

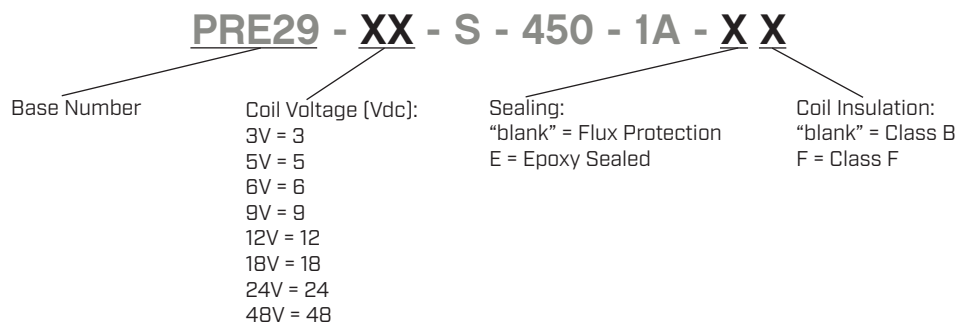
SERIES: PRE29 | **DESCRIPTION:** POWER RELAY**FEATURES**

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

**MODEL**

| | coil voltage typ (Vdc) | coil resistance ($\Omega \pm 10\%$) | 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 $\pm 15\%$.
 3. All specifications are measured at 20°C unless otherwise specified.

PART NUMBER KEY

COIL SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|-----------------------------------|-------------------------|-----|-----|-----|-------|
| coil power | nominal | | 450 | | mW |
| | at pickup voltage | | 200 | | mW |
| coil power continuous 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 | | | | |
| | 5 A @ 30 Vdc | | | | |
| | 1/6 HP @ 125 Vac | | | | |
| contact resistance | | | | 100 | mΩ |
| max switching voltage | | | | 250 | Vac |
| | | | | 30 | Vdc |
| max switching current | | | | 5 | A |
| max switching power | Vac | | | 1,250 | VA |
| | Vdc | | | 150 | W |
| life | electrical | 100,000 | | | operations |
| | mechanical | 10,000,000 | | | 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 | | 1,000 | | Vrms |
| | between coil and contacts at sea level for 1 minute | | 4,000 | | 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 | -40 | | 85 | °C |
| | Class F models at nominal coil voltage | -40 | | 105 | °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 carton QTY: 1,000 pcs per carton | | | | |

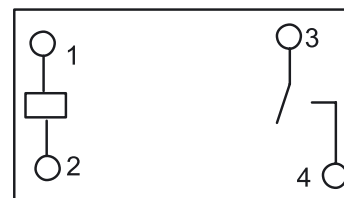
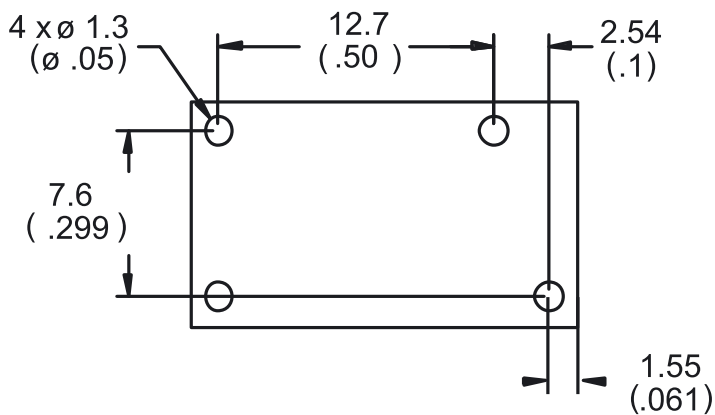
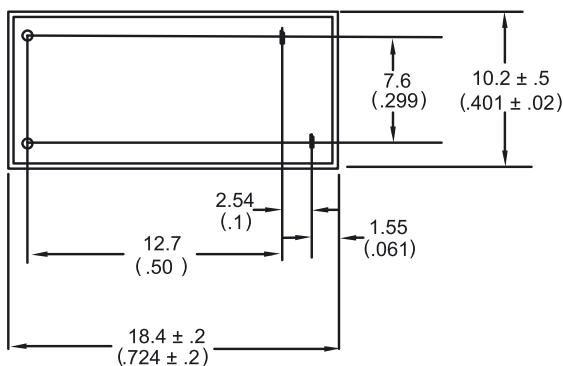
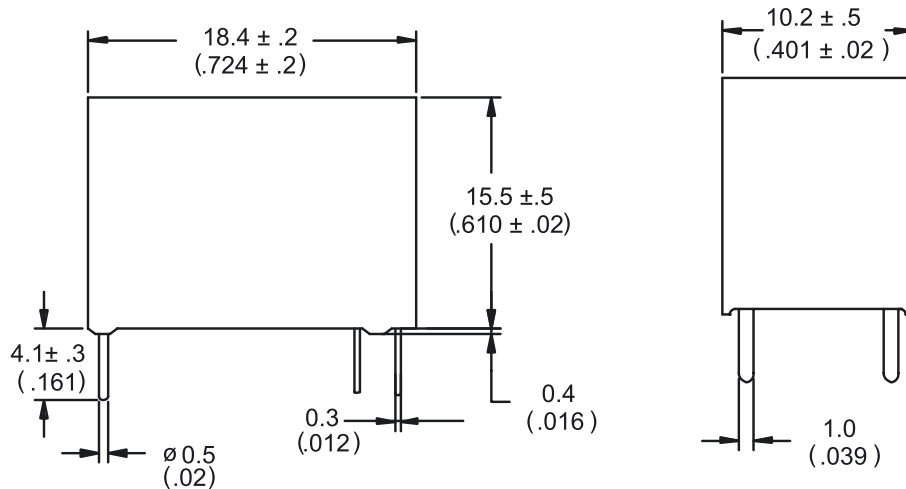
SOLDERABILITY

