



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



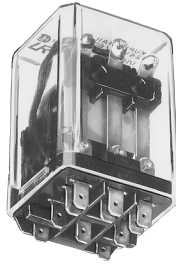
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# KUP93 series

## General Purpose 3 to 10 Amp, Multicontact AC or DC Relay

File 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

- AC coils 24, 120 & 240V 50/60 Hz.; DC 12 & 24VDC.
- Contact arrangement to 3PDT.
- Sockets available for all models.
- Accepted pin pattern for HVAC industry.
- Primarily designed for the HVAC industry.

### Contact Data @ 25°C

**Material:** Fine silver or silver-cadmium oxide.

### Contact rating

| Material             | UL/CSA Ratings  | Life Expected |
|----------------------|---|---------------|
| Fine silver          | 5A @ 28VDC or 240VAC, 80% PF, 1/10 HP @ 120VAC, 1/4 HP @ 240VAC   | 100,000       |
| Silver cadmium oxide | 10A @ 28VDC or 240VAC, 80% PF, 1/4 HP @ 120VAC, 1/3 HP @ 240 VAC, 10 FLA, 30 LRA @ 120 VAC, 5 FLA, 15 LRA @ 240 VAC | 100,000       |
|                      |   | 30,000        |

### Initial Dielectric Strength

**Between Open Contacts:** 500V rms.  
**Between Adjacent Contacts:** 1,500V rms.  
**Between Contacts and Coil:** 1,500V rms.

### Coil Data @ 25°C

**Nominal Power:**  
**DC Coils:** 1.2 Watts.  
**AC Coils:** 2.7VA.  
**Initial Insulation Resistance:** 100 megohms, min., at 25°C.r

### Coil Data

|          | Nominal Voltage | DC Resistance in Ohms ± 10%* | Must Operate Voltage | Nominal Coil Current (mA) |
|----------|-----------------|------------------------------|----------------------|---------------------------|
| DC Coils | 12              | 120                          | 9.0                  | 100                       |
|          | 24              | 472                          | 18.0                 | 51                        |
| AC Coils | 24              | 72                           | 20.4                 | 115                       |
|          | 120             | 1,700                        | 102.0                | 24                        |
|          | 240             | 7,200                        | 204.0                | 12                        |

\*AC coils, ± 15%

### Operate Data @ 25°C

#### Must Operate Voltage:

**DC Coils:** 75% of nominal voltage or less.

**AC Coils:** 85% of nominal voltage or less.

**Operate Time (Excluding Bounce):** 15 milliseconds, typical, at nominal voltage.

#### Release Time (Excluding Bounce):

**DC Coils:** 10 milliseconds, typical, at nominal voltage.

**AC Coils:** 10 milliseconds, typical, at nominal voltage.

### Environmental Data

#### Temperature Range:

#### Storage:

**All Coils:** -45°C to +105°C.

#### Operating:

**DC Coils:** -45°C to +70°C.

**AC Coils:** -45°C to +45°C.

### Mechanical Data

**Termination:** .187" x .020" quick connect.

**Enclosures:** Clear polycarbonate dust cover.

**Weight:** 3.0 oz. (86g) approximately.N

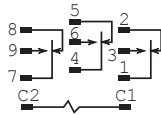
**Ordering Information**

|   |              |           |          |          |          |            |
|---|--------------|-----------|----------|----------|----------|------------|
| <b>Typical Part No. &gt;</b>  | <b>KUP93</b> | <b>14</b> | <b>A</b> | <b>2</b> | <b>1</b> | <b>-24</b> |
| <p><b>1. Type:</b><br/>KUP93 = Enclosed general purpose relay.</p> <p><b>2. Contact Arrangement:</b><br/>14 = 3 Form C (3PDT)</p> <p><b>3. Coil Input:</b><br/>A = AC            D = DC</p> <p><b>4. Mounting:</b><br/>1 = PLAIN CASE;</p> <p><b>5. Terminals, Contact Material &amp; Rating:</b><br/>1 = .187" (4.75mm) quick connect, silver, 5 amps.<br/>3 = .187" (4.75mm) quick connect, silver-cadmium oxide, 10 amps.</p> <p><b>6. Coil Voltage:</b><br/>To 240VAC, 50/60 Hz. or 110VDC.</p> |              |           |          |          |          |            |

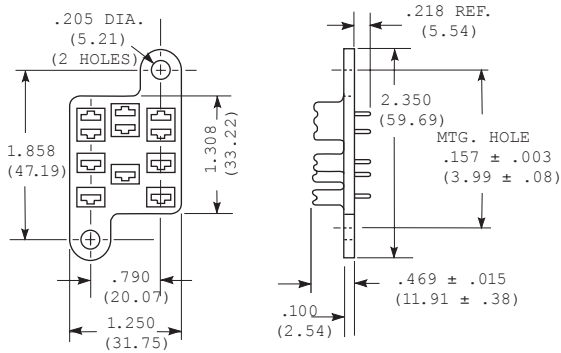
**Our authorized distributors are more likely to stock the following items for immediate delivery.**  
No items in this series typically are stocked.

**Outline Dimensions**

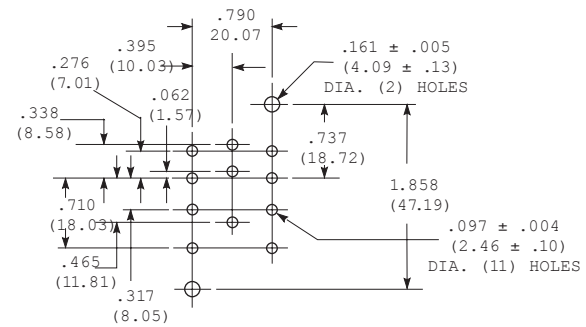
**Wiring Diagrams**  
**3 Form C**



**KUP93 Sockets**



**Socket PC Board Layout (Component Side of Board)**



**KUP93 Socket Number**

| Socket Color  | P C Socket With Terminals |
|---------------|---------------------------|
| Natural Nylon | 27E168**                  |

\*\*UL Recognized, file E22575

**Socket:** Rated 10 amperes. Will accept .187" (4.75mm) quick-connect terminals of all KUP93 relays. »