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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 voltage¹ 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

PR30 - XX - 450 - XX - X

Contact Form:

1A = 1 Form A

1C = 1 Form C

Base Number

Coil Voltage (Vdc):

3V = 3

5V = 5

6V = 6

9V = 9

12V = 12

18V = 18

24V = 24

48V = 48

Sealing:

"blank" = Flux Protection

E = Epoxy Sealed

# **COIL SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
coil power	nominal at pickup voltage		450 255		mW mW
coil power continous 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	AgSnO₂ (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				400 150	Vac Vdc
max switching current	normally open normally closed			10 3	A A
max switching power	Vac Vdc			2,770 150	VA W
life	electrical: at 10 A, 277 Vac, resistive mechanical	100,000 10,000,000			operations operations

### **GENERAL SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc	1,000			МΩ
dielectric strength	between open contacts at sea level for 1 minute between coil and contacts at sea level for 1 minute		1,000 4,000		Vrms Vrms
operate time	at nominal coil voltage			8	ms
release time	at nominal coil voltage, without coil suppression			5	ms
shock resistance	functional destructive		10 100		G 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				

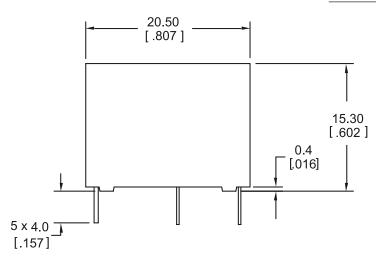
# **SOLDERABILITY**

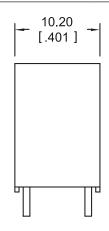
parameter	conditions/description	min	typ	max	units
wave soldering	for max 5 seconds			270	°C
washable	only on epoxy sealed models max imersion time of 30 seconds			80	°C

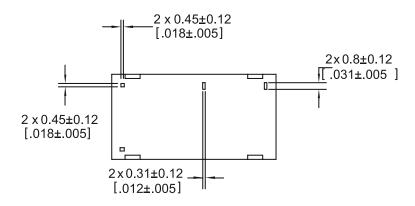
# MECHANICAL DRAWING (1A = 1 FORM A)

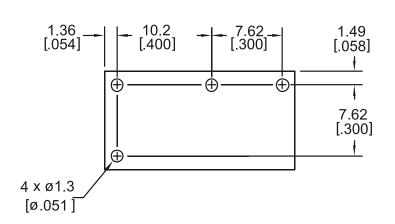
units: mm [inch] tolerance: ±0.254 mm unless otherwise noted

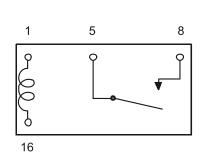
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PBT (UL94V-0)	black
terminals	copper alloy	tin









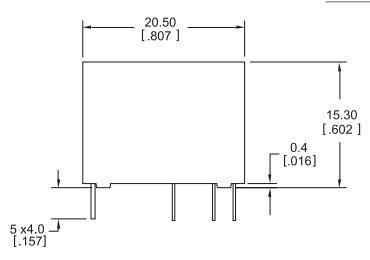


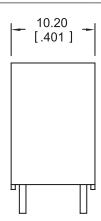
Recommended PCB Layout Bottom View Wiring Diagram Bottom View

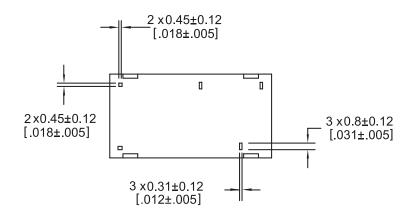
# MECHANICAL DRAWING (1C = 1 FORM C)

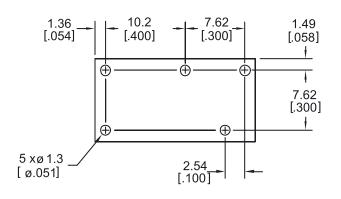
units: mm [inch] tolerance: ±0.254 mm unless otherwise noted

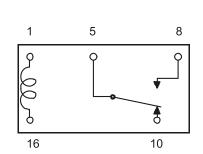
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PBT (UL94V-0)	black
terminals	copper alloy	tin







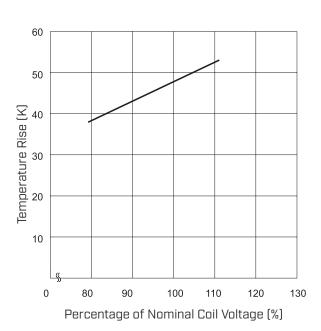




Recommended PCB Layout Bottom View Wiring Diagram Bottom View

### **CHARACTERISTIC CURVES**

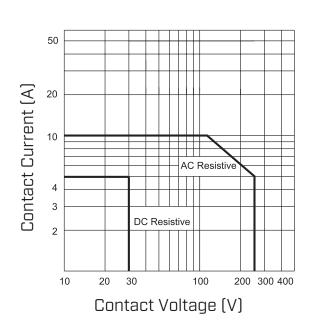




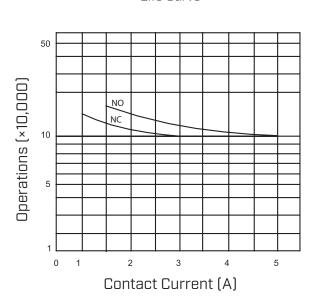
Test Conditions: 5 A at 85°C

Mounting Distance: 10 mm

#### Maximum Switching Power



#### 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

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SAME SKY | SERIES: PR30 | DESCRIPTION: POWER RELAY

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#### **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.

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

Same Sky 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.