



## CU 600V LSZH RHH/RHW-2 SOLONONplus™

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. 70,000 BTU/Hr. Vertical Flame Test
- e. UL listed for CT use on 1/0 and Larger
- f. UL listed FT4 and ST-1 (limited smoke)
- g. -40°C Cold impact and cold bend
- h. Gasoline and Oil Resistant GRI and GRII
- i. UV/Sunlight resistant all colors
- j. Color available upon request
- k. Rated for direct burial

### SPECIFICATIONS:

- ASTM B3 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:**

{SQFTG} SOUTHWIRE SOLONONplus{TM} E30117 (UL) XX AWG (X.XXmm<sup>2</sup>) CU LSZH XLPO TYPE RHH OR RHW-2 -40°C FT4 ST1 SR PRI PRII GRI GRII 600V --- (CSA) LL90458 TYPE RW90 600V -40°C FT4 ST1 TC-ER SR PRI PRII GRI GRII





**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
646600	14	B	7	4110	0.070	45	RD	0.165	24	2.631	3.170	32
643665	14	B	7	4110	0.070	45	BK	0.165	24	2.631	3.170	32
677498	14	B	7	4110	0.070	45	WE	0.165	24	2.631	3.170	32
677499	14	B	7	4110	0.070	45	GN	0.165	24	2.631	3.170	32
644381	12	B	7	6530	0.088	45	GN	0.183	33	1.662	2.002	52
644382	12	B	7	6530	0.088	45	RD	0.183	33	1.662	2.002	52
644383	12	B	7	6530	0.088	45	BE	0.183	33	1.662	2.002	52
644384	12	B	7	6530	0.088	45	BN	0.183	33	1.662	2.002	52
644386	12	B	7	6530	0.088	45	OE	0.183	33	1.662	2.002	52
644387	12	B	7	6530	0.088	45	YW	0.183	33	1.662	2.002	52
644388	12	B	7	6530	0.088	45	GY	0.183	33	1.662	2.002	52
644389	12	B	7	6530	0.088	45	WE	0.183	33	1.662	2.002	52
643666	12	B	7	6530	0.088	45	BK	0.183	33	1.662	2.002	52
644390	10	B	7	10380	0.113	45	GN	0.207	47	1.040	1.253	83
644391	10	B	7	10380	0.113	45	RD	0.207	47	1.040	1.253	83
644392	10	B	7	10380	0.113	45	BE	0.207	47	1.040	1.253	83
644394	10	B	7	10380	0.113	45	BN	0.207	47	1.040	1.253	83
644395	10	B	7	10380	0.113	45	OE	0.207	47	1.040	1.253	83
644396	10	B	7	10380	0.113	45	WE	0.207	47	1.040	1.253	83
646492	10	B	7	10380	0.113	45	GY	0.207	47	1.040	1.253	83
646493	10	B	7	10380	0.113	45	YW	0.207	47	1.040	1.253	83
643667	10	B	7	10380	0.113	45	BK	0.207	47	1.040	1.253	83
646601	8	B	7	16510	0.141	60	GN	0.268	77	0.653	0.786	132
646602	8	B	7	16510	0.141	60	RD	0.268	77	0.653	0.786	132
646603	8	B	7	16510	0.141	60	BE	0.268	77	0.653	0.786	132
646605	8	B	7	16510	0.141	60	WE	0.268	77	0.653	0.786	132
647101	8	B	7	16510	0.141	60	BN	0.268	77	0.653	0.786	132
647102	8	B	7	16510	0.141	60	OE	0.268	77	0.653	0.786	132
647103	8	B	7	16510	0.141	60	YW	0.268	77	0.653	0.786	132
647104	8	B	7	16510	0.141	60	GY	0.268	77	0.653	0.786	132
643668	8	B	7	16510	0.141	60	BK	0.268	77	0.653	0.786	132
644257	6	B	7	26240	0.177	60	GN	0.304	112	0.411	0.495	209
646581	6	B	7	26240	0.177	60	RD	0.304	112	0.411	0.495	209
646582	6	B	7	26240	0.177	60	BE	0.304	112	0.411	0.495	209
646583	6	B	7	26240	0.177	60	BN	0.304	112	0.411	0.495	209
