

# KUHP series

## 30 Amp Power Relays

File E22575

File LR15734-123

### Features

- AC coils 6-277VAC 50/60 Hz., DC 6-110VDC.
- Contact arrangement up to DPDT.
- .250" combination push-on/solder terminals or PC terminals.
- Side flange and top flange mounting.
- Designed to meet VDE space requirements.
- Class B coil insulation.

### Contact Data @ 25°C

**Arrangements:** 1 Form C (SPDT) and 2 Form C (DPDT).  
**Material:** Silver or silver-cadmium oxide.  
**Expected Mechanical Life:** 10 million operations.

### Contact Ratings

Contact Arrangement	UL/CSA Ratings	Expected Life
<b>1 Form C Single Pole Double Throw</b>	30A 120/240VAC 1 HP @ 120VAC, 1 1/2 HP @ 240VAC 25A @ 28VDC	100,000 ops.
<b>2 Form C Double Pole Double Throw</b>	20A @ 120/240VAC 3/4 HP @ 120VAC 1 1/2 HP @ 240VAC 20A @ 28VDC 7A @ 120VAC (Tungsten)*	100,000 ops.

\*NO contacts only.

### Initial Dielectric Strength

**Between Open Contacts:** 1,200V rms.  
**Between Adjacent Contacts:** 3,750V rms.  
**Between Contacts and Coil:** 3,750V rms.  
**Between Coil and Frame:** 2,000V rms.

### Coil Data @ 25°C

**Voltage:** 6-110VDC and 6-277VAC.  
**Nominal Power:**  
 DC Coils: 1.2 Watts.  
 AC Coils: 2.7VA.  
**Duty Cycle:** Continuous.  
**Initial Insulation Resistance:** 100 megohms, min.  
**Insulation:** Class B, 130°C.

### Coil Data

	Nominal Voltage	DC Resistance in Ohms ± 10%*	Must Operate Voltage	Nominal Coil Current (mA)
<b>DC Coils</b>	6	32.1	4.5	187
	12	120	9.0	100
	24	472	18.0	51
	48	1,800	36.0	26.7
	110	10,000	82.5	11
<b>AC Coils</b>	6	4.2	5.1	460
	12	18	10.2	230
	24	72	20.4	115
	120	1,700	102.0	24
	240	7,200	204.0	12
	277	10,250	235.5	9

\*±15% for AC coils.

### Operate Data @ 25°C

**Must Operate Voltage:**  
 DC Coils: 75% of nominal.  
 AC Coils: 85% of nominal.  
**Operate Time (Excluding Bounce):** 20 milliseconds, typical, at nominal voltage.  
**Release Time (Excluding Bounce):** 20 milliseconds, typical, at nominal voltage.

### Environmental Data

**Temperature Range: (Operating)**  
 DC Coils: -45°C to +70°C.  
 AC Coils: -45°C to +45°C.  
**Shock:** 15g's, 11 ms (non-operating).  
**Vibration:** .065" double amplitude, 10-55 Hz.

### Mechanical Data

**Termination:** .250" quick connect/solder; and PC board.  
**Enclosure:** Polycarbonate dust cover.  
**Weight:** 3.2 oz. (92g) approximately.

### Ordering Information

Typical Part No.	▶				
	<b>KUHP-</b>	<b>11</b>	<b>A</b>	<b>5</b>	<b>1 -120</b>
<b>1. Basic Series and Type:</b> KUHP = Enclosed 20/30 amp relay.					
<b>2. Contact Arrangement and Rating:</b> 5 = 1C (SPDT); 30 amps.      11 = 2C (DPDT); 20 amps.					
<b>3. Coil Input:</b> A = AC, 50/60 Hz.      D = DC					
<b>4. Mountings:</b> 1 = PLAIN CASE      5 = BRACKET MOUNT CASE      T = TOP FLANGE CASE					
<b>5. Terminals and Contact Materials:</b> 1 = .250" (6.35mm) quick connect/solder; silver-cadmium oxide.      7 = .047" (1.19mm) printed circuit; silver-cadmium oxide.					
<b>6. Coil Voltage:</b> AC coils to 277VAC, 50/60 Hz.      DC coils to 110VDC.					

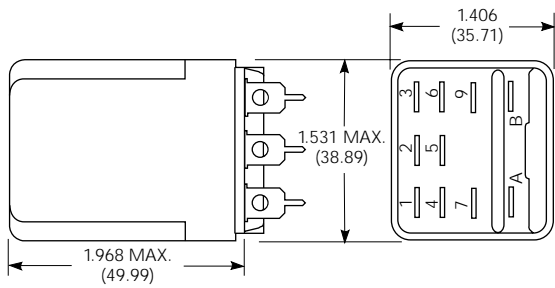
**NOTE:** No sockets are available for this relay.

