

# CU 600V LSZH XHHW-2 SOLONONplus™ FT4, VW-1

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



## CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8; Tinned copper per ASTM B33 available upon request
2. **Insulation:** SOLONONplus™ Cross Linked Polyolefin Low Smoke Zero Halogen (XLPO LSZH) Type XHHW-2

## APPLICATIONS AND FEATURES:

### APPLICATION

Southwire's 600 Volt SOLONONplus™ Type XHHW-2 cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, 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.

### FEATURES

- The conductors are available in tinned and flexible copper stranding upon request.
- NEC compliant
- The halogen content is less than 0.2% and Acid gas less than 2.0%
- UL listed VW-1
- UL listed FT4/IEEE 1202 and ST-1
- UL listed for CT use on 1/0 and Larger
- -40°C Cold impact and cold bend
- Oil Resistant I and II
- Gasoline Resistance I and II
- Sunlight Resistant

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded 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 (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
- 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:**

**14 AWG thru 1 AWG**

SOUTHWIRE SOLONONplus{TM} LSZH XLPO E30117 (UL) XX AWG CU TYPE XHHW-2-HF VW-1 600V PRI PRII GRI GRII -40{D}C SR FT4 ST-1

**1/0 AWG and Larger**

{SQFTG} SOUTHWIRE SOLONONplus{TM} LSZH XLPO E30117 {UL} XX AWG/KCMIL CU TYPE XHHW-2-HF VW-1 600V PRI PRII GRI GRII -40{D}C SR FT4 ST-1 CT





**Table 1 – Physical and Electrical Data**

Stock Number	Cond. Size	Strand Class	Strand Count	Cond. Cmil	Diameter Over Conductor	Insul. Thickness	Jacket Color	Approx. OD	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Max Pull Tension
	AWG/ kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft	lb
666078	14	B	7	4110	0.070	30	WE	0.133	20	2.631	3.170	33
666079	14	B	7	4110	0.070	30	BN	0.133	20	2.631	3.170	33
666083	14	B	7	4110	0.070	30	OE	0.133	20	2.631	3.170	33
666077	14	B	7	4110	0.070	30	YW	0.133	20	2.631	3.170	33
666082	14	B	7	4110	0.070	30	GY	0.133	20	2.631	3.170	33
666080	14	B	7	4110	0.070	30	GN	0.133	20	2.631	3.170	33
666085	14	B	7	4110	0.070	30	PE	0.133	20	2.631	3.170	33
666081	14	B	7	4110	0.070	30	BK	0.133	20	2.631	3.170	33
666084	14	B	7	4110	0.070	30	RD	0.133	20	2.631	3.170	33
666076	14	B	7	4110	0.070	30	BE	0.133	20	2.631	3.170	33
666087	12	B	7	6530	0.087	30	BK	0.151	29	1.662	2.002	52
666093	12	B	7	6530	0.088	30	WE	0.151	29	1.662	2.002	52
666088	12	B	7	6530	0.088	30	BN	0.151	29	1.662	2.002	52
666091	12	B	7	6530	0.088	30	OE	0.151	29	1.662	2.002	52
666094	12	B	7	6530	0.088	30	YW	0.151	29	1.662	2.002	52
666090	12	B	7	6530	0.088	30	GY	0.151	29	1.662	2.002	52
666089	12	B	7	6530	0.088	30	GN	0.151	29	1.662	2.002	52
666092	12	B	7	6530	0.088	30	RD	0.151	29	1.662	2.002	52
666086	12	B	7	6530	0.088	30	BE	0.151	29	1.662	2.002	52
139442	10	B	7	10380	0.113	30	WE	0.177	43	1.040	1.253	83
139437	10	B	7	10380	0.113	30	BN	0.177	43	1.040	1.253	83
139440	10	B	7	10380	0.113	30	OE	0.177	43	1.040	1.253	83
139443	10	B	7	10380	0.113	30	YW	0.177	43	1.040	1.253	83
139439	10	B	7	10380	0.113	30	GY	0.177	43	1.040	1.253	83
139438	10	B	7	10380	0.113	30	GN	0.177	43	1.040	1.253	83
139436	10	B	7	10380	0.113	30	BK	0.177	43	1.040	1.253	83
139441	10	B	7	10380	0.113	30	RD	0.177	43	1.040	1.253	83
139435	10	B	7	10380	0.113	30	BE	0.177	43	1.040	1.253	83
139494	8	B	7	16510	0.141	45	WE	0.236	72	0.653	0.786	132
139489	8	B	7	16510	0.141	45	BN	0.236	72	0.653	0.786	132
139492	8	B	7	16510	0.141	45	OE	0.236	72	0.653	0.786	132
139495	8	B	7	16510	0.141	45	YW	0.236	72	0.653	0.786	132
139491	8	B	7	16510	0.141	45	GY	0.236	72	0.653	0.786	132
139490	8	B	7	16510	0.141	45	GN	0.236	72	0.653	0.786	132
139493	8	B	7	16510	0.141	45	RD	0.236	72	0.653	0.786	132
139487	8	B	7	16510	0.141	45	BE	0.236	72	0.653	0.786	132
139488	8	B	7	16510	0.142	45	BK	0.236	72	0.653	0.786	132
139483	6	B	7	26240	0.177	45	WE	0.272	106	0.411	0.495	209
139478	6	B	7	26240	0.177	45	BN	0.272	106	0.411	0.495	209
139481	6	B	7	26240	0.177	45	OE	0.272	106	0.411	0.495	209





