

**KHA Series Panel Plug-in Relay**

- Compact package
- Two and four pole Form C contact arrangements
- Polycarbonate or nylon dust cover
- Various mounting configurations
- Indicator lamp and push-to-reset options available
- Various contact materials available for specific load requirements



Typical applications

Industrial sewing/stitching machines, fitness, elevators, pumps, robotics, solar panels



**Approvals**

UL E22575; CSA LR15734  
Technical data of approved types on request

**Contact Data**

Contact arrangement	2 form C (2CO), 4 form C (4CO)
Rated voltage	240VAC
Rated current	1-5A
Contact material	Ag, AgCdO, Au-AgNi, Au overlay Ag, Au diffused Ag
Contact style	Single contact or bifurcated crossbar
Min. recommended contact load	
Ag (single contact)	100mA, 12VDC
AgCdO (single contact)	300mA, 12VDC
Au-AgNi (single contact)	10mA, 12VDC
Au overlay Ag (bifurcated crossbar)	Dry circuit
Au diffused Ag (single contact)	50mA, 12VDC
Initial contact resistance	
Ag, AdCdO	100mΩ
Au-AgNi, Au overlay Ag, Au diffused Ag	200mΩ
Frequency of operation	360 ops./hour
Operate/release time max.	13/6ms

**Contact ratings**

Type	Load	Cycles
<b>UL 508</b>		
Ag	5A, 120VAC, general purpose	
	2.5A, 240VAC, general purpose	
	1/10HP, 120/240VAC	
	180VA, 250VAC, pilot duty	
AgCdO	42VA, 28VDC, pilot duty	
	5A, 120VAC, general purpose	
	2.5A, 240VAC, general purpose	
	1/10HP, 120/240VAC	
Au-AgNi	180VA, 250VAC, pilot duty	
	42VA, 28VDC, pilot duty	
	5A, 240VAC, general purpose	
	5A, 28VDC, resistive	
Au overlay Ag	2A, 120VAC, resistive	
	1A, 120VAC	
Au diffused Ag	1A, 30VDC	
	5A, 120VAC, general purpose	
	2.5A, 240VAC, general purpose	
	1/10HP, 120/240VAC	
	180VA, 250VAC, pilot duty	
	42VA, 28VDC, pilot duty	

Note: The relay should only carry ≤15A continuously (all poles combined).  
Mechanical endurance 10x10<sup>9</sup> ops.

**Coil Data**

Coil voltage range	5 to 240VDC 6 to 240VAC
Coil insulation system according UL	Class B

**Coil versions, DC coil**

Coil code	Rated voltage VDC	Operate voltage VDC	Release resistance Ω±10%	Coil power mW
5	5	3.75	32	800
6	6	4.5	40	900
12	12	9.0	160	900
24	24	18.0	690	850
48	48	36.0	2600	900
110	110	82.5	11000	1100
	220/240		Use 110V relay with series dropping 5W resistor of 11KΩ	

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
6	6	5.1	10.5	1.2
12	12	10.2	43	1.2
24	24	20.4	160	1.25
48	48	40.8	668	1.2
120	120	102.0	3900	1.35
240	240	204.0	12000	1.5

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

**Insulation Data**

Initial dielectric strength	
between open contacts	1000V <sub>rms</sub>
between contact and coil	1500V <sub>rms</sub>
between adjacent contacts	1500V <sub>rms</sub>
between coil and frame	1500V <sub>rms</sub>
Initial insulation resistance	
between insulated elements	100MΩ at 500VDC

**Other Data**

Material compliance:	EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a>
Ambient temperature	-45°C to 70°C
Category of environmental protection	IEC 61810
	RTI - dust protected

**KHA Series Panel Plug-in Relay (Continued)**

**Other Data (continued)**

Vibration resistance (destructive)	.062" double amplitude, 5-55Hz, 6h, mechanical
Shock resistance (functional)	15g, 11ms (mechanical)
Terminal type	solder/plug-in .105" (2.67mm), pcb-tht .112" (2.84mm)
Weight	45g
Packaging/unit	tray/50 pcs., box/250pcs.

**Accessories**

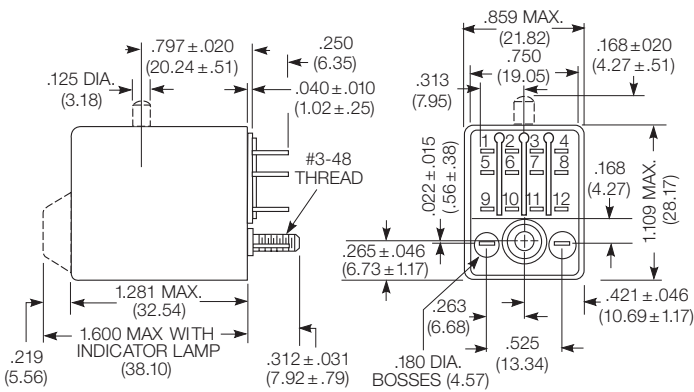
For details see datasheet Sockets and Accessories, KHA Relays

Product Code	Description
27E894	DIN socket (use 20C426 clip)
27E166	Panel/track mount socket (use 20C297 clip)
27E006	Solder/grounding socket (use 20C217 clip)
27E007	PCB/grounding socket (use 20C217 clip)

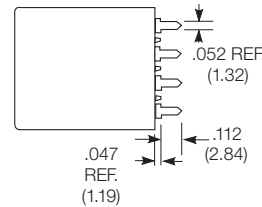
**NOTE:** Relays with contact current <50mA are not recommended for use in sockets.

**Dimensions**

KHAU and KHAX types



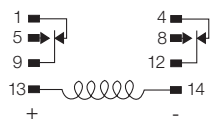
PCB terminals  
KHAE and KHAF types



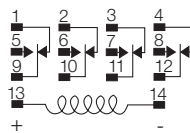
Printed circuit terminal thickness .022 (.558)

**Terminal assignment**

2 Form C



4 Form C



Polarity shown for LED indicator

**PCB layout**

Bottom view on solder pins

4 pole version

