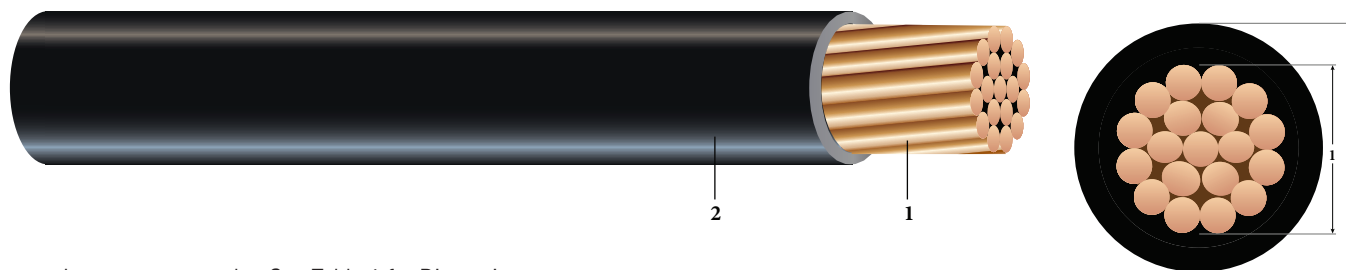


1/C CU 600V LSNH XHHW-2 Power Cable SOLONONplus®

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



Images 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:** SOLONONplus® Cross Linked Polyolefin Low Smoke Zero Halogen (XLPO LSZH) Type XHHW-2

APPLICATIONS AND FEATURES:

Southwire's 600 Volt SOLONONplus® Type XHHW-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 # 8 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. Oil Resistant I and II
- j. UV/Sunlight resistant black color
- k. Color Available upon request

SPECIFICATIONS:

- ASTM B3 Soft or annealed copper
- ASTM B8 Concentric-lay-standard copper
- ASTM B33 Tin coated copper conductors
- ASTM B170 Oxygen Free Electrolytic Copper (available upon request)
- UL 44 Thermoset Insulated wires and cables
- UL 1685 - Vertical-Tray Fire Propagation and Smoke-Release Test.
- UL 2885 Acid Gas, Acidity and conductivity of combusted materials and assessment of halogens.



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Southwire®

SPECIFICATIONS Cont:

- ICEA T-33-655/MIL-C-24643 Low Smoke Halogen Free (LSHF) Polymeric Jackets
- IEEE 1202/FT4 - Vertical-Tray Fire Propagation and Smoke-Release Test (70,000 Btu/hr Vertical Tray Test)
- ISO 9001, ISO 14001 Environmental Standard, RoHS
- ICEA S-95-658 NEMA WC70 - Power Cables Rated 2000 Volts or Less for The Distribution of Electrical Energy
- NFPA 130 and 502

SAMPLE PRINT LEGEND:

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

Table 1 – Weights & Measurements

Stock Code	Cond. Size	Strand Count	Dia Over Cond. (1)	Insul. Thickness	Approx. OD (2)	Copper Weight	Approx. Weight
	AWG	No. of Strands	inches	inches	inches	lbs./MFT	lbs./MFT
649593	14	Solid	0.064	30	0.124	13	18
599254 [◇]	12	Solid	0.081	30	0.141	20	27
599263 [◇]	10	Solid	0.102	30	0.162	32	40
647361	14	7	0.070	30	0.130	13	18
649601	12	7	0.087	30	0.147	20	27
646542	10	7	0.111	30	0.171	32	40
599328 [◇]	8	7	0.139	45	0.229	51	67
599337 [◇]	6	7	0.174	45	0.264	81	100
599346 [◇]	4	7	0.221	45	0.311	129	153
599355 [◇]	2	7	0.277	45	0.367	205	235
643752 [◇]	1	19	0.321	55	0.431	258	297
641693 [◇]	1/0	19	0.360	55	0.470	326	369
599509 [◇]	2/0	19	0.404	55	0.514	411	459
641695 [◇]	3/0	19	0.454	55	0.564	518	573
599519 [◇]	4/0	19	0.510	55	0.620	653	715
641699 [◇]	250	37	0.558	65	0.688	772	846
641700 [◇]	350	37	0.661	65	0.791	1081	1169
641701 [◇]	500	37	0.789	65	0.919	1544	1648
641703	600	61	0.866	80	1.026	1853	1987
TBA	750	61	0.968	80	1.128	2316	2465
TBA	1000	61	1.117	80	1.277	3088	3257

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

Stock Code	Cond. Size AWG	Min. Bending Radius Inches	Max. Pull Tension lbs.	Resistance		Reactance X_L @ 60Hz Ω/MFT	Ø Short Circuit Current 6 Cycles Amps	Allowable Ampacities †		
				DC @ 25°C Ω/MFT	AC @ 90°C Ω/MFT			60 °C Amps	75 °C Amps	90 °C Amps
649593	14	0.5	33	2.630	3.288	0.036	935	15	15	15
599254 [◇]	12	0.6	52	1.660	2.075	0.034	1485	20	20	20
599263 [◇]	10	0.7	83	1.040	1.300	0.032	2360	29	30	30
647361	14	0.5	33	2.630	3.288	0.036	935	15	15	15
649601	12	0.6	52	1.660	2.075	0.034	1485	20	20	20
646542	10	0.7	83	1.040	1.300	0.032	2360	29	30	30
599328 [◇]	8	0.9	132	0.652	0.815	0.033	3754	40	48	55
599337 [◇]	6	1.1	210	0.411	0.514	0.031	5966	55	66	75
599346 [◇]	4	1.2	334	0.258	0.323	0.030	9491	70	84	95
599355 [◇]	2	1.5	531	0.162	0.203	0.028	15089	96	115	130
643752 [◇]	1	1.7	670	0.129	0.162	0.028	19029	107	128	145
641693 [◇]	1/0	1.9	845	0.102	0.128	0.028	24011	126	150	170
599509 [◇]	2/0	2.1	1065	0.081	0.102	0.027	30264	144	172	195
641695 [◇]	3/0	2.3	1342	0.064	0.081	0.027	38154	167	199	225
599519 [◇]	4/0	2.5	1693	0.051	0.064	0.026	48114	192	230	260
641699 [◇]	250	2.8	2000	0.043	0.055	0.027	56845	215	257	290
641700 [◇]	350	3.2	2800	0.031	0.040	0.026	79583	259	310	350
641701 [◇]	500	3.7	4000	0.022	0.029	0.025	113690	319	381	430
641703	600	5.1	4800	0.018	0.024	0.026	136428	352	421	475
TBA	750	5.6	6000	0.014	0.020	0.025	170535	397	474	535
TBA	1000	6.4	8000	0.011	0.017	0.025	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)

◇ Cable marked with this symbol is a standard stock item