### Stock Items – The following items are normally maintained in stock for immediate delivery.

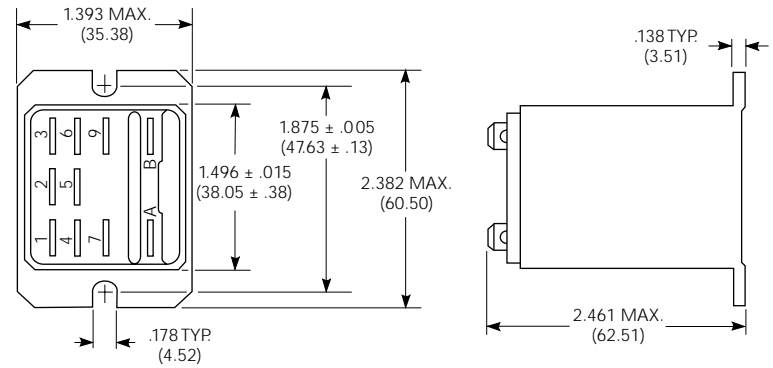
KUHP-5A51-24    KUHP-5AT1-120    KUHP-5D51-24    KUHP-5DT1-24    KUHP-11A51-120    KUHP-11D51-12    KUHP-11DT1-12  
 KUHP-5A51-120    KUHP-5D51-12    KUHP-5DT1-12    KUHP-11A51-24    KUHP-11AT1-120    KUHP-11D51-24    KUHP-11DT1-24

Outline Dimensions

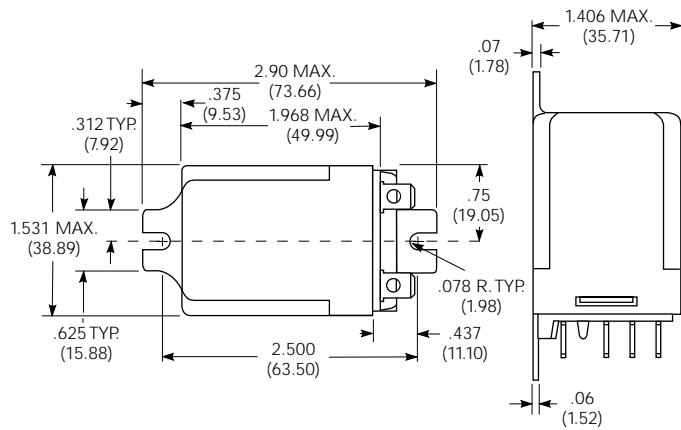
Plain Case



Top Flange Enclosure

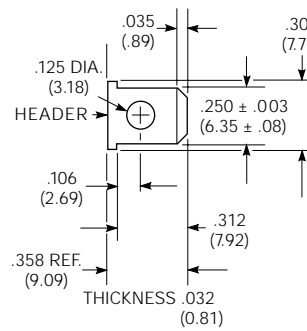


Bracket Mount Case

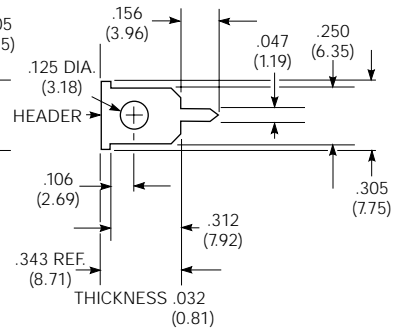


Terminal Dimensions

.250" (6.35mm) Quick Connect/Solder



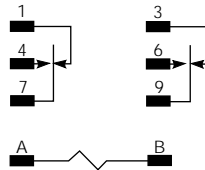
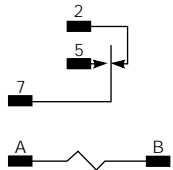
Printed Circuit



Wiring Diagrams

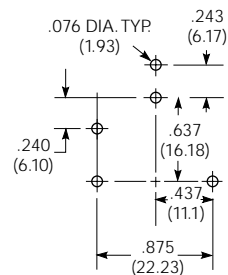
- 1 Form C
- 1 Form A (Delete 2)
- 1 Form B (Delete 5)

- 2 Form C
- 2 Form A (Delete 1 & 3)
- 2 Form B (Delete 4 & 6)



PC Board Layouts (Bottom Views)

1 Pole Model



2 Pole Model

