

date 02/14/2024

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### SERIES: PR25 | DESCRIPTION: POWER RELAY

#### **FEATURES**

- 15 amp
- 1 form A
- 1 form C
- · Class B & Class F





MODEL	coil voltage typ	coil resistance	operating voltage¹ min	release voltage max	continuous voltage max	coil power max
	(Vdc)	$[\Omega \pm 10\%]$	(Vdc)	(Vdc)	(Vdc)	(mW)
PR25-5V-S-360	5	70	3.8	0.5	11.2	360
PR25-6V-S-360	6	100	4.5	0.6	13.4	360
PR25-9V-S-360	9	225	6.8	0.9	20.1	360
PR25-12V-S-360	12	400	9.0	1.2	26.8	360
PR25-18V-S-360	18	900	13.5	1.8	40.2	360
PR25-24V-S-360	24	1,600	18.0	2.4	53.4	360
PR25-36V-S-360	36	3,600	27.0	3.6	80.1	360
PR25-48V-S-360	48	6,400	36.0	4.8	107.3	360

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

PR25 - XX - S - 360 - XX - X X

Base Number

Coil Voltage (Vdc):

Contact Form:

1C = 1 Form C

1A = 1 Form A

Sealing: "blank" 3 = Flux Protection

E = Epoxy Sealed

Coil Insulation: "blank" = Class B

F = Class F

5V = 5 6V = 6

9V = 9

12V = 12 18V = 18

24V = 24 36V = 36

48V = 48

3. Flux protection only available on 1 Form A models.

# **COIL SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
coil power	nominal		360		mW
coli powei	at pickup voltage		203		mW
	Class B models at 20°C			1.8	W
coil power continous dissipation	Class F models at 20°C			2.4	W
temperature rise	at nominal coil voltage		32		K

### **CONTACT SPECIFICATIONS**

parameter	conditions/description	min	typ max	units
contact form	1 Form A, 1 Form C			
contact material	AgSnO₂ (silver tin oxide)			
	1 Form A 10 A @ 277 Vac 15 A @ 125 Vac			
contact rating	1 Form C 10 A @ 277 Vac NO/NC 5 A @ 250 Vac NC			
contact resistance	at 1 A, 24 V, voltage drop method		100	mΩ
max switching voltage			300 30	Vac Vdc
max switching current	Vac Vdc		15 10	A A
max switching power	Vac Vdc		2,770 300	VA W
life	electrical: at 277 Vac, resistive mechanical	100,000 1,000,000		operations operations

# **GENERAL SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc, 20 °C, 50% RH	100			МΩ
dielectric strength	between open contacts at sea level for 1 minute between coil and contacts at sea level for 1 minute		1,000 1,500		Vrms 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	Class B models at nominal coil voltage Class F models at nominal coil voltage	-40 -40		70 85	°C
weight			10		g
safety approvals	UL/cUL 508				
flammability rating	UL94V-0				
RoHS	yes				
packaging	tube: 20 pcs per tube carton QTY: 1,000 pcs per carton				

# **SOLDERABILITY**

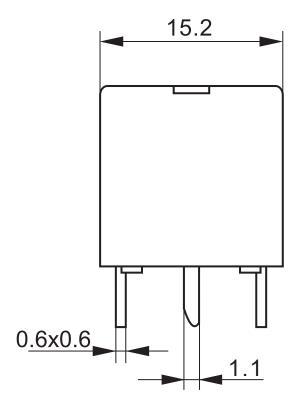
parameter	conditions/description	min	typ	max	units
wave soldering	for max 5 seconds			270	°C
washable	only on epoxy sealed models max imersion time of 30 seconds			80	°C

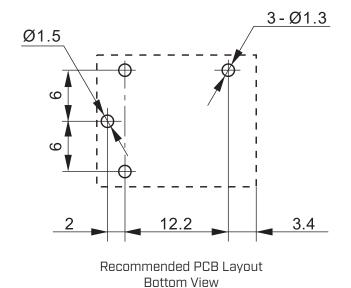
# MECHANICAL DRAWING (1A = 1 FORM A)

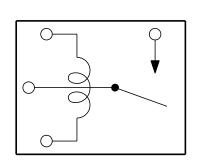
units: mm [inch] tolerance: ±0.254 mm unless otherwise noted

19	-	
		15.5
0.4		3.5 <sup>+0.4*</sup> .8x0.3

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







Wiring Diagram Bottom View

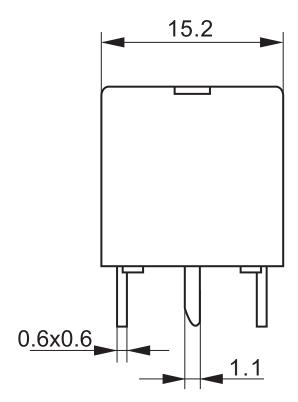
# MECHANICAL DRAWING (1C = 1 FORM C)

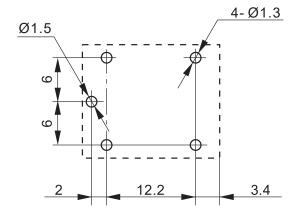
units: mm [inch] tolerance: ±0.254 mm unless otherwise noted

19	
	15.5
0.4	3.5 <sup>+0.4*</sup>

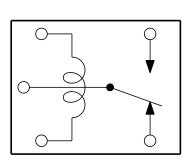
0.8x0.3

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





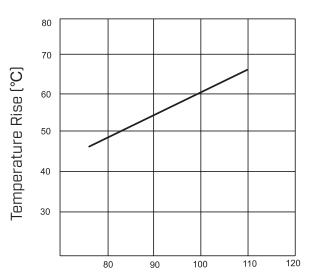
Recommended PCB Layout Bottom View



Wiring Diagram Bottom View

### **CHARACTERISTIC CURVES**

#### Coil Temperature Rise

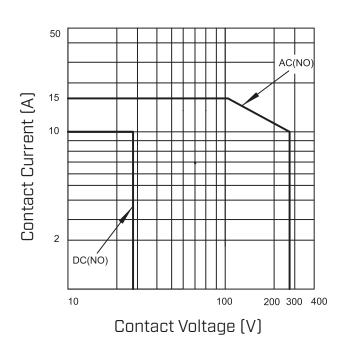


Percentage of Nominal Coil Voltage (%)

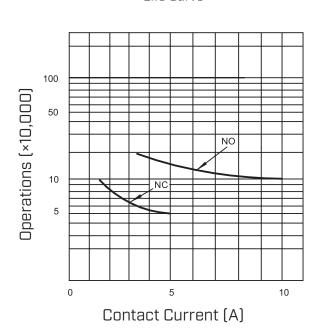
Test Conditions: 10 A at 85°C

Mounting Distance: 10 mm

#### Maximum Switching Power



#### Life Curve



Test Conditions:

NO, resistive load, 277 Vac/28 Vdc, flux protection, room temp, 1 second on 9 seconds off

NC, resistive load, 250 Vac, flux protection, room temp, 5 seconds on 5 seconds off

For plastic sealed type, the venting hole should be opened in electrical life test.

### **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.



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