

# SPECIFICATION CONTROL DRAWING

CXA-0066

TITLE

MULTIPLE COMPONENT CABLES,  
SHIELDED, JACKETED, 600 VOLT

Date

10-31-96

Revision

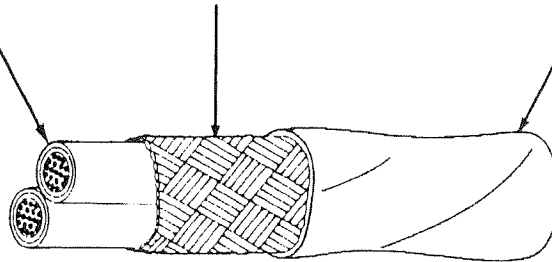
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This specification sheet forms a part of the latest issue of Raychem Specification 55A and MIL-C-27500 as applicable

COMPONENT WIRES - WXA-0068-AWG

SHIELD - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED,  
MODIFIED ETHE



EXAMPLE: CXA-0066-24-2 (TWO CONDUCTOR CABLE)

## ONE CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000 ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|-----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                             |
| CXA-0066-24-1-* | 24                   | 38                | .006                   | .008    | .072                   | .077    | 5.8                         |
| CXA-0066-22-1-* | 22                   | 38                | .006                   | .008    | .078                   | .083    | 7.3                         |
| CXA-0066-20-1-* | 20                   | 38                | .006                   | .008    | .087                   | .092    | 9.4                         |
| CXA-0066-18-1-* | 18                   | 38                | .006                   | .008    | .098                   | .103    | 12.6                        |
| CXA-0066-16-1-* | 16                   | 38                | .006                   | .008    | .105                   | .110    | 15.0                        |
| CXA-0066-14-1-* | 14                   | 38                | .006                   | .008    | .122                   | .128    | 20.9                        |
| CXA-0066-12-1-* | 12                   | 38                | .006                   | .008    | .141                   | .148    | 29.3                        |
| CXA-0066-10-1-* | 10                   | 38                | .006                   | .008    | .167                   | .175    | 43.3                        |

## TWO CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-2-* | 24                   | 38                | .006                   | .008    | .111                   | .117    | 10.1                       |
| CXA-0066-22-2-* | 22                   | 38                | .006                   | .008    | .123                   | .129    | 12.9                       |
| CXA-0066-20-2-* | 20                   | 38                | .006                   | .008    | .141                   | .148    | 17.1                       |
| CXA-0066-18-2-* | 18                   | 38                | .006                   | .008    | .163                   | .171    | 23.4                       |
| CXA-0066-16-2-* | 16                   | 38                | .006                   | .008    | .177                   | .186    | 28.2                       |
| CXA-0066-14-2-* | 14                   | 38                | .006                   | .008    | .211                   | .222    | 39.7                       |
| CXA-0066-12-2-* | 12                   | 38                | .007                   | .009    | .251                   | .264    | 57.2                       |
| CXA-0066-10-2-* | 10                   | 38                | .007                   | .009    | .303                   | .318    | 85.3                       |

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

**Raychem**

Raychem Corporation  
300 Constitution Drive, Menlo Park, California 94025  
1-800-2 Raychem Fax: 1-415-361-6297

**THREE CONDUCTOR CABLE CONSTRUCTION DETAILS**

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-3-* | 24                   | 38                | .006                   | .008    | .117                   | .123    | 12.9                       |
| CXA-0066-22-3-* | 22                   | 38                | .006                   | .008    | .130                   | .137    | 16.8                       |
| CXA-0066-20-3-* | 20                   | 38                | .006                   | .008    | .150                   | .157    | 22.7                       |
| CXA-0066-18-3-* | 18                   | 38                | .006                   | .008    | .173                   | .182    | 31.7                       |
| CXA-0066-16-3-* | 16                   | 38                | .006                   | .008    | .189                   | .198    | 38.5                       |
| CXA-0066-14-3-* | 14                   | 38                | .007                   | .009    | .227                   | .239    | 55.8                       |
| CXA-0066-12-3-* | 12                   | 38                | .007                   | .009    | .268                   | .282    | 80.1                       |
| CXA-0066-10-3-* | 10                   | 36                | .008                   | .010    | .330                   | .347    | 126.                       |

