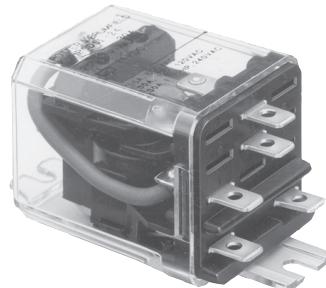


## KUHP Series Panel Relay

- AC coils 6 to 277VAC 50/60Hz, DC 6 to 110VDC
- Contact arrangement up to 2 form C (CO)
- .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

Typical applications  
Commercial HVAC, smart-grid communications controllers, baggage handling, pumps.



## Approvals

UL E22575; CSA LR15734

Technical data of approved types on request.

## Contact Data

	1 pole	2 pole
Contact arrangement	1 form C (CO)	2 form C (CO)
	1 form A (NO)	2 form A (NO)
	1 form B (NC)	2 form B (NC)
Rated voltage	240VAC	240VAC
Rated current	30A	20A
Contact material	AgCdO	AgCdO, AgSnOInO
Min. recommended contact load	300mA, 12VDC	300mA, 12VDC
Initial contact resistance	200mΩ	200mΩ
Frequency of operation	360 ops./hour	360 ops./hour
Operate/release time max.	20/20ms	20/20ms
Bounce time max.	20ms	20ms

## Contacts ratings

Type	Load	Cycles
1 pole, AgCdO		
30A, 240VAC	100x10 <sup>3</sup> ops.	
1HP, 120VAC	100x10 <sup>3</sup> ops.	
1 1/2HP, 240VAC	100x10 <sup>3</sup> ops.	
30 FLA, 96 LRA	100x10 <sup>3</sup> ops.	
30A, 28 VDC	50x10 <sup>3</sup> ops.	
10A, 480VAC	6x10 <sup>3</sup> ops.	
1/2HP, 480VAC	25x10 <sup>3</sup> ops.	
1HP, 480VAC, 3 phase	6x10 <sup>3</sup> ops.	
1/2HP, 600VAC	25x10 <sup>3</sup> ops.	
2 pole, AgCdO		
20A, 240VAC	100x10 <sup>3</sup> ops.	
3/4HP, 120VAC	100x10 <sup>3</sup> ops.	
1 1/2HP, 240VAC	100x10 <sup>3</sup> ops.	
20 FLA, 83 LRA	100x10 <sup>3</sup> ops.	
20A, 28 VDC	50x10 <sup>3</sup> ops.	
10A, 480VAC	6x10 <sup>3</sup> ops.	
1/2HP, 480VAC	25x10 <sup>3</sup> ops.	
1HP, 480VAC, 3 phase	6x10 <sup>3</sup> ops.	
1/2HP, 600VAC	25x10 <sup>3</sup> ops.	
2 pole AgSnOInO		
20 A, 240 VAC	25x10 <sup>3</sup> ops.	
Mechanical endurance	10x10 <sup>6</sup> ops.	

## Coil Data

Coil voltage range	6 to 110VDC
	6 to 277VAC

Coil insulation system according UL

Class B

## Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release coil resistance Ω±10%	Rated coil power W
006	6	4.5	32.1	1.13
012	12	9.0	120	1.20
024	24	18.0	472	1.23
048	48	36.0	1800	1.30
110	110	82.5	10000	1.22

All figures are given for coil without preenergization, at ambient temperature +23°C.

## Coil versions, AC coil

Coil code	Rated voltage VAC	Operate voltage VAC	Coil resistance Ω±15%	Rated coil power VA
006	6	5.1	4.2	2.8
012	12	10.2	18	2.8
024	24	20.4	72	2.8
120	120	102.0	1700	2.9
240	240	204.0	7200	2.9
277	277	235.5	10250	2.5

All figures are given for coil without preenergization, at ambient temperature +23°C, 60 Hz.

## Insulation Data

Initial dielectric strength	
between open contacts	1200V <sub>rms</sub>
between contact and coil	3750V <sub>rms</sub>
between adjacent contacts	3750V <sub>rms</sub>
between coil and frame	2000V <sub>rms</sub>

Initial insulation resistance between insulated elements	100MΩ at 500VDC
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## Other Data

Ambient temperature	
DC coil	-45°C to 70°C
AC coil	-45°C to 45°C
Category of environmental protection	
IEC 61810	RTI - dust protected and RT0 - open style

Terminal type	QC.250, PCB .047
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Terminal retention, push force	17lbs for 3s 25lbs for 3s
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Weight	92g
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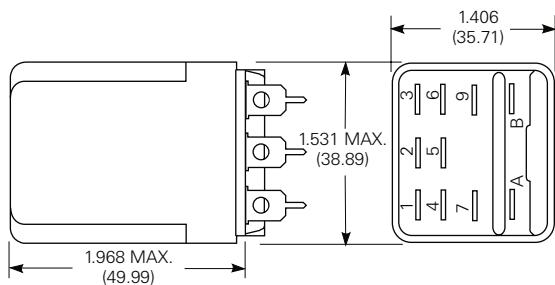
Packaging/unit	tray/25 pcs., box/150 pcs.
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## Accessories

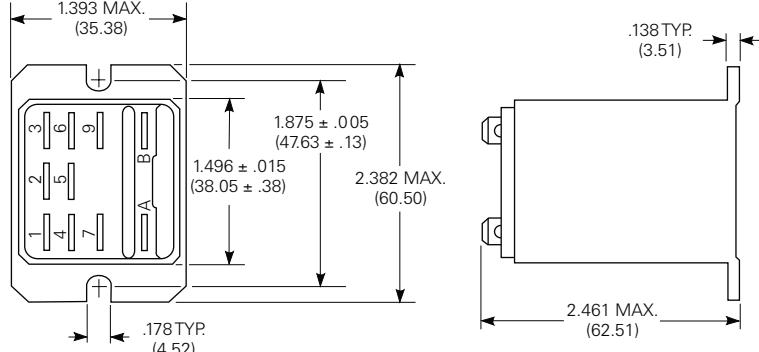
NOTE: no sockets are available for this relay

