

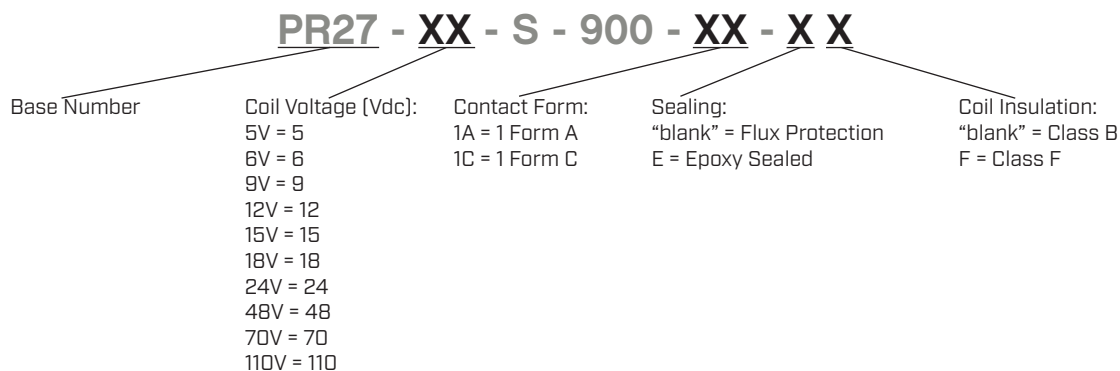
**SERIES:** PR27 | **DESCRIPTION:** POWER RELAY**FEATURES**

- 40 amp
- 1 form A
- 1 form C
- class B & class F

**MODEL**

|                 | coil<br>voltage<br>typ<br>[Vdc] | coil<br>resistance<br>[Ω±10%] | operating<br>voltage <sup>1</sup><br>min<br>[Vdc] | release<br>voltage<br>max<br>[Vdc] | continuous<br>voltage<br>max<br>[Vdc] | coil<br>power<br>max<br>[mW] |
|-----------------|---------------------------------|-------------------------------|---------------------------------------------------|------------------------------------|---------------------------------------|------------------------------|
| PR27-5V-S-900   | 5                               | 27                            | 3.75                                              | 0.5                                | 7.3                                   | 900                          |
| PR27-6V-S-900   | 6                               | 40                            | 4.5                                               | 0.6                                | 8.9                                   | 900                          |
| PR27-9V-S-900   | 9                               | 97                            | 6.75                                              | 0.9                                | 13.9                                  | 900                          |
| PR27-12V-S-900  | 12                              | 155                           | 9.0                                               | 1.2                                | 17.5                                  | 900                          |
| PR27-15V-S-900  | 15                              | 256                           | 11.25                                             | 1.5                                | 22.5                                  | 900                          |
| PR27-18V-S-900  | 18                              | 380                           | 13.5                                              | 1.8                                | 27.4                                  | 900                          |
| PR27-24V-S-900  | 24                              | 660                           | 18.0                                              | 2.4                                | 36.1                                  | 900                          |
| PR27-48V-S-900  | 48                              | 2,560                         | 36.0                                              | 4.8                                | 68.4                                  | 900                          |
| PR27-70V-S-900  | 70                              | 5,500                         | 52.5                                              | 7.0                                | 104.4                                 | 900                          |
| PR27-110V-S-900 | 110                             | 13,450                        | 82.5                                              | 11.0                               | 163.2                                 | 900                          |

Notes: 1. Relay may pull in with less than operating voltage.  
2. All specifications are measured at 23°C unless otherwise specified.

**PART NUMBER KEY**

COIL SPECIFICATIONS

| parameter                         | conditions/description       | min | typ | max | units |
|-----------------------------------|------------------------------|-----|-----|-----|-------|
| coil power                        | nominal                      |     | 900 |     | mW    |
|                                   | at pickup voltage            |     | 500 |     | mW    |
| coil power continuous dissipation | at 20°C                      |     |     | 2.2 | W     |
|                                   | at 40°C                      |     |     | 1.8 | W     |
| temperature rise                  | at nominal coil voltage      |     | 38  |     | K     |
| holding voltage                   | >35% of nominal coil voltage |     |     |     |       |

