same sky

SERIES: PR28 | DESCRIPTION: POWER RELAY

FEATURES

- 20 amp
- 1 form A
- 1 form C
- class F

RoHS c UL us

MODEL

	coil voltage typ (Vdc)	coil resistance (Ω±10%)	operating voltage[1] min (Vdc)	release voltage max (Vdc)	continuous voltage max (Vdc)	coil power max (mW)
PR28-3V-360	3	25	2.25	0.3	3.3	360
PR28-5V-360	5	70	3.8	0.5	5.5	360
PR28-6V-360	6	100	4.5	0.6	6.6	360
PR28-9V-360	9	225	6.8	0.9	9.9	360
PR28-12V-360	12	400	9.0	1.2	13.2	360
PR28-15V-360	15	625	11.25	1.5	16.5	360
PR28-18V-360	18	900	13.5	1.8	19.8	360
PR28-24V-360	24	1,600	18.0	2.4	26.4	360
PR28-36V-360	36	3,600	27.0	3.6	39.6	360
PR28-48V-360	48	6,400	36.0	4.8	52.8	360

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

PR28 - XX - 360 - XX - X

- PR28 — Base Number
- XX — Coil Voltage (Vdc):
  - 3V = 3
  - 5V = 5
  - 6V = 6
  - 9V = 9
  - 12V = 12
  - 15V = 15
  - 18V = 18
  - 24V = 24
  - 36V = 36
  - 48V = 48
- 360 — fixed
- XX — Contact Form:
  - 1A = 1 Form A
  - 1C = 1 Form C
- X — Sealing:
  - "blank" = Flux Protection
  - E = Epoxy Sealed

COIL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
coil power	nominal at pickup voltage		360 207		mW mW
temperature rise	at nominal coil voltage		42		K

CONTACT SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
contact form	1 Form A, 1 Form C				
contact material	$AgSnO_2$ (silver tin oxide)				
contact rating	1 Form A 17 A @ 277 Vac 12 A @ 250 Vac				
	1 Form C 17/10 A @ 277 Vac NO/NC				
contact resistance	at 1 A, 6 V, voltage drop method			100	mΩ
max switching voltage				277 30	Vac Vdc
max switching current	Vac Vdc			20 16	A A
max switching power	Vac Vdc			4,700 480	VA W
life	electrical: at 277 Vac, 16 A (1 Form A/1 Form C (NO), 7 A (1 Form C (NC), resistive mechanical	100,000 10,000,000			operations operations

GENERAL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc, 23 °C, 50% RH	100			MΩ
dielectric strength	between coil and contacts at sea level for 1 minute		2,000		Vrms
operate time	at nominal coil voltage			10	ms
release time	at nominal coil voltage, without coil suppression			5	ms
shock resistance			10		G
vibration resistance	10~55 Hz, 1.5 mm double amplitude				
operating temperature	at nominal coil voltage	-40		85	°C
storage temperature	at nominal coil voltage	-40		130	°C
weight			9.5		g
safety approvals	UL/cUL 508				
flammability rating	UL94V-0				
RoHS	yes				
packaging	box: 100 pcs per box carton QTY: 1,000 pcs per carton				

