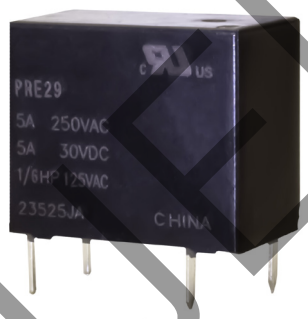
CUI Devices is now Same Sky! Learn More



# SERIES: PRE29 | DESCRIPTION: POWER RELAY

## FEATURES

- 5 amp
- 1 form A
- class B & class F




## MODEL

| MODEL | coil voltage typ (Vdc) | coil resistance (Ω±10%) | operating voltage[1] min (Vdc) | release voltage max (Vdc) | continuous voltage max (Vdc) | coil power max (mW) |
|---|---|---|---|---|---|---|
| PRE29-3V-S-450 | 3 | 20 | 2.1 | 0.15 | 3.9 | 450 |
| PRE29-5V-S-450 | 5 | 55 | 3.5 | 0.25 | 6.5 | 450 |
| PRE29-6V-S-450 | 6 | 80 | 4.2 | 0.30 | 7.8 | 450 |
| PRE29-9V-S-450 | 9 | 180 | 6.3 | 0.45 | 11.7 | 450 |
| PRE29-12V-S-450 | 12 | 320 | 8.4 | 0.60 | 15.6 | 450 |
| PRE29-18V-S-450 | 18 | 720 | 12.6 | 0.90 | 23.4 | 450 |
| PRE29-24V-S-450 | 24 | 1,280 | 16.8 | 1.20 | 31.2 | 450 |
| PRE29-48V-S-450 | 48 | 5,120[2] | 33.6 | 2.4 | 62.4 | 450 |

Notes:
1. Relay may pull in with less than operating voltage.
2. Coil resistance tolerance is ±15%.
3. All specifications are measured at 20°C unless otherwise specified.

## PART NUMBER KEY

**PRE29 - XX - S - 450 - 1A - X X**

- PRE29 — Base Number
- XX — Coil Voltage (Vdc):
  - 3V = 3
  - 5V = 5
  - 6V = 6
  - 9V = 9
  - 12V = 12
  - 18V = 18
  - 24V = 24
  - 48V = 48
- X — Sealing:
  - "blank" = Flux Protection
  - E = Epoxy Sealed
- X — Coil Insulation:
  - "blank" = Class B
  - F = Class F

DISCONTINUED

## COIL SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| coil power | nominal<br>at pickup voltage | | 450<br>200 | | mW<br>mW |
| coil power continous dissipation | at 20°C | | | 760 | mW |
| temperature rise | at nominal coil voltage | | 41 | | K |

## CONTACT SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| contact form | 1 Form A | | | | |
| contact material | $AgSnO_2$ (silver tin oxide) | | | | |
| contact rating | 5 A @ 250 Vac<br>5 A @ 30 Vdc<br>1/6 HP @ 125 Vac | | | | |
| contact resistance | | | | 100 | mΩ |
| max switching voltage | | | | 250<br>30 | Vac<br>Vdc |
| max switching current | | | | 5 | A |
| max switching power | Vac<br>Vdc | | | 1,250<br>150 | VA<br>W |
| life | electrical<br>mechanical | 100,000<br>10,000,000 | | | operations<br>operations |

## GENERAL SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| insulation resistance | at 500 Vdc, 20 °C, 50% RH | 1,000 | | | MΩ |
| dielectric strength | between open contacts at sea level for 1 minute<br>between coil and contacts at sea level for 1 minute | | 1,000<br>4,000 | | Vrms<br>Vrms |
| operate time | at nominal coil voltage | | | 8 | ms |
| release time | at nominal coil voltage, without coil suppression | | | 4 | ms |
| operating temperature | Class B models at nominal coil voltage<br>Class F models at nominal coil voltage | -40<br>-40 | | 85<br>105 | °C<br>°C |
| storage temperature | | -40 | | 105 | °C |
| weight | | | 6 | | g |
| safety approvals | UL/cUL 508 | | | | |
| flammability rating | UL94V-0 | | | | |
| RoHS | yes | | | | |
| packaging | tray: 100 pcs per tray<br>carton QTY: 1,000 pcs per carton | | | | |

