# 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




Image not to scale. See Table 1 for dimensions.

## 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


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- 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 (non-emergency circuits only)

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ kcmil | | No. of Strands | cmil | inch | mil | | inch | lb/1000ft | Ω/1000ft | Ω/1000ft |
| 666085 | 14 | B | 7 | 4110 | 0.071 | 30 | PE | 0.135 | 20 | 2.631 | 3.265 |
| 666089 | 12 | B | 7 | 6530 | 0.089 | 30 | GN | 0.153 | 29 | 1.662 | 2.063 |
| 139438 | 10 | B | 7 | 10380 | 0.113 | 30 | GN | 0.177 | 43 | 1.04 | 1.291 |
| 139490 | 8 | B | 7 | 16510 | 0.142 | 45 | GN | 0.236 | 72 | 0.653 | 0.81 |
| 139479 | 6 | B | 7 | 26240 | 0.178 | 45 | GN | 0.272 | 106 | 0.411 | 0.51 |
| 139461 | 4 | B | 7 | 41740 | 0.225 | 45 | GN | 0.319 | 160 | 0.258 | 0.32 |
| 139454 | 3 | B | 7 | 52620 | 0.252 | 45 | BK | 0.346 | 197 | 0.205 | 0.254 |
| 139447 | 2 | B | 7 | 66360 | 0.283 | 45 | GN | 0.377 | 243 | 0.162 | 0.201 |
| 139428 | 1 | B | 19 | 83690 | 0.322 | 55 | GN | 0.438 | 311 | 0.128 | 0.159 |
| 139432 | 1/0 | B | 19 | 105600 | 0.362 | 55 | GN | 0.478 | 385 | 0.102 | 0.127 |
| 139452 | 2/0 | B | 19 | 133100 | 0.405 | 55 | BK | 0.522 | 476 | 0.082 | 0.102 |
| 139455 | 3/0 | B | 19 | 167800 | 0.456 | 55 | BK | 0.572 | 591 | 0.064 | 0.079 |
| 139468 | 4/0 | B | 19 | 211600 | 0.512 | 55 | GN | 0.614 | 732 | 0.051 | 0.063 |
| 139453 | 250 | B | 37 | 250000 | 0.558 | 65 | BK | 0.678 | 871 | 0.043 | 0.053 |
| 139456 | 300 | B | 37 | 300000 | 0.611 | 65 | BK | 0.73 | 1034 | 0.036 | 0.045 |
| 139457 | 350 | B | 37 | 350000 | 0.661 | 65 | BK | 0.777 | 1197 | 0.031 | 0.039 |
| 139470 | 400 | B | 37 | 400000 | 0.706 | 65 | BK | 0.821 | 1359 | 0.027 | 0.035 |
| 139474 | 500 | B | 37 | 500000 | 0.789 | 65 | GN | 0.902 | 1681 | 0.021 | 0.027 |
| 139485 | 600 | B | 61 | 600000 | 0.866 | 80 | BK | 1.008 | 2038 | 0.018 | 0.024 |
| 139486 | 750 | B | 61 | 750000 | 0.968 | 80 | BK | 1.136 | 2527 | 0.014 | 0.019 |
| TBA | 1000 | B | 61 | 1000000 | 1.117 | 80 | BK | 1.289 | 3240 | 0.011 | 0.016 |
| TBA | 1250 | B | 91 | 1250000 | 1.25 | 95 | BK | 1.44 | 4068 | 0.008 | 0.013 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



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UPDATED: Dec. 31, 2024, 11:08 p.m.UTC REVISION: 1.000.009

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 | | | | | | | | | |


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