

## CU 600V LSZH XHHW-2 SOLONONplus™

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
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, 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/IEEE 1202 and ST-1 (#8 and larger)
- 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 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:**

SOUTHWIRE SOLONONplus{TM} E30117 {UL} AWG XX BARE OR TINNED CU LSZH XLPO TYPE XHHW-2 HF -40°C SR PRI  
PRII FT4 ST-1 600V {SEQUENTIAL FOOTAGE MARKS} SEQ FEET





**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
	AWG/kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft
649593	14	Solid	Solid	4110	0.070	30	BK	0.128	18	2.631	3.170
599254 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	BK	0.144	26	1.662	2.002
599255 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	RD	0.144	26	1.662	2.002
599256 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	BE	0.144	26	1.662	2.002
599253 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	WE	0.144	26	1.662	2.002
599258 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	BN	0.144	26	1.662	2.002
599259 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	OE	0.144	26	1.662	2.002
599260 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	YW	0.144	26	1.662	2.002
599257 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	GY	0.144	26	1.662	2.002
599252 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	GN	0.144	26	1.662	2.002
647516 <sup>◇</sup>	12	Solid	Solid	6530	0.080	30	PE	0.144	26	1.662	2.002
599263 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	BK	0.165	39	1.040	1.253
599264 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	RD	0.165	39	1.040	1.253
599265 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	BE	0.165	39	1.040	1.253
599262 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	WE	0.165	39	1.040	1.253
599281 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	BN	0.165	39	1.040	1.253
599282 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	OE	0.165	39	1.040	1.253
599283 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	YW	0.165	39	1.040	1.253
599280 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	GY	0.165	39	1.040	1.253
599261 <sup>◇</sup>	10	Solid	Solid	10380	0.101	30	GN	0.165	39	1.040	1.253
647361	14	B	7	4110	0.070	30	BK	0.133	18	2.631	3.170
643917	14	B	7	4110	0.070	30	RD	0.133	18	2.631	3.170
649601	12	B	7	6530	0.088	30	GY	0.151	27	1.662	2.002
677425*	12	B	7	6530	0.088	30	RD	0.151	27	1.662	2.002
646526	12	B	7	6530	0.088	30	BN	0.151	27	1.662	2.002
646527	12	B	7	6530	0.088	30	OE	0.151	27	1.662	2.002
646528	12	B	7	6530	0.088	30	YW	0.151	27	1.662	2.002
646529	12	B	7	6530	0.088	30	GN	0.151	27	1.662	2.002
646542	10	B	7	10380	0.113	30	BK	0.177	40	1.040	1.253
646530	10	B	7	10380	0.113	30	RD	0.177	40	1.040	1.253
646531	10	B	7	10380	0.113	30	BE	0.177	40	1.040	1.253
646532	10	B	7	10380	0.113	30	WE	0.177	40	1.040	1.253
646533	10	B	7	10380	0.113	30	GN	0.177	40	1.040	1.253
599331 <sup>◇</sup>	8	B	7	16510	0.141	45	RD	0.236	67	0.653	0.786
599329 <sup>◇</sup>	8	B	7	16510	0.141	45	BE	0.236	67	0.653	0.786