## SOLDERABILITY

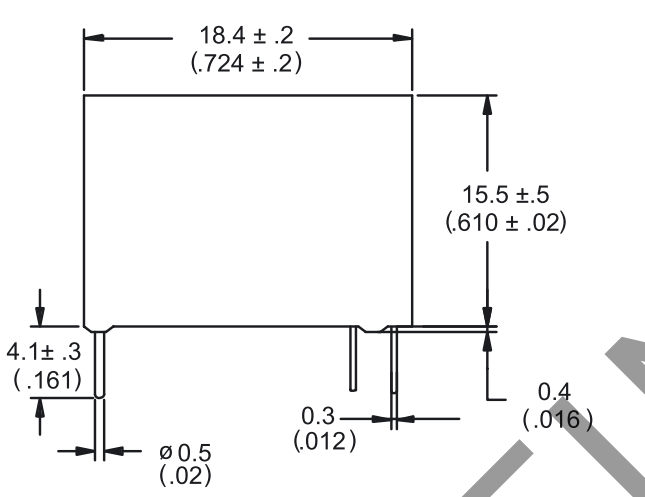
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| wave soldering | for max 5 seconds | | | 270 | °C |
| washable | only on epoxy sealed models<br>max imersion time of 30 seconds | | | 80 | °C |

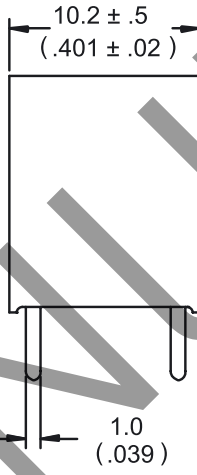
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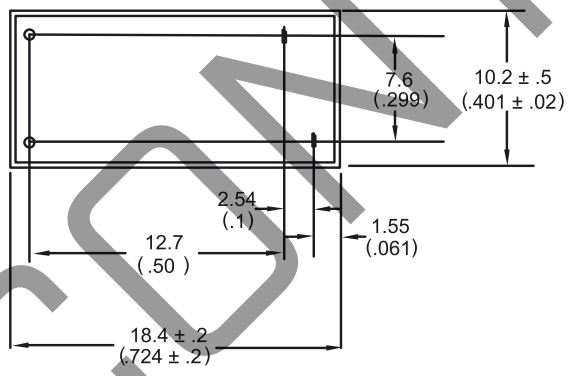
## MECHANICAL DRAWING

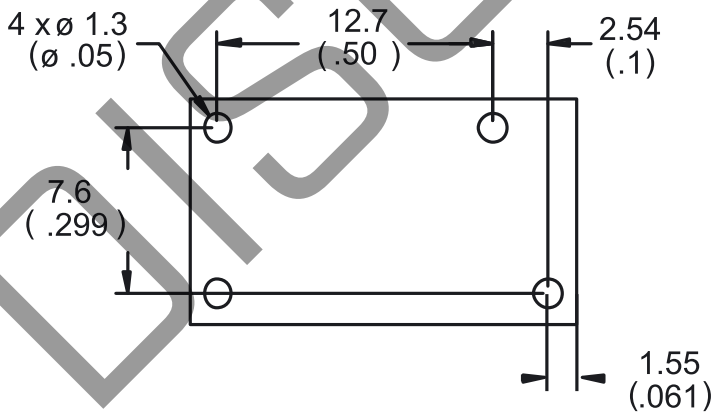
units: mm [inch]
tolerance: ±0.254 mm
unless otherwise noted

| DESCRIPTION | MATERIAL | PLATING/COLOR |
|---|---|---|
| housing | PBT (UL94V-0) | black |
| terminals | copper alloy | tin |




