

# SPECIFICATION CONTROL DRAWING

**44A9676**

TITLE

THREE CONDUCTOR CABLE, SHIELDED,  
JACKETED, LIGHTWEIGHT, GENERAL PURPOSE, 600 VOLT

Date

2-26-97

Revision

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

COMPONENT WIRES - 44A9673

SHIELD - TIN-COATED COPPER

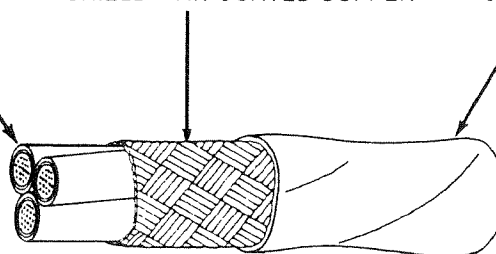
JACKET - RADIATION-CROSSLINKED,  
MODIFIED PVF<sub>2</sub>

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                | NOMINAL | NOMINAL                | MAXIMUM |                               |
| 44A9676-24-* | 24                   | 36                | .006                   | .008    | .128                   | .134    | 15.2                          |
| 44A9676-22-* | 22                   | 36                | .006                   | .008    | .143                   | .150    | 19.2                          |
| 44A9676-20-* | 20                   | 36                | .006                   | .008    | .160                   | .168    | 25.2                          |
| 44A9676-18-* | 18                   | 36                | .007                   | .009    | .184                   | .193    | 34.5                          |

TABLE II. CABLE PERFORMANCE DETAILS

| PART NUMBER  | 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 |
| 44A9676-24-* | 3.50                                       | 3.50      | .563                                       | 2.25      |
| 44A9676-22-* | 4.00                                       | 4.00      | .563                                       | 4.50      |
| 44A9676-20-* | 4.25                                       | 4.25      | .563                                       | 4.50      |
| 44A9676-18-* | 5.00                                       | 5.00      | .750                                       | 4.50      |

## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

ACCELERATED AGING: 300 ± 3°C for 6 hours

BLOCKING: 150 ± 3°C for 6 hours

DIELECTRIC WITHSTAND: 2500 volts (rms),  
60 Hz, 1 minuteFLAMMABILITY: 30 seconds (maximum); 3 in. (maximum),  
No flaming of facial tissue

JACKET COLOR: White preferred

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), 60 Hz

Impulse Dielectric Test, 6.0 kV (peak)

LIFE CYCLE: 200 ± 3°C for 168 hours

LOW TEMPERATURE-COLD BEND: -65 ± 2°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 above shall be replaced by a color code designator with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.

Example: AWG 18, white, black and red component wires; White jacket; 44A9676-18-9/0/2-9

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

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

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