646584	6	B	7	26240	0.177	60	OE	0.304	112	0.411	0.495	209
646585	6	B	7	26240	0.177	60	YW	0.304	112	0.411	0.495	209
646586	6	B	7	26240	0.177	60	GY	0.304	112	0.411	0.495	209
646587	6	B	7	26240	0.177	60	WE	0.304	112	0.411	0.495	209
643669	6	B	7	26240	0.177	60	BK	0.304	112	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
646594	4	B	7	41740	0.225	60	GN	0.351	167	0.258	0.310	333
646595	4	B	7	41740	0.225	60	BN	0.351	167	0.258	0.310	333
646597	4	B	7	41740	0.225	60	OE	0.351	167	0.258	0.310	333
646598	4	B	7	41740	0.225	60	YW	0.351	167	0.258	0.310	333
646599	4	B	7	41740	0.225	60	GY	0.351	167	0.258	0.310	333
647105	4	B	7	41740	0.225	60	RD	0.351	167	0.258	0.310	333
647106	4	B	7	41740	0.225	60	BE	0.351	167	0.258	0.310	333
647108	4	B	7	41740	0.225	60	WE	0.351	167	0.258	0.310	333
643670	4	B	7	41740	0.225	60	BK	0.351	167	0.258	0.310	333
646613	3	B	7	52620	0.252	60	GN	0.378	204	0.205	0.246	420
646614	3	B	7	52620	0.252	60	BN	0.378	204	0.205	0.246	420
646615	3	B	7	52620	0.252	60	OE	0.378	204	0.205	0.246	420
646616	3	B	7	52620	0.252	60	YW	0.378	204	0.205	0.246	420
646617	3	B	7	52620	0.252	60	GY	0.378	204	0.205	0.246	420
646618	3	B	7	52620	0.252	60	BK	0.378	204	0.205	0.246	420
647109	3	B	7	52620	0.252	60	RD	0.378	204	0.205	0.246	420
647111	3	B	7	52620	0.252	60	BE	0.378	204	0.205	0.246	420
647112	3	B	7	52620	0.252	60	WE	0.378	204	0.205	0.246	420
646589	2	B	7	66360	0.282	60	GN	0.409	251	0.162	0.195	530
646590	2	B	7	66360	0.282	60	BN	0.409	251	0.162	0.195	530
646591	2	B	7	66360	0.282	60	OE	0.409	251	0.162	0.195	530
646592	2	B	7	66360	0.282	60	YW	0.409	251	0.162	0.195	530
646593	2	B	7	66360	0.282	60	GY	0.409	251	0.162	0.195	530
643671	2	B	7	66360	0.282	60	BK	0.409	251	0.162	0.195	530
646624	1	B	19	83690	0.322	80	BN	0.490	329	0.128	0.154	669
646625	1	B	19	83690	0.322	80	OE	0.490	329	0.128	0.154	669
646626	1	B	19	83690	0.322	80	YW	0.490	329	0.128	0.154	669
646627	1	B	19	83690	0.322	80	GY	0.490	329	0.128	0.154	669
647113	1	B	19	83690	0.322	80	GN	0.490	329	0.128	0.154	669
647114	1	B	19	83690	0.322	80	RD	0.490	329	0.128	0.154	669
647116	1	B	19	83690	0.322	80	BE	0.490	329	0.128	0.154	669
647117	1	B	19	83690	0.322	80	WE	0.490	329	0.128	0.154	669
643672	1	B	19	83690	0.322	80	BK	0.490	329	0.128	0.154	669
644397	1/0	B	19	105600	0.361	80	GN	0.530	404	0.102	0.122	844
644398	1/0	B	19	105600	0.361	80	RD	0.530	404	0.102	0.122	844
644399	1/0	B	19	105600	0.361	80	BE	0.530	404	0.102	0.122	844
644400	1/0	B	19	105600	0.361	80	WE	0.530	404	0.102	0.122	844
647118	1/0	B	19	105600	0.361	80	BN	0.530	404	0.102	0.122	844
647119	1/0	B	19	105600	0.361	80	OE	0.530	404	0.102	0.122	844
647120	1/0	B	19	105600	0.361	80	YW	0.530	404	0.102	0.122	844
647121	1/0	B	19	105600	0.361	80	GY	0.530	404	0.102	0.122	844
643673	1/0	B	19	105600	0.361	80	BK	0.530	404	0.102	0.122	844





