



CONDUCTOR - TIN-COATED COPPER

INSULATON - RADIATION-CROSSLINKED,
MODIFIED ETFE

TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A0111-30-*	30	7 x 38	.011	.013	108.4	.024 ± .002	.66
55A0111-28-*	28	7 x 36	.014	.016	68.6	.027 ± .002	.91
55A0111-26-*	26	19 x 38	.018	.020	41.3	.032 ± .002	1.4
55A0111-24-*	24	19 x 36	.023	.025	26.2	.037 ± .002	2.0
55A0111-22-*	22	19 x 34	.029	.031	16.2	.043 ± .002	2.8
55A0111-20-*	20	19 x 32	.037	.039	9.88	.050 ± .002	4.3
55A0111-18-*	18	19 x 30	.046	.049	6.23	.060 ± .002	6.5
55A0111-16-*	16	19 x 29	.052	.055	4.81	.068 ± .002	8.3
55A0111-14-*	14	19 x 27	.065	.069	3.06	.085 ± .003	13.0
55A0111-12-*	12	37 x 28	.084	.089	2.02	.103 ± .003	19.7
55A0111-10-*	10	37 x 26	.106	.113	1.26	.128 ± .006	31.8
55A0111- 8-*	8	133 x 29	.158	.173	.701	.188 ± .008	58.8

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
55A0111-30-*	.250	.375	.125	.500
55A0111-28-*	.250	.375	.125	.500
55A0111-26-*	.375	.500	.125	.500
55A0111-24-*	.375	.500	.250	1.00
55A0111-22-*	.500	.750	.375	1.00
55A0111-20-*	.500	.750	.500	1.00
55A0111-18-*	.500	1.00	.500	1.00
55A0111-16-*	.750	1.00	.750	1.00
55A0111-14-*	1.00	1.50	1.00	3.00
55A0111-12-*	1.50	2.00	1.50	3.00
55A0111-10-*	2.00	3.00	1.50	3.00
55A0111- 8-*	3.00	4.00	4.00	6.00



WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C,

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING (CROSSLINKING PROOF): 300 ± 3°C for 7 hours

BLOCKING: 200 ± 3°C for 24 hours

COLOR: white preferred

CONCENTRICITY: 70% (minimum)

FLAMMABILITY: Procedure 1, 3 seconds (maximum); 3 in. (maximum); no flaming of facial tissue.

HUMIDITY RESISTANCE: Insulation Resistance,

5000 megohms for 1000 ft. (minimum) for AWG 30 - 10

3000 megohms for 1000 ft. (minimum) for AWG 8

IDENTIFICATION, COLOR STRIPING AND BAND DURABILITY:

125 cycles (250 strokes) (minimum), 500 g weight

IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, 75% (minimum)

Tensile strength, 5000 lbf/in² (minimum)

INSULATION FLAWS:

Spark test, 5.7 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION RESISTANCE:

5000 megohms for 1000 ft. (minimum) for AWG 30 - 10

3000 megohms for 1000 ft. (minimum) for AWG 8

INSULATION THICKNESS: 0.005 in. (minimum)

LIFE CYCLE: 200 ± 3°C for 500 hours

LOW TEMPERATURE-COLD BEND: -65 ± 3°C for 4 hours

SHRINKAGE: 200 ± 3°C, for 6 hours, 0.125 in. (maximum) in 12 in.

SOLDERABILITY: Per MIL-STD-202, Method 208, without steam aging

N/A for AWG 10 and 8

SMOKE TEST: 200 ± 2°C. No visible smoke

SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings

THERMAL SHOCK RESISTANCE: 150 ± 3°C, 0.060 in. (maximum)

VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz

WRAP TEST: 200 ± 3°C for 2 hours



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