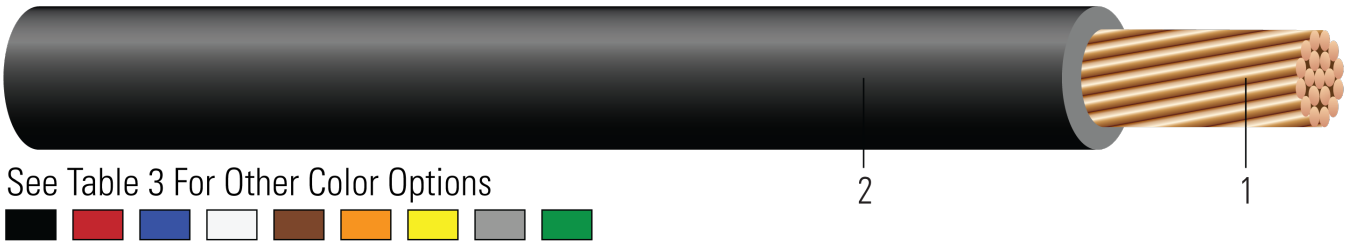
SIMpull XHHW-2®/RW90 Copper

Single Conductor Copper, Cross Linked Polyethylene (XLPE) with SIMpull technology for easier pulling. Type XHHW-2 Conductor sizes 8 AWG and larger are rated 600 or 1000 Volt. Type RW90 Conductors are rated for 600 Volt.



See Table 3 For Other Color Options

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
2. **Insulation:** Flame-Retardant and Moisture-Resistant Thermoset Cross-Linked Polyethylene (XLPE) with Patented SIMpull® Technology

APPLICATIONS AND FEATURES:

APPLICATION

Southwire Copper SIMpull XHHW-2®/RW90 conductors are primarily used in conduit, cable tray or other recognized raceways for services, feeders, and branch circuit wiring. SIMpull XHHW-2®/RW90 copper conductors may be used in wet or dry locations at temperatures not to exceed 90°C. Southwire Copper SIMpull XHHW-2®/RW90 conductors are designed to be installed without the application of pulling lubricant.

Voltage rating for XHHW-2 is 600 volts or 1000 volts for sizes 8 and larger. Type XHHW-2 is suitable for use in Health Care Facilities per Section 517.160 of the National Electrical Code where a dielectric constant of less than 3.5 maybe specified.

Voltage rating for RW90 is 600 volts. RW90 is suitable for use in open wiring and use in raceways (except cable troughs and ventilated flexible cableways) in dry or wet locations as per Canadian Electrical Code. For open wiring exposed to the weather.

FEATURES

- SIS- 8 AWG
- Sunlight resistant
- -40°C Cold bend
- FT1
- Gasoline and Oil Resistant II
- CT Rated- 1/0 AWG and larger
- FT4- 350 kcmil and larger
- RoHS/REACH Compliant

For Circuit Sizes (14, 12, and 10 AWG) Go To:

- SPEC 10005 for XHHW-2
- SPEC 22061 for RW90

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SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202/FT4 Flame Test (70,000 BTU/hr) 350kcmil 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
- Federal Specification A-A-59544
- NMX-J-451-ANCE Thermoset insulated wires and cables
- NOM-063-SCFI Electrical Products – Conductors – Safety Requirements
- NEMA 70901-2-2024 Make It American Compliance with Domestic Preference Requirements Pt. 2 Wire & Cable

SAMPLE PRINT LEGEND:

8 AWG thru 1 AWG

{SQFTG} SOUTHWIRE{R} {NOLUBE}{R} {SIMPULL}{R} E30117 {UL} TYPE XHHW-2 8 AWG (8.37{MM2}) CU 600V/1000V SR GRII PRII OR SIS 600V - LL90458 {CSA} RW90 XLPE 8 AWG (8.37{mm2}) CU 600V GRI PRI -40{D}C SR FT1 - {NOM}-ANCE LS - PAT WWW.PATENTSW.COM

1/0 AWG thru 300 kcmil

{SQFTG} SOUTHWIRE{R} {NOLUBE}{R} {SIMPULL}{R} E30117 {UL} TYPE XHHW-2 1/0 AWG (53.5{MM2}) CU 600V/1000V SR FOR CT USE GRII PRII - LL90458 {CSA} RW90 XLPE 1/0 AWG (53.5{mm2}) CU 600V GRI PRI -40{D}C SR FT1 - {NOM}-ANCE LS - PAT WWW.PATENTSW.COM