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

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 |

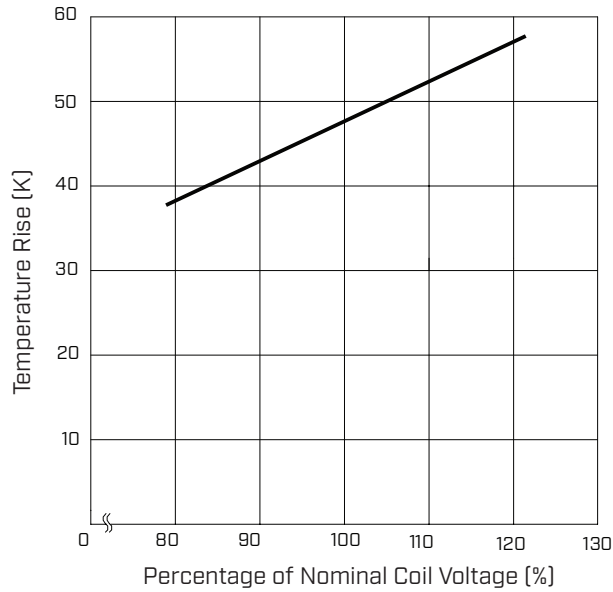


Recommended PCB Layout
 Bottom View

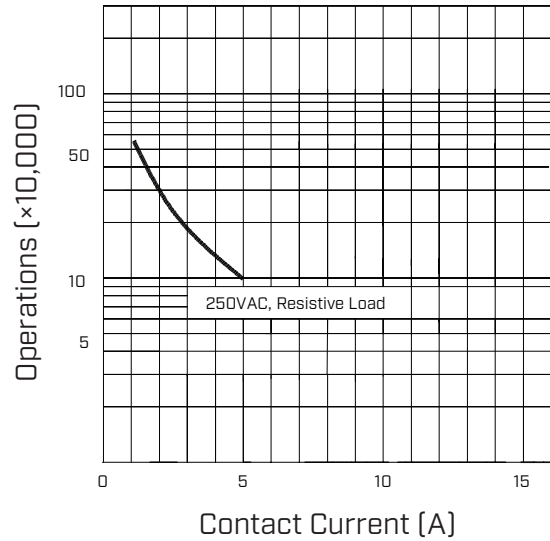
Wiring Diagram
 Bottom View

CHARACTERISTIC CURVES

Coil Temperature Rise

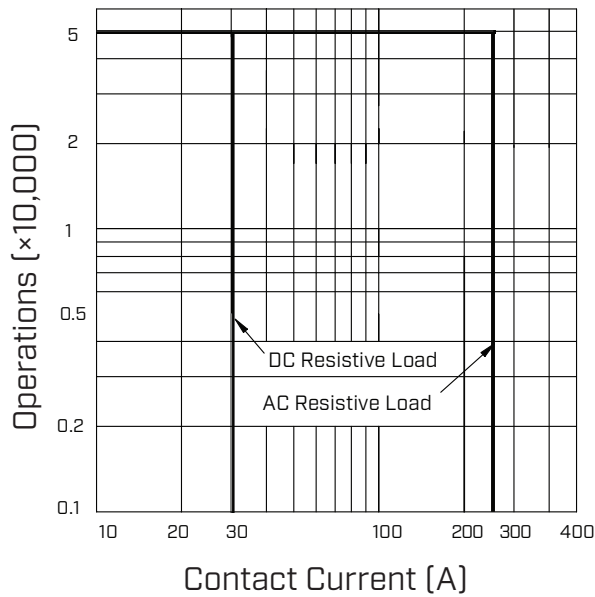


Life Curve



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

Maximum Switching Power



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 02/14/2024 |

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



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