**FOUR CONDUCTOR CABLE CONSTRUCTION DETAILS**

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-4-* | 24                   | 38                | .006                   | .008    | .127                   | .147    | 15.8                       |
| CXA-0066-22-4-* | 22                   | 38                | .006                   | .008    | .142                   | .165    | 20.9                       |
| CXA-0066-20-4-* | 20                   | 38                | .006                   | .008    | .164                   | .191    | 28.5                       |
| CXA-0066-18-4-* | 18                   | 38                | .006                   | .008    | .190                   | .222    | 40.2                       |
| CXA-0066-16-4-* | 16                   | 38                | .006                   | .008    | .207                   | .243    | 49.1                       |
| CXA-0066-14-4-* | 14                   | 38                | .007                   | .009    | .250                   | .294    | 71.5                       |
| CXA-0066-12-4-* | 12                   | 38                | .007                   | .009    | .296                   | .349    | 103.                       |
| CXA-0066-10-4-* | 10                   | 36                | .008                   | .010    | .365                   | .430    | 163.                       |

**FIVE CONDUCTOR CABLE CONSTRUCTION DETAILS**

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-5-* | 24                   | 38                | .006                   | .008    | .138                   | .158    | 18.7                       |
| CXA-0066-22-5-* | 22                   | 38                | .006                   | .008    | .155                   | .176    | 24.9                       |
| CXA-0066-20-5-* | 20                   | 38                | .006                   | .008    | .179                   | .205    | 34.3                       |
| CXA-0066-18-5-* | 18                   | 38                | .006                   | .008    | .209                   | .239    | 48.7                       |
| CXA-0066-16-5-* | 16                   | 38                | .007                   | .009    | .229                   | .264    | 60.3                       |
| CXA-0066-14-5-* | 14                   | 38                | .007                   | .009    | .275                   | .317    | 87.2                       |
| CXA-0066-12-5-* | 12                   | 36                | .008                   | .010    | .333                   | .383    | 132.                       |
| CXA-0066-10-5-* | 10                   | 36                | .008                   | .010    | .403                   | .465    | 200.                       |

**SIX CONDUCTOR CABLE CONSTRUCTION DETAILS**

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-6-* | 24                   | 38                | .006                   | .008    | .150                   | .158    | 21.6                       |
| CXA-0066-22-6-* | 22                   | 38                | .006                   | .008    | .168                   | .176    | 29.0                       |
| CXA-0066-20-6-* | 20                   | 38                | .006                   | .008    | .195                   | .205    | 40.1                       |
| CXA-0066-18-6-* | 18                   | 38                | .007                   | .009    | .230                   | .242    | 57.8                       |
| CXA-0066-16-6-* | 16                   | 38                | .007                   | .009    | .251                   | .264    | 71.0                       |
| CXA-0066-14-6-* | 14                   | 36                | .007                   | .009    | .306                   | .321    | 107.                       |
| CXA-0066-12-6-* | 12                   | 36                | .008                   | .010    | .365                   | .383    | 156.                       |
| CXA-0066-10-6-* | 10                   | 36                | .009                   | .011    | .445                   | .467    | 238.                       |

