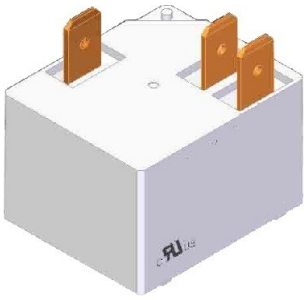
50 Amp Power PCB Relay — PTRE-OT



FEATURES

- Most Popular Power PCB Relay Footprint - T90
- 50 Amp 240 VAC General Purpose UL Rating
- 2 HP 250 VAC Rating
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing
- Epoxy Sealed, Immersion Cleanable
- RoHS Compliant

FACTORY RATINGS

Load Type	Voltage	1 Form A (SPST-NO)	1 Form B (SPST-NC	1 Form C (SPDT)	
				NO	NC
Resistive 6,000 Cycles	240 VAC 30 VDC	50 A	40 A	50 A	40 A
Lamp 3,000 Cycles	240 VAC	TV-5	—	TV-5	—
Electric Ballast 6,000 Cycles	280 VAC	5 A	—	5 A	—
Motor Load 3,000 Cycles	250 VAC	2 HP	1.5 HP	2 HP	1.5 HP

c UL us E160644 at 40°C

Load Type	Cycles	Voltage	1 Form C (SPDT)	
			NO	NC
General Purpose (Resistive)	10,000 50.000	240 VAC/30 VDC 240 VAC/30 VDC	50 A 40 A	35 A 30 A

UL 508 and UL 873 Spacing - 3.18 mm Through Air, 6.36 mm Over Surface.

CHARACTERISTIC

Operate Time	15 ms Max.
Release Time	10 ms Max
Insulation Resistance	1,000 MΩ min, at 500 VDC
Dielectric Strength	50 Hz 2,500 V 1 Min Between Coil and Contacts 50 Hz 1,500 V 1 min. Between Contacts
Shock Resistance	200 m/s², 11 ms
Vibration Resistance	10 - 55 Hz Double Amplitude
Terminal Strength	10N
Power Consumption	1.5 W

CONTACT DATA

Material		$AgSnO_2$
Initial Contact Resistance		50 max @ 1 A, 6 VDC
Maximum Switching Voltage		110 VDC, 300 VAC
Maximum Switching Current		50 A
Maximum Switching Power		1,500 W, 12,000 VA
Service Life	Mechanical	1 X 10^7 Operations
	Electrical	5 X 10^4 Operations

Solderability	235 °C for 3 secs
Operating Temperature Range	- 55°C to 100°C
Storage Temperature Range	- 40°C to 155°C
Relative Humidity	85% (at 40°C)
Weight	30 g,
Material Compliant To	EU RoHS V2, EU REACH V3

ORDERING INFORMATION

Example: PTRE -1C -12 S T -OT5 -X

Model: **PTRE-OT**
Contact Form: **1A, 1B,** or **1C**
Coil Voltage: **3**, **5**, **6**, **9**, **12**, **15**, **18**, **24**, **48**, **110**
Configuration: **Nil:** Open Frame; **C:** Dust Cover;
S:(OT3 Only) Sealed **E**:(OT5 Only) Epoxy Sealed not Water Washable
Contact Material: **Nil:** AgCdO; **T:** AgSnOInO
Insulation Material: **F**: UL Class F
Mounting Type: **OT2:** Form 1A or 1B PCB&QC, **OT3**: Form 1C PCB&QC,
OT4: 1A or 1B Panel all QC with Mounting Fins, **OT5:** 1C Panel all QC with Mounting Fins
RoHS Compliant: **-X**
Pinout: **A**: Alternate Quick Connect Pinout

3220 Commander Drive, Suite 102 Carrollton, TX 75006
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Dimensions are listed for reference purposes only.
Specifications and Availability subject to change without notice.

COIL DATA

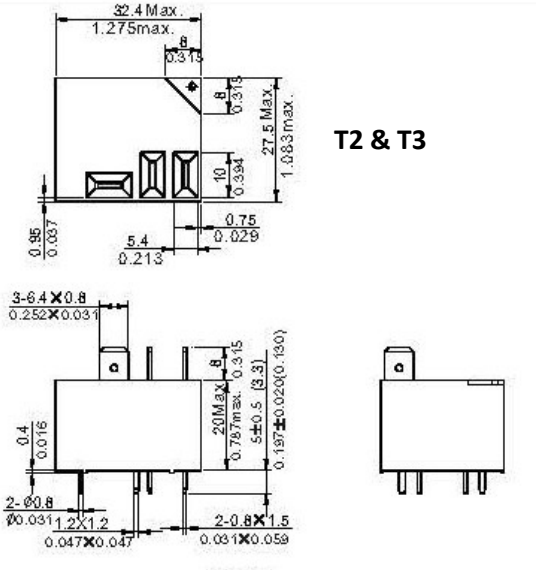
Coil Voltage		Resistance (Ohms ± 10%)	Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)	Coil Power (W)
Rated	Max				
3	3.9	6.0	2.25	0.3	1.5
5	6.5	16.7	3.75	0.5	
6	7.8	24.0	4.50	0.6	
9	11.7	54.0	6.75	0.9	
12	15.6	96.0	9.00	1.2	
15	19.5	150	10.25	1.5	
18	23.4	216	13.50	1.8	
24	31.2	384	18.00	2.4	
48	62.4	1,536	36.00	4.8	
110	143	8,067	82.50	11.0	

NOTES:

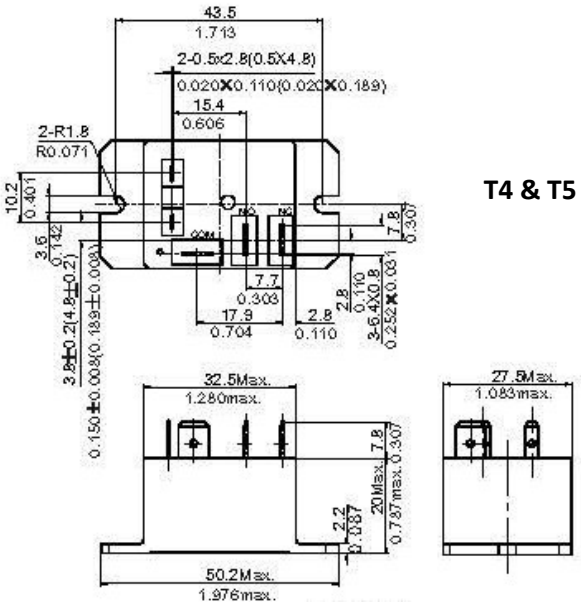
The use of any coil voltage less that the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria.
Dimensions are in mm, Inches are listed for reference only.

DIMENSIONS (mm/inches)

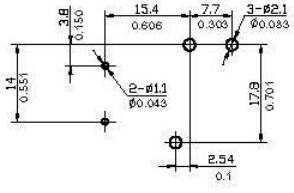
Knock off, on top corner, nib for ventilation after soldering and water wash.



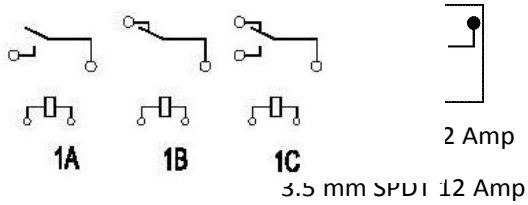
T2 & T3



T4 & T5



Mounting (Bottom View)



2 Amp

3.5 mm SPDT 12 Amp

Wiring Diagram (Bottom View)

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