SIM*pull* MC™ THHN/THWN Circuit Size Copper Conductor 120/208V Colors

Copper THHN/THWN Insulated Singles. Green Insulated Copper Grounding Conductor. UL Listed. 600 Volts Rated VW-1. Lightweight Low Profile Aluminum Interlocked Armor.

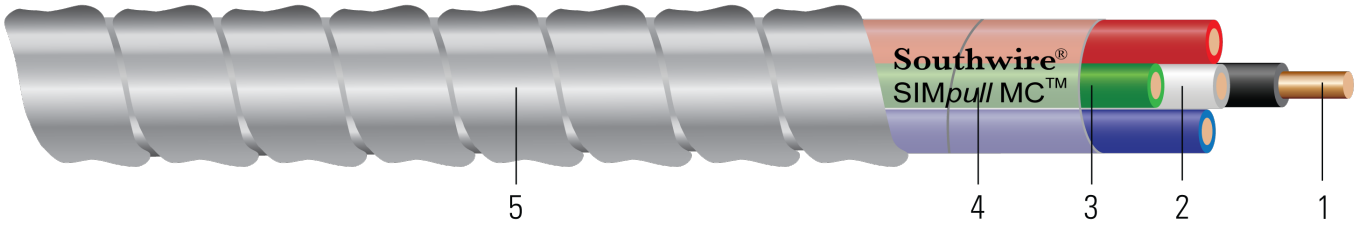

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3 or 19-strand class C compressed copper per ASTM B3 and B8
2. **Insulation:** Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Green Polyvinyl Chloride with Nylon Sheath Type THHN/THWN insulated ground conductor
4. **Binder:** Mylar tape with print legend wrapped around assembly
5. **Armor:** Low Profile Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire SIM*pull* MC™ Cable is suitable for use as follows:

- Branch and service power distribution in commercial, industrial, institutional, and multi-residential buildings
- Fished or embedded in plaster
- Concealed or exposed installations
- Environmental air-handling spaces per NEC 300.22 (C)
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5
- Installation in cable tray and approved raceways
- Under raised floors for information technology equipment conductors and cables per NEC Article 645
- Binder tape with print legend wrapped around assembly
- Type THHN/THWN rated 90ºC dry
- Unjacketed Type MC cables are rated for dry, indoor locations only per NEC 330.10(A)(10)
- Anti-Short bushing not required

Southwire SIM*pull* MC™ Cable meets or exceeds the following requirements:

- UL Online Product Guide Info - Metal Clad Cable (PJAZ) (www.ul.com)
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors

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- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1479 Standard for Safety Fire Tests of Penetration Firestops
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS-2 (European Directive 2011/65/EU)
- 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
- VW-1 (Vertical-Wire) Flame Test

SAMPLE PRINT LEGEND:

