



## SERIES: PR27 | DESCRIPTION: POWER RELAY

### FEATURES

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

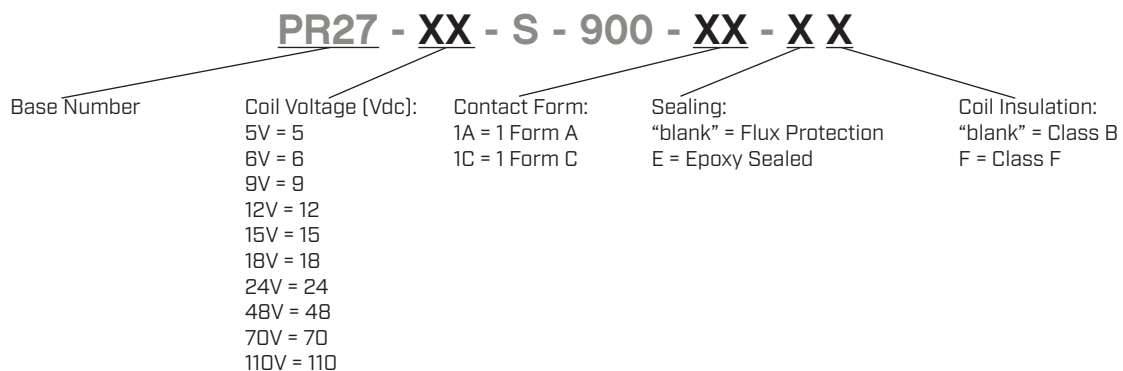


### MODEL

MODEL	coil voltage typ (Vdc)	coil resistance [Ω±10%]	operating voltage <sup>1</sup> min (Vdc)	release voltage max (Vdc)	continuous voltage max (Vdc)	coil power max (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 at pickup voltage		900		mW
			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 40 A @ 250 Vac 20 A @ 30 Vdc 1 HP @ 250 Vac				
	1 Form C 30/30 A @ 277 Vac NO/NC 20/10 A @ 30 Vdc NO/NC 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 carton QTY: 240 pcs per carton				

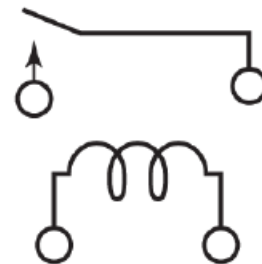
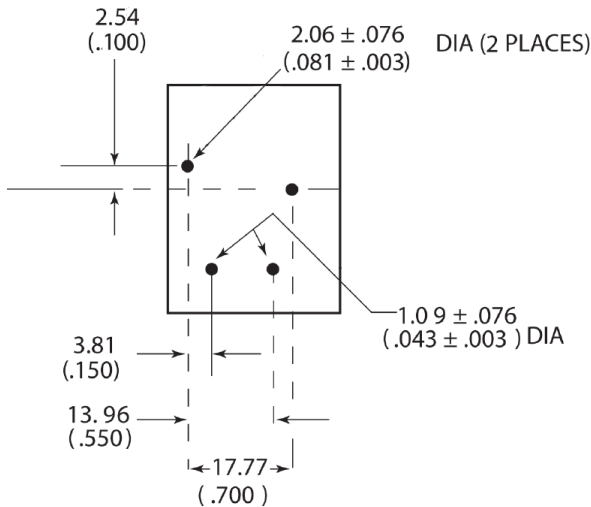
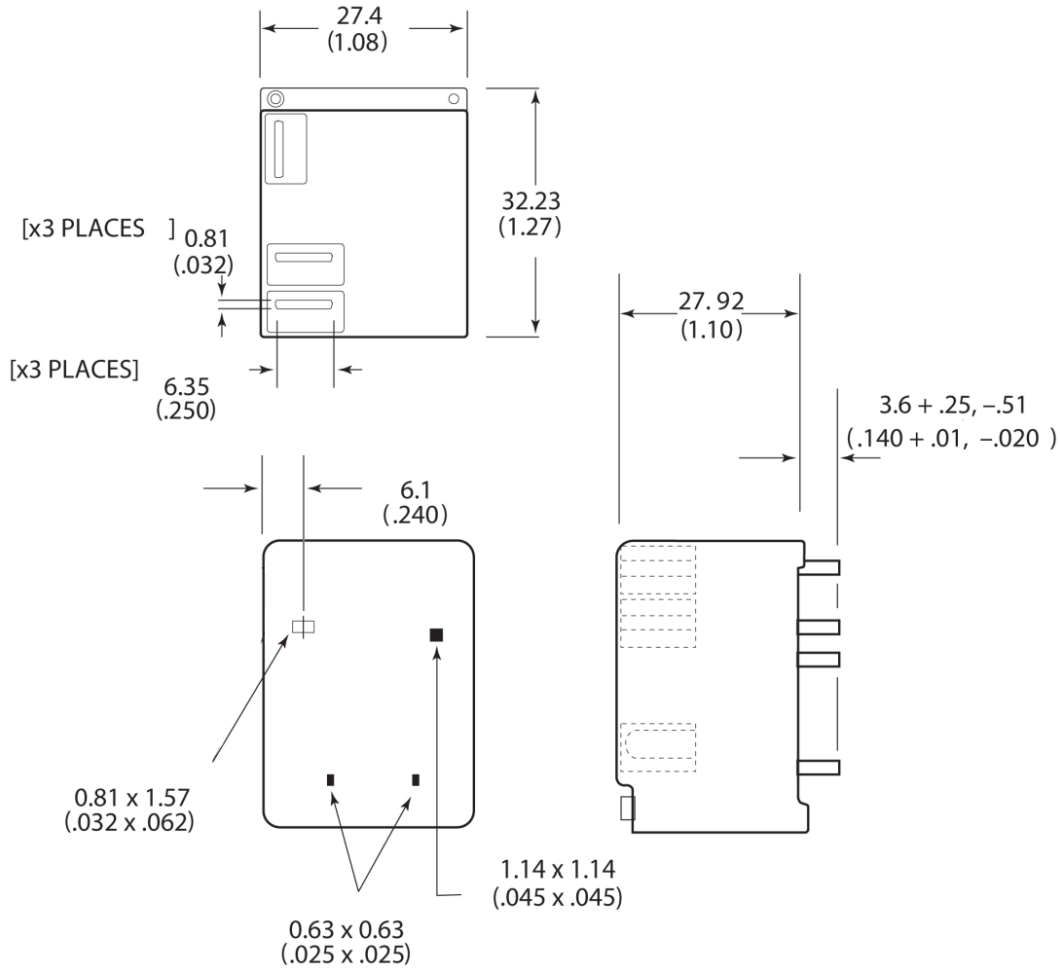
## SOLDERABILITY

