



## PRODUCT SPECIFICATION 13949 I

**TYPE:** TelcoSafe  
Central Office Power Wire and Cable  
Limited Smoke, Non-Halogenated Insulated, Silicone-Free  
Meets European RoHS directive  
90°C Dry, 75°C Wet – 600 Volts  
UL Listed RHH/RHW/ST1 and VW-1 (8 AWG and Larger)  
UL Listed “For CT Use” (1/0 AWG and Larger)  
CSA Listed AWM I A/B, 105°C, 1000 Volts, FT1, FT2  
FT4-ST1, -40°C, W75C  
Complies with Telcordia GR-347-CORE

**SIZE:** 14 AWG Through 750 KCMIL – Single Conductor

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### I. SCOPE:

This specification covers the construction requirements for limited smoke, non-halogenated Central Office Power Wire and Cable, insulated with a proprietary EVA Copolymer limited smoke, non-halogenated compound. UL listed Type RHH/RHW/ST1, for use in accordance with the National Electrical Code.

The construction of the wire and cable is in accordance with Underwriters’ Laboratories requirements and the requirements of CSA for the FT4/ST1 flame/smoke test. Sizes 1/0 AWG and larger are UL “CT Use” (Cable Tray) rated.

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**DATE: 08-22-07**

**II. CONSTRUCTION:**

SIZE (AWG OR KCMIL)	STRANDING	CONDUCTOR DIAMETER (INCHES)	INSUL. MIN. AVG. WALL (MILS)	NOMINAL INSUL. DIAM. (INCHES)	MAX D.C. RES. @ 20°C (OHMS PER 1000 FEET)	AMPACITY PER NEC TABLE 310.16	
						75°C	90°C
14	7/.0242"	.071	45	.165	2.62	20	25
12	7/.0305"	.090		.185	1.65	25	30
10	7/.0385"	.114		.210	1.03	35	40
8	7/.0486"	.143	60	.270	.653	50	55
6	7/.0612"	.180		.305	.411	65	75
4	7/.0772"	.227		.350	.258	85	95
2	7/.0974"	.286		.410	.162	115	130
1	19/.0664"	.332	80	.500	.129	130	150
1/0	19/.0745"	.365		.530	.102	150	170
2/0	19/.0837"	.411		.575	.081	175	195
3/0	19/.0940"	.470		.640	.064	200	225
4/0	19/.1055"	.517		.680	.050	230	260
250	37/.0822"	.575	95	.775	.043	255	290
350	37/.0973"	.667		.860	.030	310	350
500	37/.1162"	.797		.990	.021	380	430
600	61/.0992"	.893	110	1.120	.018	420	475
750	61/.1109"	.978		1.200	.014	475	535

**A. CONDUCTORS:**

Class B concentric stranded, bare copper conforming to ASTM B-8 and Underwriters' Laboratories requirements. An opaque mylar tape shall be applied over the conductor to facilitate stripping. Tinned copper is available upon request.

**B. INSULATION:**

Gray EVA Copolymer limited smoke, non-halogen, compound conforming to Underwriters' Laboratories Standard 44, Subjects 509 and 758, and CSA C22.2 No. 210-2-M90. In addition, the insulation complies with the requirements of Telcordia Technologies GR-347-Core. The insulation has a limiting oxygen index (L.O.I.) minimum of 28%. Other colors can be furnished upon request.

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**C. SURFACE MARKING:**

Two sides of the cable shall be printed using an ink of contrasting color and with the following information:

**“TelcoSafe L1 NON-HAL (SIZE) AWG (OR KCMIL) 600V. RHH OR RHW/ST1 FT4/IEEE1202 (UL) E18321 --- A.I.W. CORP. --- LL 8825 CSA AWM I A/B 105°C 1000V. W75C, -40°C FT1, FT2 FT4-ST1 (YEAR) (SEQ. FTG. ON 1 SIDE)”**

For Sizes 1/0 AWG and larger add, **“FOR CT USE”** before **“(UL)”**

For Sizes 8 AWG and larger add, **“VW-1”** after **“(UL)”**

**D. TESTING:**

Physical and electrical tests in accordance with the requirements of **UL Standard 44, Subject 509 and 758, and CSA Standard C22.2 No. 210.2-M90 as AWM.**

**E. LABELS:**

**UL and CSA tags and labels shall be applied to all packages.**

**F. LENGTHS:**

**All put-ups one length only unless agreed to otherwise. Maximum lengths per size will be advised.**

**G. PACKAGING:**

**The ends of the cable shall be capped or taped to prevent the entrance of moisture during shipment or storage**

**H. PART NUMBERS:**

SIZE	BLACK	BLUE	GREEN	RED	WHITE
<b>750 STR</b>	<b>W40140</b>				

<b>500 STR</b>	<b>W40136</b>				
<b>350 STR</b>	<b>W40134</b>				
<b>250 STR</b>	<b>W40659</b>				
<b>4/0 STR</b>	<b>W40132</b>			<b>W39586</b>	
<b>3/0 STR</b>	<b>W40655</b>				
<b>2/0 STR</b>	<b>W40130</b>		<b>W39580</b>		
<b>1/0 STR</b>	<b>W40128</b>		<b>W39573</b>	<b>W39572</b>	
<b>1 STR</b>	<b>W40651</b>				
<b>2 STR</b>	<b>W40126</b>		<b>W39567</b>		<b>W40834</b>
<b>4 STR</b>	<b>W40124</b>	<b>W67945</b>	<b>W39560</b>	<b>W39559</b>	
<b>6 STR</b>	<b>W40122</b>	<b>W39555</b>	<b>W39553</b>	<b>W39552</b>	
<b>8 STR</b>	<b>W40120</b>		<b>W39545</b>	<b>W39544</b>	
<b>10 STR</b>	<b>W40118</b>	<b>W39540</b>	<b>W39538</b>	<b>W39537</b>	
<b>12 STR</b>	<b>W40116</b>	<b>W39533</b>	<b>W39531</b>	<b>W39530</b>	
<b>14 STR</b>	<b>W40114</b>	<b>W39526</b>	<b>W39524</b>	<b>W39523</b>	