

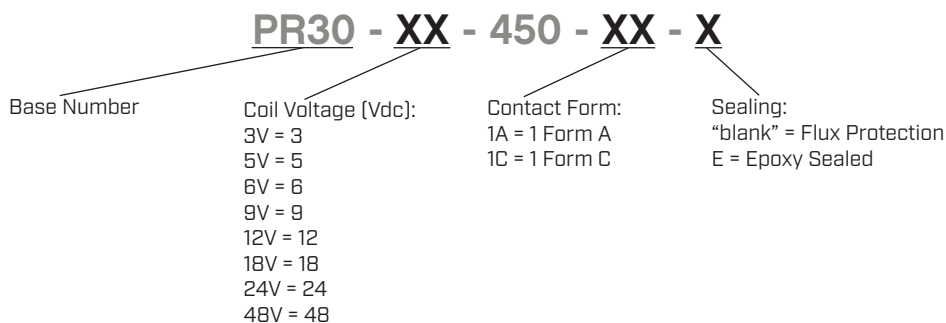
**SERIES:** PR30 | **DESCRIPTION:** POWER RELAY**FEATURES**

- 10 amp
- 1 form A
- 1 form C

**MODEL**

	coil voltage typ (Vdc)	coil resistance  ( $\Omega \pm 10\%$ )	operating voltage <sup>1</sup> min (Vdc)	release voltage max (Vdc)	continuous voltage max (Vdc)	coil power max (mW)
PR30-3V-450	3	20	2.3	0.3	3.9	450
PR30-5V-450	5	55	3.8	0.5	6.5	450
PR30-6V-450	6	80	4.5	0.6	7.8	450
PR30-9V-450	9	180	6.8	0.9	11.7	450
PR30-12V-450	12	320	9.0	1.2	15.6	450
PR30-18V-450	18	720	13.5	1.8	23.4	450
PR30-24V-450	24	1,280	18.0	2.4	31.2	450
PR30-48V-450	48	5,120	36.0	4.8	62.4	450

Notes: 1. Relay may pull in with less than operating voltage.  
2. 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		255		mW
coil power continuous dissipation	at 20°C			845	mW

## 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 10 A @ 125 Vac 5 A @ 277 Vac 5 A @ 30 Vdc				
	1 Form C 5/3 A @ 277 Vac NO/NC 5/3 A @ 30 Vdc NO/NC				
contact resistance	at 1 A, 6 V voltage drop method			100	mΩ
max switching voltage				400	Vac
				150	Vdc
max switching current	normally open			10	A
	normally closed			3	A
max switching power	Vac			2,770	VA
	Vdc			150	W
life	electrical: at 10 A, 277 Vac, resistive	100,000			operations
	mechanical	10,000,000			operations

## GENERAL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc	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			5	ms
shock resistance	functional		10		G
	destructive		100		G
vibration resistance	10-55 Hz, 1.5 mm double amplitude				
operating temperature	at nominal coil voltage	-40		90	°C
storage temperature		-40		130	°C
weight			7		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				

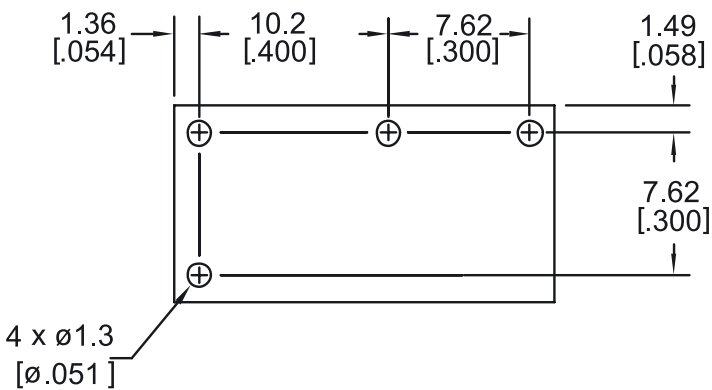
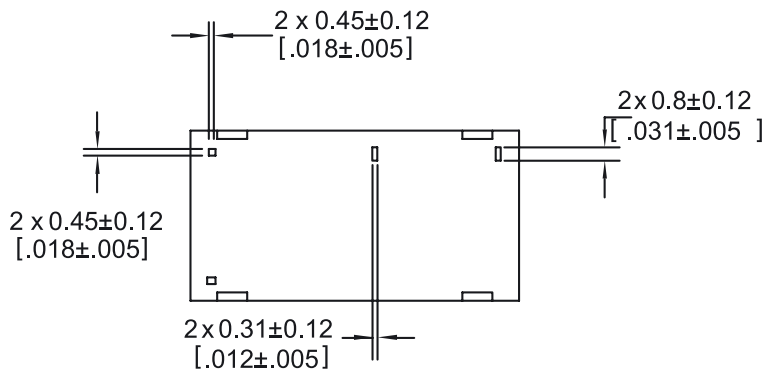
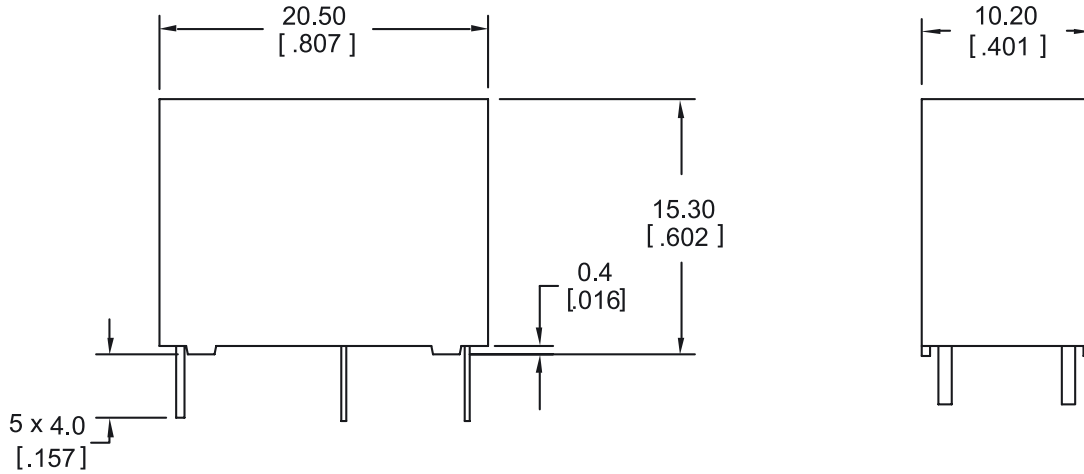
## SOLDERABILITY