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:  $\pm 0.254$  mm  
 unless otherwise noted

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

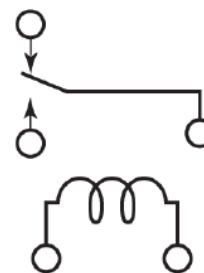
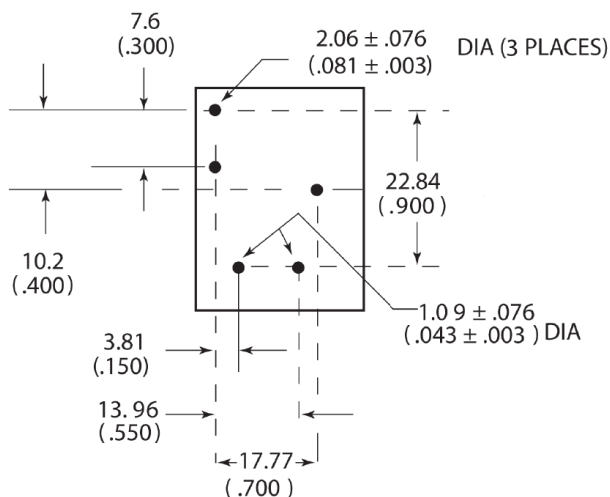
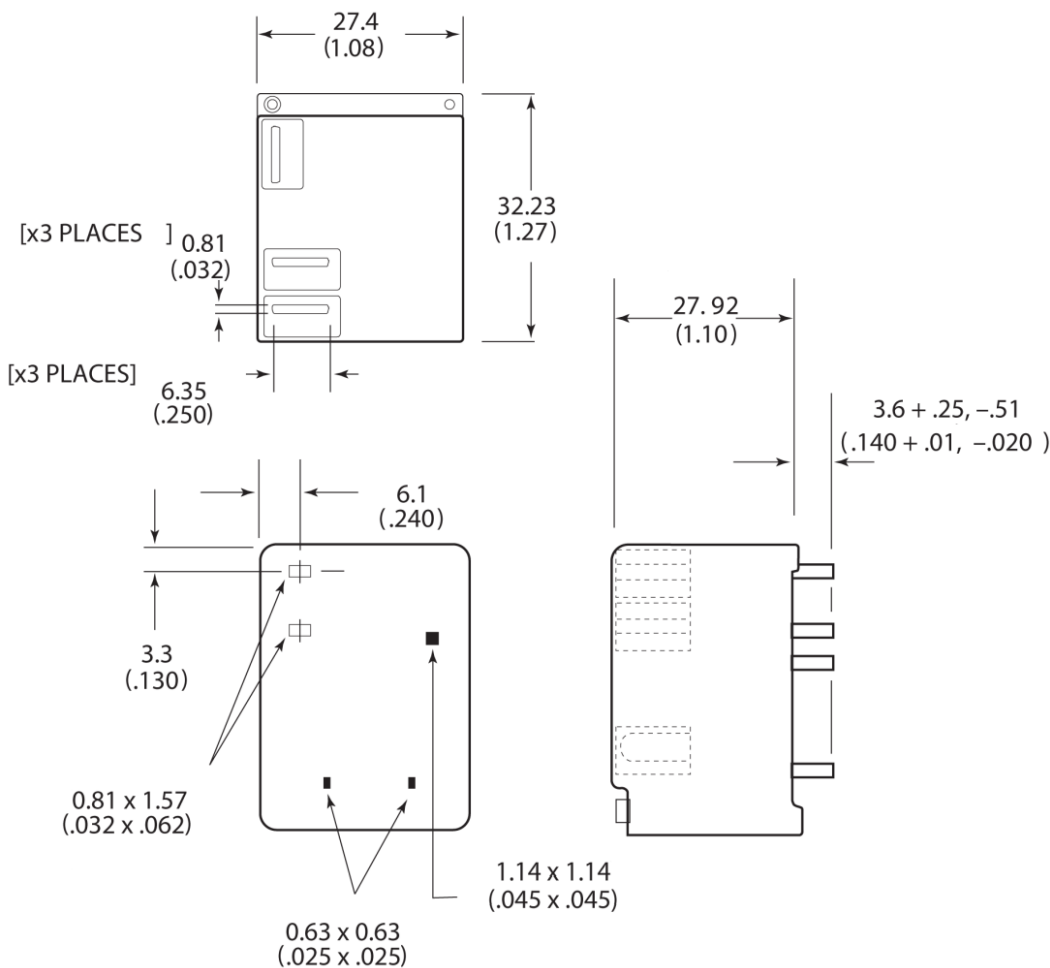


