

**KRPA** 





KRP

# KRPA, KRP, KA, KR series

# 5 to 10 Amp General Purpose Relay

**FII** File E29244, E22575

**®** File LR15734

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

### **Features**

- · Industry standard octal-type termination for quick installation.
- Contact arrangements from 1 Form C (SPDT) to 3 Form C (3PDT).
- Indicator lamp and push-to-test options available on certain models.
- The KRPA is the automated manufactured version of the KRP.

### Contact Data @ 25°C

Arrangements: See Ordering Information Table.

**Materials:** Silver or silver-cadmium oxide, with or without gold flashing. **Expected Life:** 10 million operations min., mechanical; 100,000

operations min. @ rated loads.

Contact Code	Arrangement	Contact Rating
Y (Silver)	1, 2, 3 Poles	5A @ 120VAC 3A @ 240VAC 1/10HP @ 120VAC 1/6HP @ 240VAC
G&N (Silver-Cad. Oxide)	1, 2, 3 Poles	10A @ 240VAC 1/2 HP @ 240VAC 1/3HP @ 120VAC

# KRP, KRPA Factory Ratings

Contact Code	Arrangement	Contact Rating
Υ	1, 2, 3 Poles	5A @ 28VDC, 120VAC, 80% PF
G&N	1, 2, 3 Poles	10A @ 28VDC, 120VAC, 80% PF 6A @ 250VAC

# **KA UL Contact Ratings**

Contact Code	Series	Contact Ratings
Y	KA <sup>1</sup>	5A @ 120VAC, 3A @ 240VAC, 1/10 HP @ 120VAC, 1/6 HP @ 240VAC
G	KA <sup>2</sup>	10A @ 120VAC, 6A @ 240VAC 1/6 HP @ 120VAC, 1/3 HP @ 240VAC

<sup>1</sup>Listed by C.S.A. for 5A @ 120VAC 80% PF

Note: See KRPA, KRP, KA Ordering Information table.

# **Initial Dielectric Strength**

**Between Open Contacts:** 500V rms. **Between All Elements:** 1,500V rms.

### Coil Data @ 25°C

		Nominal Power	Maximum Power
KRP	AC	2VA	Enclosed Models - 4VA
KRPA	DC	1.2W	Enclosed Models - 3W
KA	AC	2VA	Open Models - 4VA
	DC	125mW per movable arm	Open Models - 4W

Duty Cycle: Continuous.

Initial Insulation Resistance: KRP, KRPA - 1000 Megohms, min.

KA - 100 Megohms, min.

### Coil Data @ 25°C

	Nominal Voltage	DC Resistance (Ω) ±10%	Nominal Coil Current (mA)
DC Coils	6 12 24 48 110	32 120 472 1,800 10,000	188 100 51 26.6 11.5
AC Coils	220 6 12 24 120 240	Use 110V relay with 10,000 6 24 85 2,250 9,110	Ω 5W Resistor in series  335 168 84 17.5 8.75

# Operate Data @ 25°C

## Must-Operate Voltage:

**DC:** 75% or less of nominal voltage. **AC:** 85% or less of nominal voltage.

# Operate Time (Excluding Bounce):

15 milliseconds typical @ nominal voltage.

### Release Time (Excluding Bounce):

10 milliseconds typical @ nominal voltage.

## **Environmental Data**

Temperature Range:

**Open Models: AC:** -45°C to +70°C. **DC:** -45°C to +85°C.

Enclosed Models: AC: -45°C to +55°C.

**DC:** -45°C to +70°C.

## **Mechanical Data**

**Termination: Open Models:** Solder terminals. **Enclosed Models:** Octal-type plug.

Enclosure: Transparent polycarbonate.

Weight: KA: 1.7 oz. (48.2g) approximately.

KRPA, KRP: 3.0 oz. (85g) approximately.

<sup>&</sup>lt;sup>2</sup>Listed by C.S.A. for 10A @ 120VAC 80% PF

Catalog 1308242 PDF Revised 9-03

tyco Electronics

P&B

-120

## **Ordering Information**

**KRPA** -5 Α Y Typical Part No. ▶

> KRPA-14AY-240 KRPA-14DG-12 KRPA-14DG-24 KRPA-14DG-48 KRPA-14DG-110 KRPA-14DN-24 KRPA-14DY-24

1. Series:

KRPA (Newer version, enclosed) KRP (Older version, enclosed) KA (Open style)

2. Contact Arrangement:

5 = 1 Form C (SPDT)

11 = 2 Form C (DPDT)

14 = 3 Form C (3PDT)

3. Coil Input:

A = AC, 50/60 Hz.

