

**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-AgNi	2A, 120VAC, resistive	
Au overlay Ag	1A, 120VAC	
	1A, 30VDC	
Au diffused Ag	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>6</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%	Rated 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/customersupport/rohssupportcenter">www.te.com/customersupport/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.

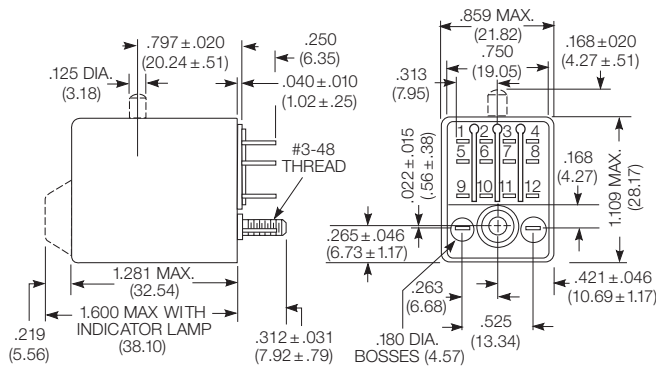
**Accessories**

For details see datasheet Sockets and Accessories, KHA Relays

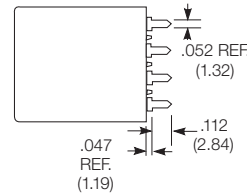
Product Code	Description
27E894	DIN socket and 20C426 clip
27E166	Panel/track mount socket and 20C297 clip
27E006	Solder/grounding socket and 20C217 clip
27E007	PCB/grounding socket and 20C217 clip

**Dimensions**

KHAU and KHAX types



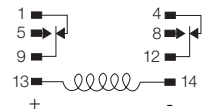
PCB terminals  
KHAE and KHAF types



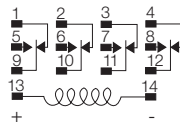
Printed circuit terminal thickness .022 (.558)

**Terminal assignment**

2 Form C



4 Form C



Polarity shown for LED indicator

**PCB layout**

Bottom view on solder pins

4 pole version

