



## Copper SIMpull XHHW-2®/RW90

Conductor size 8 AWG and larger. Power Cable 600 or 1000 Volt Single Conductor Copper, Cross Linked Polyethylene (XLPE) with SIMpull technology for easier pulling.



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) with SIMpull technology

### APPLICATIONS AND FEATURES:

#### APPLICATION

Southwire® SIMpull XHHW-2®/RW90 copper conductors are primarily used in conduit, cable tray or other recognized raceways for services, feeders, and branch circuit wiring, as specified in the National Electrical Code. SIMpull XHHW-2®/RW90 copper conductors may be used in wet or dry locations at temperatures not to exceed 90°C. Voltage rating for XHHW-2 conductors is 600 volts or 1000 volts for all sizes. 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. This cable is designed to be installed without the application of pulling lubricant. RW90 is for open wiring and use in raceways (except cabletroughs 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
- SPEC 10005 for circuit sizes 14 AWG, 12 AWG, and 10 AWG

### 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

**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 AWG/Kcmil	Cond. Number	Strand Count No. of Strands	Diameter Over Conductor inch	Insul. Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
1	1	19	0.322	55	0.437	258	290

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 AWG/ Kcmil	Cond. Number	Min Bending Radius inch	Max Pull Tension lb	DC Resistance @ 25°C Ω/1000ft	AC Resistance @ 75°C Ω/1000ft	Inductive Reactance @ 60Hz Ω/1000ft	Allowable Ampacity At 75°C Amp	Allowable Ampacity At 90°C Amp
1	1	1.7	669	0.128	0.154	0.046	130	145

\* Ampacities based upon 2023 NEC Table 310.16 Raceway or Cable, Not more than 3 copper conductors on an ambient temperature of 30°C.

\* 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.

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





**Table 3 - Stock Code Colors**

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Purple	Green
12 (Solid)	583470	583471	583472	583473						583479
10 (Solid)	584407	584408	584410	584411			557931			
14 (7)				955351						
12 (7)	583086	583087	583091	955344, 583089						583090
10 (7)	583103	583105	583108	955336, 583106						583107
8 (7)	112953	952713	553059	952721	553060	553061, 581529	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, 552007	652973	677646	677647	652975	677648		890469
2 (7)	112987	218115, 552001	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, 951822	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