1/C CU 600V Tray Rated LSZH RW90 VW-1 Cable SOLONONplus™ Living Building Challenge™ (LBC) Red List Free

SOLONONplus™ 600 Volt Single Conductor Copper Cross Linked Polyolefin Low Smoke Zero Halogen (XLPO LSZH) Insulation Type RW 90

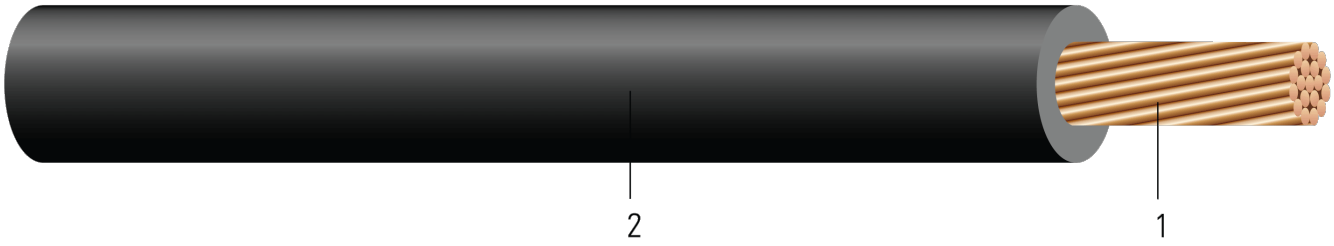

Image not to scale. See Table 1 for dimensions.

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 RW 90 VW-1

APPLICATIONS AND FEATURES:

Southwire's 600 Volt SOLONONplus™ Type RW 90 VW-1 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. Color Available upon request
c. Listed and marked CSA VW-1 for all sizes
d. The halogen content is less than 0.2% and Acid gas less than 2.0%
e. CSA listed for TC use on 1/0 and Larger. 70,000 BTU/Hr. Vertical Flame Test (CSA C22.2 NO. 2556)
f. CSA listed FT4/IEEE 1202 and ST-1 (1/0 and larger)
g. -40°C Cold impact and cold bend
h. PRI Oil resistance I at 60°C & PRII Oil resistance II at 75°C
i. GRI gasoline and oil resistance at 60°C
j. GRII gasoline and oil resistance at 75°C
k. REACH & RoHS compliant
l. Listed and marked HAL-FREE (Halogen Free) per CSA 2556-15
m. Living Building Challenge™ (LBC) Red List Free

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)
- CSA C22.2 No. 38 Thermoset-insulated wires and cables

Copyright © 2026 Southwire Company, LLC. All Rights Reserved
UPDATED: Dec. 31, 2024, 11:08 p.m.UTC REVISION: 1.000.016

- CSA C22.2 No.230 Tray Cables - Rated TC-ER (1/0 AWG and Larger)
- CSA C22.2 No. 2556 / UL 2556 Cable Test Methods
- 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
- ISO 9001 Quality management
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (500kcmil & Larger)
- NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways (non-emergency circuits only)

SAMPLE PRINT LEGEND:

- 1/0 AWG and larger cables
  SOUTHWIRE SOLONONplus (TM) LSZH XLPO 156205 {CSA} 1/0 AWG (XXX mm2) CU RW90 600V VW-1 HAL-FREE TC PRI PRII GRI GRII -40°C SR FT4 ST-1 {SEQUENTIAL METER MARKS} SEQ METERS [date code]

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
678792	1/0	B	19	105600	0.362	55	BK	0.478	386	0.102	0.127	845
678802	2/0	B	19	133100	0.405	55	BK	0.522	478	0.082	0.102	1065
678811	3/0	B	19	167800	0.456	55	BK	0.572	593	0.064	0.079	1342
678824	4/0	B	19	211600	0.512	55	BK	0.614	728	0.051	0.063	1693
678832	250	B	37	250000	0.558	65	BK	0.696	873	0.043	0.053	2000
678841	350	B	37	350000	0.661	65	BK	0.779	1182	0.031	0.039	2800
678850	500	B	37	500000	0.789	65	BK	0.904	1662	0.021	0.027	4000
678859	600	B	61	600000	0.866	80	BK	1.008	2003	0.018	0.024	4800

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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	Brown	Orange	Yellow	White	Red	Blue	Green
1/0 (19)	678792	678795	678796	678798	678791	678793	678794	678790
2/0 (19)	678802	678806	678807	678808	678801	678803	678804	678800
3/0 (19)	678811	678815	678816	678817	678810	678812	678814	678809
4/0 (19)	678824	678827	678828	678829	678823	678825	678826	678822
250 (37)	678832	678835	678836	678837	678831	678833	678834	678830
350 (37)	678841	678844	678845	678846	678840	678842	678843	678838
500 (37)	678850	678853	678855	678856	678849	678851	678852	678848
600 (61)	678859	678863	678864	678865	678858	678860	678861	678857

Copyright © 2026 Southwire Company, LLC. All Rights Reserved