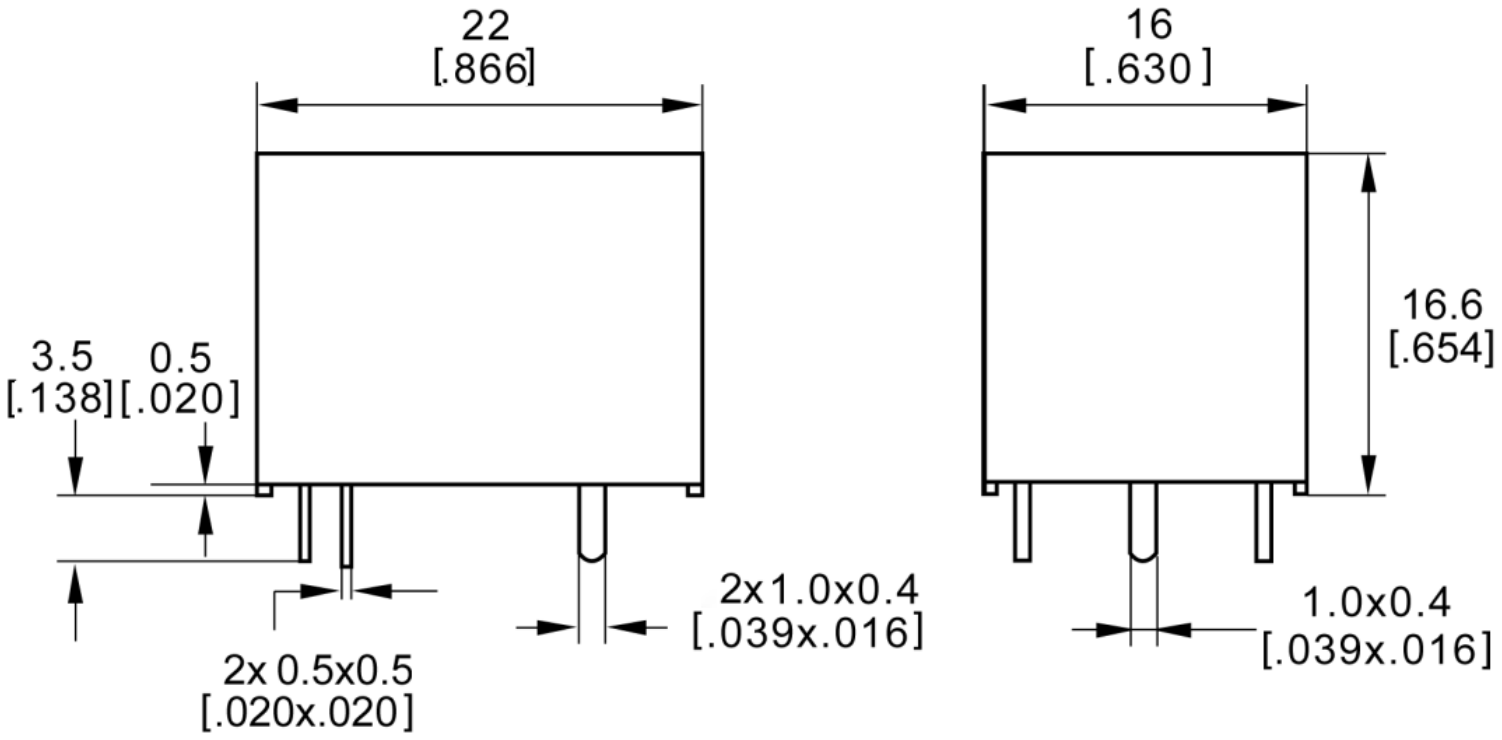
SOLDERABILITY

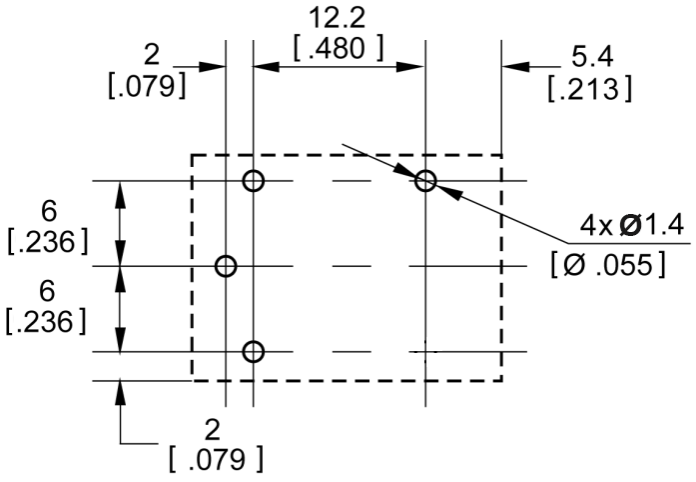
parameter	conditions/description	min	typ	max	units
wave soldering	for max 5 seconds			260	°C
washable	only on epoxy sealed models max imersion time of 30 seconds			80	°C

MECHANICAL DRAWING (1A = 1 FORM A)

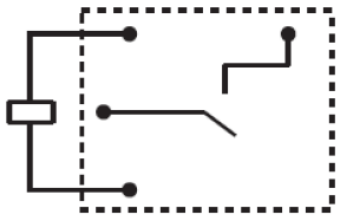
units: mm [inch]
tolerance: ±0.254 mm
unless otherwise noted

