

# SPECIFICATION CONTROL DRAWING

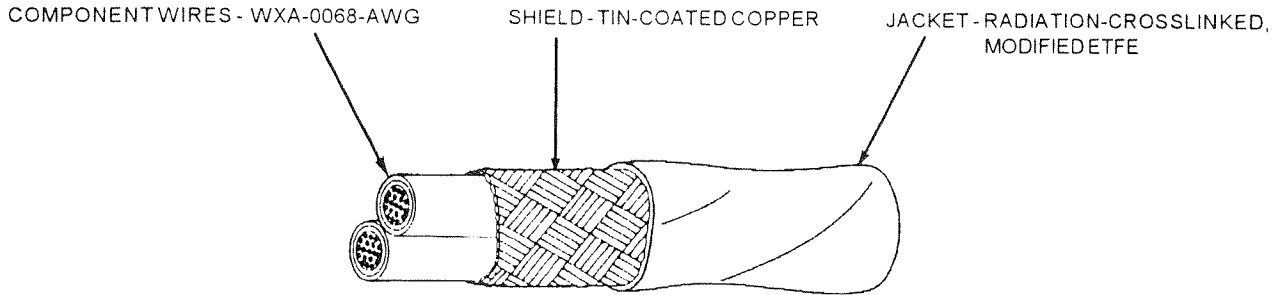
CXA-0066

TITLE  
MULTIPLE COMPONENT CABLES,  
SHIELDED, JACKETED, 600 VOLT

Date  
10-31-96

Revision  
E

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



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

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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 or 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.