## SEVEN CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-7-* | 24                   | 38                | .006                   | .008    | .150                   | .158    | 23.8                       |
| CXA-0066-22-7-* | 22                   | 38                | .006                   | .008    | .168                   | .176    | 32.3                       |
| CXA-0066-20-7-* | 20                   | 38                | .006                   | .008    | .195                   | .205    | 45.0                       |
| CXA-0066-18-7-* | 18                   | 38                | .007                   | .009    | .230                   | .242    | 65.2                       |
| CXA-0066-16-7-* | 16                   | 38                | .007                   | .009    | .251                   | .264    | 80.3                       |
| CXA-0066-14-7-* | 14                   | 36                | .007                   | .009    | .306                   | .321    | 121.                       |
| CXA-0066-12-7-* | 12                   | 36                | .008                   | .010    | .365                   | .383    | 177.                       |
| CXA-0066-10-7-* | 10                   | 34                | .009                   | .011    | .450                   | .473    | 279.                       |

## EIGHT CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-8-* | 24                   | 38                | .006                   | .008    | .160                   | .182    | 26.5                       |
| CXA-0066-22-8-* | 22                   | 38                | .006                   | .008    | .179                   | .205    | 36.1                       |
| CXA-0066-20-8-* | 20                   | 38                | .006                   | .008    | .209                   | .239    | 50.5                       |
| CXA-0066-18-8-* | 18                   | 38                | .007                   | .009    | .246                   | .282    | 73.4                       |
| CXA-0066-16-8-* | 16                   | 38                | .007                   | .009    | .269                   | .309    | 90.6                       |
| CXA-0066-14-8-* | 14                   | 36                | .008                   | .010    | .330                   | .379    | 137.                       |
| CXA-0066-12-8-* | 12                   | 36                | .008                   | .010    | .392                   | .451    | 200.                       |
| CXA-0066-10-8-* | 10                   | 34                | .009                   | .011    | .484                   | .557    | 316.                       |

## NINE CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) |         | OUTSIDE DIAMETER (in.) |         | MAXIMUM WEIGHT (lb/1000ft) |
|-----------------|----------------------|-------------------|------------------------|---------|------------------------|---------|----------------------------|
|                 |                      |                   | MINIMUM                | NOMINAL | NOMINAL                | MAXIMUM |                            |
| CXA-0066-24-9-* | 24                   | 38                | .006                   | .008    | .171                   | .198    | 29.5                       |
| CXA-0066-22-9-* | 22                   | 38                | .006                   | .008    | .193                   | .224    | 40.2                       |
| CXA-0066-20-9-* | 20                   | 38                | .007                   | .009    | .227                   | .264    | 56.9                       |
| CXA-0066-18-9-* | 18                   | 38                | .007                   | .009    | .266                   | .310    | 81.9                       |
| CXA-0066-16-9-* | 16                   | 38                | .007                   | .009    | .295                   | .343    | 105.                       |
| CXA-0066-14-9-* | 14                   | 36                | .008                   | .010    | .357                   | .417    | 154.                       |
| CXA-0066-12-9-* | 12                   | 36                | .009                   | .011    | .426                   | .499    | 225.                       |
| CXA-0066-10-9-* | 10                   | 34                | .010                   | .012    | .526                   | .615    | 355.                       |

## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

## TEMPERATURE RATING: 150°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms)

CONCENTRICITY: 70%

CROSSLINKED VERIFICATION: 300 ± 3°C for 6 hours

BLOCKING: 150 ± 3°C for 6 hours

DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz, conductor to shield

FLAMMABILITY: Procedure 1, 30 seconds (maximum); 3 in. (maximum); no flaming of facial tissue

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in<sup>2</sup> (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV (rms), 60 Hz, 100% test

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

LIFE CYCLE: 200 ± 5°C for 168 hours

LOW TEMPERATURE-COLD BEND: -65 ± 5°C for 4 hours

SHIELD COVERAGE: 85% (minimum)

VOLTAGE WITHSTAND (POST ENVIRONMENTAL):

1000 volts (rms), 60 Hz, 1 minute

## COMPONENT COLORS:

Component colors shall be based on the number of conductors per the following color sequence:

9/6/3/5/2/0/4/7/8

The "" in the part numbers shall be replaced by a jacket color code designator.

Example: AWG 20, 3 conductor cable, white jacket, will have component colors 9,6,3. The part number will be CXA-0066-20-3-9.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.