Wiring Diagram  
 Bottom View

## MECHANICAL DRAWING (1C = 1 FORM C)

units: mm [inch]  
 tolerance:  $\pm 0.254$  mm  
 unless otherwise noted

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

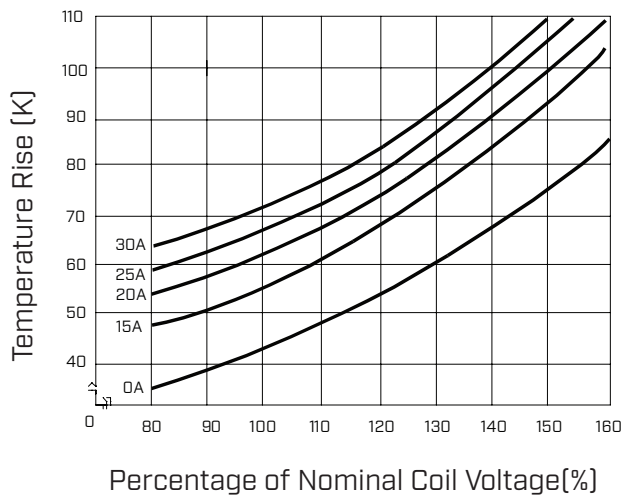


Recommended PCB Layout  
 Bottom View

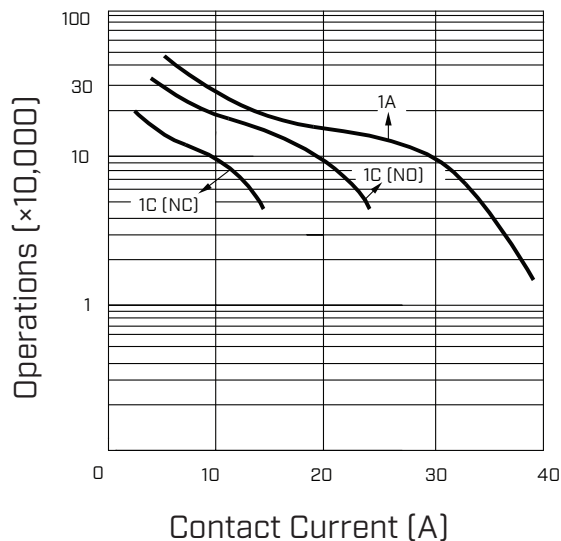
Wiring Diagram  
 Bottom View

## CHARACTERISTIC CURVES

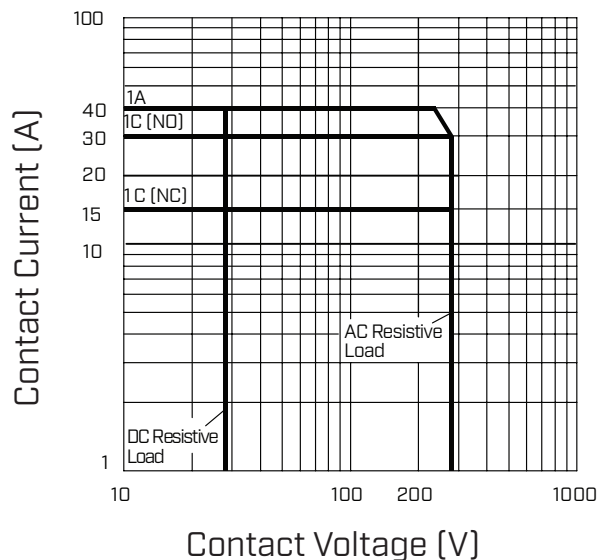
Coil Temperature Rise



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

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



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

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