CONTACT SPECIFICATIONS

| parameter             | conditions/description                                                                  | min        | typ | max    | units      |
|-----------------------|-----------------------------------------------------------------------------------------|------------|-----|--------|------------|
| contact form          | 1 Form A, 1 Form C                                                                      |            |     |        |            |
| contact material      | AgSnO <sub>2</sub> (silver tin oxide)                                                   |            |     |        |            |
| contact rating        | 1 Form A<br>40 A @ 250 Vac<br>20 A @ 30 Vdc<br>1 HP @ 250 Vac                           |            |     |        |            |
|                       | 1 Form C<br>30/30 A @ 277 Vac NO/NC<br>20/10 A @ 30 Vdc NO/NC<br>1/1 HP @ 250 Vac NO/NC |            |     |        |            |
| contact resistance    | load contact, voltage drop method                                                       |            |     | 50     | mΩ         |
| max switching voltage |                                                                                         |            |     | 300    | Vac        |
|                       |                                                                                         |            |     | 30     | Vdc        |
| max switching current | Vac                                                                                     |            |     | 40     | A          |
|                       | Vdc                                                                                     |            |     | 40     | A          |
| max switching power   | Vac                                                                                     |            |     | 10,000 | VA         |
|                       | Vdc                                                                                     |            |     | 900    | W          |
| life                  | electrical: at 125 Vac, 30 A, N-O                                                       | 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 for 1 minute at sea level         |       | 1,500 |     | Vrms  |
|                       | between coil and contacts for 1 minute at sea level     |       | 2,500 |     | Vrms  |
| operate time          | at nominal coil voltage                                 |       | 8     | 15  | ms    |
| release time          | at nominal coil voltage, without coil suppression       |       | 3.5   | 10  | ms    |
| shock resistance      |                                                         |       | 10    |     | G     |
| vibration resistance  | 10~55 Hz, 1.5 mm double amplitude                       |       |       |     |       |
| operating temperature | Class B models at nominal coil voltage                  | -55   |       | 85  | °C    |
|                       | Class F models at nominal coil voltage                  | -55   |       | 105 | °C    |
| weight                |                                                         |       | 35    |     | g     |
| safety approvals      | UL/cUL 508                                              |       |       |     |       |
| flammability rating   | UL94V-0                                                 |       |       |     |       |
| RoHS                  | yes                                                     |       |       |     |       |
| packaging             | tray: 40 pcs per tray<br>carton QTY: 240 pcs per carton |       |       |     |       |