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
	AWG/kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft
599333 <sup>◇</sup>	8	B	7	16510	0.141	45	BN	0.236	67	0.653	0.786
599335 <sup>◇</sup>	8	B	7	16510	0.141	45	OE	0.236	67	0.653	0.786
599336 <sup>◇</sup>	8	B	7	16510	0.141	45	YW	0.236	67	0.653	0.786
599334 <sup>◇</sup>	8	B	7	16510	0.141	45	GY	0.236	67	0.653	0.786
599330 <sup>◇</sup>	8	B	7	16510	0.141	45	GN	0.236	67	0.653	0.786
599328 <sup>◇</sup>	8	B	7	16510	0.141	45	BK	0.236	67	0.653	0.786
599340	6	B	7	26240	0.177	45	RD	0.272	100	0.411	0.495
599338	6	B	7	26240	0.177	45	BE	0.272	100	0.411	0.495
599341	6	B	7	26240	0.177	45	WE	0.272	100	0.411	0.495
599342	6	B	7	26240	0.177	45	BN	0.272	100	0.411	0.495
599344	6	B	7	26240	0.177	45	OE	0.272	100	0.411	0.495
599345	6	B	7	26240	0.177	45	YW	0.272	100	0.411	0.495
599343	6	B	7	26240	0.177	45	GY	0.272	100	0.411	0.495
599339	6	B	7	26240	0.177	45	GN	0.272	100	0.411	0.495
6790700	6	B	7	26240	0.177	45	BK	0.272	100	0.411	0.495
599337 <sup>◇</sup>	6	B	7	26240	0.177	45	BK	0.272	100	0.411	0.495
599349 <sup>◇</sup>	4	B	7	41740	0.225	45	RD	0.319	152	0.258	0.310
599347 <sup>◇</sup>	4	B	7	41740	0.225	45	BE	0.319	152	0.258	0.310
599350 <sup>◇</sup>	4	B	7	41740	0.225	45	WE	0.319	152	0.258	0.310
599351 <sup>◇</sup>	4	B	7	41740	0.225	45	BN	0.319	152	0.258	0.310
599353 <sup>◇</sup>	4	B	7	41740	0.225	45	OE	0.319	152	0.258	0.310
599354 <sup>◇</sup>	4	B	7	41740	0.225	45	YW	0.319	152	0.258	0.310
599352 <sup>◇</sup>	4	B	7	41740	0.225	45	GY	0.319	152	0.258	0.310
599348 <sup>◇</sup>	4	B	7	41740	0.225	45	GN	0.319	152	0.258	0.310
599346 <sup>◇</sup>	4	B	7	41740	0.225	45	BK	0.319	152	0.258	0.310
641691	3	B	7	52620	0.252	45	BK	0.346	188	0.205	0.246
599358 <sup>◇</sup>	2	B	7	66360	0.282	45	RD	0.371	233	0.162	0.195
599356 <sup>◇</sup>	2	B	7	66360	0.282	45	BE	0.371	233	0.162	0.195
599359 <sup>◇</sup>	2	B	7	66360	0.282	45	WE	0.371	233	0.162	0.195
599360 <sup>◇</sup>	2	B	7	66360	0.282	45	BN	0.371	233	0.162	0.195
599507 <sup>◇</sup>	2	B	7	66360	0.282	45	OE	0.371	233	0.162	0.195
599508 <sup>◇</sup>	2	B	7	66360	0.282	45	YW	0.371	233	0.162	0.195
599505 <sup>◇</sup>	2	B	7	66360	0.282	45	GY	0.371	233	0.162	0.195
599357 <sup>◇</sup>	2	B	7	66360	0.282	45	GN	0.371	233	0.162	0.195
599355 <sup>◇</sup>	2	B	7	66360	0.282	45	BK	0.371	233	0.162	0.195





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
	AWG/kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft
643752	1	B	19	83690	0.322	55	BK	0.438	299	0.128	0.154
641693	1/0	B	19	105600	0.361	55	BK	0.478	371	0.102	0.122
641694	1/0	B	19	105600	0.361	55	GN	0.478	371	0.102	0.122
599509	2/0	B	19	133100	0.405	55	BK	0.522	461	0.081	0.097
679228*	2/0	B	19	133100	0.405	55	GN	0.522	461	0.081	0.097
599519	4/0	B	19	211600	0.512	55	BK	0.614	714	0.051	0.062
641699	250	B	37	250000	0.558	65	BK	0.678	849	0.043	0.053
679131*	250	B	37	250000	0.558	65	BN	0.678	849	0.043	0.053
649645	300	B	37	300000	0.610	65	BK	0.747	1012	0.036	0.045
641702	500	B	37	500000	0.789	65	GN	0.919	1635	0.022	0.029
641703	600	B	61	600000	0.865	80	BK	1.034	2000	0.018	0.025

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

^ # 6AWG Stock Number 679070 is Tinned Copper Conductor

**Table 3 - Stock Code Colors**

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Green	Purple
14 (Solid)	649593									
12 (Solid)	599254	599255	599256	599253	599258	599259	599260	599257	599252	647516
10 (Solid)	599263	599264	599265	599262	599281	599282	599283	599280	599261	
14 (7)	647361	643917								
12 (7)		677425			646526	646527	646528	649601	646529	
10 (7)	646542	646530	646531	646532					646533	
8 (7)	599328	599331	599329		599333	599335	599336	599334	599330	
6 (7)	679070	599340	599338	599341	599342	599344	599345	599343	599339	
4 (7)	599346	599349	599347	599350	599351	599353	599354	599352	599348	
3 (7)	641691									
2 (7)	599355	599358	599356	599359	599360	599507	599508	599505	599357	
1 (19)	643752									
1/0 (19)	641693								641694	
2/0 (19)	599509								679228	
4/0 (19)	599519									
250 (37)	641699				679131					
300 (37)	649645									
500 (37)									641702	
600 (61)	641703									

