SPECIFICATION CONTROL DRAWING

SCD **55A8040**

Title	Date	Revision
WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT	3-14-17	K

This specification sheet forms a part of the latest issue of Raychem Specification 55A.

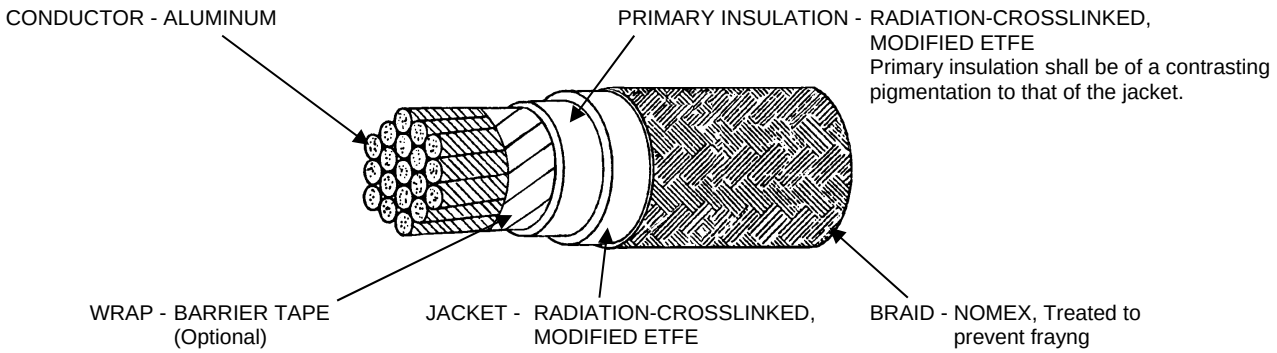

TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (inch)	FINISHED WIRE		
				MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (inch)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A8040-8-*	8	41 x 24	.155 ± .005	1.09	.215 ± .014	29.0
55A8040-6-*	6	70 x 24	.206 ± .005	.641	.270 ± .015	44.0
55A8040-4-*	4	107 x 24	.255 ± .007	.427	.320 ± .016	65.8
55A8040-2-*	2	168 x 24	.320 ± .010	.268	.395 ± .018	97.0
55A8040-1-*	1	219 x 24	.358 ± .010	.214	.440 ± .018	125.
55A8040-0-*	0	259 x 24	.408 ± .012	.169	.490 ± .020	149.
55A8040-00-*	00	334 x 24	.466 ± .012	.133	.550 ± .022	189.
55A8040-000-*	000	427 x 24	.523 ± .012	.109	.615 ± .022	227.
55A8040-0000-*	0000	523 x 24	.575 ± .012	.085	.665 ± .022	269.

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
55A8040-8-*	3.00	6.00	3.00	6.00
55A8040-6-*	4.00	8.00	3.00	10.0
55A8040-4-*	5.00	10.0	3.00	10.0
55A8040-2-*	6.00	12.0	4.00	15.0
55A8040-1-*	7.00	13.0	4.00	15.0
55A8040-0-*	8.00	14.0	4.00	15.0
55A8040-00-*	9.00	16.0	4.00	15.0
55A8040-000-*	10.0	18.0	4.00	15.0
55A8040-0000-*	12.0	18.0	4.00	15.0

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.
Tyco Electronics Corporation also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

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DIMENSIONS ARE IN INCHES AND, UNLESS OTHERWISE DESIGNATED, ARE NOMINAL.

THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.

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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
BRAID COLOR: Dark Green preferred, munsell color limits 5Y 3/2 and 5B 2/0.5
CONCENTRICITY: 70% (minimum)
FLAMMABILITY (Qualification Test): Procedure 1,
3 seconds (maximum); 3 inches (maximum); no flaming of facial tissue
HUMIDITY RESISTANCE: Insulation Resistance,
3000 megohms for 1000 ft. (minimum)
IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown
INSULATION ELONGATION AND TENSILE STRENGTH:
Total Insulation (primary insulation and jacket)
Elongation, 50% (minimum)
Tensile Strength, 5000 lbf/in^2 (minimum)
INSULATION FLAWS:
Primary Insulation,
Spark Test, 1.5 kV (rms)
Impulse Dielectric Test, 6.0 kV (peak)
Finished Wire,
Spark Test, 3.0 kV (rms)
Impulse Dielectric Test, 8.0 kV (peak)
INSULATION RESISTANCE (Qualification Test):
3000 megohms for 1000 ft. (minimum)
INSULATION THICKNESS: Total Insulation, 0.008 in. (minimum)
JACKET COLOR: White
LIFE CYCLE: 200 ± 3°C for 168 hours
LOW TEMPERATURE-COLD BEND (Qualification Test): -65 ± 3°C for 4 hours
SHRINKAGE: 200 ± 3°C for 6 hours, 0.125 in. (maximum) in 12 inches
SMOKE TEST: 200 ± 2°C, no visible smoke
SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings
THERMAL SHOCK RESISTANCE (Qualification Test): 150 ± 3°C,
0.100 in. (maximum), AWG 8
0.125 in. (maximum), AWG 6-0000
VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz

1/ PART NUMBER:
The "*" in the part numbers in Tables I and II shall be replaced by a color code designator. 5D shall be used to designate dark green.
Example: AWG 00, dark green: 55A8040-00-5D
AWG 00, white: 55A8040-00-9

1/ See footer section on page 1

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