



# SIMpull XHHW-2<sup>®</sup>/RW90 Aluminum with AlumaFlex<sup>®</sup> Brand Conductors

Power Cable 600 or 1000 Volts. AlumaFlex<sup>®</sup> Brand Aluminum Alloy (AA-8176) Conductor. Cross-linked Polyethylene (XLPE) Insulation. Moisture Resistant High Heat.

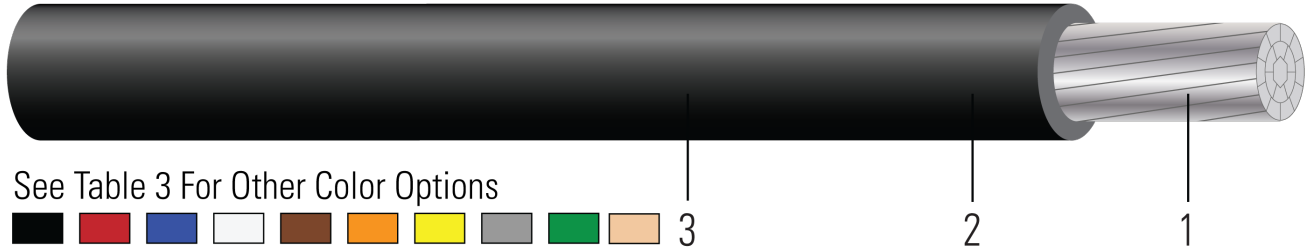


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compact stranded bare aluminum per ASTM B800 and ASTM B801
2. **Insulation:** Heat and moisture resistant cross-linked polyethylene (XLPE) insulation in various colors

## APPLICATIONS AND FEATURES:

Southwire SIMpull XHHW-2<sup>®</sup>/RW90 with AlumaFlex<sup>®</sup> Brand Conductors Wire & Cable with AlumaFlex<sup>®</sup> Brand conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the National Electrical Code. XHHW-2/RW90 conductors is suitable for use in dry locations at temperatures not to exceed 90°C. Voltage for all applications is up to 1000 volts. Suitable for use in Health Care Facilities per section 517.160 of the NEC where a dielectric constant of 3.5 or less may be specified. This cable can be installed without application of pulling lubricant. RW90 is for 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.

## Southwire Aluminum SIMpull<sup>®</sup> XHHW-2/RW90 conductors comply with the following:

- Federal Specification AA-59544
- NOM-ANCE, XHHW-2, 90°C
- CT Rated- Sizes 1/0 AWG and larger
- FT4 350 Kcmil and larger
- National Electrical Code
- Gas and Oil Resistant II- All sizes
- Sunlight Resistant- Sizes 6 AWG and larger
- RoHS/Reach Compliant

## SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- 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



- NMX-J-451-ANCE Thermoset insulated wires and cables
- NOM-063-SCFI Electrical Products – Conductors – Safety Requirements

**SAMPLE PRINT LEGEND:**

**6 AWG thru 1 AWG**

{SQFTG} SOUTHWIRE{R} {NOLUBE}{R} {SIMPULL}{R} {ALUMAFLEX}{R} E30117 {UL} TYPE XHHW-2 6 AWG (13.3{MM2}) AL AA8176 600V/1000V SR GRII PRII - LL90458 {CSA} RW90 XLPE 6 AWG (13.3{mm2}) AL AA8176 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} {ALUMAFLEX}{R} E30117 {UL} TYPE XHHW-2 1/0 AWG (53.5{MM2}) AL AA8176 600V/1000V SR FOR CT USE GRII PRII - LL90458 {CSA} RW90 XLPE 1/0 AWG (53.5{mm2}) AL AA8176 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} {ALUMAFLEX}{R} E30117 {UL} TYPE XHHW-2 350 KCMIL (177{MM2}) AL AA8176 600V/1000V SR FOR CT USE GRII PRII FT4 - LL90458 {CSA} RW90 XLPE 350 KCMIL (177{mm2}) AL AA8176 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	Aluminum Weight lb/1000ft	Approx. Weight lb/1000ft
8	1	7	0.134	45	0.230	15	28
6	1	7	0.169	45	0.265	24	40
4	1	7	0.212	45	0.309	39	58
2	1	6	0.268	45	0.364	62	86
1	1	8	0.298	55	0.415	78	110
1/0	1	10	0.336	55	0.452	99	134
2/0	1	12	0.376	55	0.492	125	163
3/0	1	15	0.422	55	0.539	158	201
4/0	1	19	0.474	55	0.591	199	247
250	1	22	0.520	65	0.658	235	297
300	1	21	0.569	65	0.708	282	351
350	1	35	0.615	65	0.754	329	402
400	1	35	0.659	65	0.797	376	454
500	1	34	0.735	65	0.876	471	557
600	1	37	0.812	80	0.981	565	681
700	1	58	0.877	80	1.045	659	783
750	1	61	0.908	80	1.076	706	835
900	1	58	0.999	80	1.167	861	1003
1000	1	58	1.060	80	1.228	942	1092

