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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

Approvals

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

Contact Data

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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

Contact ratings

Note: The relay should only carry \leq 15A continuously (all poles combined). Mechanical endurance 10×10^6 ops.

	ata							
Coil voltage range 5 to 240VDC								
		6 to 240VAC						
Coil insulation system according UL Class B								
Coil ver	sions, DC coi	I						
Coil	Rated	ReleaseCoil	Rated coil					
code	voltage	voltagevoltage	resistance	power				
	VDC	VDC	Ω±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	1100					
	110 110 82.5 11000 1100 220/240 Use 110V relay with series dropping							
	5W resistor of 11KΩ							
All figures	are given for coil v	5) vithout preenergization, a						
-	are given for coil v sions, AC coil	vithout preenergization, a						
-	-	vithout preenergization, a						
Coil ver	sions, AC coi	vithout preenergization, a	t ambient temperature	e +23°C.				
Coil ver	sions, AC coi l Rated	vithout preenergization, a	t ambient temperature Coil	e +23°C. Rated coil				
Coil ver	sions, AC coi l Rated voltage	vithout preenergization, a I Operate voltage	t ambient temperature Coil resistance	e +23°C. Rated coil power				
Coil ver Coil code	sions, AC coi Rated voltage VAC	vithout preenergization, a I Operate voltage VAC	t ambient temperature Coil resistance Ω±15%	e +23°C. Rated coi power VA				
Coil ver Coil code	sions, AC coil Rated voltage VAC 6	vithout preenergization, a Operate voltage VAC 5.1	t ambient temperature Coil resistance $\Omega \pm 15\%$ 10.5	e +23°C. Rated coi power VA 1.2				
Coil ver Coil code 6 12	sions, AC coil Rated voltage VAC 6 12	vithout preenergization, a Operate voltage VAC 5.1 10.2	t ambient temperature Coil resistance $\Omega \pm 15\%$ 10.5 43	Rated coi power VA 1.2 1.2				
Coil ver Coil code 6 12 24	sions, AC coil Rated voltage VAC 6 12 24	Vithout preenergization, a Operate Voltage VAC 5.1 10.2 20.4	t ambient temperature Coil resistance $\Omega \pm 15\%$ 10.5 43 160	Rated coi power VA 1.2 1.2 1.25				
Coil ver Coil code 6 12 24 48	sions, AC coil Rated voltage VAC 6 12 24 48	Vithout preenergization, a Operate Voltage VAC 5.1 10.2 20.4 40.8	t ambient temperature Coil resistance $\Omega \pm 15\%$ 10.5 43 160 668	Rated coi power VA 1.2 1.2 1.25 1.2				
Coil ver Coil code 6 12 24 48 120 240	sions, AC coil Rated voltage VAC 6 12 24 48 120 240	vithout preenergization, a Operate voltage VAC 5.1 10.2 20.4 40.8 102.0	Coil resistance Ω±15% 10.5 43 160 668 3900 12000	Rated coi power VA 1.2 1.2 1.25 1.2 1.25 1.2 1.35 1.5				

Insulation Data

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Initial dielectric strength					
between open contacts	1000V _{rms}				
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

•					
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				

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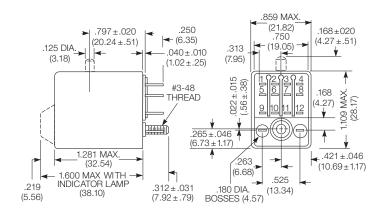


KHA Series Panel Plug-in Relay (Continued)

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.
0	, , , , , , , , , , , , , , , , , , ,

Dimensions

KHAU and KHAX types

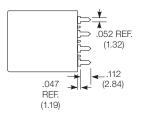


Accessories

For details see datasheet		Sockets and Accessories, KHA Relays
Product Code	Description	
27E894	DIN socket (use 2	20C426 clip)
27E166 Panel/track mount socket (use 20C297 clip)		nt socket (use 20C297 clip)
27E006 Solder/grounding		socket (use 20C217 clip)
27E007 PCB/grounding se		ocket (use 20C217 clip)

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

PCB terminals KHAE and KHAF types



Printed circuit terminal thickness .022 (.558)

Terminal assignment

2 Form C

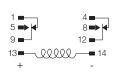
4 Form C

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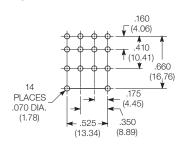
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Polarity shown for LED indicator



4 pole version



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KHA Series Panel Plug-in Relay (Continued)

Produc	ct code struct	ure			Typical product code	KHA	U	-17	Α	1	1	В	-120
Type I		urpose multi-contact rela ne KHA models available		nstruction. Specify KH	instead of KHA								
Version													
I	E Printed circuit	terminals, nylon dust co	ver, cont	acts rated opposite po	larity (UL & CSA).								
	J Solder termina	als, clear polycarbonate	dust cove	er, contacts rated same	e polarity (UL & CSA).								
1	F Printed circuit	terminals, nylon dust co	ver, cont	acts rated same polari	ty (UL & CSA).								
2		als, clear polycarbonate											
Contac	t arrangement												
-	11 2 form C (2C0	D)	17	4 form C (4CO)									
Coil Inp	out	,		× *									
	A AC		D	DC									
Mountin	ng and terminati	on											
		t, solder terminals on U v	versions;	printed circuit terminals	s on E versions.								
1	Top flange mo	ount, solder terminals on	U versior	ns; printed circuit termi	nals on E versions.								
1	Note 1: Mounting	options with solder term	inals and	stud on narrow, broad	l and end side on reques	t							
Contact	t material												
-	1 Ag		2	AgCdO									
	3 Au-AgNi (Note	e 2)	6	Bifurcated crossbar, A	Au overlay Ag								
8	8 Au diffused Ag												
1	Note 2: Contact m	naterial code 3 is not ava	ilable wit	n relay version E									
Options	5												
· .	B Push to test b	outton. (not available on v	ersion E	relays with 4 form C co	ontacts)								
1	Neon indicator. Only available with version U, 120VAC or 110VDC coils.												
1	H Neon indicator and push to test button. Only available with version U, 120VAC or 110VDC coils.												
1	L LED indicator.	Only available with versi	ion U, 6-4	48VAC or VDC coils.									
1	M LED indicator	and push to test button.	. Only ava	ailable with version U, 6	6-48VAC or VDC coils.								
Coil vol	tage		,	,									
	-	refer to coil versions table	е										

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

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