Aluminum AlumaFlex® SIMpull XHHW-2®

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
2. **Insulation:** Heat and moisture resistant cross-linked polyethylene (XLPE) insulation in various colors

APPLICATIONS AND FEATURES:

Southwire SIMpull XHHW-2® Aluminum Wire & Cable with Alumaflex® 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. SIMpull XHHW-2® conductors are suitable for use in dry or wet 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.

Southwire Aluminum SIMpull XHHW-2® conductors comply with the following:

- Federal Specification A-A-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
- -40°C cold bend - #8 AWG and larger
- RoHS Compliant

SPECIFICATIONS:

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- 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:

{SQFTG} SOUTHWIRE® {NOLUBE}® {SIMPULL}® {ALUMAFLEX}® E30117 {UL} TYPE XHHW-2 XX AWG (XXX{MM2}) AL AA8176 600V/1000V SR GRII PRII - {NOM}-ANCE LS - PAT WWW.PATENTSW.COM

Table 1 – Weights and Measurements

Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Dia. Over Insulation	Approx. OD	Aluminum Weight	Approx. Weight
AWG/Kcmil	No. of Strands	inch	mil	inch	inch	lb/1000ft	lb/1000ft
6	7	0.169	45	0.259	0.265	24	40
4	7	0.213	45	0.303	0.309	39	58
2	6	0.268	45	0.358	0.364	62	86
1	8	0.299	55	0.409	0.415	78	110
1/0	10	0.336	55	0.446	0.452	99	134
2/0	12	0.376	55	0.486	0.492	125	163
3/0	15	0.423	55	0.533	0.539	158	201
4/0	19	0.475	55	0.585	0.591	199	247
250	22	0.52	65	0.65	0.658	235	297
300	21	0.57	65	0.7	0.708	282	351
350	35	0.616	65	0.746	0.754	329	402
400	35	0.659	65	0.789	0.797	376	454
500	34	0.736	65	0.866	0.876	471	557
600	37	0.813	80	0.973	0.981	565	681
700	58	0.877	80	1.037	1.045	659	783
750	61	0.908	80	1.068	1.076	706	835
900	58	0.999	80	1.159	1.167	861	1003
1000	58	1.117	80	1.277	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
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

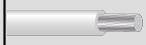
Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
6	1.1	157	0.674	0.84	0.051	50	55
4	1.2	250	0.424	0.528	0.048	65	75
2	1.5	398	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
300	2.8	1800	0.059	0.074	0.041	230	260
350	3	2100	0.051	0.064	0.04	250	280
400	3.2	2400	0.044	0.055	0.04	270	305
500	3.5	3000	0.036	0.045	0.039	310	350
600	3.9	3600	0.03	0.038	0.039	340	385
700	5.2	4200	0.026	0.034	0.038	375	425
750	5.4	4500	0.023	0.03	0.038	385	435
900	5.8	5400	0.019	0.025	0.037	425	480
1000	6.1	6000	0.017	0.023	0.037	445	500

***** 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.

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

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Table 3 - Stock Code Colors

Size	Black	Brown	Orange	Yellow	Gray	White	Red	Blue	Purple	Green
										
6	112706	591209	591210	591211						585321
4	112714	591201	591202	591203		591116	591114	591115		585320
2	112722	591213	591214	591215						585319
1	112730	591207	591208	591216	596497	591206	591204	591205		585318
1/0	112748	585291	585292	585293	585294	591286	591284	591285	596423	585290
2/0	112755	585296	585297	585298	585300	591290	591288	591289	596422	585295
3/0	112763	585305	585306	585308	585309	585304	585302	585303	596421	585301
4/0	112771	585313	585312	585311	585310	585314	585317	585316	592563	567439
250	278341	576385	576386	576387	576388	576392	576390	576391	592468	567440
300	278358	576133	576134	576135	576136	576384	576382	576383	593380	576361
350	278366	576374	576375	576376	576377	576380	576378	576379	592562	567437
400	278374	576127	576129	576130	576131	576373	576370	576372	593379	567384
500	278382	576362	576364	576365	576366	576369	576367	576368	589196	576394
600	278390	576345	576346	576347	576349	576352	576350	576351	589197	567375
700	278408	576341	576342	576343	576344	591295	591293	591294		591296
750	278416	567432	567433	567434	567435	592235	592233	592234	592469	567436
900	554059	560445	560446	560447	560448				596424	
1000	278424									

Award Winning Patent Pending Building Wire Selector

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