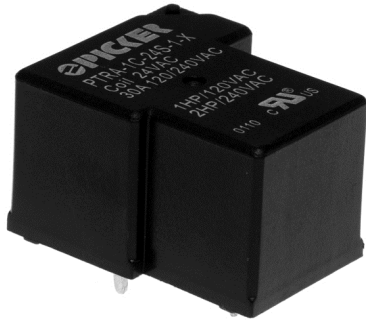


**30, 40 or 50 Amp Latching PCB Relay** **PCT90CL, PCT90DL, PCT90EL**



**FEATURES**

- Energy Saving **Latching Operation**
- Most Popular Power PCB Relay
- 30, 40 or 50 Amp Switching Capacity
- Single Coil Latching
- UL Class F Insulation Standard
- Epoxy Sealed, Immersion Cleanable
- Lead Free and RoHS Compliant



**Factory and cULus\* Ratings at 25°C**

| PCT90EL 50 Amp Version          | Voltage | 1 Form A (SPST-NO) | 1 Form B (SPST-NC) | 1 Form C (SPDT) |      |
|---------------------------------|---------|--------------------|--------------------|-----------------|------|
|                                 |         |                    |                    | NO              | NC   |
| Load Type                       |         |                    |                    |                 |      |
| Resistive 6,000 Cycles *(cULus) | 277 VAC | 50 A               | 40 A               | 50 A            | 40 A |
| Incandescent Lamp 3,000 Cycles  | 240 VAC | 5,000 W            |                    | 5,000 W         |      |
| Electronic Ballast 6,000 Cycles | 280 VAC | 16 A               |                    | 16 A            |      |
| Motor Load 3,000 Cycles         | 277 VAC | 5 HP               |                    | 5 HP            |      |

| PCT90DL 40 Amp Version          | Voltage        | 1 Form A (SPST-NO) | 1 Form B (SPST-NC) | 1 Form C (SPDT) |      |
|---------------------------------|----------------|--------------------|--------------------|-----------------|------|
|                                 |                |                    |                    | NO              | NC   |
| Load Type                       |                |                    |                    |                 |      |
| Resistive 6,000 Cycles          | 277 VAC, 28VDC | 40 A               | 30 A               | 40 A            | 30 A |
| Incandescent Lamp 5,000 Cycles  | 240 VAC        | 5,000 W            | 5,000 W            |                 |      |
| Electronic Ballast 6,000 Cycles | 280 VAC        | 5 A                | 5 A                | 5A              |      |
| Motor Load 2,000 Cycles         | 277 VAC        | 2 HP               |                    | 2 HP            |      |

| PCT90CL 30 Amp Version          | Voltage        | 1 Form A (SPST-NO) | 1 Form B (SPST-NC) | 1 Form C (SPDT) |      |
|---------------------------------|----------------|--------------------|--------------------|-----------------|------|
|                                 |                |                    |                    | NO              | NC   |
| Load Type                       |                |                    |                    |                 |      |
| Resistive 6,000 Cycles          | 277 VAC, 28VDC | 30 A               | 25 A               | 30 A            | 25 A |
| Incandescent Lamp 5,000 Cycles  | 240 VAC        | 5,000 W            | 5,000 W            |                 |      |
| Electronic Ballast 6,000 Cycles | 280 VAC        | 5 A                | 5 A                |                 |      |
| Motor Load 2,000 Cycles         | 277 VAC        | 2 HP               | 2 HP               |                 |      |

**CONTACT DATA**

|                            |                   |                                |                |
|----------------------------|-------------------|--------------------------------|----------------|
| Material                   | AgSnO2            |                                |                |
| Initial Contact Resistance | ≤ 20mΩ initial    |                                |                |
| Service Life               | Mechanical        | 1 x 10 <sup>6</sup> Operations |                |
|                            | Electrical        |                                |                |
| Maximum Switching Voltage  | 110VDC 300VAC     |                                |                |
| Maximum Switching Power    | 15,000 VA 1,500 W | 12,000 VA 1,200 W              | 9,000 VA 900 W |
| Maximum Switching Current  | 50 A              | 40 A                           | 30 A           |

