

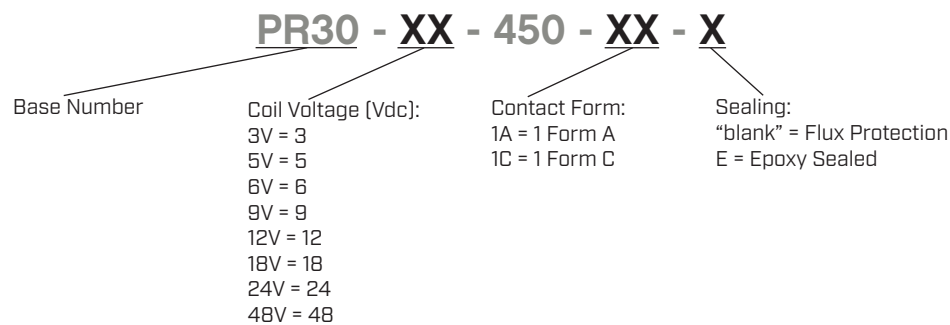
**SERIES:** PR30 | **DESCRIPTION:** POWER RELAY**FEATURES**

- 10 amp
- 1 form A
- 1 form C

**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]
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				

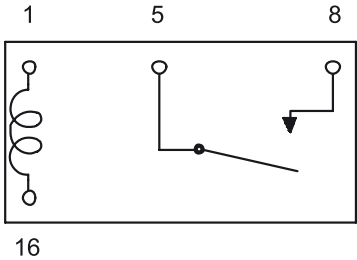
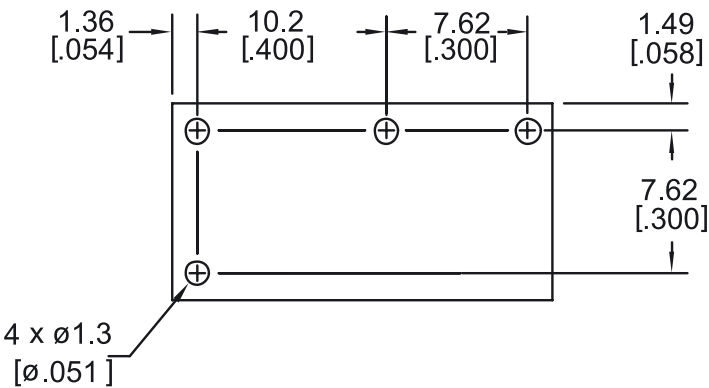
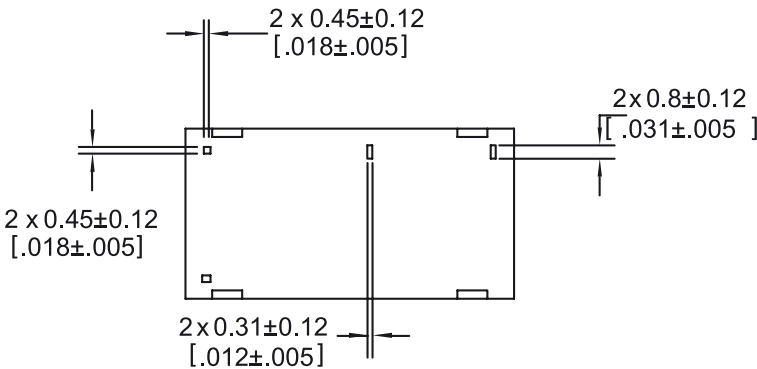
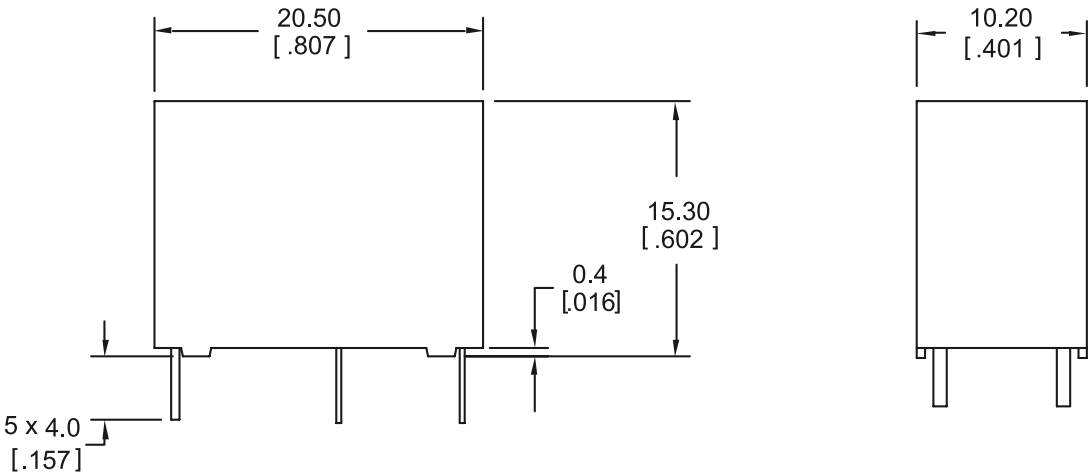
## SOLDERABILITY

