SPECIFICATION CONTROL DRAWING

55A8039

TITLE	Date	Revision
WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT	1-28-08	H

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

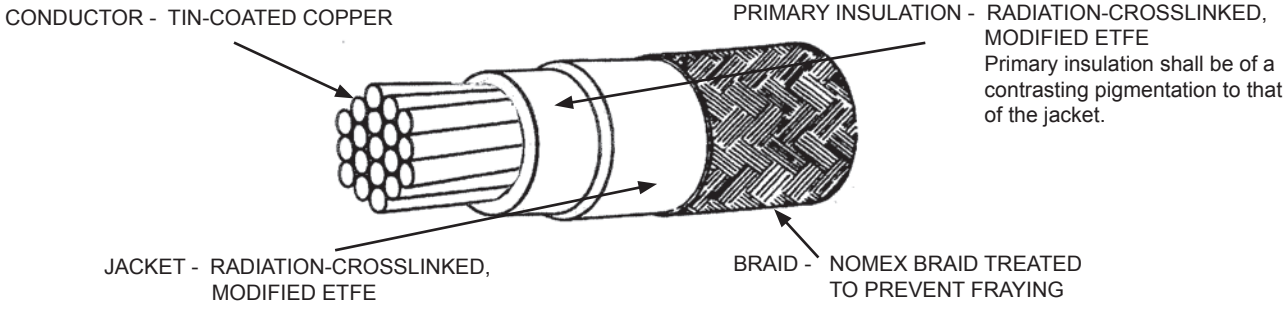

TABLE I. CONSTRUCTION DETAILS

PART NUMBER 1/	WIRE SIZE (AWG)	CONDUCTOR STRANDING (number x AWG)	DIAMETER OF STRANDED CONDUCTOR (in.)		FINISHED WIRE		
			MINIMUM	MAXIMUM	MAXIMUM RESISTANCE AT 20°C (ohms/1000 ft.)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
55A8039- 8-*	8	133 x 29	.158	.173	.701	.225 ± .014	64.9
55A8039- 6-*	6	133 x 27	.198	.217	.445	.267 ± .015	98.3
55A8039- 4-*	4	133 x 25	.250	.274	.280	.325 ± .015	155.
55A8039- 2-*	2	665 x 30	.320	.340	.183	.405 ± .016	239.
55A8039- 1-*	1	817 x 30	.360	.380	.149	.445 ± .016	290.
55A8039- 0-*	0	1045 x 30	.395	.425	.116	.485 ± .016	377.
55A8039-00-*	00	1330 x 30	.440	.475	.091	.545 ± .016	487.
55A8039-000-*	000	1665 x 30	.500	.540	.071	.625 ± .022	603.
55A8039-0000-*	0000	2109 x 30	.565	.605	.056	.690 ± .022	740.

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
55A8039- 8-*	3.00	4.00	4,00	6.00
55A8039- 6-*	4.00	5.00	4.00	10.0
55A8039- 4-*	5.00	6.00	4.00	10.0
55A8039- 2-*	6.00	8.00	6.00	15.0
55A8039- 1-*	8.00	10.0	6.00	15.0
55A8039- 0-*	8.00	10.0	6.00	15.0
55A8039-00-*	10.0	12.0	8.00	20.0
55A8039-000-*	10.0	12.0	8.00	20.0
55A8039-0000-*	10.0	12.0	8.00	20.0

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.
Tyco Electronics 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: 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:
Tensile strength, 5000 lbf/in² (minimum) for primary insulation
5000 lbf/in² (minimum) for total insulation (primary insulation and jacket)
Elongation, 75% (minimum) for total insulation (primary insulation and jacket)
INSULATION FLAWS:
Primary Insulation,
Spark Test, 1.5 kV (rms) at 60 Hz
4.2 kV (rms) at 3 kHz
Impulse DielectricTest, 6.0 kV (peak)
Finished Wire,
Spark Test, 5.7 kV (rms) at 3 kHz
Impulse Dielectric Test, 8.0 kV (peak)
INSULATION RESISTANCE: 3000 megohms for 1000 ft. (minimum)
INSULATION THICKNESS: 0.003 in. (minimum) for primary insulation,
0.004 in. (minimum) for outer jacket
0.009 in. (minimum) for total insulation
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 inches
SMOKE TEST: 200 ± 5°C, no visible smoke
SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings
THERMAL SHOCK RESISTANCE: 150 ± 3°C, 0.125 in. (maximum)
VOLTAGE WITHSTAND TEST (Post Environmental): 2500 volts (rms), 60 Hz
WICKING: 2.25 in. (maximum)
WRAP TEST: 200 ± 3°C for 2 hours

PART NUMBER:
The "*" in the part numbers on page 1 shall be replaced by a color code designator.
5D shall be used to designate dark green.
1/ Example: AWG 8, dark green; 55A8039-8-5D
AWG 8, white; 55A8039-8-9

1/ See footer section on page 1

Mouser Electronics

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TE Connectivity:

22759/34-2-5D