Re3TM SIMpull XHHW-2®/RW90 Aluminum WITH 2-LETTER COLOR CODES TO AID COLOR BLINDNESS

Power Cable 600 or 1000 Volts. Alumaflex® 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 or Single Input Wire (SIW) compact aluminum per ASTM B836
2. **Insulation:** Flame-Retardant and Moisture-Resistant Thermoset Cross-Linked Polyethylene (XLPE) with Patented SIMpull® Technology in various colors

APPLICATIONS AND FEATURES:

Southwire's Re3TM SIMpull XHHW-2®/RW90 Aluminum cable features bold, two-letter color codes printed directly on the insulation to simplify identification, aid color blindness, and prevent misidentification during installation, operation, and maintenance. These 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 wet or 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's Re3TM SIMpull XHHW-2®/RW90 Aluminum cable conductors comply with the following:

- Federal Specification AA-59544
- NOM-ANCE, XHHW-2, 90ºC
- 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

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- 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	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	Approx. OD	Aluminum Weight	Approx. Weight
AWG/Kcmil	No. of Strands	inch	mil		inch	lb/1000ft	lb/1000ft
4	7	0.213	45	BK	0.309	39	58
2	6	0.268	45	BK	0.364	62	86
1	8	0.299	55	BK	0.415	78	110
1/0	10	0.336	55	BK	0.452	99	134
2/0	12	0.376	55	BK	0.492	125	163
3/0	15	0.423	55	BK	0.539	158	201
4/0	19	0.475	55	BK	0.591	199	247
250	22	0.52	65	BK	0.658	235	295
350	35	0.616	65	BK	0.754	329	402
500	34	0.736	65	BK	0.876	471	557
750	61	0.908	80	BK	1.076	706	835
1000	61	1.117	80	BK	1.228	942	1089

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
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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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
4	1.2	250	0.424	0.528	0.048	65	75
2	1.5	398	0.266	0.331	0.045	90	100
1	1.7	502	0.211	0.263	0.046	100	115
1/0	1.8	633	0.167	0.208	0.044	120	135
2/0	2	798	0.133	0.166	0.043	135	150
3/0	2.2	1006	0.105	0.131	0.042	155	175
4/0	2.4	1269	0.084	0.105	0.041	180	205
250	2.6	1500	0.07	0.087	0.041	205	230
350	3	2100	0.051	0.064	0.04	250	280
500	3.5	3000	0.036	0.045	0.039	310	350
750	5.4	4500	0.023	0.03	0.038	385	435
1000	6.1	6000	0.017	0.023	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.

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