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

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

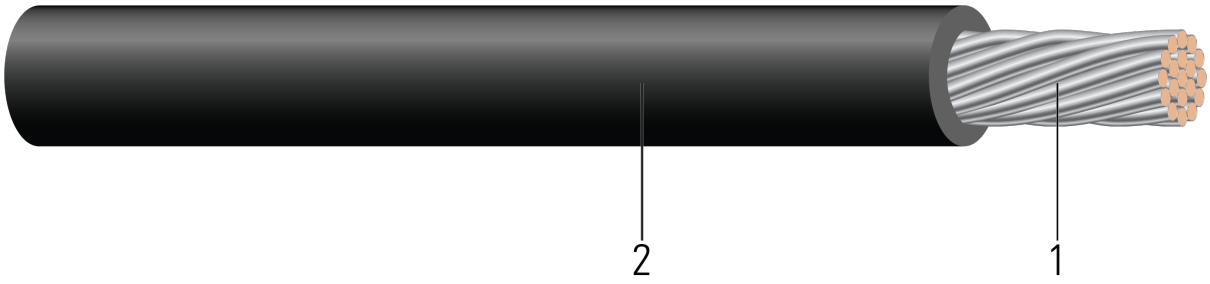


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid tinned copper per ASTM B3 or Class B compressed stranded tinned copper per ASTM B3 and B33
2. **Insulation:** Black or green 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

1. NEC compliant
2. The halogen content is less than 0.2% and Acid gas less than 2.0%
3. UL listed VW-1
4. UL listed FT4/IEEE 1202 and ST-1
5. UL listed for CT use on 1/0 AWG and larger
6. -40°C Cold impact and cold bend
7. Oil Resistant I and II
8. Gasoline Resistance I and II
9. Sunlight Resistant

SPECIFICATIONS:

- 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 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

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- 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 (non-emergency circuits only)

SAMPLE PRINT LEGEND:

14 AWG to 1 AWG

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

1/0 AWG and Larger

{SQFTG} SOUTHWIRE SOLONONplus™ LSZH XLPO E30117 {UL} XX AWG/KCMIL TCU TYPE XHHW-2-HF VW-1 600V PRI PRII GRI GRII -40°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
	AWG/ kcmil		No. of Strands	cmil	inch	mil		inch	lb/1000ft	Ω/1000ft	Ω/1000ft
459674	14	SOLID	SOLID	4110	0.064	30	BK	0.128	20	2.736	3.396
TBA	14	B	7	4110	0.071	30	BE	0.133	20	2.736	3.396
459673	12	SOLID	SOLID	6530	0.081	30	BK	0.145	28	1.729	2.146
459678	12	B	7	6530	0.089	30	BK	0.153	29	1.729	2.146
459672	10	SOLID	SOLID	10380	0.102	30	BK	0.166	41	1.082	1.343
459677	10	B	7	10380	0.113	30	BK	0.177	43	1.082	1.343
459688	8	B	7	16510	0.142	45	BK	0.236	72	0.679	0.843
459686	6	B	7	26240	0.178	45	BK	0.272	106	0.427	0.53
459682	4	B	7	41740	0.225	45	BK	0.319	160	0.268	0.333
459681	3	B	7	52620	0.252	45	BK	0.346	197	0.213	0.264
459679	2	B	7	66360	0.283	45	BK	0.377	243	0.169	0.21
459675	1	B	19	83690	0.322	55	BK	0.438	311	0.134	0.166
459676	1/0	B	19	105600	0.362	55	BK	0.478	385	0.106	0.132
TBA	2/0	B	19	133100	0.405	55	BN	0.522	476	0.085	0.105
TBA	3/0	B	19	167800	0.456	55	GN	0.572	591	0.067	0.083
459683	4/0	B	19	211600	0.512	55	BK	0.628	734	0.053	0.066
459680	250	B	37	250000	0.558	65	BK	0.694	874	0.045	0.056
TBA	300	B	37	300000	0.611	65	GY	0.73	1034	0.037	0.046
TBA	350	B	37	350000	0.661	65	OE	0.777	1197	0.032	0.041
459684	400	B	37	400000	0.706	65	BK	0.842	1362	0.028	0.036
459685	500	B	37	500000	0.789	65	BK	0.925	1685	0.022	0.029
459687	600	B	61	600000	0.866	80	BK	1.034	2043	0.019	0.025
TBA	750	B	61	750000	0.968	80	RD	1.136	2527	0.015	0.021

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

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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.

Cond. Size AWG/Kcmil	Stranding Num	Black Jacket	Green Jacket
14	1 (solid)	459674	459659
14	7		
12	1 (solid)	459673	459658
12	7	459678	459663
10	1 (solid)	459672	459657
10	7	459677	459662
8	7	459688	459671
6	7	459686	459670
4	7	459682	459667
3	7	459681	459666
2	7	459679	459664
1	19	459675	459660
1/0	19	459676	459661
2/0	19		459665
3/0	19		
4/0	19	459683	459668
250	37	459680	
300	37		
350	37		
400	37	459684	459669
500	37	459685	
600	61	459687	
750	61		
1000	61		

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