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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.

Ap	provals		
UI	F22575: CSA	ī	R

Technical data of approved types on request

15734

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 diffuse	d Ag 200mΩ
Frequency of operation	360 ops./hour
Operate/release time max.	13/6ms

Contac	t ratings

Contact ratings		
Туре	Load	Cycles
UL 508		
Ag	5A, 120VAC, general purpose	
	2.5A, 240VAC, general purpose	
	1/10HP, 120/240VAC	
	180VA, 250VAC, pilot duty	
	42VA, 28VDC, pilot duty	
AgCdO	5A, 120VAC, general purpose	
	2.5A, 240VAC, general purpose	
	1/10HP, 120/240VAC	
	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 10x106 ops

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

Coil ver	sions, DC coil			
Coil	Rated	Operate	ReleaseCoil	Rated coil
code	voltage	voltagevoltage	resistance	power
	VDC	VDC	$\Omega \pm 10\%$	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		2	

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

Coi	versions,	AC coil

Coil	Rated	Operate	Coil	Rated coil
code	voltage	voltage	resistance	power
	VAC	VAC	$\Omega \pm 15\%$	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 _{ms}
between contact and coil	1500V _{ms}
between adjacent contacts	1500V _{ms}
between coil and frame	1500V _{ms}
Initial insulation resistance	
between insulated elements	100MΩ at 500VDC

Other Data

the 'Definitions' section, available at

http://relays.te.com/definitions

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

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)	
Terminal type	solder/plug-in .105" (2.67mm),
	PCB-tht .112" (2.84mm)
Weight	45g
Packaging/unit	tray/50 pcs., box/250pcs.

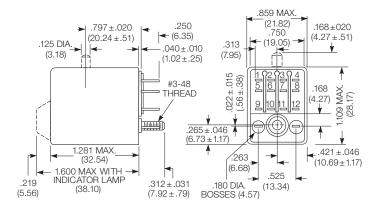
Accessories	
Accessories	
For details see datasheet	Sockets and Accessories, KHA Relays

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)

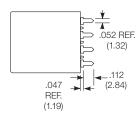
NOTE: Relays with contact current <50mA are not recommended for use in sockets.

Dimensions

KHAU and KHAX types

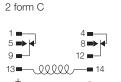


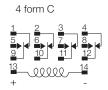
PCB terminals
KHAE and KHAF types



Printed circuit terminal thickness .022 (.558)

Terminal assignment

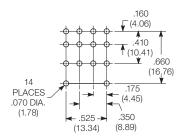




Polarity shown for LED indicator

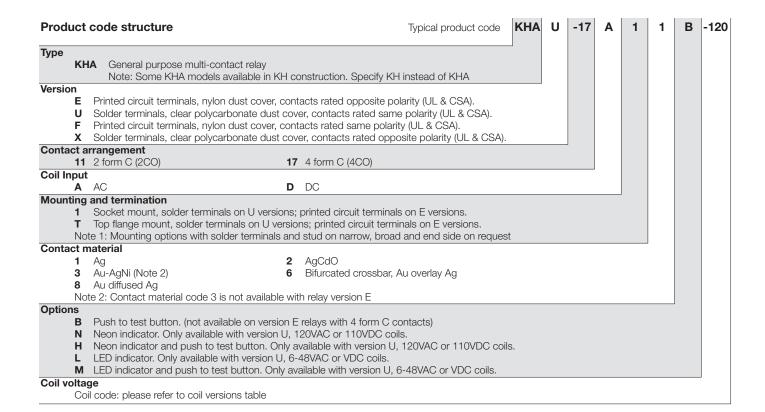
PCB layout

Bottom view on solder pins 4 pole version





KHA Series Panel Plug-in Relay (Continued)



Product Code	Arrangement	Contact Material	Coil	Terminals	Options	Part Number
KHAU-11A11-120	2 form C, 2 CO	Ag	120VAC	Solder/Plug-in	None	1-1393122-0
KHAU-11D11-24			24VDC			1-1393122-5
KHAE-17D12-24	4 form C, 4 CO	AgCdO		PCB		1393122-1
KHAU-17A11-12		Ag	12VAC	Solder/Plug-in		1-1393122-9
KHAU-17A11-24			24VAC	Solder		2-1393122-1
KHAU-17A11-120			120VAC			2-1393122-0
KHAU-17A11N-120					Indicator	2-1393122-6
KHAU-17A12-120		AgCdO			None	2-1393122-8
KHAU-17A13-120		Au-Ag-Ni				3-1393122-6
KHAU-17A16-24		Bifurcated, Au overlay Ag	24VAC			3-1393122-8
KHAU-17A16-120		Ag	120VAC			3-1393122-7
KHAU-17A18-120		Au diffused Ag				3-1393122-9
KHAU-17D11-6		Ag	6VDC			4-1393122-7
KHAU-17D11-12			12VDC			4-1393122-3
KHAU-17D11-24			24VDC			4-1393122-4
KHAU-17D11-48			48VDC			4-1393122-5
KHAU-17D11-110			110VDC			4-1393122-2
KHAU-17D12-12		AgCdO	12VDC			5-1393122-5
KHAU-17D12-24			24VDC			5-1393122-7
KHAU-17D12-48			48VDC			5-1393122-8
KHAU-17D12-110			110VDC			5-1393122-4
KHAU-17D16-12		Bifurcated, Au overlay Ag	12VDC			7-1393122-0
KHAU-17D16-24			24VDC			7-1393122-1
KHU-17A11N-120		Ag	120VAC		Indicator, Old Const.	2-1393123-8
KHU-17D11-12			12VDC		Old Construction	4-1393123-0
KHU-17D12-24		AgCdO	24VDC			4-1393123-8

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