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: ±0.254 mm  
unless otherwise noted

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



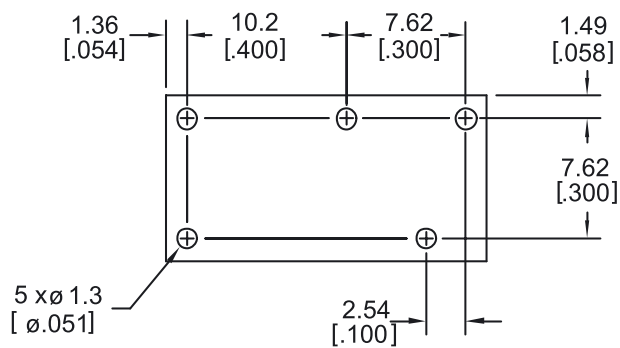
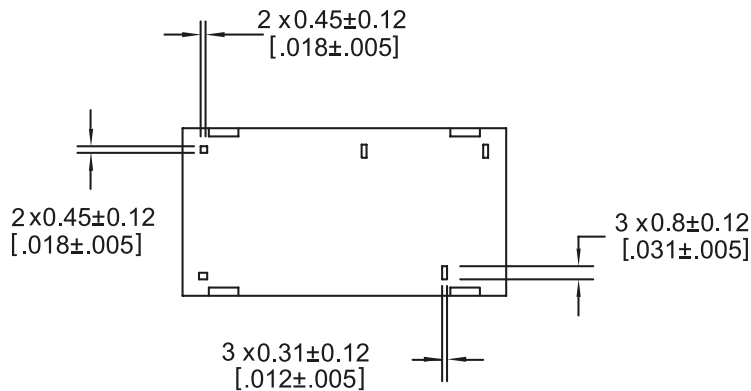
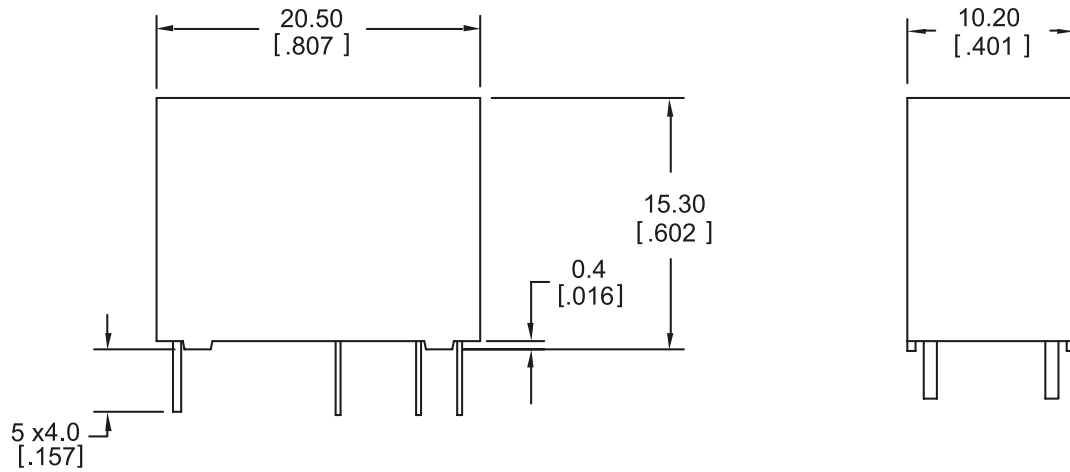
Recommended PCB Layout  
Bottom View