D = DC

# 4. Contact Rating and Indicator Lamp Option:

TYPE	KRPA	KRP	KA
Codes Available	Y, G, N,	Y, G, N,	Y, G,

Y = Silver, no indicator lamp

G = Silver-cadmium oxide, no indicator lamp

N = Silver-cadmium oxide, with indicator lamp\*

5. Coil Voltage:

Up to 240VAC

Up to 125VDC

# Our authorized distributors are more likely to stock the following items for immediate delivery.

	= -	_	
KA-5AG-120 KA-5AY-120 KA-5DG-6	KRP-11AN-24 KRP-11AN-120 KRP-11AY-120	KRPA-5AG-120 KRPA-5AY-120 KRPA-5DG-6	KRPA-11AY-240 KRPA-11DG-6 KRPA-11DG-12
KA-5DG-12	KRP-11DG-12	KRPA-5DG-12	KRPA-11DG-24
KA-5DG-110 KA-11AG-120	KRP-11DG-24	KRPA-5DG-24	KRPA-11DG-48
KA-11AG-120 KA-11AY-6	KRP-11DG-48 KRP-11DG-110	KRPA-5DY-12 KRPA-5DY-24	KRPA-11DG-110 KRPA-11DN-12
KA-11AY-24	KRP-11DG-110	KRPA-11AG-6	KRPA-11DN-24
KA-11AY-120	KRP-11DN-12	KRPA-11AG-12	KRPA-11DN-110
KA-11DG-12	KRP-11DN-24	KRPA-11AG-24	KRPA-11DY-12
KA-11DG-24	KRP-11DY-24	KRPA-11AG-120	KRPA-11DY-24
KA-11DG-110	KRP-14AG-120	KRPA-11AG-240	KRPA-14AG-12
KA-14AG-120	KRP-14AG-240	KRPA-11AN-12	KRPA-14AG-24
KA-14AY-120	KRP-14AN-120	KRPA-11AN-24	KRPA-14AG-120
KA-14DG-24	KRP-14AY-120	KRPA-11AN-120	KRPA-14AG-240
KA-14DG-110	KRP-14DG-12	KRPA-11AN-240	KRPA-14AN-24
KRP-5AG-120	KRP-14DG-24	KRPA-11AY-6	KRPA-14AN-120
KRP-11AG-24	KRP-14DG-110	KRPA-11AY-12	KRPA-14AN-240
KRP-11AG-120	KRP-14DN-24	KRPA-11AY-24	KRPA-14AY-24
KRP-11AG-240	KRPA-5AG-24	KRPA-11AY-120	KRPA-14AY-120

<sup>\*</sup>Indicator Lamp not available on 25-90V coils. Only 120-240VAC and 110VDC models are UL recognized and CSA certified.



KRP-3-H

### **Features**

- 1 Form X (SPST NO DM) contact rating of 20A.
- Heavy copper alloy movable contact arms.
- Twin silver-cadmium oxide contacts.
- Many uses in automation controls and other applications requiring high current switching.

#### Contact Data @ 25°C

Arrangement: 1 Form X (SPST - NO - DM).

Ratings: UL Rating: 20A @ 120VAC, 3/4 HP @ 120VAC.

Factory Rating: 20A @ 120VAC, 80% PF; 1 HP @

120/240VAC

Material: Twin, silver-cadmium oxide.

Expected Life: 2.5 million operations min., mechanical. 100,000

operations at rated contact load.

# **Initial Dielectric Strength**

Between Open Contacts: 500V rms, 60 Hz. between all elements.

# KRP-3-H series

# 20 Amp Small AC or DC Relays

**File** E22575

# Coil Data @ 25°C

See chart on page 105.

Nominal Power: DC Coils: 1.2W AC Coils: 2.0VA

Initial Insulation Resistance: 1,000 megohms.

# Operate Data @ 25°C

Must-Operate Voltage: DC: 75% of nominal voltage.

AC: 85% of nominal voltage.

