SPECIFICATION CONTROL DRAWING

SCD Number **44A0811**

TITLE: WIRE, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, MEDIUM WEIGHT, 600 VOLT

Date: 28-Mar-11

Revision: P1

This specification sheet forms a part of the latest issue of Raychem Specification 44.

CONDUCTOR - TIN-COATED COPPER

PRIMARY INSULATION - RADIATION-CROSSLINKED, EXTRUDED POLYALKENE

JACKET - RADIATION-CROSSLINKED, MODIFIED PVDF,
Thickness:
AWG 26 - 4
.005 ± .001 in.
AWG 2 - 000
.010 ± .002 in.

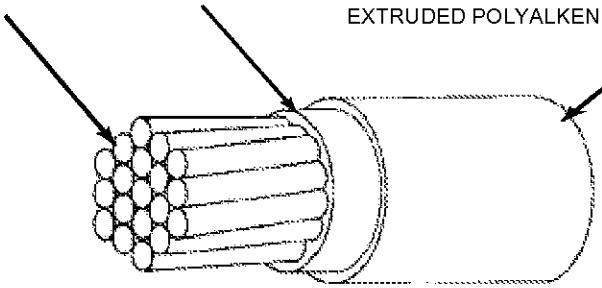


TABLE I. CONSTRUCTION DETAILS

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/1000ft.)	DIAMETER (in.)	MAXIMUM WEIGHT (lbs/1000 ft.)
44A0811-26-*	26	19 x 38	.018	.021	41.3	.048 ± .002	1.9
44A0811-24-*	24	19 x 36	.023	.026	26.2	.054 ± .002	2.6
44A0811-22-*	22	19 x 34	.029	.033	16.2	.062 ± .003	3.8
44A0811-20-*	20	19 x 32	.037	.041	9.88	.070 ± .003	5.4
44A0811-18-*	18	19 x 30	.046	.051	6.23	.080 ± .003	8.0
44A0811-16-*	16	19 x 29	.052	.058	4.81	.089 ± .004	9.9
44A0811-14-*	14	19 x 27	.065	.073	3.06	.108 ± .004	14.9
44A0811-12-*	12	37 x 28	.084	.090	2.02	.126 ± .004	21.9
44A0811-10-*	10	37 x 26	.106	.114	1.26	.155 ± .005	35.0
44A0811- 8-*	8	133 x 29	.158	.173	.701	.214 ± .006	62.8
44A0811- 6-*	6	133 x 27	.198	.217	.445	.264 ± .007	99.3
44A0811- 4-*	4	133 x 25	.250	.274	.280	.320 ± .008	153.
44A0811- 2-*	2	665 x 30	.320	.340	.183	.400 ± .012	247.
44A0811- 0-*	0	1045 x 30	.405	.425	.116	.490 ± .016	377.
44A0811-00-*	00	1330 x 30	.450	.475	.091	.562 ± .016	498.
44A0811-000-*	000	1665 x 30	.515	.540	.071	.634 ± .020	588.

TABLE II. PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING				
	MANDREL DIAMETER (inch) (± 3%)			WEIGHT (lb) (± 3%)	
	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND	WRAP	IMMERSION, LIFE CYCLE AND ACCELERATED AGING	COLD BEND
44A0811-26-*	.500	1.00	.250	0.50	3.00
44A0811-24-*	.500	1.00	.250	0.50	3.00
44A0811-22-*	.750	1.00	.250	1.50	3.00
44A0811-20-*	.750	1.00	.250	2.00	4.00
44A0811-18-*	1.00	1.50	.375	2.00	4.00
44A0811-16-*	1.00	1.50	.375	2.00	5.00
44A0811-14-*	1.50	2.00	.500	2.00	5.00
44A0811-12-*	2.00	2.00	.500	2.00	5.00
44A0811-10-*	3.00	3.00	.750	2.00	5.00
44A0811- 8-*	3.00	4.00	.750	3.00	6.00
44A0811- 6-*	4.00	5.00	1.00	3.00	10.0
44A0811- 4-*	5.00	6.00	1.25	3.00	10.0
44A0811 - 2-*	6.00	8.00	3.00	4.00	15.0
44A0811- 0-*	8.00	10.0	4.00	4.00	15.0
44A0811-00-*	10.0	12.0	4.50	5.00	20.0
44A0811-000-*	18.0	18.0	6.00	6.00	20.0

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.
TE Connectivity *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.

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: 300 ± 2°C for 6 hours
Identification legibility, 225 ± 2°C for 6 hours
BLOCKING: 150 ± 2°C for 24 hours
COLOR: White preferred
FLAMMABILITY: 30 seconds (maximum); 3 inches (maximum); no flaming of facial tissue
HUMIDITY RESISTANCE: Insulation Resistance, 5000 megohms for 1000 ft (minimum)
IDENTIFICATION, STRIPING, OR 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:
Primary Insulation,
Elongation, 150% (minimum)
Tensile Strength, 2500 lbf/in² (minimum), AWG 26-12
2000 lbf/in² (minimum), AWG 10 & larger
INSULATION FLAWS:
Primary Insulation,
SparkTest, 3.0 kV (rms) at 60 Hz
4.2 kV (rms) at 3 kHz
Impulse DielectricTest, 6.0 kV (peak)
Finished Wire,
SparkTest, 5.7 kV (rms) at 3 kHz
Impulse DielectricTest, 8.0 kV (peak)
INSULATION RESISTANCE: 5000 megohms for 1000 ft (minimum)
LIFE CYCLE: 200 ± 2°C for 168 hours
LOW TEMPERATURE COLD BEND: -65 ± 2°C for 4 hours
SHRINKAGE: 300 ± 2°C, 0.125 in. (maximum) in 12 inches, AWG 26-12
0.250 in. (maximum) in 12 inches, AWG 10 & larger
SMOKE: 200 ± 2°C, no visible smoke.
SOLDERABILITY: 95% minimum coverage.
Per MIL-STD-202, Method 208, except without steam aging, Type RMA Flux (for 10 AWG & smaller only)
SURFACE RESISTANCE: 500 megohms-in. (minimum), both readings
THERMAL SHOCK RESISTANCE: 150 ± 2°C, 0.060 in. (maximum)
VOLTAGE WITHSTAND (Post Environmental): 2500 volts (rms), 60 Hz, 5 minutes
WICKING: 2.25 in. (maximum)
PART NUMBER:
The "*" in the part numbers on page 1 shall be replaced by color code designators.
1/ Example: AWG 18, white: 44A0811-18-9
AWG 14, white with a black stripe: 44A0811-14-90

1/ See Footer section on page 1.