Recommended PCB Layout
Bottom View

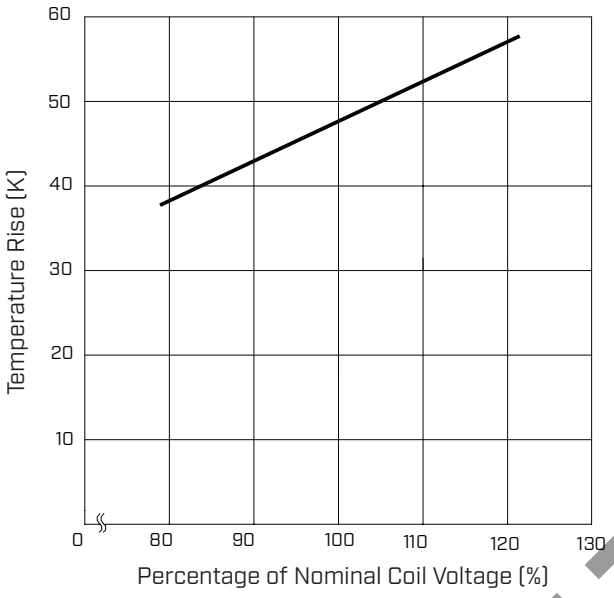



Wiring Diagram
Bottom View

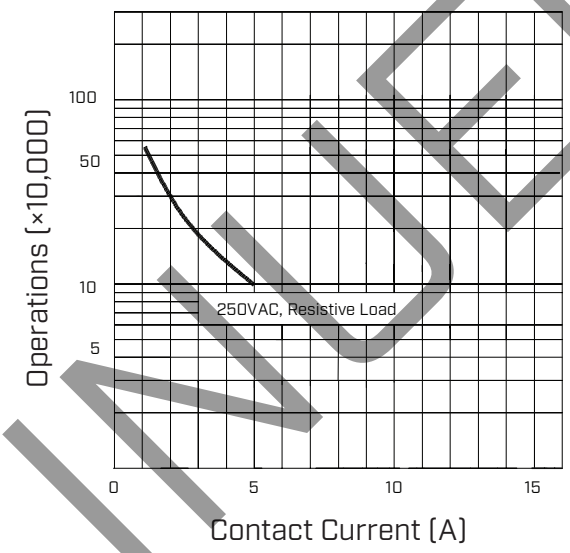
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## CHARACTERISTIC CURVES

Coil Temperature Rise

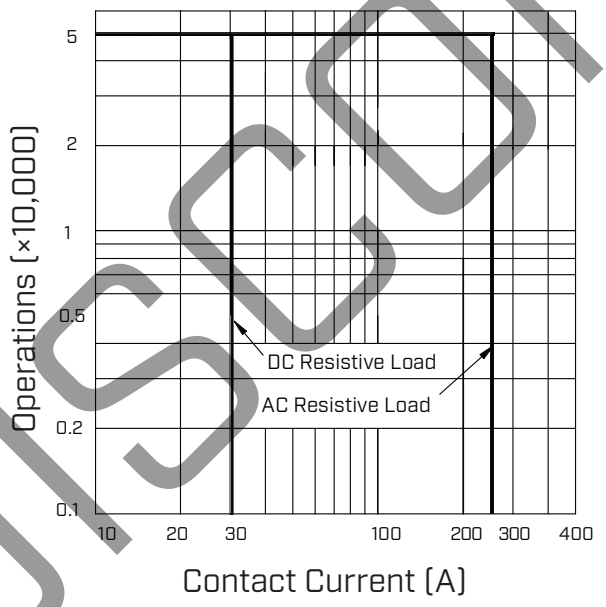



Life Curve




Test Conditions:
Flux protection, room temp, 1.5 seconds on 1.5 seconds off

Maximum Switching Power




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## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 02/14/2024 |
| 1.01 | CUI Devices rebranded to Same Sky | 09/12/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.

DISCONTINUED

Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.