

CU 600V or 1000V LSZH XHHW-2 SOLONONplus®

SOLONONplus® 600Volt or 1000V 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 or 1000 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
- 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 (#2 and larger)
- h. -40°C Cold impact and cold bend
- i. Oil Resistant I and II
- j. UV/Sunlight resistant
- k. Color Available upon request
- l. PRI oil resistance at 60°C
- m. PR II oil resistance at 75°C
- n. GRI gasoline and oil resistance
- o. GR II gasoline and oil resistance

SPECIFICATIONS:

- ASTM B3 Standard Specification for 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)



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**CABLETECH
SUPPORT™**

Services

- 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 (#2 and larger)
- NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways

SAMPLE PRINT LEGEND:

- 1/0 AWG and larger cables
SOUTHWIRE SOLONONplus (TM) LSZH XLPO E30117 MASTER-DESIGN (UL) AWG XX CU TYPE XHHW-2-HF VW-1600V or 1000V PRI PRII GRI GRII-40(D)C SR FT4 ST-1 CT (SEQUENTIAL FOOTAGE MARKS) SEQ FEET [date code]
- 2 AWG and 1 AWG
SOUTHWIRE SOLONONplus (TM) LSZH XLPO E30117 MASTER-DESIGN (UL) AWG XX CU TYPE XHHW-2-HF VW-1600V or 1000V PRI PRII GRI GRII-40(D)C SR FT4 ST-1 (SEQUENTIAL FOOTAGE MARKS) SEQ FEET [date code]
- 14 AWG to 4 AWG
SOUTHWIRE SOLONONplus (TM) LSZH XLPO E30117 MASTER-DESIGN (UL) AWG XX CU TYPE XHHW-2-HF VW-1600V or 1000V PRI PRII GRI GRII-40(D)C SR (SEQUENTIAL FOOTAGE MARKS) SEQ FEET [date code]

Table 1 – Weights and Measurements

Stock Number	Cond. Size AWG/Kcmil	Strand Count No. of Strands	Diameter Over Conductor inch	Insul. Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
673577	14	7	0.07	30	0.13	13	18
673578	12	7	0.087	30	0.147	20	27
673614	10	7	0.111	30	0.171	32	40
673560	8	7	0.139	45	0.229	51	67
679557	6	7	0.174	45	0.264	81	100
673629	6	7	0.174	45	0.264	81	100
673645	4	7	0.221	45	0.311	129	153
673881	3	7	0.248	45	0.342	162	193
673652	2	7	0.277	45	0.367	205	235
673677	1	19	0.321	55	0.431	258	297
673664	1/0	19	0.360	55	0.470	326	369
673904	2/0	19	0.404	55	0.514	411	459
673917	3/0	19	0.454	55	0.564	518	573
673929	4/0	19	0.510	55	0.620	653	715
673941	250	37	0.558	65	0.688	772	846
673955	350	37	0.661	65	0.791	1081	1169
TBA	400	37	0.706	65	0.836	1235	1369
673978	500	37	0.789	65	0.919	1544	1648
673990	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



Southwire



Services

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Tinned Copper Conductor

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Shield Short Circuit Current 6 Cycles	Allowable Ampacity At 60°C†	Allowable Ampacity At 75°C†	Allowable Ampacity At 90°C†
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp	Amp
673577	14	0.5	33	2.63	3.288	0.036	935	15	15	15
673578	12	0.6	52	1.66	2.075	0.034	1485	20	20	20
673614	10	0.7	83	1.04	1.3	0.032	2360	29	30	30
673560◊	8	0.9	132	0.652	0.815	0.033	3754	40	48	55
679557	6	1.1	210	0.411	0.514	0.031	5966	55	66	75
673629◊	6	1.1	210	0.411	0.514	0.031	5966	55	66	75
673645◊	4	1.2	334	0.258	0.323	0.030	9491	70	84	95
673881	3	1.4	420	0.214	0.285	0.029	12097	85	100	110
673652◊	2	1.5	531	0.162	0.203	0.028	15089	96	115	130
673677◊	1	1.7	670	0.129	0.162	0.028	19029	107	128	145
673664◊	1/0	1.9	845	0.102	0.128	0.028	24011	126	150	170
673904◊	2/0	2.1	1065	0.081	0.102	0.027	30264	144	172	195
673917◊	3/0	2.3	1342	0.064	0.081	0.027	38154	167	199	225
673929◊	4/0	2.5	1693	0.051	0.064	0.026	48114	192	230	260
673941◊	250	2.8	2000	0.043	0.055	0.027	56845	215	257	290
673955◊	350	3.2	2800	0.031	0.040	0.026	79583	259	310	350
TBA	400	3.34	3200	0.0264	0.033	0.029	91009	280	335	380
673978◊	500	3.7	4000	0.022	0.029	0.025	113690	319	381	430
673990	600	5.1	4800	0.018	0.018	0.024	136428	352	421	475
TBA	750	5.6	6000	0.014	0.014	0.02	170535	397	474	535
TBA	1000	6.4	8000	0.011	0.011	0.017	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)