# PCT90CL, PCT90DL, PCT90EL PCT90CL, PCT90DL, PCT90EL

## CHARACTERISTICS

|                       |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| Operate Time          | ≤ 15 msec                                                                                  |
| Release Time          | ≤ 15 msec                                                                                  |
| Insulation Resistance | 1,000 MΩ min @ 500VDC                                                                      |
| Dielectric Strength   | 50 Hz 2,500V 1 minute, Between Contact and Coil<br>50 Hz 1,500V 1 minute, Between Contacts |
| Shock Resistance      | 200m/s <sup>2</sup> 11msec                                                                 |
| Vibration Resistance  | 10-55 Hz Double Amplitude 1.5mm                                                            |
| Operating Temperature | -55°C to +125°C                                                                            |
| Storage Temperature   | -55°C to +155°C                                                                            |
| Weight                | 28 grams                                                                                   |

## ORDERING INFORMATION

|                   |                                                                           |     |     |   |  |  |    |
|-------------------|---------------------------------------------------------------------------|-----|-----|---|--|--|----|
| Example:          | PCT90EL                                                                   | -1C | -12 | S |  |  | -X |
| Model:            | PCT90EL (50 Amp)                                                          |     |     |   |  |  |    |
|                   | PCT90DL (40 Amp)                                                          |     |     |   |  |  |    |
|                   | PCT90CL (30 Amp)                                                          |     |     |   |  |  |    |
| Contact Form:     | <b>1A</b> (SPST-NO)                                                       |     |     |   |  |  |    |
|                   | <b>1B</b> (SPST-NC)                                                       |     |     |   |  |  |    |
|                   | <b>1C</b> (SPDT BBM)                                                      |     |     |   |  |  |    |
| Coil Voltage:     | 5, 12, 24, 48                                                             |     |     |   |  |  |    |
| Enclosure:        | <b>S</b> : Sealed, <b>E</b> : Covered                                     |     |     |   |  |  |    |
| Coil Sensitivity: | <b>Nil</b> : PCT90EL (50 Amp) 1.5 Watt                                    |     |     |   |  |  |    |
|                   | <b>Nil</b> : PCT90DL (40 Amp) 0.9 Watt                                    |     |     |   |  |  |    |
|                   | <b>Nil</b> : PCT90CL (30 Amp) 0.9 Watt                                    |     |     |   |  |  |    |
| Coil:             | <b>Nil</b> : Single Coil Latching, Double Coil not available at this time |     |     |   |  |  |    |
| RoHS Compliant:   | <b>-X</b>                                                                 |     |     |   |  |  |    |

Box Quantity: 600; Inner Box: 300

## COIL DATA

| PCT90E (50 Amp) |         | Resistance<br>(Ohms ± 10%) | Must Operate<br>Voltage Max<br>(VDC) | Pulse<br>Magnitude<br>(msec) | Coil<br>Power<br>(msec) | Operate<br>Time<br>(msec) | Reset<br>Time<br>(msec) |
|-----------------|---------|----------------------------|--------------------------------------|------------------------------|-------------------------|---------------------------|-------------------------|
| Coil Voltage    |         |                            |                                      |                              |                         |                           |                         |
| Rated           | Maximum |                            |                                      |                              |                         |                           |                         |
| 5               | 6       | 16.7                       | 4                                    | ≥ 50                         | 1.5                     | ≤ 15                      | ≤ 15                    |
| 12              | 14.4    | 96                         | 9.6                                  |                              |                         |                           |                         |
| 24              | 28.8    | 384                        | 19.2                                 |                              |                         |                           |                         |
| 48              | 57.6    | 1,536                      | 38.4                                 |                              |                         |                           |                         |

