

# 40 Amp Power Relay with AC Coil, Low Case Profile & QC Terminals PTRA-OT



OT2 & OT3



OT4 & OT5

**UL E86876**

Load Type	Voltage	1 Form A	1 Form B (SPDT-NC)	1 Form C	
				NO	NC
General Purpose	120 VAC*	40 A	30 A	40 A	30 A
	240 VAC	30 A	20 A	30 A	20 A
	277 VAC	30 A	20 A	30 A	20 A
	280 VAC	5 A	5 A	5 A	5 A
	30 VDC*	40 A	30 A	40 A	30 A
Resistive	240 VAC	40 A	30 A	40 A	30 A
	250K Cycles	240 VAC	20 A	20 A	—
	100K Cycles	277 VAC	25 A	25 A	—
	30 VDC	40 A*	30 A	40 A*	30 A
Motor	250 VAC	2 HP	1.5 HP	2 HP	1.5 HP
	120 VAC*	1 HP	—	1 HP	—
Ballast	280 VAC	5 A	5 A	5 A	5 A
Lamp Load TV-5	120 VAC	5 A	—	5 A	—
LRA/FLA*	240 VAC	80 A/30 A	—	80 A/30	—
	120 VAC	96 A/30 A	—	96 A/30	—

\*Not UL

## ORDERING INFORMATION

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

Model: **PTRA (PTRA-OT)**

Contact Form: **1A, 1B, 1C**

Coil Voltage: **12, 24, 110, 120, 220**

Enclosure: **C**: Dust Cover; **S**: (OT2 & OT3 Only) Sealed;  
**E**: (OT4 & OT5 Only) Epoxy Sealed, Not Water Washable

Contact Material: **Nil**: AgCdO; **T**: AgSnO<sub>2</sub>

Insulation Material: **Nil**: Class F

Mounting Type: **OT2**: 1 Form A PCB & QC; **OT3**: 1 Form C PCB & QC;  
**OT4**: 1 Form A Panel all QC; **OT5**: 1 Form C Panel all QC

RoHS Compliant: **-X**

Pinout: **A**: Alternate Quick Connect Pinout (OT2 & OT3 Only)

Box Quantity: 600; Inner Box 300

## FEATURES

- Power PCB Relay with AC Coils
- 40 Amp 240 VAC Resistive UL Rating
- 2 HP 250 VAC Rating
- Two Version:
  - ♦ OT2 (1A), OT3 (1C) PC Pins & QC Pins
  - ♦ OT4 (1A), OT5 (1C) QC Pins with Mounting Tabs
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing
- RoHS Compliant

## CONTACT DATA

Material		AgCdO, AgSnO <sub>2</sub>
Initial Contact Resistance		30 mΩ Max. @ 1 A, 6 VDC
Maximum Switching Voltage		110 VDC, 300 VAC
Maximum Switching Current		40 A
Maximum Switching Power		1,200 W, 10,000 VA
Service Life	Mechanical	1 x 10 <sup>7</sup> Operations
	Electrical	1 x 10 <sup>5</sup> Operations

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

## COIL DATA

Coil Voltage (VDC)		Resistance (Ohms $\pm 10\%$ )	Must Operate Voltage Max (VDC)	Must Release Voltage Min (VDC)	Rated Current (mA)	Coil Power (VA)
Rated	Max					
12	15.6	27	9.0	3.6	187	2.0
24	31.2	120	18.0	7.2	95	
110	143	2360	82.5	33.0	20	
120	156	3040	90.0	36.0	16.5	
220	286	13490	165.0	86.0	6.4	

## NOTES:

The use of any coil voltage less than 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.

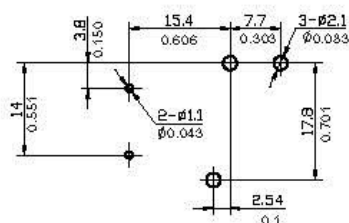
Pickup and release voltages are for test purposes only and are not to be used as design criteria.