Stock Number	Cond. Size	Strand Class	Strand Count	Cond. Cmil	Diameter Over Conductor	Insul. Thickness	Jacket Color	Approx. OD	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Max Pull Tension
	AWG/kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft	lb
139484	6	B	7	26240	0.177	45	YW	0.272	106	0.411	0.495	209
139480	6	B	7	26240	0.177	45	GY	0.272	106	0.411	0.495	209
139479	6	B	7	26240	0.177	45	GN	0.272	106	0.411	0.495	209
139482	6	B	7	26240	0.177	45	RD	0.272	106	0.411	0.495	209
139476	6	B	7	26240	0.177	45	BE	0.272	106	0.411	0.495	209
139477	6	B	7	26240	0.178	45	BK	0.272	106	0.411	0.495	210
139465	4	B	7	41740	0.225	45	WE	0.319	160	0.258	0.310	333
139460	4	B	7	41740	0.225	45	BN	0.319	160	0.258	0.310	333
139463	4	B	7	41740	0.225	45	OE	0.319	160	0.258	0.310	333
139466	4	B	7	41740	0.225	45	YW	0.319	160	0.258	0.310	333
139462	4	B	7	41740	0.225	45	GY	0.319	160	0.258	0.310	333
139461	4	B	7	41740	0.225	45	GN	0.319	160	0.258	0.310	333
139459	4	B	7	41740	0.225	45	BK	0.319	160	0.258	0.310	334
139464	4	B	7	41740	0.225	45	RD	0.319	160	0.258	0.310	333
139458	4	B	7	41740	0.225	45	BE	0.319	160	0.258	0.310	333
139454	3	B	7	52620	0.252	45	BK	0.346	197	0.205	0.246	421
139445	2	B	7	66360	0.277	45	BK	0.371	242	0.162	0.154	531
139444	2	B	7	66360	0.282	45	BE	0.371	242	0.162	0.195	530
139450	2	B	7	66360	0.282	45	WE	0.371	242	0.162	0.195	530
139446	2	B	7	66360	0.282	45	BN	0.371	242	0.162	0.195	530
139448	2	B	7	66360	0.282	45	OE	0.371	242	0.162	0.195	530
139451	2	B	7	66360	0.282	45	YW	0.371	242	0.162	0.195	530
139447	2	B	7	66360	0.282	45	GN	0.371	242	0.162	0.195	530
139449	2	B	7	66360	0.282	45	RD	0.371	242	0.162	0.195	530
139429	1	B	19	83690	0.322	55	WE	0.438	311	0.128	0.154	669
139428	1	B	19	83690	0.322	55	GN	0.438	311	0.128	0.154	669
139430	1	B	19	83690	0.322	55	BK	0.438	311	0.128	0.154	670
139431	1/0	B	19	105600	0.361	55	WE	0.478	385	0.102	0.122	844
139432	1/0	B	19	105600	0.361	55	GN	0.478	385	0.102	0.122	844
139433	1/0	B	19	105600	0.361	55	RD	0.478	385	0.102	0.122	844
139434	1/0	B	19	105600	0.362	55	BK	0.478	385	0.102	0.122	845
139452	2/0	B	19	133100	0.406	55	BK	0.522	476	0.081	0.097	1065
139455	3/0	B	19	167800	0.456	55	BK	0.572	591	0.064	0.079	1342
139469	4/0	B	19	211600	0.498	55	BK	0.614	732	0.051	0.062	1693
139467	4/0	B	19	211600	0.512	55	WE	0.614	732	0.051	0.062	1692
139468	4/0	B	19	211600	0.512	55	GN	0.614	732	0.051	0.062	1692
139453	250	B	37	250000	0.542	65	BK	0.678	871	0.043	0.053	2000
139456	300	B	37	300000	0.594	65	BK	0.730	1034	0.036	0.045	2400
139457	350	B	37	350000	0.641	65	BK	0.777	1197	0.031	0.038	2800
139470	400	B	37	400000	0.685	65	BK	0.821	1359	0.027	0.033	3200
139475	500	B	37	500000	0.766	65	BK	0.902	1681	0.022	0.032	4000
139472	500	B	37	500000	0.789	65	OE	0.902	1681	0.022	0.029	4000