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





Recommended PCB Layout
Bottom View

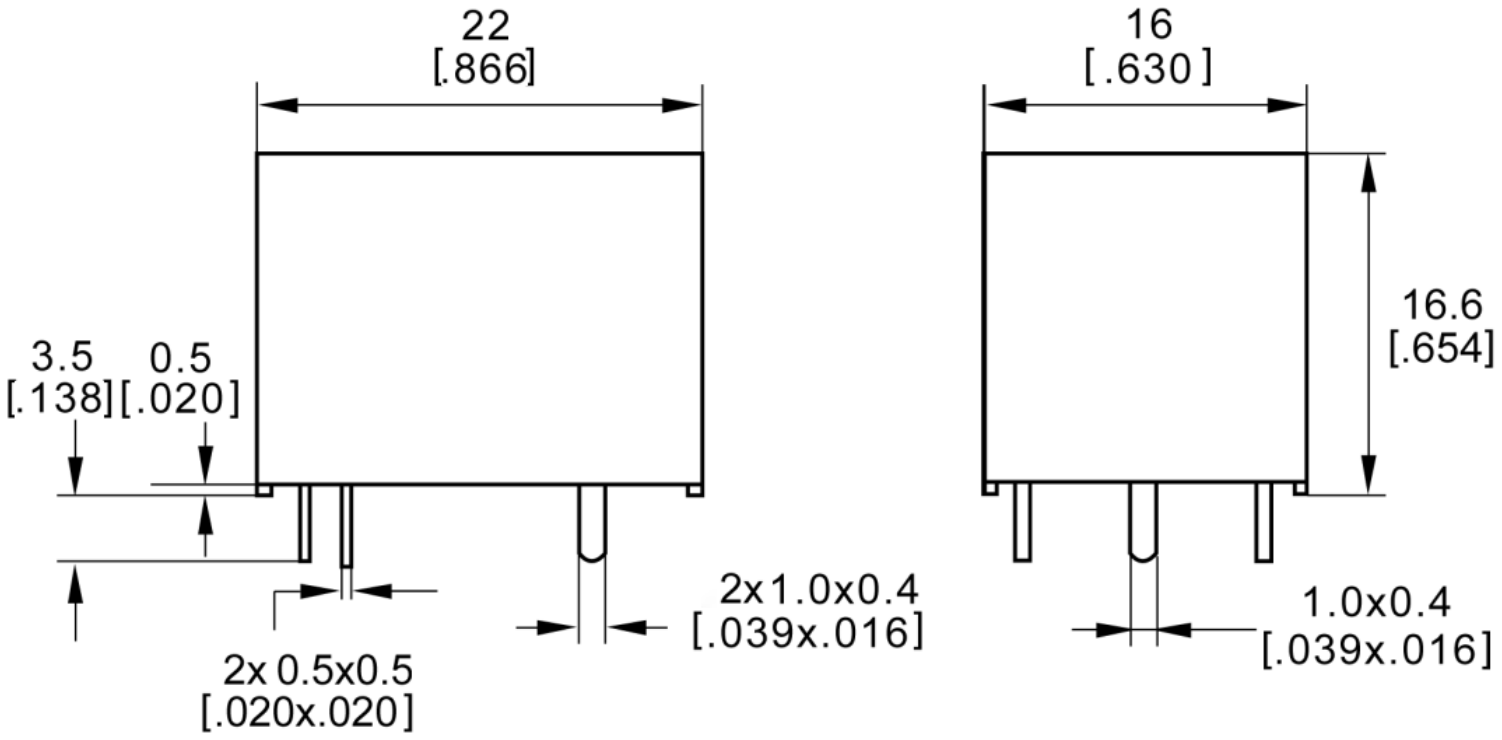


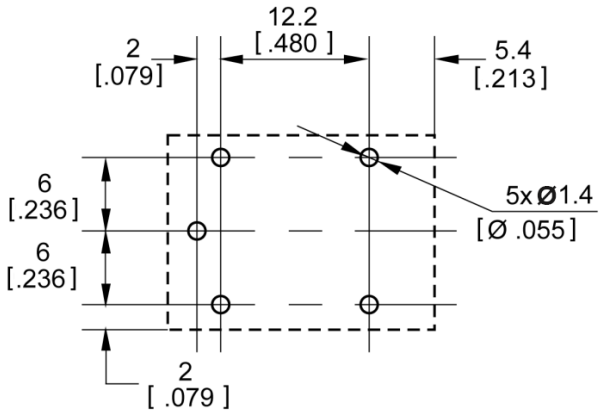
Wiring Diagram
Bottom View

MECHANICAL DRAWING (1C = 1 FORM C)

