

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 |
|----------------|-------------------------------|------------|
| UL 508 | | |
| Ag | 5A, 120VAC, general purpose | |
| | 2.5A, 240VAC, general purpose | |
| | 1/10HP, 120/240VAC | |
| | 180VA, 250VAC, pilot duty | |
| AgCdO | 42VA, 28VDC, pilot duty | |
| | 5A, 240VAC, general purpose | |
| | 5A, 28VDC, resistive | |
| | 1/10HP, 120/240VAC | |
| Au-AgNi | 180VA, 250VAC, pilot duty | |
| | 42VA, 28VDC, pilot duty | |
| | 2A, 120VAC, resistive | |
| | Au overlay Ag | 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 10x10⁶ 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 | 650 | 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 _{rms} |
| between contact and coil | 1500V _{rms} |
| between adjacent contacts | 1500V _{rms} |
| between coil and frame | 1500V _{rms} |
| 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/customer-support/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

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



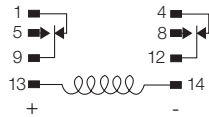
PCB terminals
KHAE and KHAF types



Printed circuit terminal thickness .022 (.558)

Terminal assignment

2 form C



4 form C

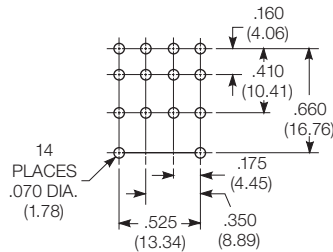


Polarity shown for LED indicator

PCB layout

Bottom view on solder pins

4 pole version



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[KHAU-17D12-24](#)