SOUTHWIRE E96627 {UL} TYPE MC XX AWG THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft	lbs/1000ft
14 AWG | Solid										
457643	14	2	RD,WE,GN	0.064	Solid	20	1x14	0.441	37	82
137914	14	2	BK,WE	0.064	Solid	20	1x14	0.415	37	76
665383	14	3	BK,WE,RD	0.064	Solid	20	1x14	0.442	50	93
457644	14	4	BK,WE,RD,BE,GN	0.064	Solid	20	1x14	0.494	62	117
14 AWG | 19 Strands										
457676	14	2	BK,WE,GN	0.073	19	20	1x14	0.458	38	86
12 AWG | Solid										
457635	12	2	BK,RD,GN	0.08	Solid	20	1x12	0.474	59	108
457636	12	3	BE,RD,WE,GN	0.08	Solid	20	1x12	0.505	79	135
457414	12	3	BK,BE,WE,GN	0.08	Solid	20	1x12	0.505	79	135
665377	12	2	RD,WE	0.080	Solid	20	1x12	0.451	59	103
137912	12	2	BK,WE	0.080	Solid	20	1x12	0.451	59	103
665378	12	2	BE,WE	0.080	Solid	20	1x12	0.451	59	104
665436	12	3	BK,RD,BE	0.080	Solid	20	1x12	0.482	79	128
137913	12	3	BK,RD,WE	0.080	Solid	20	1x12	0.482	79	128
665384	12	4	BK,RD,BE,WE	0.080	Solid	20	1x12	0.517	99	155
12 AWG | 19 Strands										
457411	12	2	RD,WE,GN	0.09	19	20	1x12	0.495	60	113
457661	12	2	BE,WE,GN	0.09	19	20	1x12	0.495	60	113
457663	12	3	BE,RD,WE,GN	0.09	19	20	1x12	0.529	80	140
457662	12	3	BK,WE,BE,GN	0.09	19	20	1x12	0.529	80	140
457660	12	4	BK,WE,RD,BE,GN	0.09	19	20	1x12	0.567	100	168
10 AWG | Solid										
665379	10	2	RD,WE	0.101	Solid	25	1x10	0.518	92	147
137917	10	2	BK,WE	0.101	Solid	25	1x10	0.518	92	147
457645	10	2	BE,WE,GN	0.101	Solid	25	1x10	0.541	92	153
457646	10	3	BK,WE,BE,GN	0.101	Solid	25	1x10	0.579	123	193
457647	10	3	BE,RD,WE,GN	0.101	Solid	25	1x10	0.579	123	193
137916	10	3	BK,RD,WE	0.101	Solid	25	1x10	0.557	123	187
457648	10	4	BK,WE,RD,BE,GN	0.101	Solid	25	1x10	0.624	154	234
10 AWG | 19 Strands										
457664	10	2	RD,WE,GN	0.117	19	25	1x10	0.573	97	164
457665	10	2	BE,WE,GN	0.117	19	25	1x10	0.573	97	164
457666	10	3	BK,WE,RD,GN	0.117	19	25	1x10	0.616	129	208
457667	10	3	BK,WE,BE,GN	0.117	19	25	1x10	0.616	129	208
457668	10	3	RD,BE,WE,GN	0.117	19	25	1x10	0.616	129	208
457669	10	4	BK,WE,RD,BE,GN	0.117	19	25	1x10	0.664	161	252
12 AWG | 19 Strands										
137915	12	2	BK,WE	0.090	19	20	1x12	0.472	60	107

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft	lbs/1000ft
665385	12	3	BK,RD,WE	0.090	19	20	1x12	0.506	80	134
10 AWG | 19 Strands										
665386	10	2	BK,WE	0.117	19	25	1x10	0.551	97	159

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
Note: Conductor number = number of phase conductors. Does not include green ground.

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 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
14 AWG | Solid							
14	2	3.1	2.631	3.17	0.058	20	25
14	2	2.9	2.631	3.170	0.058	20	25
14	3	3.1	2.631	3.170	0.058	20	25
14	4	3.5	2.631	3.17	0.058	16	20
14 AWG | 19 Strands							
14	2	3.2	2.631	3.17	0.058	20	25
12 AWG | Solid							
12	2	3.3	1.662	2.002	0.054	25	30
12	3	3.5	1.662	2.002	0.054	25	24
12	3	3.5	1.662	2.002	0.054	25	24
12	2	3.2	1.662	2.002	0.054	25	30
12	2	3.2	1.662	2.002	0.054	25	30
12	2	4.0	1.662	2.002	0.054	25	30
12	3	3.4	1.662	2.002	0.054	25	30
12	3	3.4	1.662	2.002	0.054	25	30
12	4	3.6	1.662	2.002	0.054	20	24
12 AWG | 19 Strands							
12	2	3.5	1.662	2.002	0.054	25	30
12	2	3.5	1.662	2.002	0.054	25	30
12	3	3.7	1.662	2.002	0.054	25	24
12	3	3.7	1.662	2.002	0.054	25	24
12	4	4	1.662	2.002	0.054	20	24
10 AWG | Solid							
10	2	3.6	1.040	1.253	0.050	35	40
10	2	3.6	1.040	1.253	0.050	35	40
10	2	3.8	1.04	1.253	0.05	35	40
10	3	4.1	1.04	1.253	0.05	35	32
10	3	4.1	1.04	1.253	0.05	35	32
10	3	3.9	1.040	1.253	0.050	35	40
10	4	4.4	1.04	1.253	0.05	28	32
10 AWG | 19 Strands							
10	2	4	1.04	1.253	0.05	35	40
10	2	4	1.04	1.253	0.05	35	40
10	3	4.3	1.04	1.253	0.05	35	32
10	3	4.3	1.04	1.253	0.05	35	32
10	3	4.3	1.04	1.253	0.05	35	32
10	4	4.6	1.04	1.253	0.05	28	32
12 AWG | 19 Strands							
12	2	3.3	1.662	2.002	0.054	25	30

Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
12	3	3.5	1.662	2.002	0.054	25	30
10 AWG | 19 Strands							
10	2	3.9	1.040	1.253	0.050	35	40

***** 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.