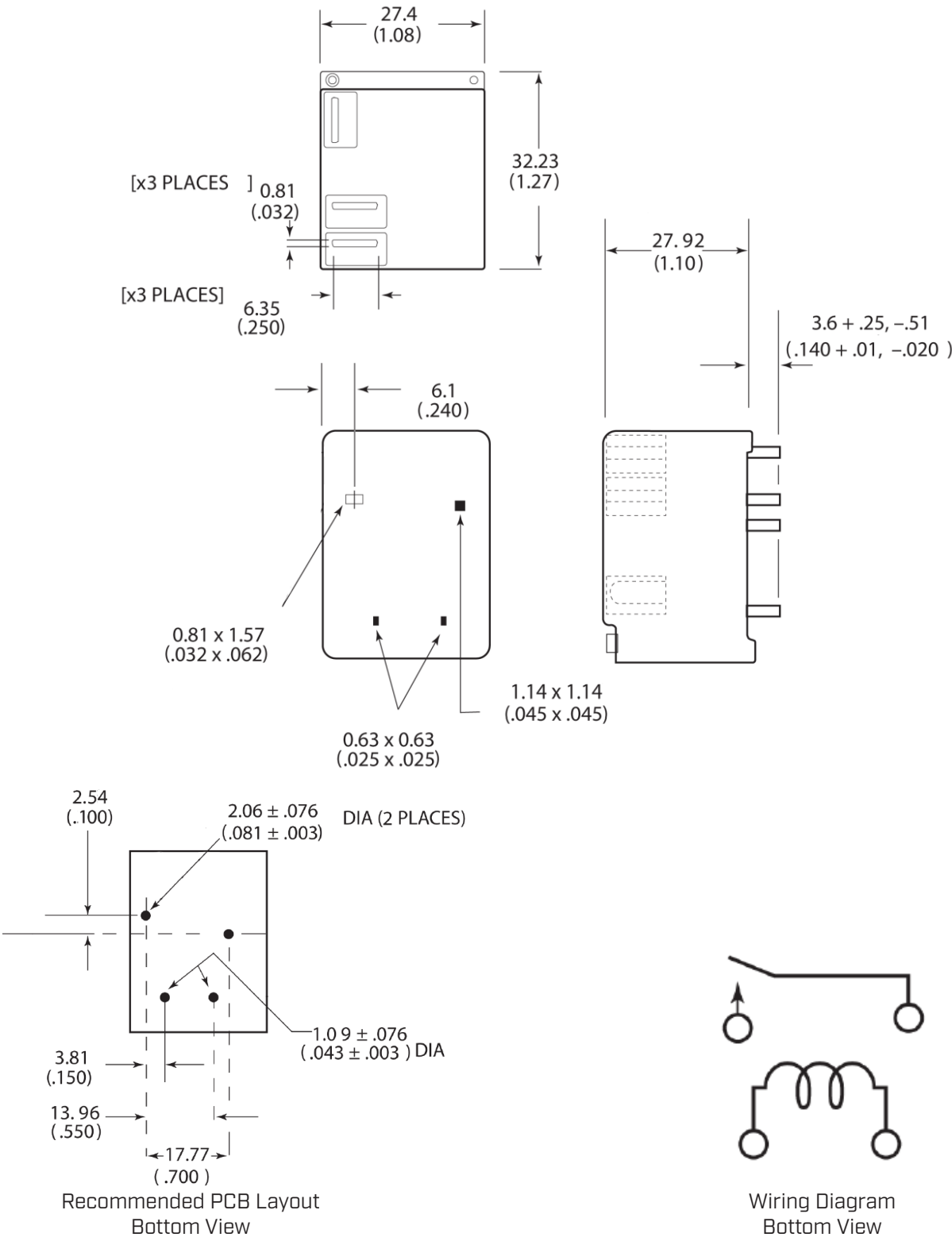
SOLDERABILITY

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

MECHANICAL DRAWING (1A = 1 FORM A)

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

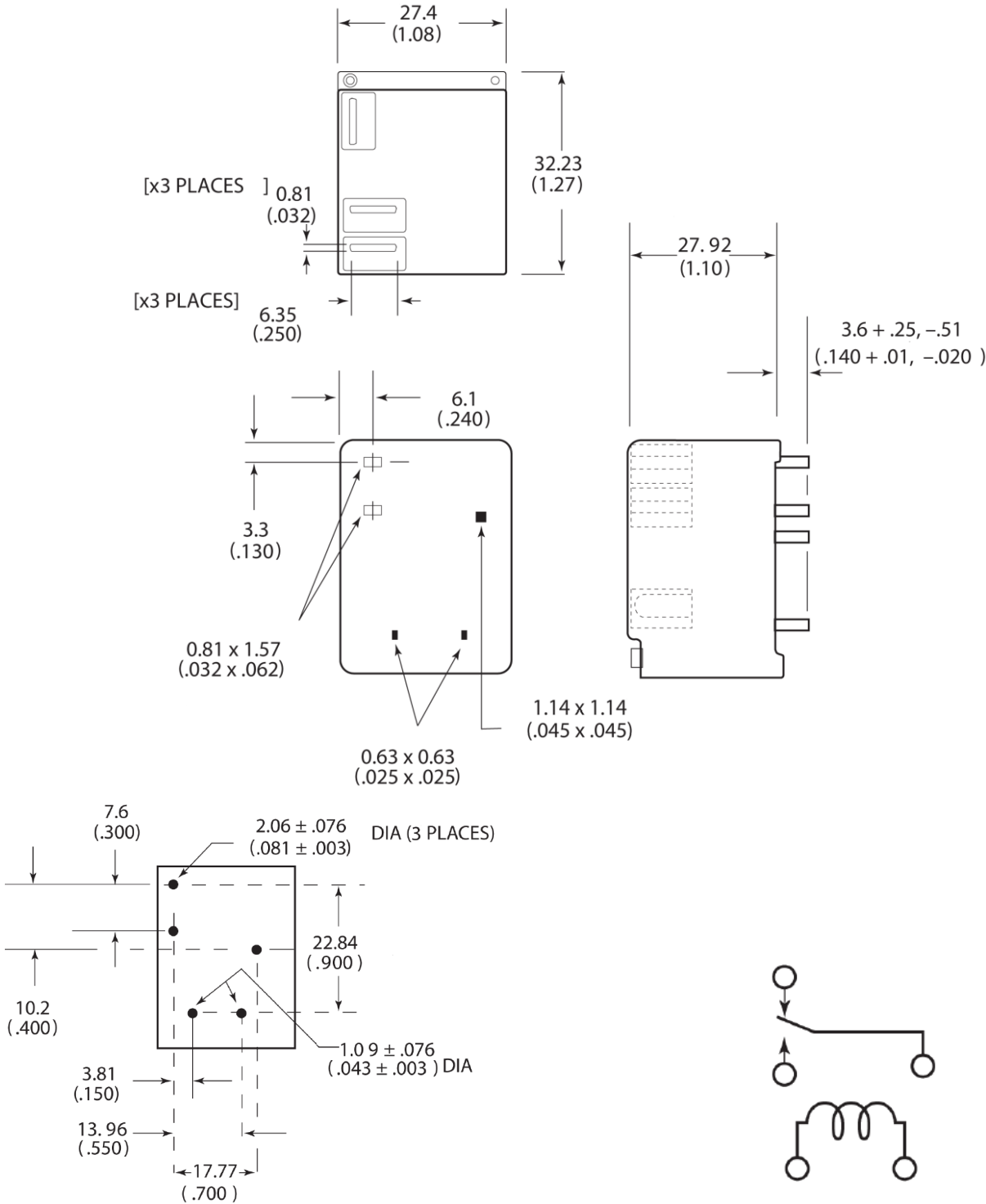
| DESCRIPTION | MATERIAL      | PLATING/COLOR |
|-------------|---------------|---------------|
| housing     | PBT [UL94V-0] | black         |
| terminals   | copper alloy  | tin           |



