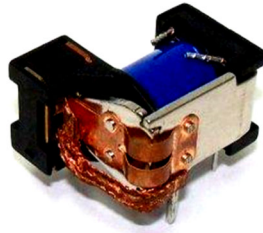
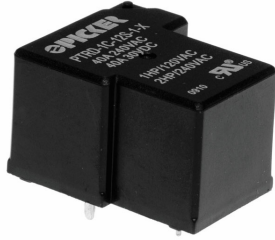


40 Amp Power Relay with Superior Heat Conduction **PTRDE**



FEATURES

- Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame
- 40 A, 240 VAC Resistive Load 50K Cycles UL
- 2 HP 250 VAC Rating
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing with Pin 6 Omitted
- RoHS Compliant

UL / CUL Ratings



Load Type	Voltage	1 Form A (SPST-NO)	1 Form B (SPST-NC)	1 Form C (SPDT)	
				NO	NC
Resistive 50K Cycles	240 VAC	40 A	30 A	40 A	30 A
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 250K Cycles	30 VDC	40 A	30 A	40 A	30 A
100k Cycles	240 VAC	20 A	—	20 A	—
	277 VAC	25 A	—	25 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	5A
Lamp Load TV-5	120 VAC	—	—	5 A	—
LRA/FLA	240 VAC	80 A/30 A	—	80 A/30	—
	120 VAC	96 A/30 A	—	96 A/30	—

CONTACT DATA

Material	AgSnO ₂	
Initial Contact Resistance	50 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 ⁷ Operations
	Electrical	1 x 10 ⁵ Operations

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

CHARACTERISTICS Continued

Insulation Resistance	1,000 MΩ min, at 500 VDC
Dielectric Strength	50 Hz 1,500 V Between Open Contacts
	50 Hz 2,500 V Between Contacts and Coil 4,000 V without Pin 6
Shock Resistance	200 m/s ² 11 msec
Vibration Resistance	10 Hz - 55 Hz Double Amplitude 1.5 mm
Terminal Strength	10N
Solderability	260°C for 5 seconds
Operating Temp. Range	-55°C to 125°C
Relative Humidity	85% (at 40°C)
Weight	30 grams, 27 grams Open
Material Compliant To	EU RoHS V2, EU REACH V3

CHARACTERISTICS

Operate Time	Less than 15 ms
Release Time	Less than 10 ms
Power Consumption	0.9 W

ORDERING INFORMATION

Example: PTRDE -1C -12 S -1 -X

Model: **PTRDE**

Contact Form: **1A:** 1 Form A (SPST-NO)
1B: 1 Form B (SPST-NC)
1C: 1 Form C (SPDT)

Coil Voltage: **3, 5, 6, 9, 12, 15, 18, 24, 48, 110**

Enclosure: **Nil:** Open Frame; **S:** Sealed

Insulation Material: **Nil:** Class F

Contact Material: **T:** AgSnO₂

Spacing: **Nil:** UL508; **-1:** UL 508 and UL 873 (Pin #6 Omitted)

RoHS Compliant: **-X**

Coil Sensitivity: **Nil:** 0.9 W

Box Quantity: 600; Inner Box 300

COIL DATA

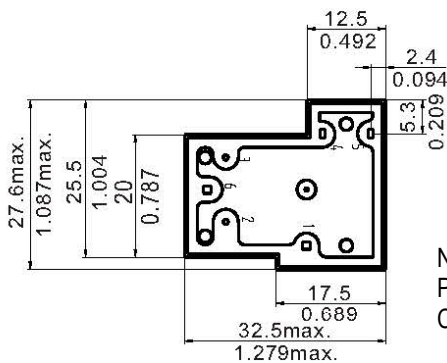
Coil Voltage (VDC) (1)		Resistance (Ohms ± 10%)	Must Operate Voltage Max (VDC) (2)	Must Release Voltage Min (VDC) (2)	Coil Power (W)
Rated	Max				
3	3.9	10	2.25	0.3	0.9
5	6.5	28	3.75	0.5	
6	7.8	40	4.50	0.6	
9	11.7	90	6.75	0.9	
12	15.6	150	9.00	1.2	
15	19.5	260	10.25	1.5	
18	23.4	380	13.50	1.8	
24	31.2	640	18.00	2.4	
48	62.4	2560	36.00	4.8	
110	143	13445	82.50	11.0	

NOTES:

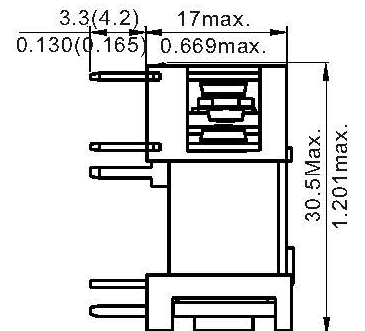
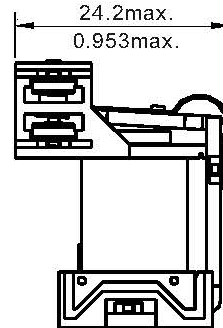
The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