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM





**Table 2 – Electrical and Engineering Data**

Cond. Size	Cond. Number	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
8	1	0.9	99	1.072	1.290	0.052	40	45
6	1	1.1	157	0.674	0.812	0.051	50	55
4	1	1.2	250	0.424	0.510	0.048	65	75
2	1	1.5	398	0.267	0.321	0.045	90	100
1	1	1.7	502	0.211	0.254	0.046	100	115
1/0	1	1.8	633	0.168	0.201	0.044	120	135
2/0	1	2.0	798	0.133	0.160	0.043	135	150
3/0	1	2.2	1006	0.105	0.126	0.042	155	175
4/0	1	2.4	1269	0.084	0.100	0.041	180	205
250	1	2.6	1500	0.071	0.086	0.041	205	230
300	1	2.8	1800	0.059	0.071	0.041	230	260
350	1	3.0	2100	0.050	0.062	0.040	250	280
400	1	3.2	2400	0.044	0.054	0.040	270	305
500	1	3.5	3000	0.035	0.044	0.039	310	350
600	1	3.9	3600	0.029	0.037	0.039	340	385
700	1	5.2	4200	0.025	0.033	0.038	375	425
750	1	5.4	4500	0.024	0.031	0.038	385	435
900	1	5.8	5400	0.020	0.027	0.037	425	480
1000	1	6.1	6000	0.018	0.025	0.037	445	500

\* 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 4 - for Raceway or Cable. Not more than 3 aluminum conductors on an ambient temperature of 30°C.

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





**Table 3 - Stock Code Colors**

Size (strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Green	Purple	Pink	Tan
8 (7)	455950								138627			
6 (7)	112706	643836	643837	591212	591209	591210	591211		585321			
4 (7)	112714	591114	591115	591116	591201	591202	591203	598051	585320			
2 (6)	112722	643620	643621	592621	591213	591214	591215	598052	585319			
1 (8)	112730	591204	591205	591206	591207	591208	591216	596497	585318			
1/0 (10)	112748	591284	591285	591286	585291	585292	585293	585294	585290	596423		
2/0 (12)	112755	591288	591289	591290	585296	585297	585298	585300	585295	596422		
3/0 (16)	112763	585302	585303	585304	585305	585306	585308	585309	585301			
4/0 (19)	576531	585317	585316	585314	585313	585312	585311	585310	567439			
250 (22)	278341	576390	576391	576392	576385	576386	576387	576388	567440	592468		
300 (21)	278358	576382	576383	576384	576133	576134	576135	576136	576361	593380		
350 (35)	278366	576378	576379	576380	576374	576375	576376	576377	567437	592562	669682	669683
400 (35)	278374	576370	576372	576373	576127	576129	576130	576131	567384	593379	455994	455995
500 (34)	278382	576367	576368	576369	576362	576364	576365	576366	576394	589196	669675	669681
600 (37)	278390	576350	576351	576352	576345	576346	576347	576349	567375	589197		
700 (58)	278408	591293	591294	591295	576341	576342	576343	576344	591296			
750 (61)	278416	592233	592234	592235	567432	567433	567434	567435	567436	592469		
900 (56)	554059	671912	671915	671918	560445	560446	560447	560448				
1000 (58)	278424	138626	138625	672168	662187	662321	662186	662541	653124			

