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.

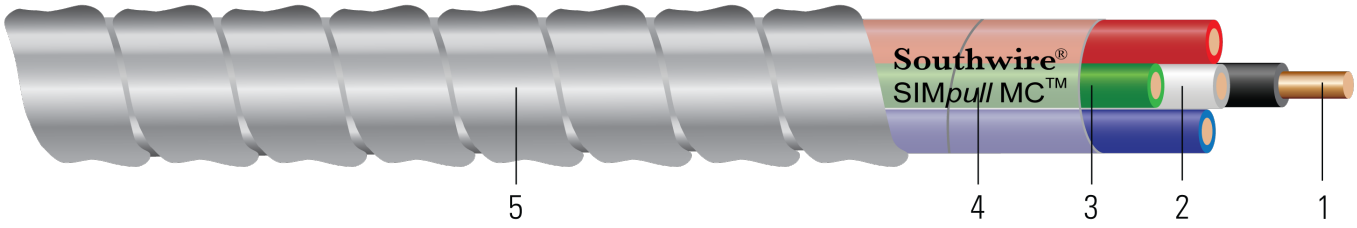


Image not to scale. See Table 1 for dimensions.

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

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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 Strands										
137914	14	2	BK,WE	0.064	SOLID	15	1x14	0.431	38	81
457643	14	2	RD,WE,GN	0.064	SOLID	15	1x14	0.431	38	81
665383	14	3	BK,WE,RD	0.064	SOLID	15	1x14	0.458	50	99
457644	14	4	BK,WE,RD,BE,GN	0.064	SOLID	15	1x14	0.484	63	116
14 AWG | 19 Strands										
457676	14	2	BK,WE,GN	0.073	19	15	1x14	0.448	38	84
12 AWG | SOLID Strands										
665378	12	2	BE,WE	0.081	SOLID	15	1x12	0.464	60	107
137912	12	2	BK,WE	0.081	SOLID	15	1x12	0.464	60	107
457635	12	2	BK,RD,GN	0.081	SOLID	15	1x12	0.464	60	107
665377	12	2	RD,WE	0.081	SOLID	15	1x12	0.464	60	107
457636	12	3	BE,RD,WE,GN	0.081	SOLID	15	1x12	0.495	80	133
457414	12	3	BK,BE,WE,GN	0.081	SOLID	15	1x12	0.495	80	133
665436	12	3	BK,RD,BE	0.081	SOLID	15	1x12	0.495	80	133
137913	12	3	BK,RD,WE	0.081	SOLID	15	1x12	0.495	80	133
665384	12	4	BK,RD,BE,WE	0.081	SOLID	15	1x12	0.53	100	160
12 AWG | 19 Strands										
457411	12	2	RD,WE,GN	0.09	19	15	1x12	0.485	60	111
457661	12	2	BE,WE,GN	0.09	19	15	1x12	0.485	60	111
457663	12	3	BE,RD,WE,GN	0.09	19	15	1x12	0.519	80	140
457662	12	3	BK,WE,BE,GN	0.09	19	15	1x12	0.519	80	139
457660	12	4	BK,WE,RD,BE,GN	0.09	19	15	1x12	0.557	100	166
10 AWG | SOLID Strands										
665379	10	2	RD,WE	0.102	SOLID	20	1x10	0.531	93	152
457645	10	2	BE,WE,GN	0.102	SOLID	20	1x10	0.531	93	152
137917	10	2	BK,WE	0.102	SOLID	20	1x10	0.531	93	152
457646	10	3	BK,WE,BE,GN	0.102	SOLID	20	1x10	0.57	124	192
457647	10	3	BE,RD,WE,GN	0.102	SOLID	20	1x10	0.57	124	192
137916	10	3	BK,RD,WE	0.102	SOLID	20	1x10	0.57	124	192
457648	10	4	BK,WE,RD,BE,GN	0.102	SOLID	20	1x10	0.614	155	232
10 AWG | 19 Strands										
457664	10	2	RD,WE,GN	0.117	19	20	1x10	0.563	97	163
457665	10	2	BE,WE,GN	0.117	19	20	1x10	0.563	97	163
457666	10	3	BK,WE,RD,GN	0.117	19	20	1x10	0.606	129	206
457667	10	3	BK,WE,BE,GN	0.117	19	20	1x10	0.606	129	206
457668	10	3	RD,BE,WE,GN	0.117	19	20	1x10	0.606	129	206
457669	10	4	BK,WE,RD,BE,GN	0.117	19	20	1x10	0.654	162	250
12 AWG | 19 Strands										
137915	12	2	BK,WE	0.09	19	15	1x12	0.485	60	111

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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	0.09	19	15	1x12	0.519	80	139
10 AWG | 19 Strands										
665386	10	2	BK,WE	0.117	19	20	1x10	0.563	97	163

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.

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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 Strands							
14	2	3	2.631	3.265	0.058	20	25
14	2	3	2.631	3.265	0.058	20	25
14	3	3.2	2.631	3.265	0.058	20	25
14	4	3.4	2.631	3.265	0.058	16	20
14 AWG | 19 Strands							
14	2	3.1	2.631	3.265	0.058	20	25
12 AWG | SOLID Strands							
12	2	3.2	1.662	2.063	0.054	25	30
12	2	3.2	1.662	2.063	0.054	25	30
12	2	3.2	1.662	2.063	0.054	25	30
12	2	3.2	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	4	3.7	1.662	2.063	0.054	20	24
12 AWG | 19 Strands							
12	2	3.4	1.662	2.063	0.054	25	30
12	2	3.4	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	4	3.9	1.662	2.063	0.054	20	24
10 AWG | SOLID Strands							
10	2	3.7	1.04	1.291	0.05	35	40
10	2	3.7	1.04	1.291	0.05	35	40
10	2	3.7	1.04	1.291	0.05	35	40
10	3	4	1.04	1.291	0.05	35	40
10	3	4	1.04	1.291	0.05	35	40
10	3	4	1.04	1.291	0.05	35	40
10	4	4.3	1.04	1.291	0.05	28	32
10 AWG | 19 Strands							
10	2	3.9	1.04	1.291	0.05	35	40
10	2	3.9	1.04	1.291	0.05	35	40
10	3	4.2	1.04	1.291	0.05	35	40
10	3	4.2	1.04	1.291	0.05	35	40
10	3	4.2	1.04	1.291	0.05	35	40
10	4	4.6	1.04	1.291	0.05	28	32
12 AWG | 19 Strands							
12	2	3.4	1.662	2.063	0.054	25	30

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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	3.6	1.662	2.063	0.054	25	30
10 AWG | 19 Strands							
10	2	3.9	1.04	1.291	0.05	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.

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