

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

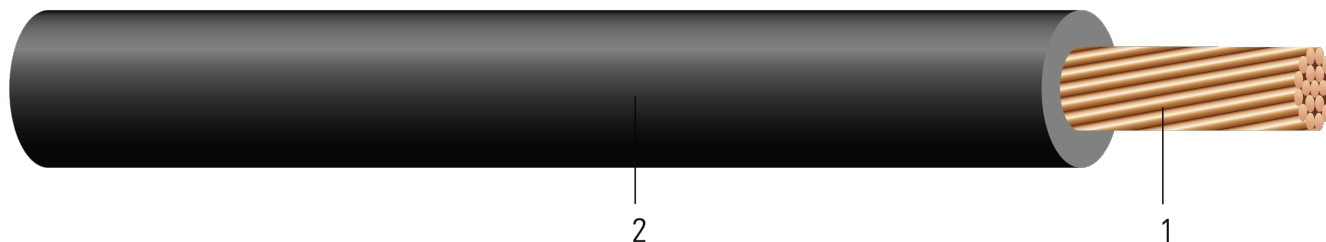


Image not to scale. See Table 1 for dimensions.

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 Standard Specification for 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 Type RW90



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Southwire

**CABLETECH
SUPPORT™**

Services

- 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
- 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 156205 MASTER-DESIGN {CSA} 1/0 AWG (XXX mm²) CU RW90 600V VW-1 HAL-FREE TC PRI PRII GRI GRII -40{D}C SR FT4 ST-1 {SEQUENTIAL METER MARKS} SEQ METERS [date code]

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Insul. Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Phase Short Circuit Current @ 60Hz	Allowable Ampacity In Raceway 90° C†
	AWG/Kcmil	No.	inch	mil	inch	lb/1000ft	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
TBA	14	7	0.07	30	0.13	18	0.5	33	2.63	3.288	0.036	935	15
TBA	12	7	0.087	30	0.147	27	0.6	52	1.66	2.075	0.034	1485	20
TBA	10	7	0.111	30	0.171	40	0.7	83	1.04	1.3	0.032	2360	30
TBA	8	7	0.139	45	0.229	67	0.9	132	0.652	0.815	0.033	3754	55
TBA	6	7	0.174	45	0.264	100	1.1	210	0.411	0.514	0.031	5966	75
TBA	4	7	0.221	45	0.311	153	1.2	334	0.258	0.323	0.030	9491	95
TBA	3	7	0.248	45	0.342	193	1.4	420	0.214	0.285	0.029	12097	110
TBA	2	7	0.277	45	0.367	235	1.5	531	0.162	0.203	0.028	15089	130
TBA	1	19	0.321	55	0.431	297	1.7	670	0.129	0.162	0.028	19029	145
TBA	1/0	19	0.360	55	0.470	369	1.9	845	0.102	0.128	0.028	24011	170
TBA	2/0	19	0.404	55	0.514	459	2.1	1065	0.081	0.102	0.027	30264	195
TBA	3/0	19	0.454	55	0.564	573	2.3	1342	0.064	0.081	0.027	38154	225
TBA	4/0	19	0.510	55	0.620	715	2.5	1693	0.051	0.064	0.026	48114	260
TBA	250	37	0.558	65	0.688	846	2.8	2000	0.043	0.055	0.027	56845	290
TBA	350	37	0.661	65	0.791	1169	3.2	2800	0.031	0.040	0.026	79583	350
TBA	500	37	0.789	65	0.919	1648	3.7	4000	0.022	0.029	0.025	113690	430
TBA	600	61	0.866	80	1.026	1987	5.1	4800	0.018	0.018	0.024	136428	475
TBA	750	61	0.968	80	1.128	2465	5.6	6000	0.014	0.014	0.02	170535	535
TBA	1000	61	1.117	80	1.277	3257	6.4	8000	0.011	0.011	0.017	227380	615

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



Table 2 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Insul. Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Phase Short Circuit Current @ 60Hz	Allowable Ampacity In Raceway 90°C†
	AWG/Kcmil	No.	mm	mm	mm	kg/km	mm	newton	Ω/km	Ω/km	Ω/km	Amp	Amp
TBA	14	7	1.78	0.76	3.30	27	12.70	147	8.6286	10.79	0.1181	935	15
TBA	12	7	2.21	0.76	3.73	40	15.24	231	5.4462	6.81	0.1115	1485	20
TBA	10	7	2.82	0.76	4.34	60	17.78	369	3.4121	4.27	0.1050	2360	30
TBA	8	7	3.53	1.14	5.82	100	22.86	587	2.1391	2.67	0.1083	3754	55
TBA	6	7	4.42	1.14	6.71	149	27.94	935	1.3484	1.69	0.1017	5966	75
TBA	4	7	5.61	1.14	7.90	228	30.48	1486	0.8465	1.06	0.0984	9491	95
TBA	3	7	6.30	1.14	8.69	287	35.56	1869	0.7021	0.94	0.0951	12097	110
TBA	2	7	7.04	1.14	9.32	350	38.10	2363	0.5315	0.67	0.0919	15089	130
TBA	1	19	8.15	1.40	10.95	442	43.18	2982	0.4232	0.53	0.0919	19029	145
TBA	1/0	19	9.14	1.40	11.94	549	48.26	3760	0.3346	0.42	0.0919	24011	170
TBA	2/0	19	10.26	1.40	13.06	683	53.34	4739	0.2657	0.33	0.0886	30264	195
TBA	3/0	19	11.53	1.40	14.33	853	58.42	5972	0.2100	0.27	0.0886	38154	225
TBA	4/0	19	12.95	1.40	15.75	1064	63.50	7534	0.1673	0.21	0.0853	48114	260
TBA	250	37	14.17	1.65	17.48	1259	71.12	8900	0.1411	0.18	0.0886	56845	290
TBA	350	37	16.79	1.65	20.09	1740	81.28	12460	0.1017	0.13	0.0853	79583	350
TBA	500	37	20.04	1.65	23.34	2452	93.98	17800	0.0722	0.10	0.0820	113690	430
TBA	600	61	22.00	2.03	26.06	2957	129.54	21360	0.0591	0.06	0.0787	136428	475
TBA	750	61	24.59	2.03	28.65	3668	142.24	26700	0.0459	0.05	0.0656	170535	535
TBA	1000	61	28.37	2.03	32.44	4847	162.56	35600	0.0361	0.04	0.0558	227380	615

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Stock Codes and Colors

Size	BLK	BRN	ORG	YLW	WHT	RED	BLU	GRN
1/0	678792	678795	678796	678798	678791	678793	678794	678790
2/0	678802	678806	678807	678808	678801	678803	678804	678800
3/0	678811	678815	678816	678817	678810	678812	678814	678809
4/0	678824	678827	678828	678829	678823	678825	678826	678822
250	678832	678835	678836	678837	678831	678833	678834	678830
350	678841	678844	678845	678846	678840	678842	678843	678838
500	678850	678853	678855	678856	678849	678851	678852	678848
600	678859	678863	678864	678865	678858	678860	678861	678857

