



Copper Silicone-Free RHH/RHW-2/USE-2

600 Volts. Underground Service Entrance Cable. Copper Conductors. Cross-Linked Polyethylene (XLP) Insulation. High-Heat, Moisture, and Sunlight Resistant.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
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 B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper 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 (XX.X{mm²}) CU TYPE USE-2 OR RHH OR RHW-2 OR SIS XX MILS XLP 600 VOLTS





Table 1 – Weights and Measurements

Cond. Size AWG/Kcmil	Strand Count No. of Strands	Diameter Over Conductor inch	Insul. Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
14	7	0.070	45	0.161	12	20
12	Solid	0.080	45	0.174	19	28
12	7	0.088	45	0.179	20	28
10	7	0.113	45	0.203	32	42
10	7	0.113	45	0.207	32	42
8	7	0.141	60	0.259	95	67
6	7	0.177	60	0.304	81	109
4	7	0.225	60	0.345	128	153
3	7	0.252	60	0.378	162	191
2	7	0.282	60	0.403	205	244
1	19	0.322	80	0.481	258	304
1/0	19	0.361	80	0.522	325	390
2/0	19	0.405	80	0.564	410	481
3/0	19	0.456	80	0.616	518	598
4/0	19	0.512	80	0.672	653	742
250	37	0.558	95	0.748	771	884
300	37	0.610	95	0.801	926	1023
350	37	0.661	95	0.851	1081	1213
400	37	0.705	95	0.896	1235	1345
500	37	0.789	95	0.956	1544	1696
500	37	0.789	95	0.990	1543	1673
600	61	0.865	110	1.085	1853	2028
750	61	0.968	110	1.188	2316	2534
1000	61	1.117	110	1.337	3088	3283

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item





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
14	0.6	32	2.631	3.170	0.058	20	25
12	0.7	52	1.662	2.002	0.054	25	30
12	0.7	52	1.662	2.002	0.054	25	30
10	0.8	83	1.040	1.253	0.050	35	40
10	0.8	83	1.040	1.253	0.050	35	40
8	1.0	132	0.653	0.786	0.052	50	55
6	1.2	209	0.411	0.495	0.051	65	75
4	1.4	333	0.258	0.310	0.048	85	95
3	1.5	420	0.205	0.246	0.047	100	115
2	1.6	530	0.162	0.195	0.045	115	130
1	1.9	669	0.128	0.154	0.046	130	145
1/0	2.1	844	0.102	0.122	0.044	150	170
2/0	2.3	1064	0.081	0.097	0.043	175	195
3/0	2.5	1342	0.064	0.078	0.042	200	225
4/0	2.7	1692	0.051	0.062	0.041	230	260
250	3.0	2000	0.043	0.053	0.041	255	290
300	3.2	2400	0.036	0.045	0.041	285	320
350	3.4	2800	0.031	0.039	0.040	310	350
400	3.6	3200	0.027	0.035	0.040	335	380
500	3.8	4000	0.022	0.029	0.039	380	430
500	4.0	4000	0.022	0.029	0.039	380	430
600	5.4	4800	0.018	0.025	0.039	420	475
750	5.9	6000	0.014	0.022	0.038	475	535
1000	6.7	8000	0.011	0.018	0.037	545	615

* 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.





Table 3 - Stock Code Colors

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Green	Purple	Black/Red
12 (Solid)	113399			640219					650432		
14 (7)	890700										
12 (7)	113431								678573		
10 (7)	563195, 113449	890146		645838, 563196					953539		
8 (7)	113456	952689	588683	643957					655993		566878
6 (7)	113464	952671, 620685	959726	640110	646503	646504	646506	646507	640128		
4 (7)	113472	476549	643577	476565		588746	588747		952663		
3 (7)	113480								587189		
2 (7)	113498	476531	643544	476523	620746	616347	616346	620747	958009		
1 (19)	113506				647620	647621	647622				
1/0 (19)	113514			643973							
2/0 (19)	113522	666096							591255		
3/0 (19)	113530										
4/0 (19)	113548	647337, 455904	647338	564225					610965, 587561		
250 (37)	113555										
300 (37)	113563										
350 (37)	113571	666097									
400 (37)	113589										
500 (37)	663447, 113597	678973		678974	580165	580166	580168	580169		139530	
600 (61)	113605				139369	139370	139371				
1000 (61)	113647										

