

# SPECIFICATION CONTROL DRAWING

44AM1821

TITLE CABLE, ELECTRIC, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, TWO CONDUCTOR, SHIELDED, JACKETED, MEDIUM WEIGHT, AIRFRAME, 600 VOLT

Date 08-10-02

Revision B

This specification sheet forms a part of the latest issue of Raychem Specification 44 and WC 27500 as applicable.

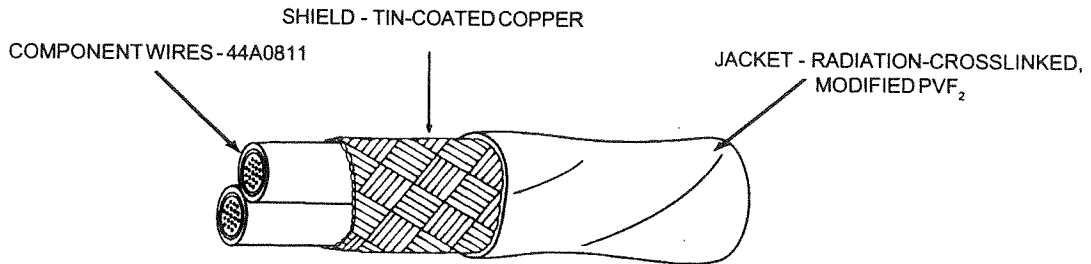


TABLE I. CABLE CONSTRUCTION DETAILS

PART NUMBER	CONDUCTOR SIZE (AWG)	SHIELD SIZE (AWG)	JACKET THICKNESS (in.)		OUTSIDE DIAMETER (in.)		MAXIMUM WEIGHT (lbs/1000 ft.)
			MINIMUM	MAXIMUM	NOMINAL	MAXIMUM	
44AM1821-24-*	24	38	.005	.010	.141	.148	13.3
44AM1821-22-*	22	38	.005	.010	.157	.165	16.8
44AM1821-20-*	20	38	.006	.012	.175	.183	21.4
44AM1821-18-*	18	38	.006	.012	.195	.203	27.7
44AM1821-16-*	16	38	.006	.012	.213	.222	33.2
44AM1821-14-*	14	38	.007	.014	.251	.262	46.4
44AM1821-12-*	12	38	.007	.014	.289	.303	63.9
44AM1821-10-*	10	36	.007	.014	.351	.369	98.5

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER	BEND TESTING			
	MANDREL DIAMETER (inch) (± 3%)		WEIGHT (lb) (± 3%)	
	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND	IMMERSION AND CROSSLINKED VERIFICATION	COLD BEND
44AM1821-24-*	6.00	6.00	.500	9.00
44AM1821-22-*	6.00	6.00	1.50	9.00
44AM1821-20-*	6.00	6.00	2.00	12.0
44AM1821-18-*	6.00	6.00	2.00	12.0
44AM1821-16-*	6.00	6.00	2.00	15.0
44AM1821-14-*	10.0	10.0	2.00	15.0
44AM1821-12-*	10.0	10.0	2.00	15.0
44AM1821-10-*	10.0	10.0	2.00	15.0

NOTE: Nominal values are for information only.  
Nominal values are not requirements.

COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681.

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

### CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

BLOCKING: 150 ± 3°C for 6 hours

CROSSLINKED VERIFICATION: 200 ± 5°C for 6 hours

DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz, 15 seconds (minimum), 30 seconds (maximum)

FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum); no flaming of facial tissue

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

JACKET COLOR: White preferred

JACKET CONCENTRICITY: 70% (minimum)

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum)

Tensile Strength, 4000 lbf/in<sup>2</sup> (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV (rms), 100% test

Impulse Dielectric Test, 6.0 kV (peak), 100% test

LOW TEMPERATURE-COLD BEND: -55 ± 5°C for 4 hours

SHIELD COVERAGE: 85% (minimum)

VOLTAGE WITHSTAND TEST (Post Environmental): 1000 volts (rms), 60 Hz, 1 minute

#### PART NUMBER:

The "\*" in the part numbers on page 1 shall be replaced by color code designators with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.

Example: AWG 24, white and blue component wires; white jacket: 44AM1821-24-9/6-9