**KUHP Series Panel Relay (Continued)**
**Dimensions**

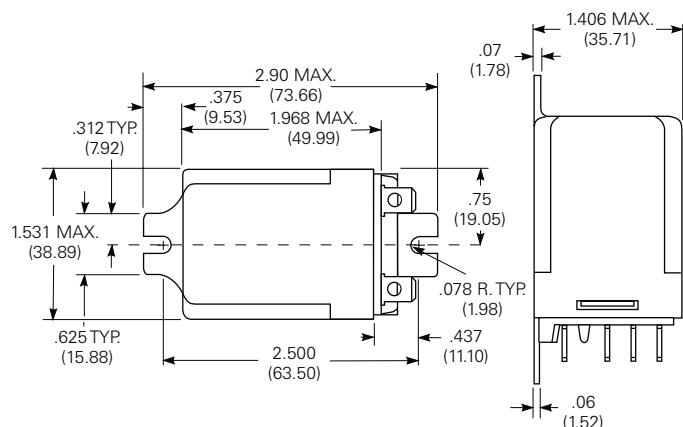
Plain case



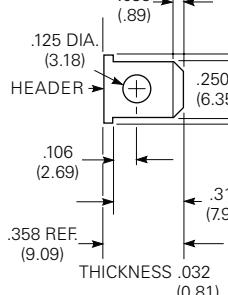
Top flange enclosure



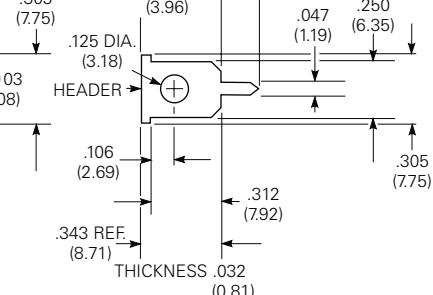
Bracket mount case


**Terminal dimensions**

6.35mm (.250") Quick Connect/Solder



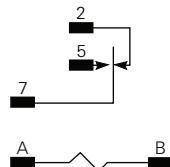
Printed circuit


**Terminal assignment**

1 form C

1 form A (delete 2)

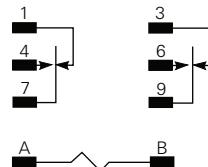
1 form B (delete 5)



2 form C

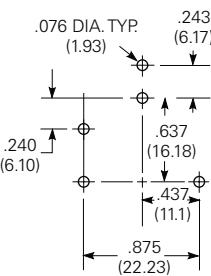
2 form A (delete 1 and 3)

2 form B (delete 4 and 6)

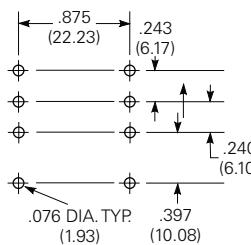

**PCB layout**

Bottom view on solder pins

1 pole version



2 pole version



**KUHP Series Panel Relay (Continued)**
**Product code structure**

Typical product code **KUHP** **11** **A** **5** **1** **-120**
**Type**
**KUHP** Enclosed Panel Plug-in Relay, 20/30A  
**KUH** Open Panel Plug-in Relay 20/30A

**Contact arrangement and rating**

<b>1</b>	1 form A (NO); 30A	<b>7</b>	2 formA (NO); 20A
<b>2</b>	1 form B (NC); 30A	<b>8</b>	2 form B (NC); 20A
<b>5</b>	1 form C (CO); 30A	<b>11</b>	2 form C (CO); 20A

**Coil Input**
**A** AC, 50/60Hz      **D** DC

**Mountings**
**KUHP options**
**1** Plain case  
**5** Bracket mount case  
**T** Top flange mount case

**KUH options**
**1** #6-32 stud, 0.218" locating tab  
**4** #6-32 tapped core, 0.218" locating tab

**Terminals and contact materials**

<b>1</b>	.250" (6.35mm) quick connect/solder; silver-cadmium oxide	<b>7</b>	.047" (1.19mm) printed circuit; silver-cadmium oxide
<b>P</b>	.250" quick connect/solder; silver tin oxide indium oxide	<b>S</b>	.047" printed circuit; silver tin oxide indium oxide

**Coil voltage**

Coil code: please refer to coil versions table

Product Code	Arrangement	Mounting	Coil	Terminals	Part Number
KUHP-5DT1-12	1 form C, 1 CO	top flange	12VDC	.250" quick connect	8-1393114-7
KUHP-5DT1-24			24VDC		8-1393114-8
KUHP-5D51-24		bracket			9-1393114-1
KUHP-5D51-12			12VDC		9-1393114-0
KUHP-5A51-24			24VAC		8-1393114-5
KUHP-5A51-120			120VAC		8-1393114-4
KUHP-5AT1-120		top flange			8-1393114-1
KUHP-11A51-24		bracket	24VAC		7-1393114-0
KUHP-11A51-240			240VAC		7-1393114-1
KUHP-11AT1-120		top flange	120VAC		6-1393114-5
KUHP-11DT1-24	2 form C, 2 CO		24VDC		7-1393114-3
KUHP-11D51-12		bracket	12VDC		7-1393114-7
KUHP-11D51-24			24VDC		7-1393114-8
KUHP-11DT1-12		top flange	12VDC		7-1393114-2

# Mouser Electronics

Authorized Distributor

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