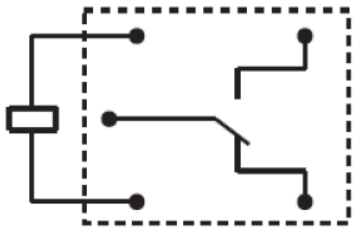
units: mm [inch]
tolerance: ±0.254 mm
unless otherwise noted

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





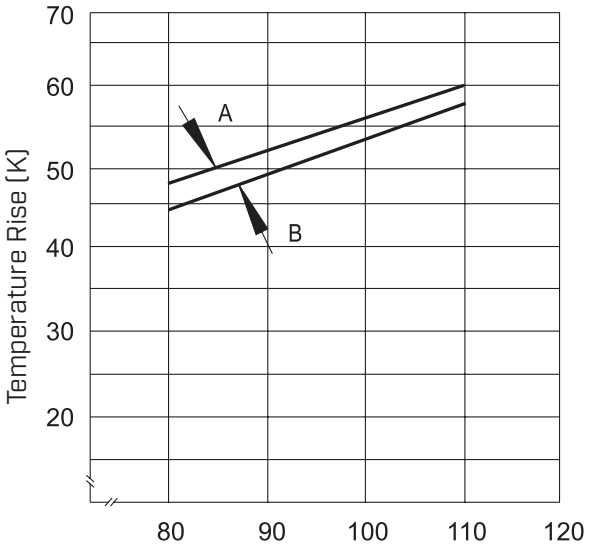
Recommended PCB Layout
Bottom View



Wiring Diagram
Bottom View

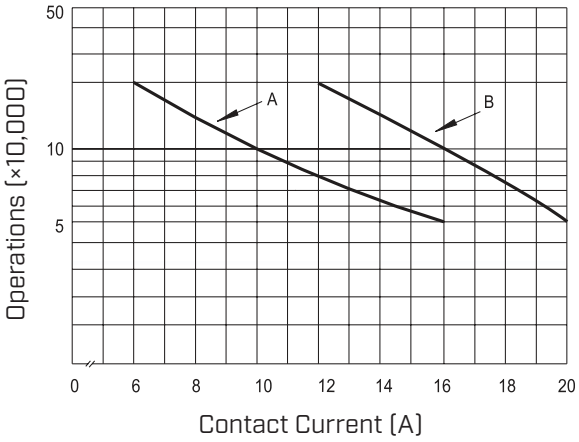
CHARACTERISTIC CURVES

Coil Temperature Rise



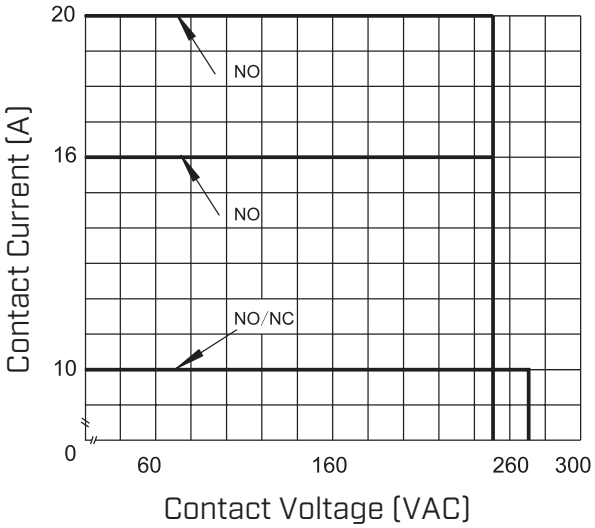
Test Conditions:
Curve A: 20 A at 85°C
Curve B: 16 A at 85°C
Mounting Distance: 25 mm

Life Curve



Test Conditions:
Curve A: NO, resistive load, 85°C, flux protection, 16 A, 250 Vac, 1 second on 9 seconds off
Curve B: NO, resistive load, 85°C, flux protection, 20 A, 250 Vac, 1 second on 9 seconds off

Maximum Switching Power



REVISION HISTORY

rev.	description	date
1.0	initial release	02/14/2024
1.01	removed F from part number	05/10/2024
1.02	CUI Devices rebranded to Same Sky	09/12/2024

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