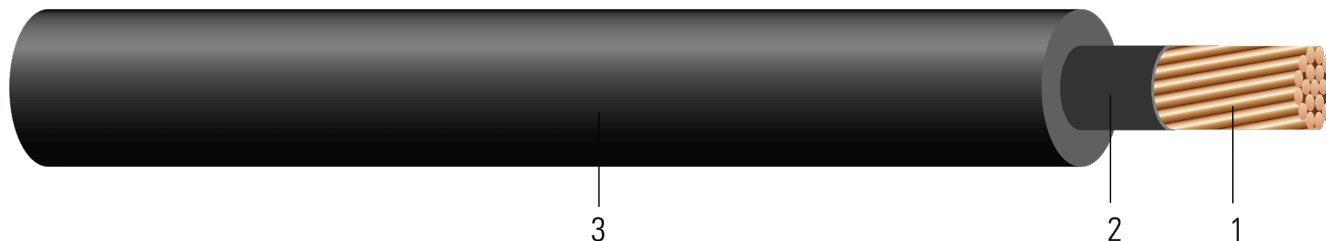


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
- Conductor Shield:** Semi-conducting cross-linked copolymer
- Insulation:** Cross Linked Polyethylene (XLPE)

## APPLICATIONS AND FEATURES:

Southwire's 2.4KV XLPE cables are suited for use in dry areas, conduits, ducts, troughs, trays 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 1000 lbs./FT maximum sidewall pressure. Silicone Free.

## SPECIFICATIONS:

- ASTM B3 Standard Specification for 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
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- 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
- FAA L-824 C Specification Approved by (AC 150/5345-53D), (AC 150/5345-7F)

## SAMPLE PRINT LEGEND:

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



**Table 1 – Weights and Measurements**

Stock Number	Cond. Size AWG/Kcmil	Diameter Over Conductor inch	Insul. Thickness mil	Approx. OD inch	Approx. Weight lb/1000ft	Max Pull Tension lb	Min Bending Radius inch
584689	6	0.174	110	0.430	137	210	3.4
584690	4	0.225	110	0.481	215	334	3.8
584691	2	0.283	110	0.537	313	531	4.3
TBA	1	0.322	110	0.574	340	670	4.6
TBA	1/0	0.362	110	0.614	415	845	4.9
TBA	2/0	0.405	110	0.657	509	1065	5.3
TBA	3/0	0.456	110	0.708	626	1342	5.7
TBA	4/0	0.512	110	0.764	772	1693	6.1
TBA	250	0.558	120	0.830	939	2000	6.6
TBA	350	0.661	120	0.933	1274	2800	7.5
TBA	500	0.789	120	1.061	1769	4000	8.5
TBA	750	0.968	130	1.260	2560	6000	10.0
TBA	1000	1.117	130	1.409	3409	8000	11.3

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

**Table 2 – Electrical and Engineering Data**

Cond. Size AWG/ Kcmil	DC Resistance @ 25°C Ω/1000ft	AC Resistance @ 90°C Ω/1000ft	Inductive Reactance @ 60Hz Ω/1000ft	Shield Short Circuit Current 6 Cycles Amp	Allowable Ampacity In Duct 90°C <sup>†</sup> Amp	Allowable Ampacity In Air 90°C <sup>‡</sup> Amp
6	0.411	0.515	0.042	5966	85	110
4	0.258	0.323	0.039	9491	110	145
2	0.162	0.203	0.036	15089	145	190
1	0.129	0.161	0.035	19029	170	225
1/0	0.102	0.128	0.034	24011	195	260
2/0	0.081	0.101	0.033	30264	220	300
3/0	0.064	0.081	0.032	38154	250	345
4/0	0.051	0.064	0.031	48114	290	400
250	0.043	0.054	0.031	56845	320	445
350	0.031	0.039	0.030	79583	385	550
500	0.022	0.028	0.029	113690	470	695
750	0.014	0.020	0.028	170535	585	900
1000	0.011	0.016	0.027	227380	670	1075

<sup>†</sup> Ampacities are based on TABLE 310.60(C)(77) Detail 1. of the 2020 National Electrical Code (20°C Ambient Earth Temperature, Thermal Resistance ROH of 90)

<sup>‡</sup> Ampacities are based on TABLE 310.60(C)(69) of the 2020 National Electrical Code (40°C Ambient Air Temperature)

