

CSA-NMWU-COPPER

Copper Conductors, 300V / -40°C MIN, 60°C MAX, PVC / Nylon Insulation, PVC Jacket

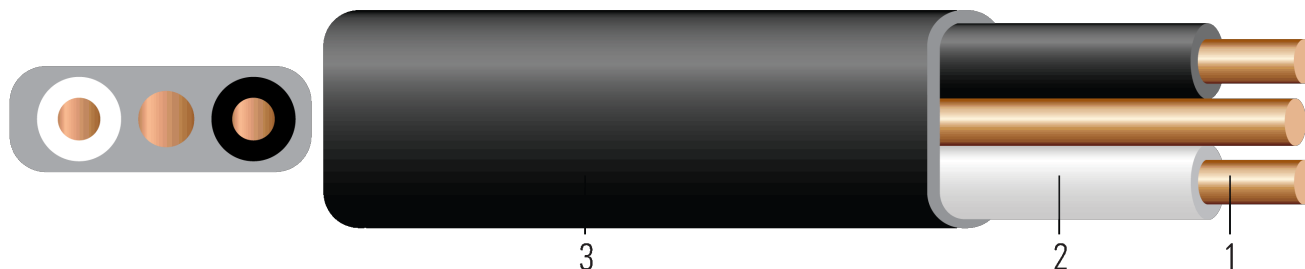


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid per ASTM B3 or Combination unilay-stranded copper conductors per ASTM B787.
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath
3. **Jacket:** Polyvinyl Chloride PVC jacket utilizing SIMpull® Technology.

- Conductor Colors: 2/C Black, White
- Conductor Colors: 3/C Black, Red, White

APPLICATIONS AND FEATURES:

Southwire's CSA-NWMU cables may be used for underground installations, including direct burial. It may also be used for environments exposed to the weather in dry and wet locations. The maximum allowable conductor temperature is 60°C. The minimum recommended installation temperature is -40°C for two-conductor cables (sizes AWG 14 to AWG 6) and -25°C for all other sizes. For three-conductor cables the minimum recommended installation temperature is -10°C (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts. Consult the Canadian Electrical Code¹ for further information related to applications.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- CSA C22.2 No. 48 non-metallic sheathed cable
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

SAMPLE PRINT LEGEND:

SOUTHWIRE CSA LL90458 12 AWG 2 CDRS BLACK/WHITE NMD90 NYLON ROMEX(R) BRAND SIMpull (TM) (-25C) 300 VOLTS FT1 COVERED & MADE UNDER U.S. PAT. NOS 7557301 & 7411129. [Jacket Colour is yellow]



Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Jacket Thickness	Approx. OD	Copper Weight	Overall Weight
	AWG/Kcmil		inch		mils	No. x AWG	mil	inch	lbs/1000ft	lbs/1000ft
471847◇	14	2	0.064	Solid	35	1 x 14	30	0.244 x 0.492	37	88
471888◇	14	3	0.064	Solid	35	1 x 14	30	0.504	50	117
471854◇	12	2	0.08	Solid	35	1 x 14	30	0.261 x 0.526	51	109
471896◇	12	3	0.08	Solid	35	1 x 14	30	0.544	72	148
471863◇	10	2	0.101	Solid	35	1 x 12	30	0.282 x 0.585	82	146
471912◇	10	3	0.101	Solid	35	1 x 12	30	0.595	115	200
471870◇	8	2	0.143	7	40	1 x 10	45	0.382 x 0.775	133	253
471920◇	8	3	0.143	7	40	1 x 10	45	0.794	186	344
481275◇	6	2	0.179	7	50	1 x 8	45	0.448 x 0.948	213	375
471938◇	6	3	0.179	7	50	1 x 8	45	0.954	297	513
672626◇	4	3	0.226	7	50	1 x 6	60	1.097	470	755
672634◇	2	3	0.286	7	50	1 x 6	80	1.277	702	1085

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	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
14	2	2	2.631	3.17	0.058	15	20	25
14	3	2.016	2.631	3.17	0.058	15	20	25
12	2	2.4	1.662	2.002	0.054	20	25	30
12	3	2.176	1.662	2.002	0.054	20	25	30
10	2	2.3	1.04	1.253	0.05	30	35	40
10	3	2.38	1.04	1.253	0.05	30	35	40
8	2	3.1	0.653	0.786	0.052	40	50	55
8	3	3.176	0.653	0.786	0.052	40	50	55
6	2	3.6	0.411	0.495	0.051	55	65	75
6	3	3.816	0.411	0.495	0.051	55	65	75
4	3	5.48499999	0.258	0.31	0.048	70	85	95
2	3	6.385	0.162	0.195	0.045	95	115	130

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

* Inductive impedance is based on non-ferrous conduit with one diameter spacing.

