Aluminum AlumaFlex® Silicone-Free RHH/RHW/USE-2

600 Volts. Underground Service Entrance Cable. AlumaFlex® Brand Aluminum Alloy (AA-8176) Conductor. Cross-linked Polyethylene (XLP) Insulation. High Heat, Moisture, and Sunlight Resistant. Rated SIS in sizes 6 – 4/0 AWG.

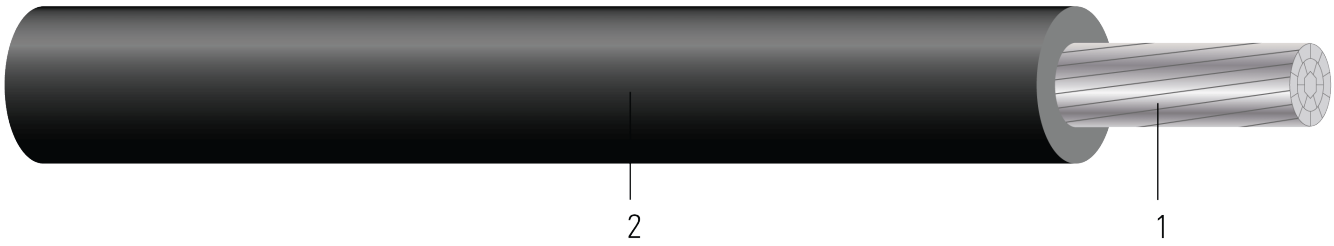


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded bare aluminum per ASTM B800 and ASTM B801
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type RHH/RHW-2 USE-2 Silicone-Free

APPLICATIONS AND FEATURES:

Southwire's 600 Volt power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. Rated for 1000 lbs./FT maximum sidewall pressure.

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
- UL 854 Service Entrance Cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- RoHS-2 (European Directive 2011/65/EU)

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE E32071 {UL} XXX AWG COMPACT AL. --- {ALUMAFLEX}® AA8176 TYPE USE-2 OR RHH OR RHW-2 OR SIS XXX MILS XLP 600 VOLTS

UPDATED: March 21, 2024, 12:27 p.m.UTC REVISION: 1.000.002

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Approx. OD	Aluminum Weight	Approx. Weight
	AWG/Kcmil	No. of Strands	inch	mil	inch	lb/1000ft	lb/1000ft
272799◊	6	7	0.169	60	0.295	24	46
272807◊	4	7	0.213	60	0.339	39	65
272823◊	2	6	0.268	60	0.394	62	93
272831◊	1	8	0.299	80	0.467	78	126
272849◊	1/0	10	0.336	80	0.504	99	151
272856◊	2/0	12	0.376	80	0.544	125	182
272864◊	3/0	15	0.423	80	0.591	158	221
272872◊	4/0	19	0.475	80	0.643	199	269
272880◊	250	22	0.520	95	0.720	235	321
272898◊	300	35	0.570	95	0.770	282	381
272906◊	350	35	0.616	95	0.816	329	435
272914◊	400	35	0.659	95	0.859	376	490
272922◊	500	34	0.736	95	0.938	471	601
272930◊	600	58	0.813	110	1.037	565	724
596530◊	700	58	0.877	110	1.157	659	925
272955◊	750	61	0.908	110	1.140	706	884
TBA	900	61	0.999	110	1.351	847	1376
TBA	1000	61	1.060	110	1.412	941	1489

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

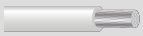
Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 60°C	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
272799◊	6	1.1	157	0.661	0.812	0.051	40	50	55
272807◊	4	1.3	250	0.416	0.510	0.048	55	65	75
272823◊	2	1.5	398	0.261	0.321	0.045	75	90	100
272831◊	1	1.8	502	0.207	0.254	0.046	85	100	115
272849◊	1/0	2.0	633	0.164	0.201	0.044	100	120	135
272856◊	2/0	2.1	798	0.130	0.160	0.043	115	135	150
272864◊	3/0	2.3	1006	0.103	0.126	0.042	130	155	175
272872◊	4/0	2.5	1269	0.082	0.100	0.041	150	180	205
272880◊	250	2.8	1500	0.069	0.086	0.041	170	205	230
272898◊	300	3.0	1800	0.058	0.071	0.041	195	230	260
272906◊	350	3.2	2100	0.049	0.062	0.040	210	250	280
272914◊	400	3.3	2400	0.043	0.054	0.040	225	270	305
272922◊	500	3.7	3000	0.035	0.044	0.039	260	310	350
272930◊	600	5.1	3600	0.029	0.037	0.039	285	340	385
596530◊	700	5.7	4200	0.025	0.033	0.038	315	375	425
272955◊	750	5.6	4500	0.023	0.031	0.038	320	385	435
TBA	900	6.8	5400	0.019	0.027	0.037	355	425	480
TBA	1000	7.1	6000	0.017	0.025	0.037	375	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.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

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

Stock Code Colors

Size	Black	Brown	White	Green
				
6	272799			301572
4	272807			334680
2	272823		575240	
1	272831			
1/0	272849			
2/0	272856			
3/0	272864			
4/0	272872			
250	272880			
300	272898			
350	272906			576086
400	272914			
500	272922	560674		
600	272930			
700	596530			
750	272955			