**Operate Time:** 15 milliseconds approximate (Excluding Bounce). **Release Time:** 10 milliseconds approximate (Excluding Bounce).

### **Environmental Data**

**Temperature Range: Enclosed Models: AC:** -45°C to +55°C.

**DC:** -45°C to +70°C.

### **Mechanical Data**

**Mounting:** Socket mounting. **Termination:** Octal-type plug.

**Enclosure:** Polycarbonate enclosure with octal-type mounting.

**Weight:** 2 oz. (57g) approximately.

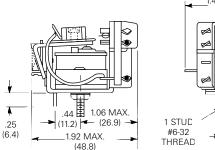
#### **Ordering Information** KR Ρ -3 D -12 Typical Part No. ▶ 1. Basic Series: KR 2. Type: P = Enclosed (20 amp models available only with Contact Arrangement 3 and Material H.) 3. Contact Arrangement: $3 = 1 \text{ Form } X (\overline{SPST} - NO - DM)$ 4. Coil Input: A = ACD = DC5. Contact Material & Rating: H = Silver-cadmium oxide, 1/4" (6.35mm) dia., 20 amps 6. Coil Voltage: To 240VAC, 50/60 Hz. or 110VDC.

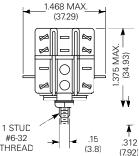
# Our authorized distributors are more likely to stock the following items for immediate delivery.

KRP-3AH-120 KRP-3DH-24 KRP-5AG-120

# **Outline Dimensions**

#### **KA Series**

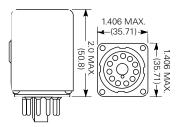




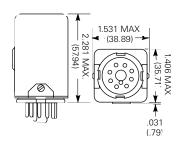
Tolerances on .XX Decimals  $\pm$  .02 ( $\pm$  .5) Unless Otherwise Specified Tolerances on .XXX Decimals  $\pm$  .005 ( $\pm$  .13) Unless Otherwise Specified

### **KR Series Enclosures**

# Type "P" Clear Dust Cover For KRPA and KRP



### For KRP3-H



Hold-Down Spring 20C176 KRPA & KRP 20C206 KAP and KRP3



Durable stainless steel spring can be moved aside for relay removal or installation. Mounts with same machine screws or rivets that secure socket to chassis. Two .156" (3.96mm) dia. holes required.

# Wiring Diagrams (Bottom Views)

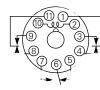


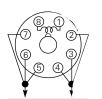
KR5 KAP5 KRP5 KRPA5

KAP11 KRP11 KRPA11 KAP14 KRP14 KRPA14 KRP3AH





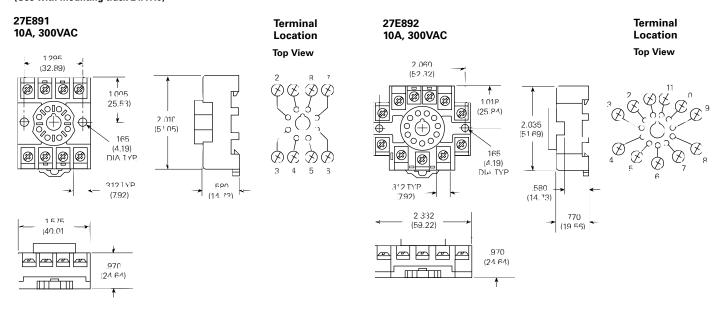




## Sockets For KRP, KRPA Series Relays

The following sockets are normally maintained in stock for immediate delivery.

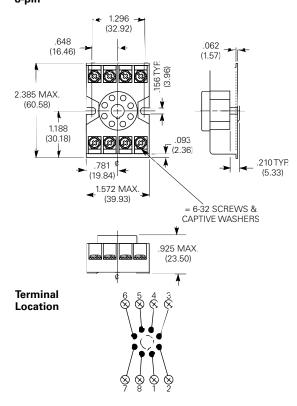
# Screw Terminal, DIN Rail Snap-Mount Sockets (Use with mounting track 24A110)



Sockets have M3.5 screw terminals which accept up to two #12 AWG wires. Rated 10 amps @ 300VAC and meets UL 94V-0.

### **Screw Terminal Sockets**

## 27E122 10A, 300VAC 8-pin



# 27E123 10A, 300VAC 11-pin

