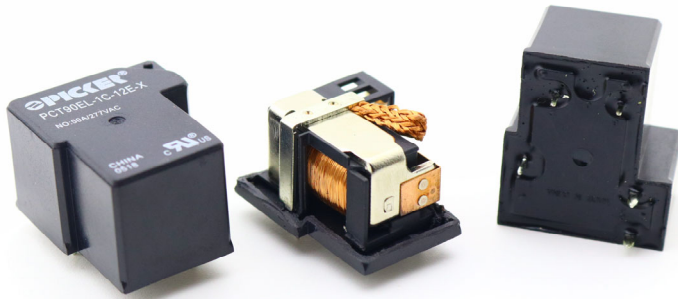




**30, 40 or 50 Amp Latching PCB Relay** **PCT90CL, PCT90DL, PCT90EL**



**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

**UL / CUL Ratings**



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

**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 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:	<b>PCT90EL</b> (50 Amp) <b>PCT90DL</b> (40 Amp) <b>PCT90CL</b> (30 Amp)						
Contact Form:	<b>1A</b> (SPST-NO) <b>1B</b> (SPST-NC) <b>1C</b> (SPDT BBM)						
Coil Voltage:	<b>5, 12, 24, 48</b>						
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 (Ohms ± 10%)	Must Operate Voltage Max (VDC)	Pulse Magnitude (msec)	Coil Power (msec)	Operate Time (msec)	Reset Time (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				

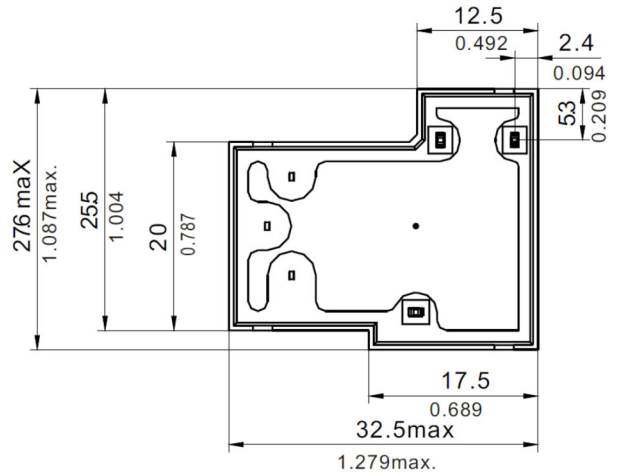
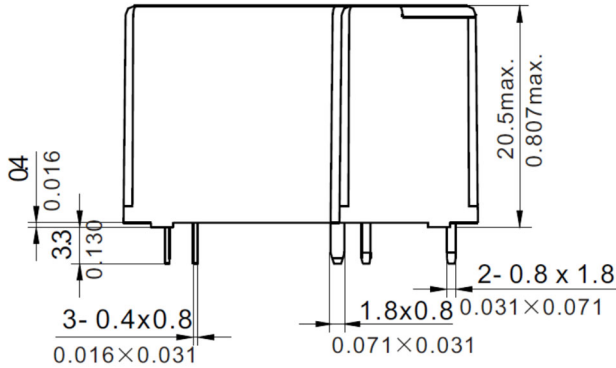
PCT90C/D (30/40 Amp)		Resistance (Ohms ± 10%)	Must Operate Voltage Max (VDC)	Pulse Magnitude (msec)	Coil Power (msec)	Operate Time (msec)	Reset Time (msec)
Coil Voltage							
Rated	Maximum						
5	6	28	4	≥ 50	0.9	≤ 15	≤ 15
12	14.4	160	9.6				
24	28.8	960	19.2				
48	57.6	2,560	38.4				

**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.

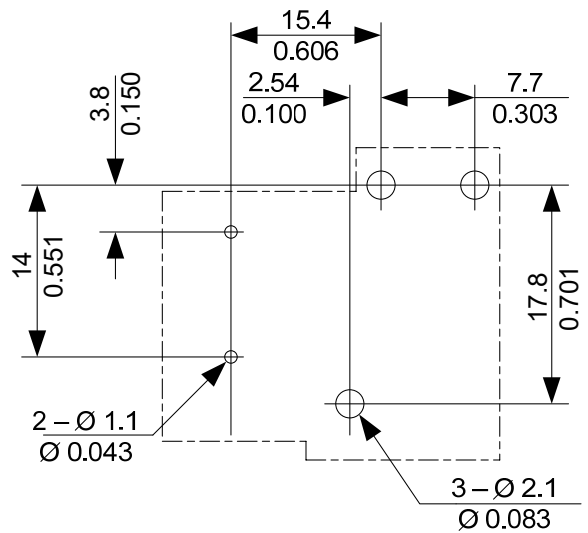
Must Operate Voltage is listed for test purposes only and is not to be used as design criteria.

**DIMENSIONS (mm / inches)**



**PIN LAYOUT (mm / inches)**

**Bottom View**



**SCHEMATIC**

