

# SPECIFICATION CONTROL DRAWING

**82A6013**

TITLE	WIRE, RADIATION-CROSSLINKED, MODIFIED FLEXIBLE ETFE-INSULATED, NORMAL WEIGHT, GENERAL PURPOSE, 600 VOLT	Date	8-4-10	Revision	D
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This specification sheet forms a part of the latest issue of Raychem Specification 80.

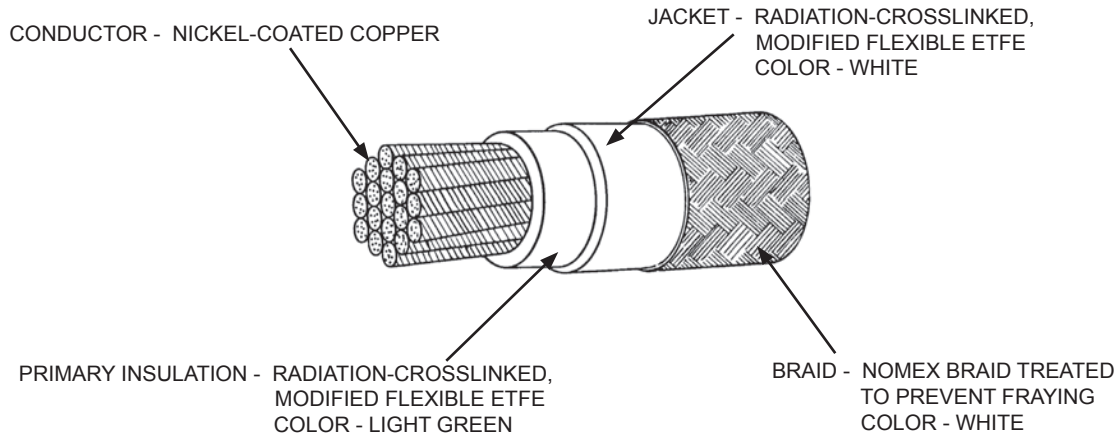


TABLE I. CONSTRUCTION DETAILS


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.)
82A6013-8	8	665 x 36	.157	.173	.714	.245 ± .008	81.2
82A6013-6	6	1045 x 36	.192	.208	.490	.292 ± .010	123.
82A6013-4	4	1665 x 36	.265	.285	.326	.374 ± .010	196.
82A6013-2	2	1665 x 34	.325	.345	.204	.447 ± .016	291.

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING	
	MANDREL DIAMETER (inch) (± 3%)	WEIGHT (lb) (± 3%)
	CROSSLINKING PROOF TEST	CROSSLINKING PROOF TEST
82A6013-8	3.00	4.00
82A6013-6	4.00	4.00
82A6013-4	5.00	4.00
82A6013-2	6.00	6.00

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 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.		

## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

CONCENTRICITY: 70% (minimum)

CROSSLINKING PROOF TEST: 300 ± 3°C for 7 hours

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, 125% (minimum)

Tensile Strength, 3000 lbf/in<sup>2</sup> (minimum)

INSULATION FLAWS:

Primary Insulation,

Spark Test, 1.5 kV (rms) at 3 kHz

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms) at 3 kHz

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS:

AWG 8-4: .008 in. (minimum) for primary insulation

.012 in. (minimum) for outer jacket

AWG 2: .010 in. (minimum) for primary insulation

.015 in. (minimum) for outer jacket

SECANT MODULUS: (Test per ASTM D 882)

4.0 x 10<sup>4</sup> lbf/in<sup>2</sup> (maximum), 2% strain, 2 inch jaw separation, 0.2 inch/minute

SHRINKAGE: 200 ± 3°C for 6 hours, 0.25 in. (maximum) in 12 inches

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

PRODUCT IDENTIFICATION: Braid shall be marked in a contrasting color at 12 inch (nominal) intervals as follows: " 82A6013-AWG 06090 "

1/ See footer section on page 1

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