CU Compressed 2.4kV NLEPR Insulation PVC Jacket. MV 90.

Type MV-90 Single Conductor Copper, No Lead Ethylene Propylene Rubber (NL-EPR) Polyvinyl Chloride (PVC) Jacket



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** No Lead Ethylene Propylene Rubber (NL-EPR)
4. **Overall Jacket:** Polyvinyl Chloride (PVC)

Insulation thickness:

Sizes #2 - 4/0 Insulation Thickness: 125 mils
Sizes 250 - 500 Insulation Thickness: 140 mils
Sizes 750 - 1000 Insulation Thickness: 155 mils

APPLICATIONS AND FEATURES:

Southwire's 2.4KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, 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. 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 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
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- CT USE Sizes 1/0 AWG and Larger
- 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

SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE{R} POWER CABLE {UL} XX AWG CU XXX MILS NL-EPR 2400V NONSHIELDED MV-90 SUN. RES. FOR CT USE {NESC}

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Diameter Over Insulation	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Max Pull Tension	Min Bending Radius	Conduit Size
	AWG/ Kcmil	No. of Strands	inch	inch	mil	inch	lb/1000ft	lb/1000ft	lb	inch	inch
607457	2	7	0.282	0.570	25	0.746	204	413	530	5.9	2.5
607465	1	19	0.322	0.610	85	0.786	258	484	669	6.2	2.5
607226	1/0	19	0.361	0.650	85	0.826	326	568	844	6.6	2.5
607234	2/0	19	0.405	0.695	85	0.871	410	671	1064	6.9	2.5
607242	3/0	19	0.456	0.745	105	0.955	518	830	1342	7.6	3.0
607259	4/0	19	0.512	0.785	105	0.995	653	978	1692	7.9	3.0
607267	250	37	0.558	0.870	120	1.112	771	1179	2000	8.8	3.5
607283	350	37	0.661	0.965	120	1.207	1080	1531	2800	9.6	3.5
607309	500	37	0.789	1.090	120	1.322	1543	2052	4000	10.5	4.0
601484	500	37	0.789	1.090	120	1.322	1543	2045	4000	10.5	4.0
607119	750	61	0.968	1.335	135	1.611	2315	3038	6000	12.8	4.5
607325	1000	61	1.117	1.485	135	1.761	3087	3893	8000	14.0	5.0

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Conduit size based on 3 phase 40% fill-factor without ground

Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Duct 90/105°C	Allowable Ampacity In Air 90/105°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
2	0.162	0.204	0.0434	145/-	190/-
1	0.128	0.162	0.0417	170/-	225/-
1/0	0.102	0.128	0.0401	195/-	260/-
2/0	0.081	0.102	0.0387	220/-	300/-
3/0	0.064	0.081	0.0381	250/-	345/-
4/0	0.051	0.065	0.0368	290/-	400/-
250	0.043	0.056	0.0373	320/-	445/-
350	0.031	0.041	0.0355	385/-	550/-
500	0.022	0.030	0.0337	470/-	695/-
500	0.022	0.030	0.0337	470/-	695/-
750	0.014	0.023	0.0329	585/-	900/-
1000	0.011	0.019	0.0317	670/-	1075/-

* NEC ampacities are based on:
* For Duct: Table 315.60(C)(11) Detail 1.
* For Free Air: Table 315.60(C)(3).
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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Cables With SIMpull Jacket

Size	Stock Code
AWG	
#2	607457
500	601484

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