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	AWG/kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft	lb
139473	500	B	37	500000	0.789	65	YW	0.902	1681	0.022	0.029	4000
139471	500	B	37	500000	0.789	65	GY	0.902	1681	0.022	0.029	4000
139474	500	B	37	500000	0.789	65	GN	0.902	1681	0.022	0.029	4000
139485	600	B	61	600000	0.840	80	BK	1.008	2038	0.018	0.025	4800
139486	750	B	61	750000	0.968	80	BK	1.136	2527	0.014	0.021	6000
TBA	1000	B	61	1000000	1.117	80	BK	1.289	3240	0.011	0.018	8000
TBA	1250	B	91	1250000	1.250	95	BK	1.440	4068	0.009	0.017	10000

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

**Table 3 - Stock Code Colors (Black in Table 1)**

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Green	Purple
14 (7)	666081	666084	666076	666078	666079	666083	666077	666082	666080	666085
12 (7)	666087	666092	666086	666093	666088	666091	666094	666090	666089	
10 (7)	139436	139441	139435	139442	139437	139440	139443	139439	139438	
8 (7)	139488	139493	139487	139494	139489	139492	139495	139491	139490	
6 (7)	139477	139482	139476	139483	139478	139481	139484	139480	139479	
4 (7)	139459	139464	139458	139465	139460	139463	139466	139462	139461	
3 (7)	139454									
2 (7)	139445	139449	139444	139450	139446	139448	139451		139447	
1 (19)	139430			139429					139428	
1/0 (19)	139434	139433		139431					139432	
2/0 (19)	139452									
3/0 (19)	139455									
4/0 (19)	139469			139467					139468	
250 (37)	139453									
300 (37)	139456									
350 (37)	139457									
400 (37)	139470									
500 (37)	139475					139472	139473	139471	139474	
600 (61)	139485									
750 (61)	139486									

