KUHP Series Panel Relay

- **AC coils 6 to 277VAC 50/60Hz, DC 6 to 110VCD**
- **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

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	100×10^3 ops.
	1HP, 120VAC	100×10^3 ops.
	1 1/2HP, 240VAC	100×10^3 ops.
	30 FLA, 96 LRA	100×10^3 ops.
	30A, 28 VDC	50×10^3 ops.
	10A, 480VAC	6×10^3 ops.
	1/2HP, 480VAC	25×10^3 ops.
	1HP, 480VAC, 3 phase	6×10^3 ops.
	1/2HP, 600VAC	25×10^3 ops.
2 pole, AgCdO		
	20A, 240VAC	100×10^3 ops.
	3/4HP, 120VAC	100×10^3 ops.
	1 1/2HP, 240VAC	100×10^3 ops.
	20 FLA, 83 LRA	100×10^3 ops.
	20A, 28 VDC	50×10^3 ops.
	10A, 480VAC	6×10^3 ops.
	1/2HP, 480VAC	25×10^3 ops.
	1HP, 480VAC, 3 phase	6×10^3 ops.
	1/2HP, 600VAC	25×10^3 ops.
2 pole AgSnOInO		
	20 A, 240 VAC	25×10^3 ops.
Mechanical endurance	10×10^6 ops.	

Coil Data

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	$1200V_{rms}$
between contact and coil	$3750V_{rms}$
between adjacent contacts	$3750V_{rms}$
between coil and frame	$2000V_{rms}$

Initial insulation resistance

between insulated elements	100MΩ at 500VDC

Other Data

Ambient temperature	
DC coil	-45°C to 70°C
AC coil	-45°C to 45°C
Category of enviromental protection	
IEC 61810	RTI - dust protected and RT0 - open style
Terminal type	QC.250, PCB .047
Terminal retention, push force	
QC .205	17lbs for 3s
QC .110, QC .187, QC .250, all PCB	25lbs for 3s
Weight	92g
Packaging/unit	tray/25 pcs., box/150pcs.

Accessories
NOTE: no sockets are available for this relay
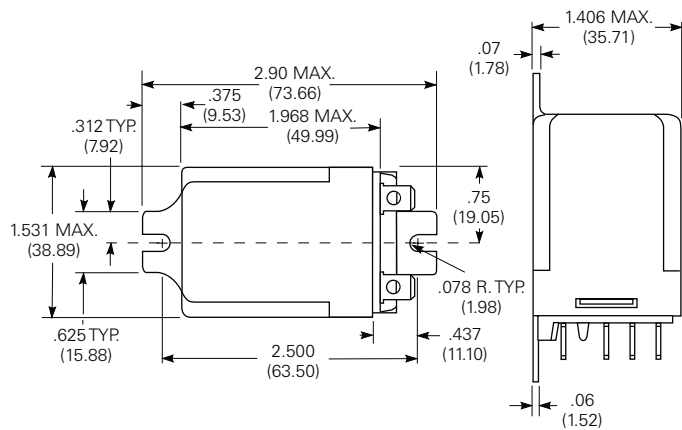
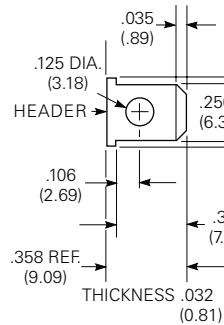## KUHP Series Panel Relay (Continued)

Dimensions

Plain case

1.406 (35.71)

1.531 MAX. (38.89)

1.968 MAX. (49.99)

Top flange enclosure

1.393 MAX. (35.38)

1.875 ± .005 (47.63 ± .13)

1.496 ± .015 (38.05 ± .38)

2.382 MAX. (60.50)

.178 TYP. (4.52)

.138 TYP. (3.51)

2.461 MAX. (62.51)

Bracket mount case

1.406 MAX. (35.71)

.07 (1.78)

2.90 MAX. (73.66)

.375 (9.53)

1.968 MAX. (49.99)

.312 TYP. (7.92)

1.531 MAX. (38.89)

.75 (19.05)

.078 R. TYP. (1.98)

.625 TYP. (15.88)

2.500 (63.50)

.437 (11.10)

.06 (1.52)

Terminal dimensions

6.35mm (.250") Quick Connect/Solder

.035 (.89)

.305 (7.75)

.125 DIA. (3.18)

HEADER

.250 ± .003 (6.35 ± .08)

.106 (2.69)

.312 (7.92)

.358 REF. (9.09)

THICKNESS .032 (0.81)

Printed circiot

.156 (3.96)

.047 (1.19)

.250 (6.35)

.125 DIA. (3.18)

HEADER

.106 (2.69)

.312 (7.92)

.305 (7.75)

.343 REF. (8.71)

THICKNESS .032 (0.81)
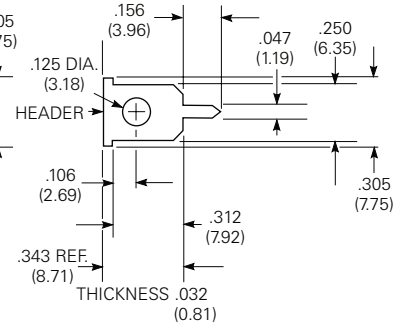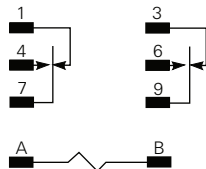
Terminal assignment

1 form C
1 form A (delete 2)
1 form B (delete 5)

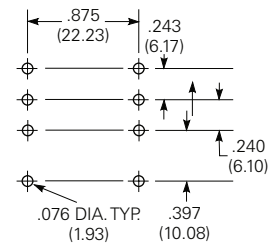2 form C
2 form A (delete 1 and 3)
2 form B (delete 4 and 6)

PCB layout

Bottom view on solder pins

1 pole version

.076 DIA. TYP. (1.93)

.243 (6.17)

.637 (16.18)

.240 (6.10)

.437 (11.1)

.875 (22.23)

2 pole version

.875 (22.23)

.243 (6.17)

.240 (6.10)

.076 DIA. TYP. (1.93)

.397 (10.08)

Catalog and product specification according
to IEC 61810-1 and to be used only together
with the 'Definitions' section.

Catalog and product data is subject to the
terms of the disclaimer and all chapters of
the 'Definitions' section, available at
http://relays.te.com/definitions

Catalog product data, 'Definitions' section,
application notes and all specifications are
subject to change.

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
1	1 form A (NO); 30A	**7**	2 formA (NO); 20A
2	1 form B (NC); 30A	**8**	2 form B (NC); 20A
5	1 form C (CO); 30A	**11**	2 form C (CO); 20A

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

Mountings

KUHP options		KUH options	
1	Plain case	**1**	#6-32 stud, 0.218" locating tab
5	Bracket mount case	**4**	#6-32 tapped core, 0.218" locating tab
T	Top flange mount case		

Terminals and contact materials
1	.250" (6.35mm) quick connect/solder; silver-cadmium oxide	**7**	.047" (1.19mm) printed circuit; silver-cadmium oxide
P	.250" quick connect/solder; silver tin oxide indium oxide	**S**	.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	2 form C, 2 CO	bracket	24VAC		7-1393114-0
KUHP-11A51-240			240VAC		7-1393114-1
KUHP-11AT1-120		top flange	120VAC		6-1393114-5
KUHP-11DT1-24			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

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity](#):
  [9-1393114-0](#)