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

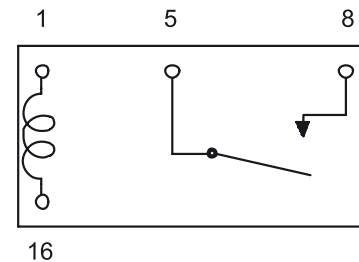
## MECHANICAL DRAWING (1A = 1 FORM A)

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

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



Recommended PCB Layout  
 Bottom View

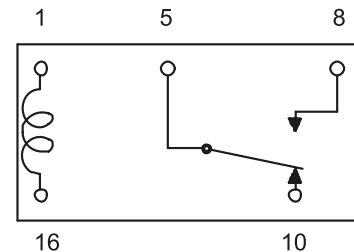
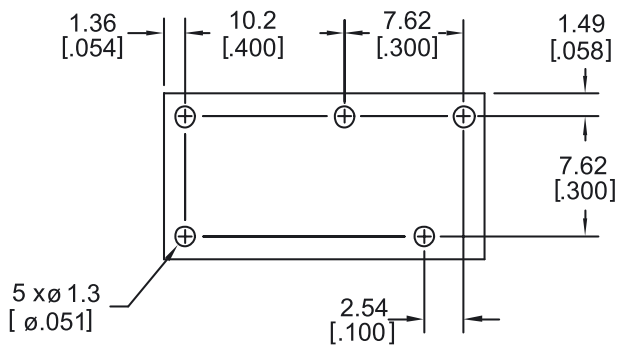
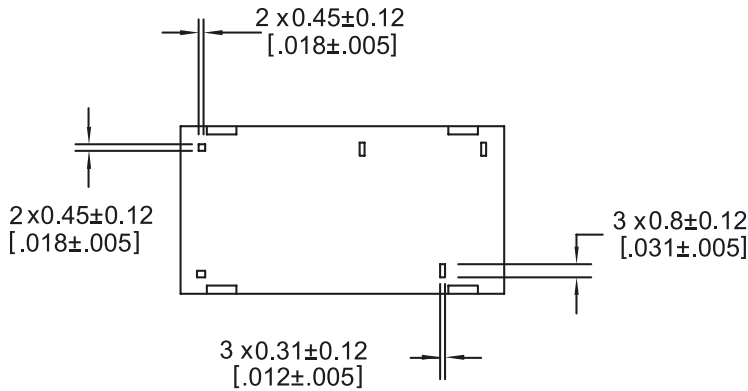
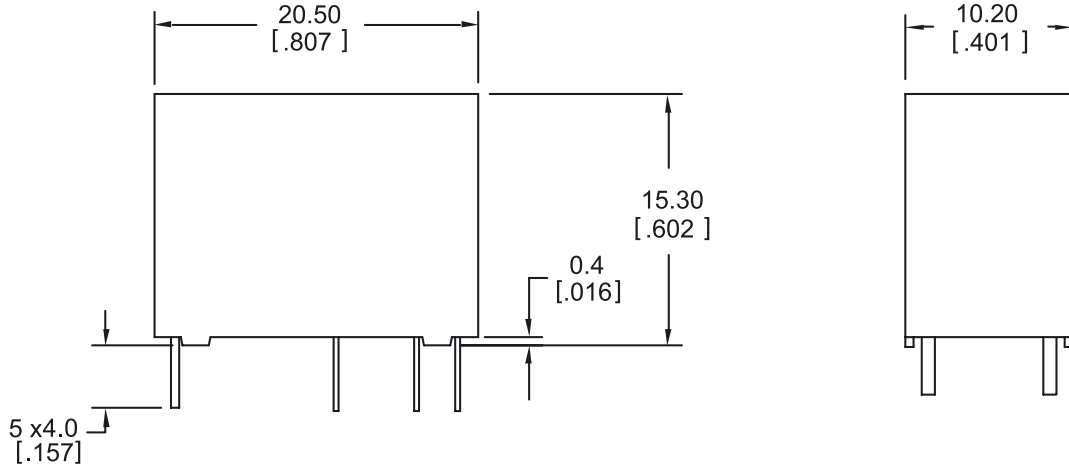


