CU 600V LSZH RHH/RHW-2 SOLONON*plus*®

SOLONONplus® 600Volt Single Conductor Copper Cross Linked Polyolefin Low Smoke Zero Halogen (XLPO LSZH) Insulation Type RHH/RHW-2 USE-2

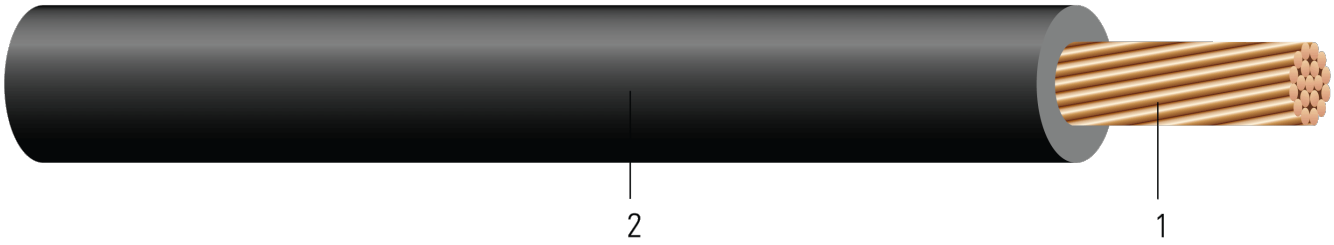

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare or tinned copper per ASTM B3, ASTM B8 and ASTM B33
2. **Insulation:** SOLONONplus® Cross Linked Polyolefin Low Smoke Zero Halogen (XLPO LSZH) Type RHH/RHW-2 USE-2

APPLICATIONS AND FEATURES:

Southwire's 600 Volt SOLONONplus® Type RHH/RHW-2 USE-2 cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial and aerially when supported by a messenger. These cables are ideal for use in establishments where low smoke and low acid emissions are desired for public safety and health 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.

a. The conductors are available in tinned and flexible copper stranding upon request.
b. NEC compliant
c. The halogen content is less than 0.2% and Acid gas less than 2.0%
d. Passes UL VW-1 #10 AWG and larger
e. 70,000 BTU/Hr. Vertical Flame Test
f. UL listed for CT use on 1/0 and Larger
g. UL listed FT4 and ST-1 (limited smoke)
h. -40°C Cold impact and cold bend
i. Gasoline and Oil Resistant GRI and GRII
j. UV/Sunlight resistant all colors
k. Color available upon request
l. Rated for direct burial

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B170 Oxygen Free Electrolytic Copper (available upon request)
- UL 44 Thermoset-Insulated Wires and Cables
- UL 854 Service Entrance Cable
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)

- UL 2885 Acid Gas, Acidity and conductivity of combusted materials and assessment of halogens
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- ICEA T-33-655/MIL-C-24643 Low Smoke Halogen Free (LSHF) Polymeric Jackets
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS-2 (European Directive 2011/65/EU)
- ISO 9001 Quality management
- ISO 14001 Environmental management systems standard
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems
- NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways

SAMPLE PRINT LEGEND:

SOUTHWIRE SOLONONplus (TM) E30117 #P# (UL) [#AWG Or #kcmil] CU LSZH XLPO Type RHH/RHW-2 USE-2 -40°C PRI PRII 600V SEQUENTIAL FOOTAGE MARKS

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/Kcmil	No. of Strands	inch	mil	inch	lb/1000ft	lb/1000ft
643665	14	7	0.070	45	0.160	13	22
643666	12	7	0.087	45	0.177	20	31
643667	10	7	0.111	45	0.201	32	45
643668	8	7	0.139	60	0.259	51	73
643669	6	7	0.174	60	0.294	81	108
643670	4	7	0.221	60	0.341	129	162
646618	3	7	0.248	60	0.378	162	204
643671	2	7	0.277	60	0.397	205	245
643672	1	19	0.321	80	0.481	258	318
643673	1/0	19	0.360	80	0.520	326	391
642674	2/0	19	0.404	80	0.564	411	483
643675	3/0	19	0.454	80	0.614	518	598
643677	4/0	19	0.510	80	0.670	653	743
643678	250	37	0.558	95	0.748	772	884
643679	350	37	0.661	95	0.851	1081	1212
557136	500	37	0.789	95	0.979	1544	1698
643680	500	37	0.789	95	0.979	1544	1698
647653	600	61	0.866	110	1.097	1853	2090
643826	750	61	0.968	110	1.188	2316	2526
643827	1000	61	1.117	110	1.337	3088	3326

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
Tinned Copper Conductor

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Shield Short Circuit Current 6 Cycles	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	Amp
643665	14	0.6	33	2.630	3.288	0.041	935	15	15	15
643666	12	0.7	52	1.660	2.075	0.038	1485	20	20	20
643667	10	0.8	83	1.040	1.300	0.035	2360	29	30	30
643668	8	1.0	132	0.652	0.815	0.036	3754	40	48	55
643669	6	1.2	210	0.411	0.514	0.034	5966	55	66	75
643670	4	1.4	334	0.258	0.323	0.032	9491	70	84	95
646618	3	1.5	420	0.205	0.256	0.031	11965	85	100	110
643671	2	1.6	531	0.162	0.203	0.030	15089	96	115	130
643672	1	1.9	670	0.129	0.161	0.031	19029	107	128	145
643673	1/0	2.1	845	0.102	0.128	0.030	24011	126	150	170
642674	2/0	2.3	1065	0.081	0.102	0.029	30264	144	172	195
643675	3/0	2.5	1342	0.064	0.081	0.029	38154	167	199	225
643677	4/0	2.7	1693	0.051	0.064	0.028	48114	192	230	260
643678	250	3.0	2000	0.043	0.055	0.028	56845	215	257	290
643679	350	3.4	2800	0.031	0.040	0.028	79583	259	310	350
557136	500	3.9	4000	0.022	0.029	0.027	113690	319	381	430
643680	500	3.9	4000	0.022	0.029	0.027	113690	319	381	430
647653	600	4.4	4800	0.019	0.025	0.026	131780	350	420	475
643826	750	5.9	6000	0.014	0.020	0.026	170535	397	474	535
643827	1000	6.7	8000	0.011	0.016	0.026	227380	456	545	615

† Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)