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
647122	2/0	B	19	133100	0.405	80	RD	0.574	497	0.081	0.097	1064
647124	2/0	B	19	133100	0.405	80	BE	0.574	497	0.081	0.097	1064
647125	2/0	B	19	133100	0.405	80	BN	0.574	497	0.081	0.097	1064
647126	2/0	B	19	133100	0.405	80	OE	0.574	497	0.081	0.097	1064
647127	2/0	B	19	133100	0.405	80	YW	0.574	497	0.081	0.097	1064
647128	2/0	B	19	133100	0.405	80	GY	0.574	497	0.081	0.097	1064
647129	2/0	B	19	133100	0.405	80	WE	0.574	497	0.081	0.097	1064
649622	2/0	B	19	133100	0.405	80	GN	0.574	497	0.081	0.097	1064
643674	2/0	B	19	133100	0.405	80	BK	0.574	497	0.081	0.097	1064
646619	3/0	B	19	167800	0.456	80	BN	0.624	614	0.064	0.078	1342
646621	3/0	B	19	167800	0.456	80	OE	0.624	614	0.064	0.078	1342
646622	3/0	B	19	167800	0.456	80	YW	0.624	614	0.064	0.078	1342
646623	3/0	B	19	167800	0.456	80	GY	0.624	614	0.064	0.078	1342
647130	3/0	B	19	167800	0.456	80	RD	0.624	614	0.064	0.078	1342
647132	3/0	B	19	167800	0.456	80	BE	0.624	614	0.064	0.078	1342
647133	3/0	B	19	167800	0.456	80	WE	0.624	614	0.064	0.078	1342
648905	3/0	B	19	167800	0.456	80	GN	0.624	614	0.064	0.078	1342
643675	3/0	B	19	167800	0.456	80	BK	0.624	614	0.064	0.078	1342
644380	4/0	B	19	211600	0.512	80	GN	0.680	759	0.051	0.062	1692
647134	4/0	B	19	211600	0.512	80	RD	0.680	759	0.051	0.062	1692
647135	4/0	B	19	211600	0.512	80	BE	0.680	759	0.051	0.062	1692
647136	4/0	B	19	211600	0.512	80	BN	0.680	759	0.051	0.062	1692
647569	4/0	B	19	211600	0.512	80	OE	0.680	759	0.051	0.062	1692
647570	4/0	B	19	211600	0.512	80	YW	0.680	759	0.051	0.062	1692
647571	4/0	B	19	211600	0.512	80	GY	0.680	759	0.051	0.062	1692
647572	4/0	B	19	211600	0.512	80	WE	0.680	759	0.051	0.062	1692
643677	4/0	B	19	211600	0.512	80	BK	0.680	759	0.051	0.062	1692
646606	250	B	37	250000	0.558	95	RD	0.758	909	0.043	0.053	2000
646607	250	B	37	250000	0.558	95	WE	0.758	909	0.043	0.053	2000
647573	250	B	37	250000	0.558	95	BE	0.758	909	0.043	0.053	2000
647574	250	B	37	250000	0.558	95	BN	0.758	909	0.043	0.053	2000
647575	250	B	37	250000	0.558	95	OE	0.758	909	0.043	0.053	2000
647576	250	B	37	250000	0.558	95	YW	0.758	909	0.043	0.053	2000
647577	250	B	37	250000	0.558	95	GY	0.758	909	0.043	0.053	2000
643678	250	B	37	250000	0.558	95	BK	0.758	909	0.043	0.053	2000
643679	350	B	37	350000	0.661	95	BK	0.841	1236	0.031	0.039	2800
647583	350	B	37	350000	0.661	95	BN	0.861	1240	0.031	0.039	2800
647584	350	B	37	350000	0.661	95	OE	0.861	1240	0.031	0.039	2800
647585	350	B	37	350000	0.661	95	YW	0.861	1240	0.031	0.039	2800
647587	350	B	37	350000	0.661	95	GY	0.861	1240	0.031	0.039	2800
647588	350	B	37	350000	0.661	95	WE	0.861	1240	0.031	0.039	2800
646608	500	B	37	500000	0.789	95	BN	0.989	1731	0.022	0.029	4000