350 kcmil and Larger

{SQFTG} SOUTHWIRE{R} {NOLUBE}{R} {SIMPULL}{R} E30117 {UL} TYPE XHHW-2 350 KCMIL (177{MM2}) CU 600V/1000V SR FOR CT USE GRII PRII FT4 - LL90458 {CSA} RW90 XLPE 350 KCMIL (177{mm2}) CU 600V GRI PRI -40{D}C SR FT4 - {NOM}-ANCE LS - PAT WWW.PATENTSW.COM

Table 1 – Weights and Measurements

Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	Approx. OD	Copper Weight	Approx. Weight
AWG/Kcmil	No. of Strands	inch	mil		inch	lb/1000ft	lb/1000ft
3/0	19	0.456	55	TN	0.574	518	564
4/0	19	0.512	55	PK	0.630	655	707
750	61	0.968	80	TN	1.140	2315	2449
1000	61	1.117	80	GY	1.289	3087	3240
8	7	0.141	45	OE	0.238	50	64
6	7	0.177	45	BK	0.274	81	97
4	7	0.225	45	BK	0.321	128	148
3	7	0.252	45	BK	0.348	162	184
2	7	0.282	45	BK	0.379	204	228
1	19	0.322	55	OE	0.435	258	291
1/0	19	0.361	55	PE	0.476	326	361
2/0	19	0.405	55	PE	0.520	410	450
250	37	0.558	65	PE	0.696	771	834
300	37	0.610	65	GN	0.732	926	992
350	37	0.661	65	PE	0.799	1080	1154
400	37	0.705	65	GN	0.848	1235	1317
500	37	0.789	65	BE	0.908	1543	1632
600	61	0.865	80	PE	1.008	1852	1964
700	61	0.935	80	BN	1.103	2161	2284

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	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
3/0	2.3	1342	0.064	0.078	0.042	200	225
4/0	2.5	1692	0.051	0.062	0.041	230	260
750	5.7	6000	0.014	0.022	0.038	475	535
1000	6.4	8000	0.011	0.018	0.037	545	615
8	1.0	132	0.653	0.786	0.052	50	55
6	1.1	209	0.411	0.495	0.051	65	75
4	1.3	333	0.258	0.310	0.048	85	95
3	1.4	420	0.205	0.246	0.047	100	115
2	1.5	530	0.162	0.195	0.045	115	130
1	1.7	669	0.128	0.154	0.046	130	145
1/0	1.9	844	0.102	0.122	0.044	150	170
2/0	2.1	1064	0.081	0.097	0.043	175	195
250	2.8	2000	0.043	0.053	0.041	255	290
300	2.9	2400	0.036	0.045	0.041	285	320
350	3.2	2800	0.031	0.039	0.040	310	350
400	3.4	3200	0.027	0.035	0.040	335	380
500	3.6	4000	0.022	0.029	0.039	380	430
600	5.0	4800	0.018	0.025	0.039	420	475
700	5.5	5600	0.015	0.022	0.038	460	520

***** Ampacities based upon 2023 NEC Table 310.16 and do not consider 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.

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

***** Ampacities derived from the 2021 Canadian Electrical Code. - Table 2 - for Raceway or Cable. Not more than 3 copper conductors on an ambient temperature of 30°C.

Table 3 - Stock Code Colors

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Purple	Green
8 (7)	112953	952713	553059	952721	553060	553061	553062	553063		952739
6 (7)	112961	952705	959916	678607	683383	683391	553067	553068		553230
4 (7)	112979	952697	553846	678599	553847	553848	553849	553850		558627
3 (7)	267278	652971	652972	652973	677646	677647	652975	677648		890469
2 (7)	112987	218115	553087	218107	553088	553089	553090		674066	474122
1 (19)	112995	550761	550762	550808	553854	553855	553856	553857	674065	550766
1/0 (19)	113001	553860	553861	553858	553863	553864	553865	553866	674064	553862
2/0 (19)	113019	553871	553872	553870	553873	553874	553876	553877	553878	552070
3/0 (19)	113027	553881	553882	553880	553885	553886	553887	553888	674063	553884
4/0 (19)	113035	553078	553079	553077	553080	553082	553083	553084	674062	552071
250 (37)	113043	553893	553894	553892	553896	553897	553898	553899	674061	553895
300 (37)	113050	643848	643849	643850	561129	561130	561131	584039	139410	580121
350 (37)	113068	553903	553904	553902	553906	553907	553908	553910	674060	553905
400 (37)	113076	561701	561702	561132	561111	561112	561113	561703		558666
500 (37)	113084	550369	550261	553071	550260	550262	550259	553074	553075	553072
600 (61)	113092	553914	553915	553913	553918	553919	553920	553921	589214	553916
700 (61)	586272				662840	662842	662843	662844		
750 (61)	113100	553927	553928	553926	553930	553931	553932	553934		553929
1000 (61)	113134	138623	138622	138624	678463	678465	678464			668449

Award Winning Patent Pending Building Wire Selector