## CHARACTERISTIC

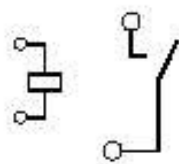
Operate Time	15 ms max.
Release Time	10 ms max.
Insulation Resistance	1,000 M $\Omega$ min, at 500 V
Power Consumption	2.0 VA
Dielectric Strength	50 Hz 1,500 V Between Open Contacts
	50 Hz 2,500 V Between Contacts and Coil
Shock Resistance	200 m/s <sup>2</sup>
Vibration Resistance	10 Hz - 55 Hz Double Amplitude 1.5 mm

Terminal Strength	10N
Solderability	235 °C for 3 secs
Operating Temp. Range	- 55°C to 100°C
Storage Temp. Range	- 55°C to 125°C
Relative Humidity	85% (at 40°C)
Weight	31 grams
Material Compliant To	EU RoHS V2, EU REACH V3

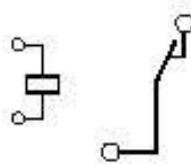
## PRINTED CIRCUIT BOARD LAYOUT



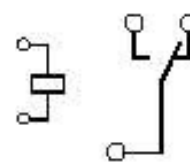
## CONTACT FORMS



1A



1B

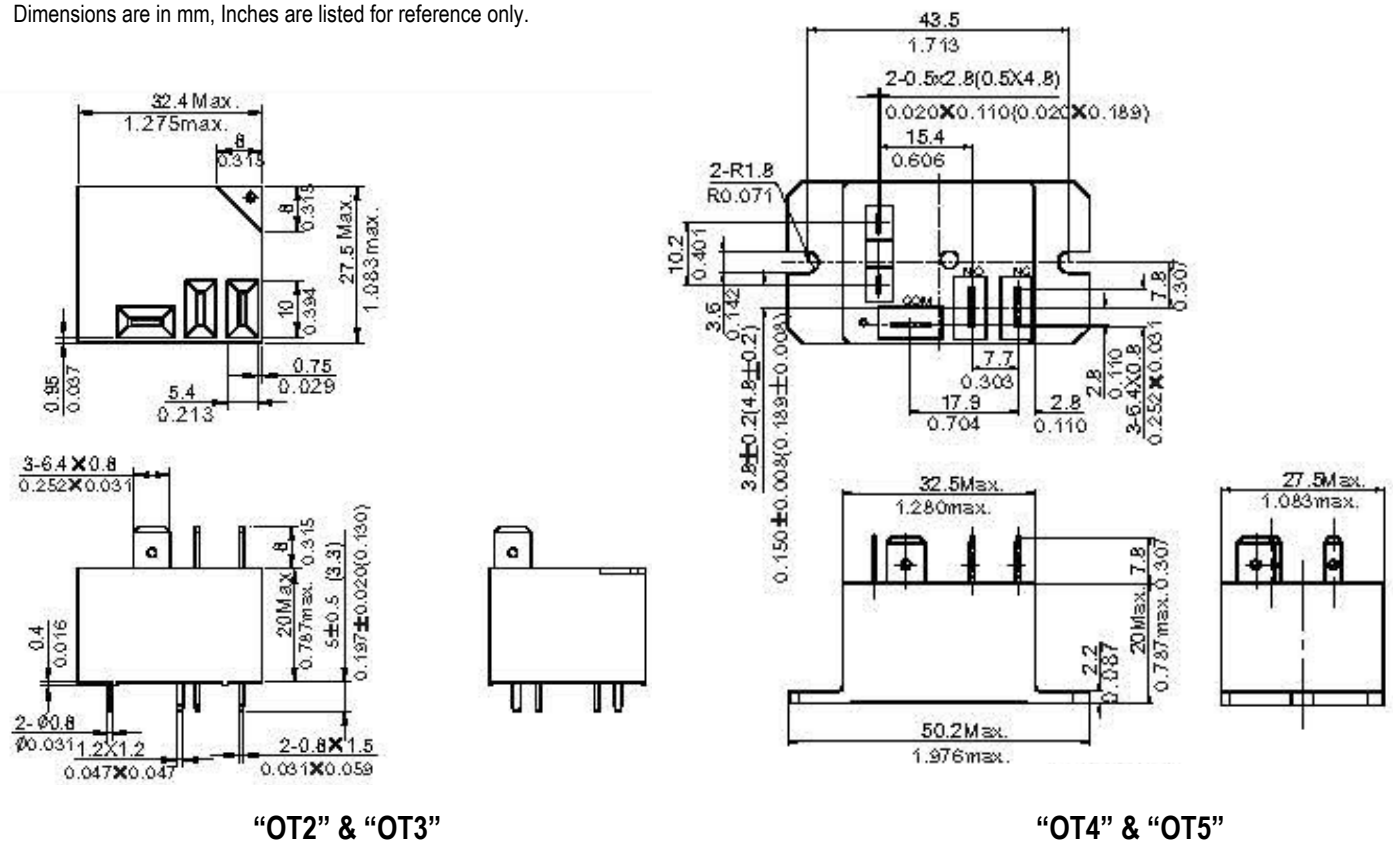


1C

**MOUNTING TYPE (mm/inches)**

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

Dimensions are in mm, Inches are listed for reference only.



**ALTERNATE MOUNTING TYPE (mm/inches)**

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