| PCT90C/D (30/40 Amp) |         | Resistance<br>(Ohms ± 10%) | Must Operate<br>Voltage Max<br>(VDC) | Pulse<br>Magnitude<br>(msec) | Coil<br>Power<br>(msec) | Operate<br>Time<br>(msec) | Reset<br>Time<br>(msec) |
|----------------------|---------|----------------------------|--------------------------------------|------------------------------|-------------------------|---------------------------|-------------------------|
| Coil Voltage         |         |                            |                                      |                              |                         |                           |                         |
| Rated                | Maximum |                            |                                      |                              |                         |                           |                         |
| 5                    | 6       | 28                         | 4                                    | ≥ 50                         | 0.9                     | ≤ 15                      | ≤ 15                    |
| 12                   | 14.4    | 160                        | 9.6                                  |                              |                         |                           |                         |
| 24                   | 28.8    | 960                        | 19.2                                 |                              |                         |                           |                         |
| 48                   | 57.6    | 2,560                      | 38.4                                 |                              |                         |                           |                         |

## NOTES:

Coil should not be pulsed with less than the rated coil voltage and the pulse width should be a minimum of three times the specified operate time. If not, it is possible for the relay to settle in a magnetically neutral position.

Must Operate Voltage is listed for test purposes only and is not to be used as design criteria.



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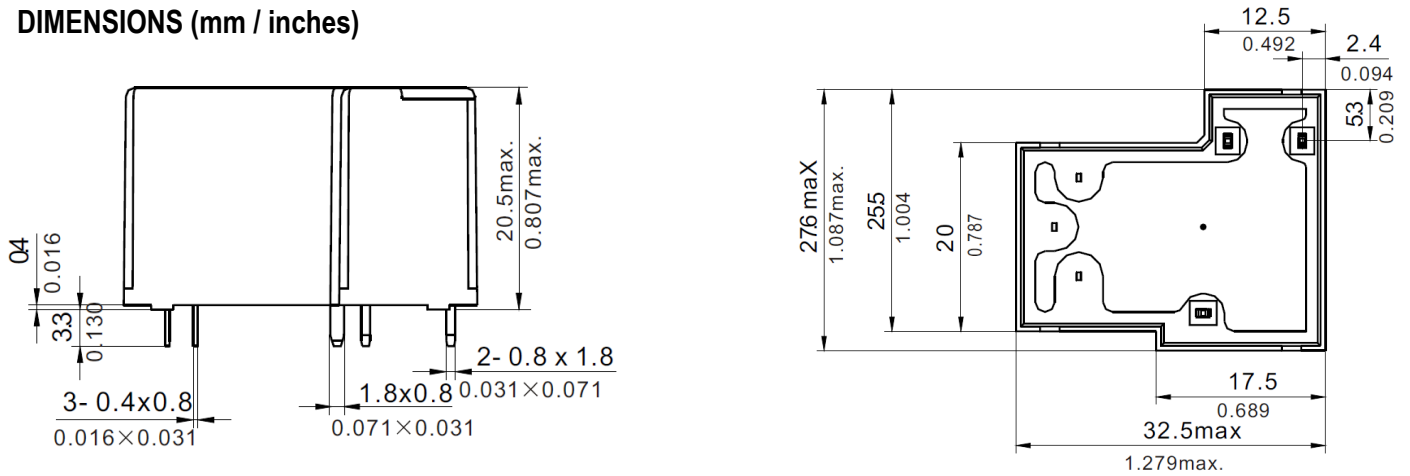
www.PickerComponents.com

e-mail: sales@pickercomponents.com

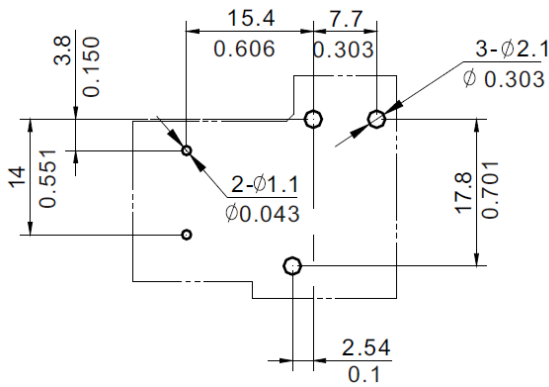
Dimensions are listed for reference purposes only.

Specifications and Availability subject to change without notice.

**DIMENSIONS (mm / inches)**



**PIN LAYOUT (mm / inches)**



**SCHEMATIC**