MECHANICAL DRAWING (1C = 1 FORM C)

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

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

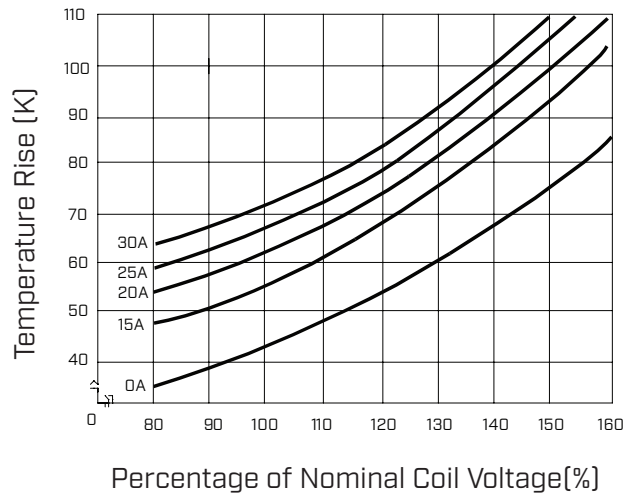


Recommended PCB Layout  
Bottom View

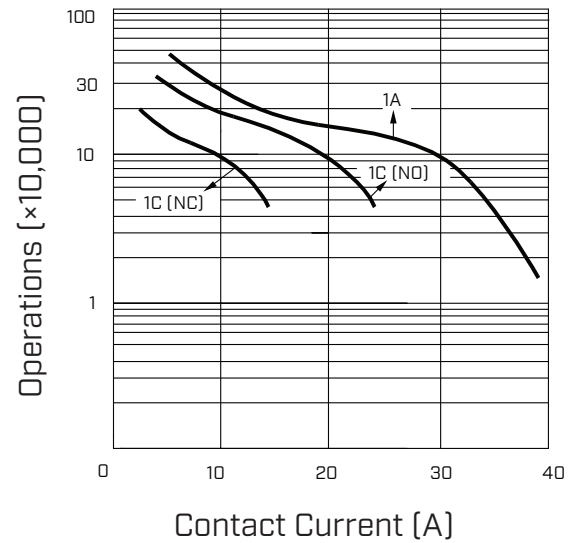
Wiring Diagram  
Bottom View

## CHARACTERISTIC CURVES

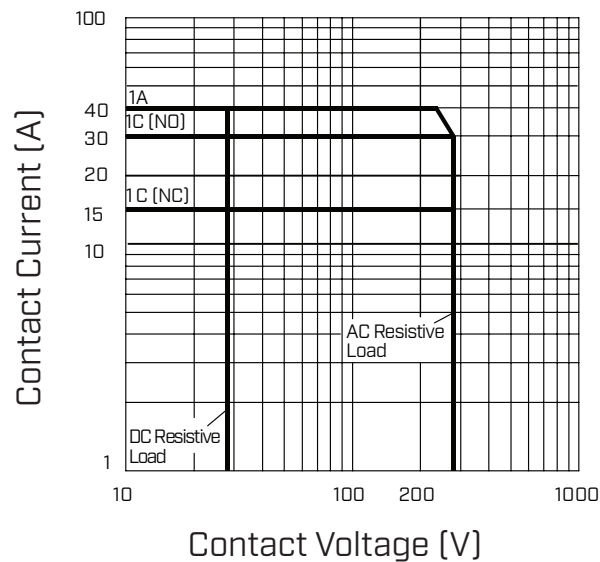
### Coil Temperature Rise



### Life Curve



### Maximum Switching Power



Test Conditions:

Resistive load, unsealed, room temp, 1 second  
on 9 seconds off

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.



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

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