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
646609	500	B	37	500000	0.789	95	OE	0.989	1731	0.022	0.029	4000
646610	500	B	37	500000	0.789	95	YW	0.989	1731	0.022	0.029	4000
646611	500	B	37	500000	0.789	95	GY	0.989	1731	0.022	0.029	4000
647589	500	B	37	500000	0.789	95	WE	0.989	1731	0.022	0.029	4000
643680	500	B	37	500000	0.789	95	BK	0.989	1731	0.022	0.029	4000
557136	500	B	37	500000	0.789	95	BK	0.995	1733	0.022	0.029	4000
647653	600	B	61	600000	0.865	110	BK	1.072	2084	0.018	0.025	4800
647590	600	B	61	600000	0.865	110	BN	1.072	2084	0.018	0.025	4800
647591	600	B	61	600000	0.865	110	OE	1.072	2084	0.018	0.025	4800
647592	600	B	61	600000	0.865	110	YW	1.072	2084	0.018	0.025	4800
647593	600	B	61	600000	0.865	110	GY	1.072	2084	0.018	0.025	4800
643826	750	B	61	750000	0.968	110	BK	1.200	2579	0.014	0.022	6000
643827	1000	B	61	1000000	1.117	110	BK	1.349	3388	0.011	0.018	8000

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Tinned Copper Conductor

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**

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Gray	Green
14 (7)	643665	646600		677498					677499
12 (7)	643666	644382	644383	644389	644384	644386	644387	644388	644381
10 (7)	643667	644391	644392	644396	644394	644395	646493	646492	644390
8 (7)	643668	646602	646603	646605	647101	647102	647103	647104	646601
6 (7)	643669	646581	646582	646587	646583	646584	646585	646586	644257
4 (7)	643670	647105	647106	647108	646595	646597	646598	646599	646594
3 (7)	646618	647109	647111	647112	646614	646615	646616	646617	646613
2 (7)	643671				646590	646591	646592	646593	646589
1 (19)	643672	647114	647116	647117	646624	646625	646626	646627	647113
1/0 (19)	643673	644398	644399	644400	647118	647119	647120	647121	644397
2/0 (19)	643674	647122	647124	647129	647125	647126	647127	647128	649622
3/0 (19)	643675	647130	647132	647133	646619	646621	646622	646623	648905
4/0 (19)	643677	647134	647135	647572	647136	647569	647570	647571	644380
250 (37)	643678	646606	647573	646607	647574	647575	647576	647577	
350 (37)	643679			647588	647583	647584	647585	647587	
500 (37)	643680			647589	646608	646609	646610	646611	
600 (61)	647653				647590	647591	647592	647593	
750 (61)	643826								
1000 (61)	643827								