Wiring Diagram  
Bottom View

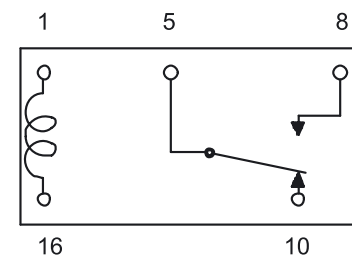
## MECHANICAL DRAWING (1C = 1 FORM C)

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

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



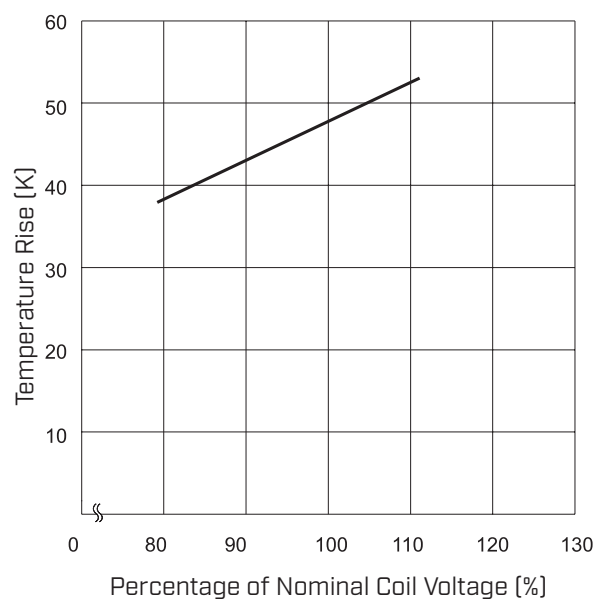
Recommended PCB Layout  
Bottom View



Wiring Diagram  
Bottom View

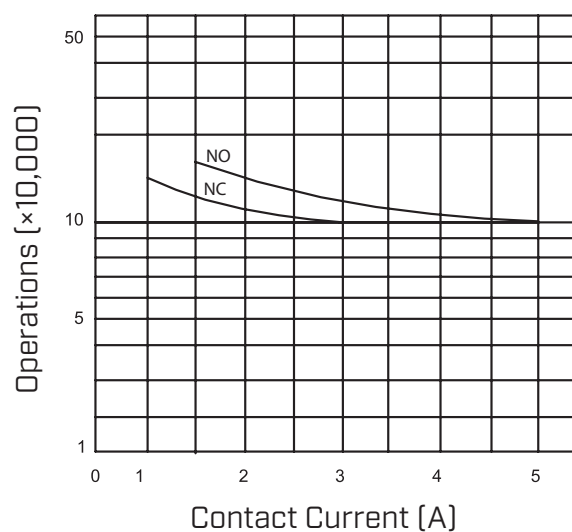
## CHARACTERISTIC CURVES

Coil Temperature Rise



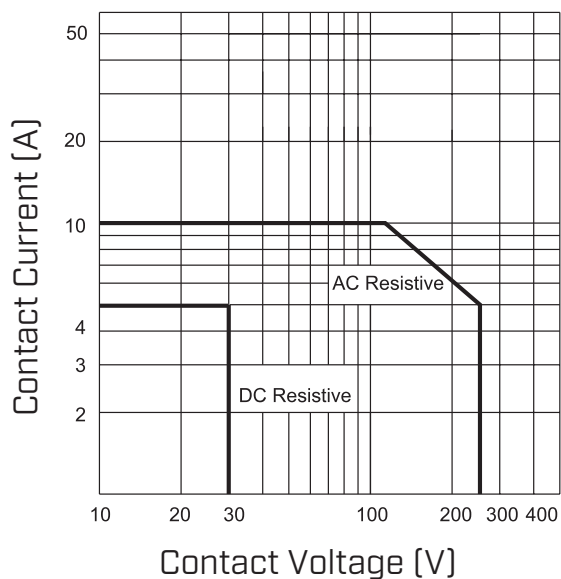
Test Conditions:  
5 A at 85°C  
Mounting Distance: 10 mm

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.

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