RHH/RHW/USE-2 Aluminum with AlumaFlex® Brand Conductors Silicone-Free

USE-2 600 Volts or RHH/RHW-2 1000 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.

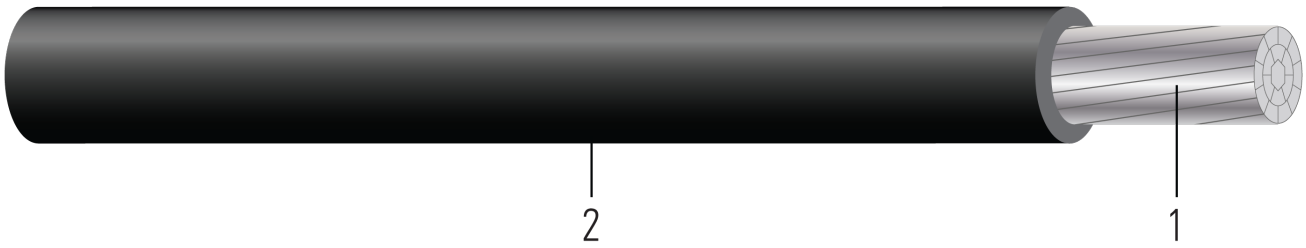

Image not to scale. See Table 1 for dimensions.

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 USE-2 600 Volts or RHH/RHW-2 1000 Volts 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 600V OR RHH OR RHW-2 1000V XX MILS XLP 90C

Table 1 – Weights and Measurements

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
6	7	0.169	60	0.295	24	46
4	7	0.212	60	0.339	39	65
2	6	0.268	60	0.394	62	93
1	8	0.298	80	0.467	78	126
1/0	10	0.336	80	0.504	99	151
2/0	12	0.376	80	0.544	125	182
3/0	15	0.422	80	0.591	158	221
4/0	19	0.474	80	0.643	199	269
250	22	0.520	95	0.720	235	321
300	35	0.569	95	0.770	282	381
350	35	0.615	95	0.816	329	435
400	35	0.659	95	0.859	376	490
500	34	0.735	95	0.938	471	601
600	58	0.812	110	1.037	565	724
700	58	0.877	110	1.157	659	925
750	61	0.908	110	1.140	706	884

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	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	1.2	157	0.674	0.812	0.051	50	55
4	1.4	250	0.424	0.510	0.048	65	75
2	1.6	398	0.267	0.321	0.045	90	100
1	1.9	502	0.211	0.254	0.046	100	115
1/0	2.0	633	0.168	0.201	0.044	120	135
2/0	2.2	798	0.133	0.160	0.043	135	150
3/0	2.4	1006	0.105	0.126	0.042	155	175
4/0	2.6	1269	0.084	0.100	0.041	180	205
250	2.9	1500	0.071	0.086	0.041	205	230
300	3.1	1800	0.059	0.071	0.041	230	260
350	3.3	2100	0.050	0.062	0.040	250	280
400	3.4	2400	0.044	0.054	0.040	270	305
500	3.8	3000	0.035	0.044	0.039	310	350
600	5.2	3600	0.029	0.037	0.039	340	385
700	5.8	4200	0.025	0.033	0.038	375	425
750	5.7	4500	0.024	0.031	0.038	385	435

† 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 Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.

Stock Code Colors

Size (Strand)	Black	White	Brown	Orange	Yellow	Green
6 (7)	272799					301572
4 (7)	272807					334680
2 (6)	272823	575240				
1 (8)	272831					
1/0 (10)	272849					
2/0 (12)	272856					
3/0 (15)	272864					
4/0 (19)	272872					
250 (22)	272880					
300 (35)	272898					
350 (35)	272906		138190	138191	138192	
400 (35)	272914					
500 (34)	272922					
600 (58)	272930		138205	560671	138206	
750 (61)	272955					