Wiring Diagram  
 Bottom View

## 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

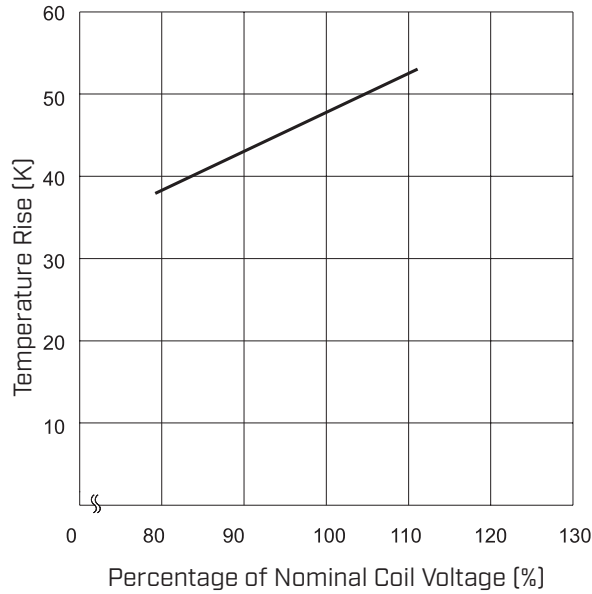


Recommended PCB Layout  
 Bottom View

Wiring Diagram  
 Bottom View

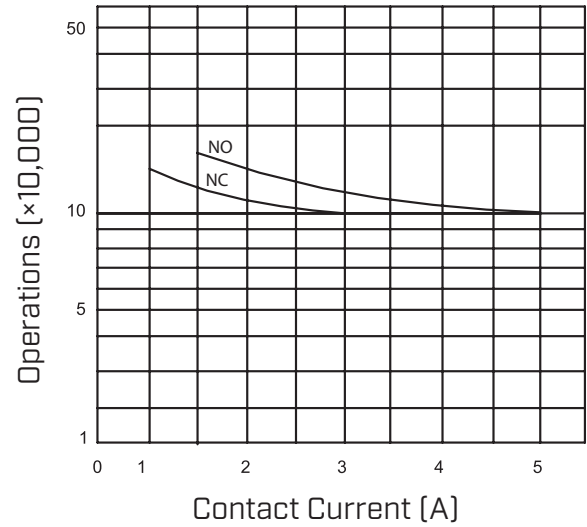
## CHARACTERISTIC CURVES

Coil Temperature Rise



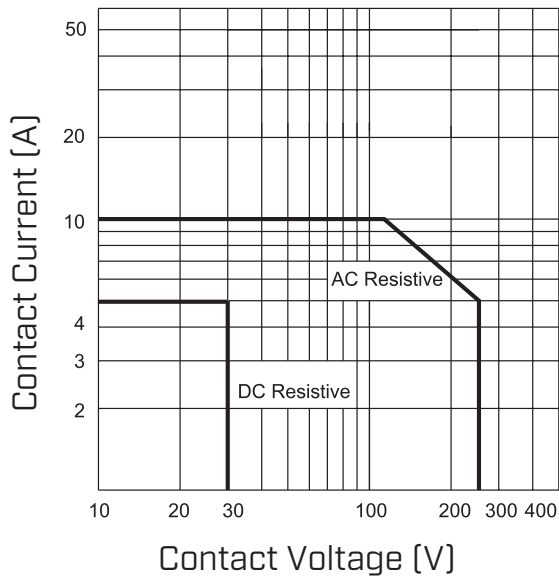
Test Conditions:  
 5 A at 85°C  
 Mounting Distance: 10 mm

Life Curve



Test Conditions:  
 NO contact, resistive load, room temp, flux protection, 250 Vac/30 Vdc, 1 second on 9 seconds off  
 NC contact, resistive load, room temp, flux protection, 250 Vac/30 Vdc, 1 second on 9 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.



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

CUI Devices reserves the right to make changes to the product at any time without notice. Information provided by CUI Devices is believed to be accurate and reliable. However, no responsibility is assumed by CUI Devices for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI Devices 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.

[cuidevices.com](http://cuidevices.com)