

# SPECIFICATION CONTROL DRAWING

CXA-0066

TITLE

MULTIPLE COMPONENT CABLES,  
SHIELDED, JACKETED, 600 VOLT

Date

10-31-96

Revision

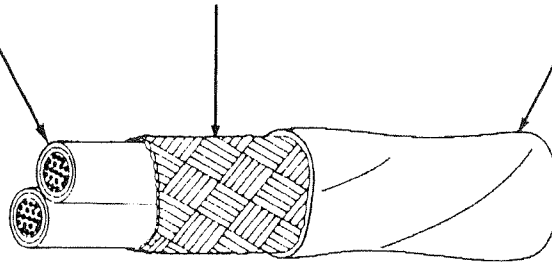
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This specification sheet forms a part of the latest issue of Raychem Specification 55A and MIL-C-27500 as applicable

COMPONENT WIRES - WXA-0068-AWG

SHIELD - TIN-COATED COPPER

JACKET - RADIATION-CROSSLINKED,  
MODIFIED ETEFE



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

## ONE CONDUCTOR CABLE CONSTRUCTION DETAILS

| PART NUMBER     | CONDUCTOR<br>SIZE<br>(AWG) | SHIELD<br>SIZE<br>(AWG) | JACKET<br>THICKNESS<br>(in.) |         | OUTSIDE<br>DIAMETER<br>(in.) |         | MAXIMUM<br>WEIGHT<br>(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<br>SIZE<br>(AWG) | SHIELD<br>SIZE<br>(AWG) | JACKET<br>THICKNESS<br>(in.) |         | OUTSIDE<br>DIAMETER<br>(in.) |         | MAXIMUM<br>WEIGHT<br>(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

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**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.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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