DIMENSIONS (mm/inches)

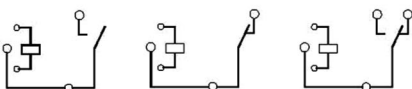
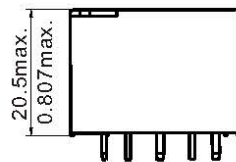
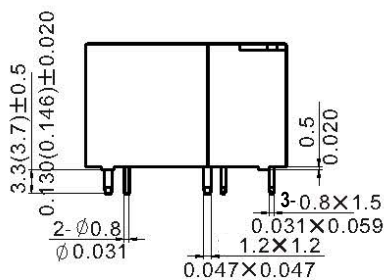
Knock off, on top corner, nib for ventilation after soldering and water wash.



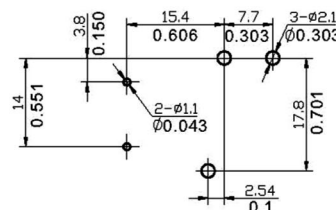
Note:
Power Pins are 0.8 mm x 1.5 mm
Coil Pins are Ø0.8 mm



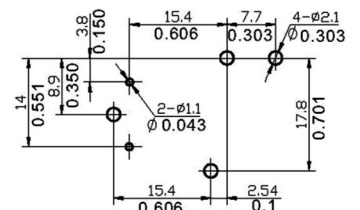
Open type



Wiring diagram (Bottom view)

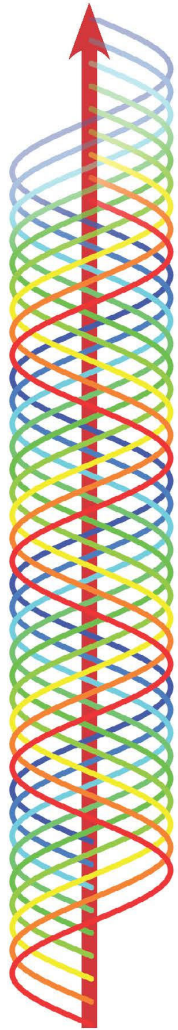
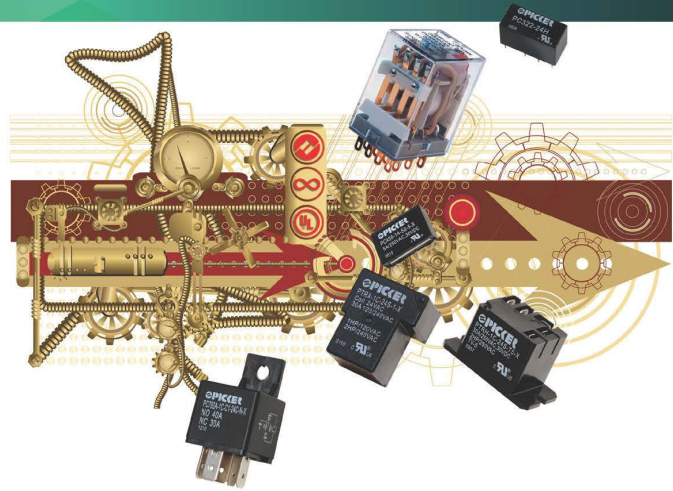


Mounting (Bottom view)





T90 Style Relays



50 Amp

PTR E 50/35 Amp 1,500 W, 12,000 VA

- Larger Contacts than PTRD/PTRDE
- **Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame and PCB Pins**
- 50 Amp 240 VAC 10,000 Cycle UL Resistive Rating
- Class F Material -40° to 125° C Standard



40+ Amp

PTRDE 40/30 Amp 1,200 W, 10,000 VA

- **Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame and PCB Pins**
- 40 Amp 240 VAC 50,000 Cycle UL Resistive Rating
- Class F Material -40° to 125° C Standard

40 Amp

PTRD 40/30 Amp 1,200 W, 10,000 VA
PTRA AC Coil Options from 12 to 277 VAC

- Larger Contacts than PTRH
- 40 Amp 240VAC UL Resistive Rating
- 25 Amp 277 VAC 100K Cycles UL Resistive Rating
- Class F Material -40° to 125° C Standard



30 Amp

PTRH 30/20 Amp 900 W, 7,500 VA

- 30 Amp 277 VAC UL General Purpose Rating
- 30 Amp 250 VAC 100K Cycle UL Resistive Rating
- Class B -40° to 100° C Standard, Optional Class F

Packaging Options (i.e. PTRH-T)



Dust Cover or Sealed with Scratch off Nib



-T (T2 & T3) with PC Pins and Contact QC



-T (T4 & T5) w/QC Tabs & Mounting Ears



-OT (OT2 & OT3) with PC Pins and Contact QC



-OT (OT4 & OT5) w/QC Tabs & Mounting Ears

